

វិទ្យាសាស្ត្រអក្សរ

CAMBODIAN SYSTEM OF WRITING and BEGINNING READER

with Drills and Glossary

by Franklin E. Huffman

with the assistance of
Chhom-Rak Thong Lambert and Im Proum



New Haven and London, Yale University Press, 1970

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PREFACE

The purpose of this book is to prepare the student to read and write Cambodian. It is designed to be used in conjunction with the author's Modern Spoken Cambodian (New Haven, Yale University Press, 1970) in an intensive or semi-intensive beginning course. The phonological transcription used is that developed during five years of study and teaching of the Cambodian language, and is identical with that used in Modern Spoken Cambodian. The book contains four parts:

Part One: The Cambodian System of Writing

This section presents a formal analysis of the relationship between the sounds of modern Cambodian (the phonology) and the symbols used to represent them (the writing system). It aims to acquaint the student with all the regular aspects of the Cambodian writing system, as well as with the major irregular subsystems. Although it is primarily intended for students, it has independent interest to the general linguist as a description of how the Cambodian writing system works.

Part Two: Programmed Reading Exercises

This section provides the student with a systematic, step-by-step approach to reading and writing Cambodian syllables. It consists of 225 cumulative exercises, each of which introduces and provides practice in a limited amount of new information. Periodic review exercises provide a test of the student's progress, and refer by number to exercises in which the points involved were first introduced. Since the primary aim of this book is to develop facility in reading, most of the exercises involve a symbol-to-sound operation. However, some of the exercises involve a sound-to-symbol operation, since it is felt that the best way to help the student recognize the sometimes minute differences between symbols is to have him write them himself. This section is essentially a programmed approach to the same information that is presented in Part One. Individual differences in learning habits provide at least part of the justification for including both a summary and a programmed approach in the same book.

Part Three: Beginning Cambodian Reader

This section consists of fifty reading selections graded in difficulty, ranging from short simple narratives to essays on various aspects of Cambodian culture. Each new vocabulary item is listed on the same page on which it first occurs, and is followed by its transcription and definition. It is not entered again unless it occurs with a different grammatical function. This section is designed to be used following Part One and/or Part Two, and in conjunction with a course in spoken Cambodian, but it would be independently useful for the student interested only in reading. Its aim is to develop the student's reading ability to the point where he can read unedited Cambodian texts with the aid of a dictionary.

Part Four: Cambodian-English Glossary

The Glossary includes not only the some 2,000 vocabulary items introduced in the Reader, but also all examples used throughout the other sections of the book. Each item is followed by its transcription, its definition(s), and the number of the story in which it first occurred. The Glossary should also be useful to the student as an aid in reading other Cambodian materials.

This book is an outgrowth of three years of study of the Cambodian language at the School of Oriental and African Studies of the University of London, in Southeast Asia, and at Cornell University, and of two years of teaching Cambodian at Yale University. It was brought to completion under a contract between the U.S. Office of Education and Yale University, which is gratefully acknowledged. Gratitude is also due the Department of East and South Asian Languages and Literatures of Yale University, which kindly granted me sufficient time from teaching duties to complete the work.

It would be impossible to mention all those who have assisted in bringing this work to completion. Thanks are especially due to Professor Fang-kuei Li of the University of Washington, who first suggested the Cambodian language as a field of study; Mrs. Judith M. Jacob of the London School of Oriental and African Studies, who gave me the first practical introduction to Cambodian; Professor Robert B. Jones of Cornell University, for his help and guidance during the preparation of a dissertation on Cambodian grammar, as well as for reading and criticizing an early draft of this book; Mrs. Chhom-Rak Thong Lambert, who wrote and adapted all of the selections in the Reader; Mr. Im Proum, for his painstaking work in writing all of the Cambodian script in two final drafts of the book; and the Yale University Press, which dealt patiently with the many problems of adapting a manuscript involving multiple writing systems to the printed page.

F. E. H.

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September 1969

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I. INTRODUCTION

A. THE LANGUAGE

Cambodian, also known as Khmer, is the official language of the Kingdom of Cambodia. It is spoken by some 5,000,000 people in Cambodia, and mutually intelligible dialects are spoken by approximately 400,000 inhabitants of the provinces of Buriram, Surin, and Srisaket in northeastern Thailand, and by approximately 450,000 people in the Mekong Delta region of South Vietnam.

Cambodian is the major modern representative of the Mon-Khmer language family, which includes, besides Mon in Lower Burma, also hundreds of related dialects scattered over most of mainland Southeast Asia, such as the Palaung, Wa, and Riang in Burma; the Khmu, Lamet, and So in Laos; the Kuy, Chong, and Lawa in Thailand; the Stieng, Biet, and Samre in Cambodia; the Bahnar, Halang, and Sre in Vietnam; and possibly the Semang and Sakai in Malaya.¹ No wider affiliation for the Mon-Khmer family has been conclusively demonstrated, although most linguists now think that Vietnamese is related to Mon-Khmer. Pater Wilhelm Schmidt's hypothesis of an Austroasiatic language family on the Southeast Asian mainland, including, besides Mon-Khmer, also the Munda languages of northeastern India, Khasi in Assam, the Cham group in South Vietnam and Cambodia, Nicobarese, and Semang and Sakai in the Malay peninsula,² is unwarranted by present evidence, and his further grouping of Austroasiatic with the Austronesian languages of island Southeast Asia to form an Austric superstock is even more speculative, although many of Schmidt's assumptions have been proven correct by later research.

As for foreign influences on the language, the Cambodians have borrowed much of their administrative, military, and literary vocabulary from Sanskrit. With the advent of Theravada Buddhism at the beginning of the fifteenth century, Cambodian began to borrow Pali words, and continues to use Pali as a major source of neologisms today. Although Cambodian and Thai are not, so far as we know, genetically related, a high percentage of their vocabulary stems from a common source, as the result both of mutual borrowing over a long period of historical contact, and of common borrowing of learned terminology from Pali and Sanskrit. During the period of French domination, many French words were borrowed into the language and have become a part of the colloquial language, especially in urban areas. There is also a smattering of Chinese and Vietnamese loanwords in colloquial speech.

Unlike its neighbors Thai and Vietnamese, which are tonal and essentially monosyllabic, Cambodian is non-tonal and has a high percentage of disyllabic words. Like the Malayo-Polynesian languages, it has a relatively complex morphology, forming disyllabic derivatives from monosyllabic bases by prefixation and infixation, although these processes are rarely productive in the language.

1. Frank M. LeBar, Gerald D. Hickey, and John K. Musgrave, Ethnic Groups of Mainland Southeast Asia (New Haven, Human Relations Area Files, 1964), pp. 287-88.

2. P. Wilhelm Schmidt, "Les peuples mon-khmêr; trait d'union entre les peuples de l'Asie centrale et de l'Austronésie," Bulletin de l'École Française d'Extrême-Orient, 7 (1907), pp. 213-63.

The typical stress pattern in such disyllables is an unstressed presyllable followed by a stressed main syllable. Even polysyllabic loanwords from Pali and Sanskrit tend to be assimilated to this pattern of alternation between an unstressed and a stressed syllable.

B. THE SYSTEM OF WRITING

The Cambodian script (called /qaqsaa kmae/ 'Khmer letters'), as well as the Thai, Lao, Burmese, Old Mon, Old Cham, and Old Javanese scripts, are all derived from some form (or perhaps from various forms) of the ancient Brahmi script of South India. The earliest form of this script so far discovered in Southeast Asia is that of the Vo-canh Sanskrit inscription of the second or third century A.D., in the area of the old kingdom of Funan.³ The exact geographical source in India of these scripts has not been determined, but epigraphers find great similarity between the earliest inscriptions in Southeast Asia and those of the early Pallava kingdom of Kanchi on the Coromandel coast of India.⁴ The earliest inscription in the Cambodian language is that found at Angkor Borei in Takéo Province of southern Cambodia, and is dated 611 A.D.⁵ Since this inscription was found in what would have been the area of Funan, the first known Indianized kingdom in Southeast Asia (first century A.D. to c. 550 A.D.), and since no vernacular inscriptions dating from the time of Funan have been discovered in the area, Cambodian may have been the language of Funan. At any rate, the fact that Cambodian was the language of Chen-La (550-802 A.D.), Funan's successor in the Mekong Valley, and of the great kingdom of Angkor (802-1431 A.D.), whose suzerainty at its height extended eastward to the sea, northward to Tongking and northern Laos, westward to Burma, and southward to Malaya, is attested by an abundance of stone inscriptions covering the period from the seventh to the eighteenth centuries.⁶ Furthermore, the fact that pockets of speakers of Mon-Khmer-related dialects are found all over mainland Southeast Asia seems to indicate that Mon-Khmer in fact represents a much older linguistic substratum which was later engulfed, partially assimilated, and pushed into the hills by succeeding migrations of Vietnamese, Tai, and Burmese.

Part One of this book is a description of the relationship, or the "fit," between the sounds (i.e. the phonological structure) of modern Cambodian and the symbols (i.e. the written system) that are used to represent them. Writing systems differ widely in terms of the closeness of the fit between sound and symbol; i.e. in the regularity with which a given symbol represents a given sound. By this yardstick, the Cambodian writing system is a much better writing system than, for example, that used to represent English. A description of the English writing system would consist, after a nucleus of "regular" spellings, of an almost endless list of exceptions. An example of this confusing irregularity is the variety of sounds repre-

3. K. Kumar Sarkar, "The Earliest Inscription of Indochina," Sino-Indian Studies, 2 (1956), pp. 77-87.

4. K. A. Nilakanta Sastri, "L'Origine de l'alphabet du Champa," Bulletin de l'École Française d'Extrême-Orient, 35, pp. 233-41.

5. L. P. Briggs, The Ancient Khmer Empire (Philadelphia, The American Philosophical Society, 1951), p. 15, n. 18.

6. Georges Maspero, Grammaire de la langue khmère (Paris, Imprimerie Nationale, 1915), p. 23.

sented by the symbols -ough in the words rough, cough, bough, slough, and hic-cough. The Cambodian writing system, on the other hand, represents the sounds of Cambodian with remarkably little ambiguity, especially at the level of common vocabulary.⁷ There are exceptions, of course, especially at the level of learned vocabulary borrowed from Sanskrit and Pali sources. These exceptions will be dealt with as exhaustively as possible, but it would be impossible, even for as regular a writing system as Cambodian, to list them all.

Although Cambodian spelling has historically been plagued by a lack of standardization, much progress has been made toward standardization in recent years, largely through the efforts of the scholars of the Buddhist Institute, whose excellent two-volume official dictionary — /waccənaanukram kmae/ ‘Cambodian Dictionary’ (Item 4 in the Bibliography) — has been used as the authority for the spellings in this book. Common alternative spellings are given for some words.

7. Assuming one is dealing with a homogeneous dialect; differences of pronunciation from one dialect to another are another matter.

II. PHONOLOGY

In order to talk about the relationship between sound and symbol, one must have an accurate description of the sound system of the language. The system of transcription used herein was devised for use in the author's Modern Spoken Cambodian textbook, and represents the segmental phonemes of standard Cambodian, which is taught in the schools and spoken by educated Cambodians. Although some colloquial dialects, notably that of Phnom Penh and the immediately surrounding area, differ considerably from the standard at the phonological level, standard Cambodian is virtually identical with the dialect spoken by the majority of the people in the central provinces, and is understood throughout the country.

If this book is used concurrently with Modern Spoken Cambodian, neither the sound system of the language nor the transcription used here will present a problem to the student. For the student who has no prior acquaintance with the sound system, an attempt is made below at a phonetic description of the sounds represented by the transcription. Such descriptions, however, are at best approximate, and it is recommended that the student have the examples listed in this section pronounced by a native speaker if at all possible.

A. CONSONANTS

The consonant phonemes of Cambodian are arranged in an articulatory chart below. The terminology used in the chart is useful in later chapters in dealing with the relationships between the writing system and certain groups of articulatorily related consonants. It is also relevant to the arrangement of consonant symbols in the Cambodian alphabet. Those symbols preceded by a hyphen occur both initially and finally.

Chart 1. Consonants

	<u>Labial</u>	<u>Dental</u>	<u>Palatal</u>	<u>Velar</u>	<u>Glottal</u>
Stops:					
Voiceless	-p	-t	-c	-k	-q
Voiced	b	d			
Spirants:					
Voiceless	(f)	s			-h
Continuants:					
Nasal	-m	-n	-ñ	-ŋ	
Semivocalic	-w		-y		
Lateral		-l			
Trilled		r			

Phonetic Key

/p/ Voiceless unaspirated bilabial stop. In initial position like the p in pin, but without the aspiration; or like the p in spin. In final position like the p in up.

- /t/ Voiceless unaspirated dental stop. Initially like the t in top, but without the aspiration; or like the t in stop. Finally like the t in hot.
- /c/ Voiceless unaspirated palatal stop. Initially like the ch in cheese, but without the aspiration. Finally it represents an unreleased closure made with the blade of the tongue against the front part of the hard palate.
- /k/ Voiceless unaspirated velar stop. Initially like the k in key, but without the aspiration; or like the k in ski. Finally like the ck in back. After the vowels /ii, ei, ee, or ae/ it is intermediate between /c/ and /k/; the two never contrast in that position.
- /q/ Voiceless unaspirated glottal stop. Initially like the closure which occurs at the beginning of the word Oh! when pronounced explosively. Finally like the closure which occurs at the end of the first Oh in the exclamation Oh, oh (he's done it again!).
- /b/ Voiced unaspirated bilabial stop. Like the b in bin, but more tense.
- /d/ Voiced unaspirated dental stop. Like the d in day, but more tense.
- /f/ Voiceless labio-dental spirant. Like the f in fool. Occurs only in a few loanwords.
- /s/ Voiceless dental groove spirant. Like the s in sit.
- /h/ Voiceless glottal spirant. Initially like English h in hot. In final position its point of articulation is much fronter, somewhat like the German ch in Ich.
- /m/ Voiced bilabial nasal. Like the m in mom, ham.
- /n/ Voiced dental nasal. Like the n in no, on.
- /ñ/ Voiced palatal nasal. Like ny in canyon, but occurs initially and finally in Cambodian.
- /ŋ/ Voiced velar nasal. Like ng in sing, but occurs both initially and finally in Cambodian. After the vowels /ii, ei, ee, ae/ it is intermediate between /ñ/ and /ŋ/; the two never contrast in that position.
- /w/ Voiced labio-dental semi-vowel. Spirantized in initial position, like the English y in voodoo, but with more lip-rounding. May be delabialized in final position.
- /y/ Voiced palatal semi-vowel. Like English y in you, but more tense.
- /l/ Voiced lateral. Like English l in late, ale.
- /r/ Voiced retroflex. May be slightly trilled initially, but usually pronounced as a single flap, like the Spanish r in pero.

B. INITIAL CONSONANT SEQUENCES

Eighty-five two-place initial consonant sequences /CC-/ and two three-place sequences /CCC-/ occur in Cambodian words. Their distribution is shown below.

Chart 2. Initial Consonant Sequences

C ₁	C ₂																C ₃		
	p	t	c	k	q	b	d	m	n	ñ	ŋ	w	y	l	r	s	h	th	kh
p		x	x	x	x		x		x	x	x		x	x	x	x	x		
t	x			x	x	x		x	x		x	x	x	x	x		x		
c	x			x	x	x	x	x	x		x	x		x	x				
k	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x		
s	x	x		x	x	x	x	x	x	x	x			x	x			x	
q												x							
m		x	x		x		x		x	x				x	x	x	x		
l	x			x	x	x		x			x	x					x		x

When the stops /p t c k/ occur as the first member of two-place initial consonant sequences /CC-/, they are unaspirated before /r s h/, slightly aspirated before voiceless stops and all continuants other than /r/ (except in the homorganic sequence /kŋ-/), and released with slight vocalism before /q b d/ and in the sequence /kŋ-/. When the consonants /q m l/ occur as the first consonant of /CC-/-sequences, they are released with slight vocalism.

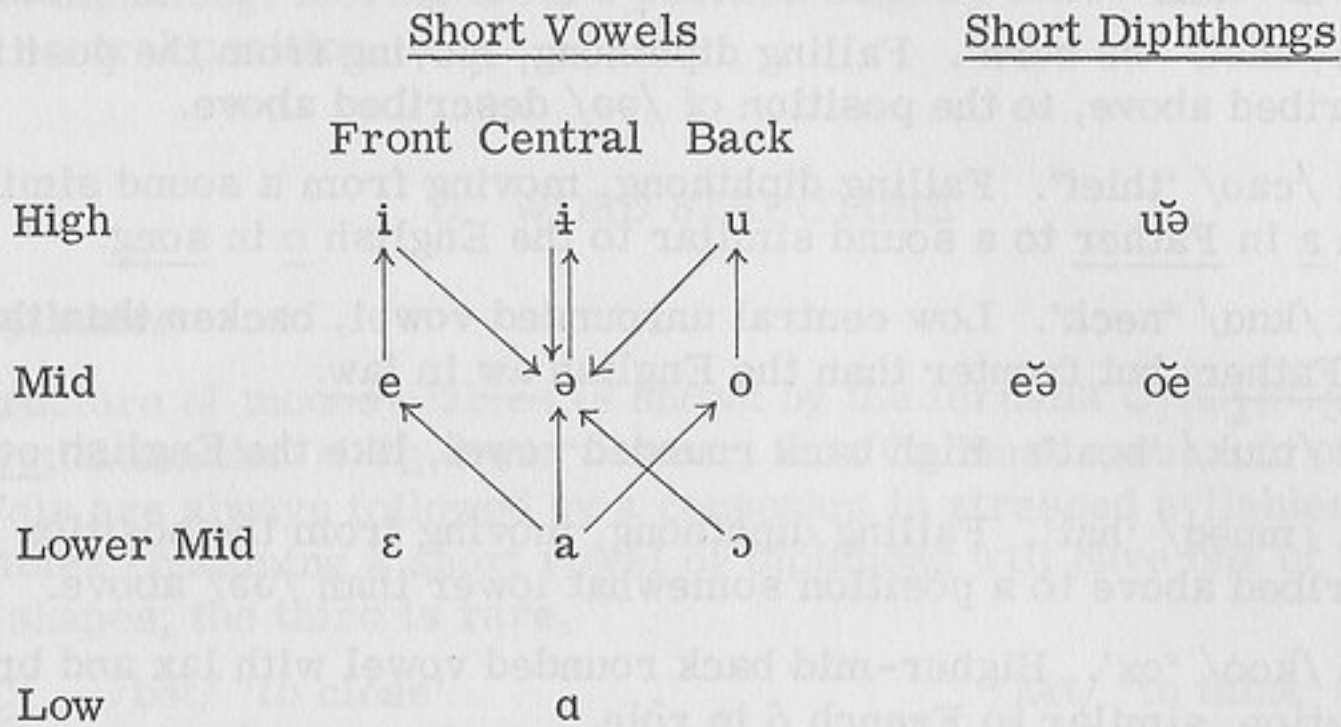
C. VOWELS

There are thirty-one different vowels and vowel combinations which occur as vocalic nuclei of Cambodian syllables. These nuclei are here analyzed as consisting of only thirteen vowel phonemes: ten short vowels and three short diphthongs. In Chart 3 the arrows represent sequences of vowel phonemes (long diphthongs). Long vowels and long diphthongs, which are equivalent in length, are treated as sequences of two short vowels. The long vowels /εε/ and /ɔɔ/ have no short counterparts. The short diphthongs, which are equivalent in length to short vowels, have no long counterparts, and so must be treated as unit phonemes. They are written with a breve to distinguish them from long diphthongs. The following nuclei occur:

- 10 long vowels: /ii, ee, εε, ðð, əə, aa, ɔɔ, uu, oo, ɔɔ/
 10 long diphthongs: /iə, iə, uə, ei, əi, ou, ae, aə, ao, əə/
 8 short vowels: /i, e, ð, ə, a, ɔ, u, o/
 3 short diphthongs: /eə, uə, oə/
 31 vowel nuclei.¹

1. Other analyses of the vowel system are possible, of course, but whatever

Chart 3. Vowels

Phonetic KeyLong Vowels and Diphthongs

- /ii/ as in /ciik/ 'to dig'. High front unrounded vowel like English ee in cheek.
- /iə/ as in /biə/ 'playing cards'. Falling diphthong, moving from a high front to a mid central position.
- /ee/ as in /leen/ 'to play'. Higher-mid front unrounded vowel with lax and breathy articulation; similar to French é in année.
- /ei/ as in /kmein/ 'to be young'. Tense diphthong starting at a point lower than, and ending at a point higher than, /ee/ above.
- /εε/ as in /lεεn/ 'to quit'. Lower-mid front unrounded vowel with lax and breathy articulation; similar to French ai in aide. Occurs long only.
- /iɨ/ as in /liɨ/ 'to hear'. High central unrounded vowel made by raising the center of the tongue toward the soft palate while keeping the lips flat or spread.
- /iə/ as in /ciə/ 'to believe'. Falling diphthong, moving from a high central to a mid central position.
- /əə/ as in /ləə/ 'on'. Higher-mid central unrounded vowel with lax and breathy articulation; similar to French eu in peu.
- /əi/ as in /məin/ '10,000'. Tense diphthong moving from a position lower than, and ending at a point higher than, /əə/ above.
- /aa/ as in /kaa/ 'work'. Tense lower-mid front-of-center unrounded vowel similar to the French a in va. (This vowel is fronter and higher than the English a in Father; to pronounce it as such would confuse it with the vowel /ɑ/ to the ear of a Cambodian).

the analysis, thirty-one vocalic contrasts must be maintained for an accurate representation of standard Cambodian syllables.

- /ae/ as in /kmae/ 'Khmer'. Falling diphthong, starting at a point similar to English a in sat and moving to a position similar to English e in set.
- /aə/ as in /kaət/ 'be born'. Falling diphthong, moving from the position of /aa/ described above, to the position of /əə/ described above.
- /ao/ as in /cao/ 'thief'. Falling diphthong, moving from a sound similar to English a in Father to a sound similar to the English o in song.
- /ɑɑ/ as in /kɑɑ/ 'neck'. Low central unrounded vowel, backer than the English a in Father, but fronter than the English aw in law.
- /uu/ as in /tuuk/ 'boat'. High back rounded vowel, like the English oo in boot.
- /uə/ as in /muəq/ 'hat'. Falling diphthong, moving from the position of /uu/ described above to a position somewhat lower than /əə/ above.
- /oo/ as in /koo/ 'ox'. Higher-mid back rounded vowel with lax and breathy articulation, similar to French ô in rôle.
- /ou/ as in /koun/ 'offspring'. Tense falling diphthong, moving from a position lower than, to a position higher than, /oo/ above; like American English o in go.
- /ɔɔ/ as in /rɔɔk/ 'to seek'. Lower-mid back semi-rounded vowel with lax and breathy articulation. Occurs only long.
- /ɔə/ as in /pɔə/ 'color'. Falling diphthong, moving from the position of /ɔɔ/ described above to a position lower and backer than /əə/ above.

Short Vowels and Diphthongs

- /i/ as in /cih/ 'to ride'. High front unrounded short vowel, like English i in sit.
- /e/ as in /seh/ 'horse'. Mid front unrounded short vowel, like English e in set.
- /ɨ/ as in /kɨt/ 'to think'. High central unrounded short vowel; shorter and lower than /iɨ/ described above.
- /ə/ as in /bət/ 'to close'. Mid central unrounded short vowel, slightly higher than u in standard American English but.
- /a/ as in /kat/ 'to cut'. Lower-mid front-of-center unrounded short vowel, similar to French a in patte.
- /ɑ/ as in /kat/ 'to jot down'. Low central unrounded short vowel, identical in quality with its long counterpart /ɑɑ/ above.
- /u/ as in /tuk/ 'to keep'. High back rounded short vowel, lower in quality than its long counterpart /uu/ described above.
- /o/ as in /kon/ 'film'. Mid back rounded short vowel, slightly diphthongized [o^u] in some environments.
- /eə/ as in /neəq/ 'person'. Tense falling diphthong, moving from a position lower than /e/ above to a mid central position.
- /uə/ as in /luəq/ 'to sell'. Sometimes falling, sometimes rising, short diphthong, moving from a position somewhat lower than /u/ above to a mid central position.

/oə/ as in /kōət/ '3rd person pronoun'. Sometimes falling, sometimes rising, short diphthong, moving from a position slightly lower than /o/ above to a mid central position.

D. WORD STRUCTURE

1. Monosyllables

The structure of monosyllables is shown by the formula $C_1(C_2)(C_3)V_1(V_2)(C_4)$, with the limitation that if V_2 doesn't occur, then C_4 must occur. In other words, short vowels are always followed by a consonant in stressed syllables. Thus monosyllables containing a short vowel or diphthong will have one of the following three shapes; the third is rare.

- | | | |
|--------------------|------------------------------------|------------------|
| 1) $C\acute{V}C$ | /bət/ 'to close' | /kit/ 'to think' |
| 2) $CC\acute{V}C$ | /sdap/ 'to hear' | /proh/ 'male' |
| 3) $CCC\acute{V}C$ | /sthət/ (~ /thət/) 'to be located' | |

Monosyllables containing a long vowel or diphthong occur in the following five shapes; the fifth is rare.

- | | | |
|---------------------|------------------------------|-----------------------|
| 1) $C\acute{V}V$ | /kaa/ 'work' | /puu/ 'uncle' |
| 2) $C\acute{V}VC$ | /baan/ 'to have' | /qaoy/ 'to give' |
| 3) $CC\acute{V}V$ | /chii/ 'to be ill' | /psaa/ 'market' |
| 4) $CC\acute{V}VC$ | /craən/ 'much' | /sqaat/ 'to be clean' |
| 5) $CCC\acute{V}VC$ | /sthaan/ (~ /thaan/) 'place' | /lkhaon/ 'drama' |

Sequences of three initial consonants occur only rarely, and then C_3 is always /h/.

2. Disyllables

Minor disyllables² consist of an unstressed presyllable of shape $CV+$, $CrV+$, $CVN+$, or $CrVN+$, followed by a stressed syllable. Minor syllables occur with high frequency in Cambodian, and might almost equal the monosyllable in total inventory if not in frequency. In minor disyllables the vowel of the unstressed presyllable is usually reduced to /ə/ in normal speech.

- Examples:
- | | |
|------------------|---|
| $CV+\acute{S}$ | /kəkáay ~ kəkáay/ 'to scratch about' |
| $CrV+\acute{S}$ | /prəkán ~ prəkán ~ pəkán/ 'to object' |
| $CVN+\acute{S}$ | /bəŋkáət ~ bəŋkáət ~ pəkáət/ 'to originate' |
| $CrVN+\acute{S}$ | /prəmbéy ~ prəmbéy ~ pəmbéy/ 'eight' |

Major disyllables consist of two stressed syllables in close juncture. Most such words are compounds; some, however, are morphologically simple (as are the first two examples below).

- Examples:
- | | |
|---------------|--------------------|
| /sìəwphíw/ | (~/səphíw/) 'book' |
| /phìəsáa/ | 'language' |
| /bùəŋ-súəŋ/ | 'to pray' |
| /sdúəc-sdáəŋ/ | 'insignificant' |

2. My use of the terms "minor" and "major" disyllable differs somewhat from that of Henderson in Eugénie J. A. Henderson, "The Main Features of Cambodian Pronunciation," Bulletin of the School of Oriental and African Studies, 14 (1952), pp. 149-74.

3. Polysyllables

Polysyllables are rare in colloquial speech, and can usually be identified as loanwords from Pali, Sanskrit, or French sources. Words of up to six syllables occur in formal speech, and even longer words occur in written texts. Such polysyllables tend to conform in normal speech to the stress pattern typical of disyllables; i.e. alternation of an unstressed with a stressed syllable.

Examples: Three syllables: /thõəm+mə+dáa/ 'usually'
 Four syllables: /pút+tə+sáh+snáa/ 'Buddhism'
 Five syllables: /ríəc+rõət+tháa+phi+báal/ 'royal government'
 Six syllables: /wi+cáa+rə+náq+kə+tháa/ 'editorial'

E. MARGINAL PHONEMES AND PHONEME COMBINATIONS

Certain marginal phonemes and combinations are introduced by French loanwords which are not completely assimilated to the phonological structure of native Cambodian words.

Phonemes: /š/ in /šæk/ 'check' (Fr. cheque)
 /z/ in /qaazii/ 'Asia' (Fr. Asie)
 /g/ in /qəŋglei/ 'English' (Fr. anglais)











Combinations: /by/ and /eə/ in /byeə/ 'beer' (Fr. bière)

III. THE CONSONANT SYMBOLS

A. NAMES AND VALUES OF THE CONSONANT SYMBOLS

There are thirty-three consonant symbols in the Cambodian writing system. As in the Indic alphabet from which they are derived, they are arranged in five groups based on position of articulation, proceeding from the back to the front of the mouth, and a sixth group usually labeled Miscellaneous. These designations are accurate for modern Cambodian, except that the "Retroflexes" are pronounced as dentals in Cambodian. In the chart below, the consonant symbols of Cambodian are listed in their dictionary order, which should be memorized by the student for efficiency in the use of dictionaries. Each symbol is followed by its name when pronounced in isolation, and its values before a vowel, when first in a consonantal cluster, and when in final position.

Chart 1

Group	No.	Symbol	Name	Values		
				Before Vowel	First in Cluster	Final
VELARS	1		kaa	k	k	k
	2		khaa	kh	k	k
	3		kaa	k	k	k
	4		khaa	kh	k	k
	5		eta	ɲ	-	ɲ
PALATALS	6		caa	c	c	c
	7		chaa	ch	c	-
	8		caa	c	c	c
	9		chaa	ch	c	-
	10		naa	ñ	-	ñ

Group	No.	Symbol	Name	Values		
				Before Vowel	First in Cluster	Final
RETROFLEXES	11		daa	d	d	t
	12		thaa	th	t	t
	13		dco	d	-	t
	14		thco	th	-	t
	15		nda	n	n	n
DENTALS	16		taa	t	t	t
	17		thaa	th	t	t
	18		tco	t	t	t
	19		thco	th	t	t
	20		nco	n	-	n
LABIALS	21		baa	b	p	p
	22		phaa	ph	p	p
	23		pco	p	p	p
	24		phco	ph	p	p
	25		mco	m	m	m
MISCELLANEOUS	26		yco	y	-	y
	27		rco	r	-	∅
	28		lco	l	l	l

Group	No.	Symbol	Name	Values		
				Before Vowel	First in Cluster	Final
MISCELLANEOUS (cont.)	29	វ	wɔɔ	w	-	w
	30	ស	saa	s	s	h
	31	ហ	haa	h	∅	-
	32	ល	laa	l	-	-
	33	ក	qaa	q	q	-

B. NOTES ON THE CONSONANT SYMBOLS

1. The Two Series

Notice that the names of some consonant symbols have the vowel /aa/ while others have the vowel /ɔɔ/. Consonants which are pronounced with an inherent /aa/ vowel are called *សំឡេងស្ងួត* /qakhoosaq/ ‘voiceless’ in Cambodian, and consonants which are pronounced with an inherent /ɔɔ/ are called *សំឡេងស្រួល* /khoosaq/ ‘voiced’, based on the values which they had in the Indic writing system.¹

These terms are not relevant to the phonological values of the two series of consonants in modern Cambodian, since each consonant symbol has the same phonological value as its counterpart in the opposite series. Thus we will refer to them simply as the 1st Series and 2nd Series respectively. The distinction between the two series is essential to reading Cambodian, since the value of a following vowel symbol is determined by the series to which the initial, or “governing,” consonant symbol belongs. In other words, the Cambodian writing system doubles the function of its vowel symbols by using two sets of consonant symbols with a single set of vowel symbols. It follows that there are two consonant symbols for every consonant sound, and two values for every vowel symbol. Thus Cambodian has a syllabic writing system, in the sense that the pronunciation of syllables is represented by configurations of symbols, as opposed to an alphabetic writing system, where a sequence of symbols has a one-to-one relationship with a sequence of sounds. This idea of configuration is strengthened by the fact that vowel symbols are written before, above, below, after, and around the consonant symbol after which they are pronounced.

1. The two series are sometimes also referred to as *សំឡេងស្ងួត* /samleij touc/ ‘small voice’ and *សំឡេងស្រួល* /samleij thom/ ‘large voice’, or *សំឡេងស្រួលស្រាល* /samleij sraal/ ‘light voice’ and *សំឡេងស្ងួតធ្ងន់* /samleij tjuən/ ‘heavy voice’ respectively.

2. Conversion

Those 1st series symbols which lack a counterpart in the 2nd series, namely ប /baa/, ស /saa/, ហ /haa/, and វ /qaa/ can be “converted” to 2nd series symbols by the addition of the diacritic ត្រៃសាប /trəysap/ (̃) to the 1st series symbol, giving ប̃ /bɔɔ/, ស̃ /sɔɔ/, ហ̃ /hɔɔ/, and វ̃ /qɔɔ/, so that a following vowel symbol is pronounced with its 2nd series value.² Those 2nd series symbols which have no counterparts in the 1st series, namely ង /ɲɔɔ/, ញ /ñɔɔ/, ម /mɔɔ/, យ /yɔɔ/, រ /rɔɔ/, and វិ /wɔɔ/, can be converted to 1st series symbols by the addition of the diacritic មូសេកតោន /museqkətəŋ/ (̈) , giving ង̈ /ɲaa/, ញ̈ /ñaa/, ម̈ /maa/, យ̈ /yaa/, រ̈ /raa/, and វ̈ /waa/. When a vowel symbol that is written above the consonant symbol occurs with a converted consonant symbol, the /museqkətəŋ/ (̈) and /trəysap/ (̃) are replaced by the ក្របីស្រែ (ក្រប /kbiəh kraom/ (̄) under the consonant symbol; e.g. ឆឹ > ឆី /sii/ ‘to eat’, ម៉ៃ > មី /məin/ ‘10,000’. However, the /trəysap/ is usually written above a converted ហ or វ despite a superscript vowel, although either form may occur; e.g. ហឹដ ~ ហីដ /hiɲ/ ‘a kind of toad’; វិដ ~ វីដ /qii/ ‘an interjection’. In the dictionary, words spelled with these converted symbols follow words spelled with their counterparts and having the same vowel symbol.

The /museqkətəŋ/ is also used to convert the symbol ប /baa/ to ប̈ /paa/, which does not otherwise exist in the 1st series. All words spelled with ប̈ follow all words spelled with ប in the dictionary order.

3. The Symbol ប /baa/

When ប /b/ is followed by the vowel symbol -វ , it has the alternative form ប្រ to distinguish it from ប + វ and from ហ ; e.g. ប្រាស /baay/ ‘cooked rice’ ប្រាស /caay/ ‘to spend’, ហ្វាស /hay/ ‘horse (lit.)’.

The symbol ប /b/ is pronounced /p/ in the following circumstances:

2. The /trəysap/ should be carefully distinguished from the សាត់ /saq/ (̃) which occurs as an integral part of the symbols ក , គ , ច , ឆ , ត ឆ , and ក .

- a) When it is converted to /p/ by the /museqkətōən/: ប័ or ប
 បា /paa/ father ប័ /pəy/ flute

b) When it occurs with a subscript:

- ប័ /pdəy/ husband ប័ /praə/ to use

Such words follow words spelled with ប័ in the dictionary.

c) In some words an initial ប័ is pronounced /p/ even though it is written neither with the /museqkətōən/ nor a subscript. Such words are listed inconsistently in the dictionary, sometimes occurring among words spelled with an initial ប័, and sometimes among words spelled with initial ប័:

- ប័ប័ /paccay/ money (clergy)
 ប័ប័ /paccoban/ the present

d) In final position:

- ប័ /prap/ to tell
 ប័ /chup/ to stop

4. The Symbol ត /taa/

The symbol ត is normally pronounced /t/ (តា /taa/ 'old man', ត្រួត /truət/ 'to examine'), but when it occurs as the initial symbol of disyllabic words whose first syllable ends in a nasal /m, n, ñ, or ŋ/, it is pronounced /d/;

e.g. ត្រាយ /dajwaay/ gift. In the official Cambodian Dictionary ត is used as the initial for all disyllables whose underlying form is spelled with a ត or ដ, e.g.:

- ត /taa/ to continue > តំណ /damnaa/ extension
 ត្រៃ /tlay/ to be valuable > ត្រៃ /damlay/ value

Derivatives of bases spelled with ដ /d/ are spelled with ដ.

- ដ /daə/ to walk > ដំណើរ /damnaə/ process

However, due to the homophony between ដ and ត in this position, such words may be found spelled either way.

5. The Retroflexes

Since there are no retroflex consonants in Cambodian, the Retroflex symbols are available for other uses. The symbols ដ and ត្រ are used to represent /d/

Chart 2. The Two Series Contrasted

Sound	1st Series		2nd Series	
	Symbol	Example	Symbol	Example
k	ក	ក /kaa/ neck	ក	ក /kəw/ mute
kh	ខ	ខាត /khat/ to polish	ឃ	ឃាត /khəət/ to prevent
ŋ	ង	ងារី /ŋaaw/ noise-maker	ង	ងារី /ŋiəw/ a kind of clam
c	ច	ចា /caa/ to inscribe	ជ	ជា /ciə/ be
ch	ច	ចោង /chaonj/ interval	ឈ	ឈោង /choonj/ to reach out
ñ	ញ	ញាំ /ñam/ to eat	ញ	ញាំ /ñəəm/ meat salad
d	ដ	ដំនាង /don/ elephant command	ដ	ដំនាង /dun/ alike
t	ត	តា /taa/ old man	ត	តា /tiə/ duck
th	ត	តូង /thou/ vase	ត	តូង /thuun/ relaxed
n	ថ	ថ្នាក់ /thaan/ place, site	ល	ល្អាត /thiəl/ a large drum
	ណ	ណាស់ /naay/ bored	ន	នាយ /niəy/ chief
b	ប	ប្រឹក្សា /nəŋ/ (~ /nɨŋ/) that's right	ប	ប្រឹក្សា /but/ a personal name
	ប	ប្រាំ /pəy/ flute	ពី	ពី /pii/ from
ph	ផ	ផ្លាស់ /phaay/ to run at full speed	ភ	ភាសា /phiəy/ to circulate
m	ម	ម្តាយ /mae/ mother	ម	ម្តាយ /mɛɛ/ polite response particle
	ម	មាត់ /mat/ fine, powdered		

Sound	1st Series		2nd Series	
	Symbol	Example	Symbol	Example
y	យ័	យាង ងៃ /yaan/ kind; variety	យ	យាង ងៃ /yiəŋ/ go (royalty)
r	រ័	រូង ងៃ /rouŋ/ rat- tling noise	រ	រូង ងៃ /ruuŋ/ hole
l	ល័	លាង ងៃ /leŋ/ a per- sonal name	ល	លាង ងៃ /leen/ to play
w	វ័	វាង ងៃ /luəŋ/ king	វ	វាង ងៃ /wiy/ quick, clever
	វ	វាង ងៃ /way/ to hit		
s	ស័	សាង ងៃ /wouŋ/ flock, crowd	ស	សាង ងៃ /sii/ to eat
	ស	សាង ងៃ /səy/ wicker ball		
h	ហ័	ហាង ងៃ /haan/ shop, store	ហ	ហាង ងៃ /hiən/ to dare
q	ក័	កាង ងៃ /qəy/ what	ក	កាង ងៃ /qii/ interjec- tion
f	ផ័	ផាក ងៃ /fək/ to practice	ផ	ផាក ងៃ /fiizik/ physics

D. FINAL CONSONANTS

Although only thirteen consonants occur finally in Cambodian syllables (See Chap. II, A), all the consonant symbols in Chart 1 except ឆ , លរ , ងៃ , រ , ហ , ក័ , and ក័ are used to represent final consonants in Cambodian.

Although the symbol រ occurs finally in many words, it is not pronounced, since final /-r/ does not occur in Standard Cambodian.³ However, it sometimes serves to distinguish orthographically between homonyms, e.g.

កា /kaa/ to address (a letter): ការ /kaa/ work

កូ /kuu/ pair : កូរ /kuu/ to draw

ពី /pii/ from : ពីរ /pii/ two

3. Words spelled with a final រ were presumably pronounced with final /-r/ when Cambodian was first written, and in certain dialects of northwestern Cambodian and northeastern Thailand such words are still pronounced with final /-r/.

The symbols ក , ខ , គ and ឃ represent final /-q/ after the vowels /a, aa, ɑ, ɑɑ, ɛə, uə, iə, ɪə, uə/, and final /-k/ elsewhere. A given final consonant may be presented by a variety of symbols. In the chart below the most common, or characteristic, representation is exemplified first.

Chart 3. Representation of Final Consonants

<u>Final Consonant</u>	<u>Representation</u>	<u>Example</u>
1. -p	ឃ	រិឃ្រឃ /riəp/ to arrange
	ព	ផិព /phiəp/ aspect
	ក	រិឃក /loop/ greed
2. -t	ក	កត /kat/ to cut
	ត	បាត /baat/ polite response used by men
	ត	ប្រាកត /praakat/ exact
	ត	កត /qət/ brick
	ត	បាត /baat/ to tell, recite (clergy)
	ត	កត /krut/ garuda
	ត	ប្រមាត /pramaat/ to scorn, despise
	ត	កាតត /qaawut/ weapon
	ត	កាតត (~ កាតត) /qaasaat/ June-July
3. -c	ត	តត /touc/ small
	ត	រិត /riəc/ reign
4. -k (after vowels other than those in 5 below)	ក	តិក /ciik/ to dig
	ក	រិក /rook/ disease

<u>Final Consonant</u>	<u>Representation</u>	<u>Example</u>	
4. -k	១	មុក	/muk/ face
	ឃ	មេឃ	/meek/ sky
5. -q (after /a, aa, ɑ, ɑɑ, eə, uə, iə, ɨə, uə/)	ក	កាក	/kaaɣ/ refuse, residue
	ក	នាក	/niəɣ/ dragon
	១	ព្រឹក្សា	/pisaəɣ/ April-May
	ឃ	មិឃ	/miəɣ/ January
	∅	(no consonant) after short vowels in final position	
		វិទ្យុ	/wittyuɣ/ radio
6. -m	ម	តាម	/taam/ to follow
	◌ [◦] 	ដំ	/dom/ piece; ត្រូវដំ /tum/ ripe
	◌ [◦] 	ចំ	/cam/ exact; ត្រូវចំ /tum/ to perch
	◌ [◦] - ្វ	ចាំ	/cam/ remember; ជាំ /cəəm/ bruised
7. -n	ន	មាន	/miən/ to have
	ណ	បុរាណ	/bouraan/ ancient
8. -ñ	ញ	តាញ	/tiəñ/ to pull
9. -ŋ	ង	ដឹង	/dəŋ/ to know
	ញ (after /ii/)	រឹញ (~ រឹង)	/riiŋ/ dried up
10. -w	វ	អាវ	/qaaw/ shirt
	វ- ្វ	ហៅ	/haw/ to call; ទៅ /tiw/ to go


<u>Final Consonant</u>	<u>Representation</u>	<u>Example</u>	
11. -y	ဗာ	ဗာဗာ	/baay/ cooked rice; food
	း-	းဗ	/cay/ louse; ဝဲဗ် /priy/ forest
12. -l	လာ	ကာလာ	/kaal/ time
13. -s	လာ	လှဗုဒ္ဓါ လာ	/soum-toos/ I beg your pardon
(လာ is pronounced as final /-s/ only in a very formal reading style; in normal speech it is pronounced /-h/.)			
14. -h	ဟ	ဟာဟ	/cah/ old
	-◌◌	ဟံး	/pah/ to patch; ဝဲး /teəh/ to slap

(-◌◌ /reəhmuk/ always represents final /-h/, and when no vowel symbol occurs, it represents /-ah/ after a 1st series consonant and /-eəh/ after a 2nd series consonant.)

IV. THE VOWEL SYMBOLS
















A. NAMES OF THE VOWEL SYMBOLS

Cambodian vowel symbols may consist of one or a combination of elements written before, above, below, or after the initial consonant symbol. The complex symbols should be learned as units, since their values may bear little relation to the values of their individual components. As was pointed out in Chapter III, B 1, the pronunciation of a vowel symbol in Cambodian is determined by the series of the initial consonant that it accompanies. When referring to a given

vowel symbol, Cambodians usually use the word : /sraq/ 'vowel' followed

by the 1st series value of the symbol. These names are preceded phonologically by /q-/, since every syllable in Cambodian must begin with a consonant. In the chart that follows, the vowel symbols are listed in their dictionary order (in Cambodian dictionaries, words are ordered primarily by initial consonant, secondarily by vowel symbol). Each symbol is followed by its name, its 1st series value, and its 2nd series value.

Chart 1. The Names of the Vowel Symbols

Symbol	Name	Values		Symbol	Name	Values	
		1st Series	2nd Series			1st Series	2nd Series
1. -	sraq qaa	aa	əə	9. 	sraq quə	uə	uə
2. 	sraq qaa	aa	iə	10. 	sraq qaə	aə	əə
3. 	sraq qeq	e	i	11. 	sraq qiə	iə	iə
4. 	sraq qəy	əy	ii	12. 	sraq qiə	iə	iə
5. 	sraq qəq	ə	i	13. 	sraq qei	ei	ee
6. 	sraq qəi	əi	ii	14. 	sraq qae	ae	εε
7. 	sraq qoq	o	u	15. 	sraq qay	ay	iy
8. 	sraq qou	ou	uu	16. 	sraq qao	ao	oo

Symbol	Name	Values		Symbol	Name	Values	
		1st Series	2nd Series			1st Series	2nd Series
17. ៩-្រ	sraq qaw	aw	iw	20. ្រ	sraq qam	am	oəm ¹
18. ្រ	sraq qom	om	um	21. ្រ	sraq qah	ah	eəh
19. ្រ	sraq qam	am	um ¹				

1. When the vowels ្រ and ្រ are recited as part of the Cambodian syllabary, they have the special syllabary pronunciations /qoəm/ and /qeəm/ respectively in the 2nd series. In actual words, however, they have the values shown above; in fact the phonological sequence /-eəm/ occurs only in the 2nd series syllabary pronunciation of ្រ.

B. VALUES OF SYLLABIC CONFIGURATIONS

The value of a given symbol may also depend on its environment; i.e. on the final consonant symbol that follows it in the same syllable, and on stress factors. Vowel sounds are also represented by the absence of a vowel symbol, by certain configurations of consonant symbols, and by various diacritics. It is thus clear that the Cambodian syllable must be read as a configuration. In the following chart, all the configurations by which vowels are regularly represented are listed in the order in which they occur in the official Cambodian Dictionary of the Buddhist Institute (Bibliography Item 4), and each configuration is exemplified in both series.

Chart 2. Values of Syllabic Configurations

Symbol	1st Series	2nd Series
	Value and Exemplification	Value and Exemplification
1. ្រ	/aa/ ក្រ /kaa/ neck	/ɔɔ/ ក្រ /kɔɔ/ mute
2. ្រ	/a/ ក្រក្រ' /kat/ jot down	/u/ before Labial finals ក្រត' /tup/ to stop up /uə/ elsewhere ក្រត' /yuəl/ to understand

Symbol	1st Series		2nd Series	
	Value and Exemplification		Value and Exemplification	
3. ័	/a/ ស័ក	/saq/ era	/eə/ before Velar finals ស័ក្ខ /leəq/ gum-lac	
4. ័័	/ay/ ស័ម័យ	/samay/ era	/oə/ elsewhere (except below) ស័ត័ /toəp/ army	
5. ័័			/iɣ/ ស័យ័ត័ /ciɣ/ victory	
6. ័័	/aa/ តា	/taa/ grand-father	/ɔə/ ស័ត័ /cəə/ resin	
7. ័័	/a/ កាត	/kat/ to cut	/iə/ ស័តា /ciə/ to be	
8. ័	/eq/ in stressed syllables មត័ /matteq/ opinion		/eə/ before Velar finals តាត័ /teəq/ to trap	
	/e/ in unstressed syllables ក័រ័យ័ត័ /keriyaa/ conduct		/oə/ elsewhere កាត័ /koət/ he, she, they	
9. ័	/ə/ ចិត័	/cət/ heart, mind	/iq/ in stressed syllables លត័ /latthiq/ precept	
10. ័័	/əy/ ចេត័យ័ត័ /caetdəy/ stupa		/i/ in unstressed syllables និត័ន /nitien/ story	
11. ័័	/eh/ តេ័រ័ស័យ័ត័ /teh-diəl/ to ridicule		/i/ (except before ័័) ស័ត័ /cit/ near	
12. ័័	/əy/ ប័យ័ត័ /bəy/ three		/ii/ ភូម័យ័ត័ /qəntrii/ power	
13. ័	/ə/ ដក័	/dək/ transport	/ih/ រូ័ត័ /cih/ to ride	
			/ii/ ពីរ័ /pii/ two	
			/i/ ទឹក័ /tik/ water	

Symbol	1st Series		2nd Series	
	Value and Exemplification		Value and Exemplification	
14.	/əh/	/ckəh/ to pry out		
15.	/əi/	/dəi/ fallow	/ii/	/kii/ as follows
16.	/oq/ in stressed syllables		/uq/ in stressed syllables	
		/woətthoq/ artifact		/wittyuq/ radio
	/o/ in unstressed syllables		/u/ in unstressed syllables	
		/koma/ child		/kulika/ pill
17.	/o/	/kon/ film	/u/	/kun/ merit
18.	/oh/	/coh/ to descend	/uh/	/puh/ boiled
19.	/ou/	/kou/ to stir	/uu/	/kuu/ pair
20.	/əw/	/trəw/ correct	/iw/	/niw/ consisting of
21.	/uə/	/kuə/ pod, ear	/uə/ ¹	/kuə/ proper
22.	/aə/	/baə/ if	/əə/	/chəə/ wood
23.	/əh/	/cəŋkəh/ chopsticks ²		
24.	/iə/	/tiə/ dwarfed	/iə/ ¹	/ciə/ to believe
25.	/iə/	/tiəp/ bowl	/iə/ ¹	/tiəp/ nearly
26.	/ei/	/kei/ heritage	/ee/	/kee/ he, she, they
27.	/ə/ (before Palatals)		/i/ (before Palatals)	
		/məc/ how, why		/plɪc/ to forget
		/cəñ/ to leave		/piñ/ full
28.	/eh/	/seh/ horse	/ih/	/nih/ this, here

Symbol	1st Series		2nd Series	
	Value and Exemplification		Value and Exemplification	
29. ខ្មែរ	/ae/	ខ្មែរ /kae/ to repair	/εε/	ខ្មែរ /kεε/ craw (of a fowl)
30. ខ្មែរ៖	/eh/	ខ្មែរ៖ /keh/ a kind of goat		
31. ខ្មែរ	/ay/	ខ្មែរ (ប្រ) /pray/ salty	/iy/	ខ្មែរ (ព្រ) /priy/ forest
32. ខ្មែរៗ	/ao/	ខ្មែរៗ /kao/ to shave	/oo/	ខ្មែរ /koo/ cow, ox
33. ខ្មែរ៖	/ah/	ខ្មែរ៖ /kah/ island	/uəh/	ខ្មែរ៖ /küəh/ to strike
34. ខ្មែរៗ	/aw/	ខ្មែរៗ /taw/ bushel	/iw/	ខ្មែរៗ /tiw/ to go
35. ខ្មែរ	/om/	ខ្មែរ /dom/ piece, morsel	/um/	ខ្មែរ /tum/ ripe
36. ខ្មែរ	/am/	ខ្មែរ /cam/ exact	/um/	ខ្មែរ /tum/ to perch
37. ខ្មែរ	/am/	ខ្មែរ /cam/ to remember	/oəm/	ខ្មែរ /coəm/ bruised
38. ខ្មែរៗ	/aŋ/	ខ្មែរៗ /taŋ/ to establish	/eəŋ/	ខ្មែរៗ /teəŋ/ all of
39. ខ្មែរ៖	/ah/	ខ្មែរ៖ /tah/ to wiggle	/eəh/	ខ្មែរ៖ /teəh/ to slap

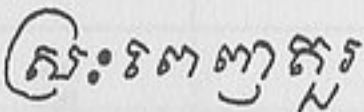
1. The symbols for the diphthongs /uə, iə, iə/ (examples 22, 24, and 25 above) have the same pronunciation with either series of consonants, so that words containing these vowels are sometimes spelled both ways; e.g. /ciən/ 'to fry' is some-


times spelled ខ្មែរៗ and sometimes ខ្មែរៗ .





2. This word is normally spelled ខ្មែរៗ .

3. The symbol ខ្មែរៗ /reəhmuk/ always represents a final /-h/; when it occurs after long vowel symbols, it both shortens and changes the quality of the vowel, as in examples 23, 28, 30, and 33 above; in example 39 it represents a short vowel + final /-h/.

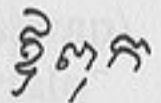


C. THE INDEPENDENT VOWEL SYMBOLS

The independent vowel symbols are called  /sraq piñ tuə/

‘complete vowels’ because they incorporate both an initial consonant and a vowel. In the chart below, symbols 1–10 include an initial /q-/ and are listed in the official dictionary along with other words that are spelled with an initial  and the equivalent vowel symbol; e.g. words spelled with the independent initial vowel



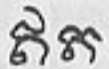
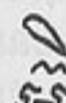
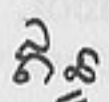
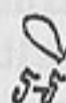
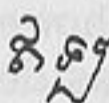
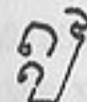
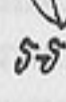
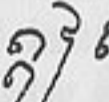

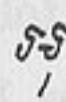
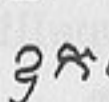

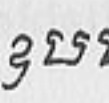
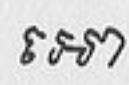
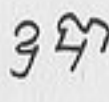

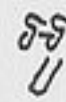

 /qə-/ follow words spelled with an initial  /qə-/. Symbols 11 and 12 include an initial /r-/, and follow all words spelled with initial  ; symbols 13 and 14 include an initial /l-/ and follow all words spelled with an initial .

Since the independent vowel symbols occur in a relatively small number of words, there is a certain amount of inconsistency in their use and pronunciation by Cambodians themselves, especially with examples 1–5 and 8–10 below. Some independent vowels, however, occur in quite common vocabulary items, such as

number 4 in  /qəwpuk/ ‘father’, number 9 in  /qaoy/ ‘to give’, and number 14 in  /lii/ ‘to hear’. Symbols 1–5 occur with both 1st and 2nd

series values, but most frequently with 1st series values. In the chart below, the first value given for each symbol is the value that it has in the majority of the words in which it occurs. Less common values are shown in succeeding examples. Each symbol is followed by its equivalent spelling.

Chart 3. The Independent Vowel Symbols

Symbol	Name	Equivalent	Value	Example
1. 	sraq qeq		/qə-/	 /qət/ not
			/qi-/	 /qintuq/ the moon
			/qey/	 /qəyləw/ now
2. 	sraq qəy		/qəy/	 /qəysaan/ northeast
3. 	sraq qoq		/qo-/	 /qokñaa/ official of ministerial rank
			/qu-/	 /quppəmaa/ example
			/qao/	 /qaobaasq/ layman
4. 	sraq qou		/qou/	 /qout/ camel

Symbol	Name	Equivalent	Value	Example	
			/quu/		/quun/ deficient (lit.)
5.	sraq qəw		/qəw/		/qəwpuḱ/ father
6.	sraq qae		/qae/		/qae/ at, as for
7.	sraq qay		/qay/		/qayrəwəŋ/ Erawan
8.	sraq qao		/qao/		/qaoḱ/ to embrace
9.	sraq qao		/qao/		/qaoḱ/ to give
10.	sraq qaw		/qaw/		/qawtuəḱ/ water-plant
11.	sraq rik		/ri-/		/rihsəy/ bamboo
12.	sraq rii		/rii/		/rii/ or
13.	sraq lik		/li-/		/rumlik/ to commemorate
14.	sraq lii		/lii/		/lii/ to hear

D. REDUNDANCY

In the preceding sections, it can be seen that the notation of Cambodian vowel sounds is "regular" in the sense that, given sufficient information about the environment of a vowel symbol, its pronunciation can be predicted; in other words, except where the independent vowel symbols are involved, it is seldom necessary to say: "sometimes pronounced —, and sometimes pronounced —." (There are some irregularities, however, which are dealt with in Chapter X.) The Cambodian writing system does depart from the principle of a one-to-one ratio between sound and symbol in that a given vowel sound can be represented in a variety of ways. The following chart takes the vowel sounds as the starting point and shows the various ways in which they may be represented in the writing system. The regular, or typical, spelling is given first, followed by less typical spellings.

The consonant symbol is used as a base for 1st series syllables, and is used for 2nd series syllables.

Chart 4. Vowel-to-Symbol Concordance

Long Vowels

Vowel	1st Series	2nd Series
1. /ii/		ἶ
2. /ee/		ἔ
3. /ei/	ἔ	
4. /εε/		ἔ
5. /ii/		ἶ, ἷ, ἴ
6. /əə/		ἔ
7. /əi/	ἶ	
8. /aa/	ἶ	
9. /uu/		ἴ, ἵ
10. /oo/		ἶ
11. /ou/	ἴ, ἵ	
12. /ɔɔ/		ἶ, ἷ
13. /aa/	ἶ, ἷ	
14. /iə/	ἶ	ἶ
15. /iə/	ἶ	ἶ
16. /uə/	ἴ, ἵ	ἴ, ἵ
17. /ae/	ἶ, ἷ	
18. /aə/	ἶ	

Vowel	1st Series	2nd Series
19. /ao/	កោ, ទ្វិ, ឲ, ឡ	
20. /ɔə/		ក្សិ, កណិ, ក្ស

Short Vowels






1. /i/		ក្ស in unstressed syllables
/iq/		ក្ស in stressed syllables
/ih/		ក្ស, ក្ស:
2. /e/	ក្ស in unstressed syllables	
/eq/	ក្ស in stressed syllables	
/eh/	ក្ស, ក្ស:, ក្សិ:, ក្សិស	
3. /i/		ក្ស-, ក្សិ-, ក្ស្រ-, ក្ស្រ្រ-, ក្ស្រ្រ្រ-
/ic/		ក្ស្រ, ក្ស្រិ, ក្ស្រិស
/iñ/		ក្សញ, ក្សញ្រ, ក្សញ្រ្រ
/iy/		ក្ស្រ, ក្ស្រ្រ, ក្ស្រ្រ្រ
/iw/		ក្ស្រ
4. /ə/	ក្ស-, ក្សិ-, ក្ស្រ-	
/əc/	ក្ស្រ, ក្ស្រិ, ក្ស្រិស	
/əñ/	ក្សញ, ក្សញ្រ, ក្សញ្រ្រ	
/əy/	ក្ស្រ, ក្ស្រ្រ, ក្ស្រ្រ្រ	
/əw/	ក្ស្រ្រ្រ, ក្ស្រ្រ្រ្រ	
/əh/	ក្ស្រ្រ្រ:, ក្ស្រ្រ្រ្រ:	














Vowel	1st Series	2nd Series
5. /a/	က - ' , က ^၀ -	
/ay/	ဒဲက , က ^၀ ယ , ဟ	
/aw/	ဒဲက , ဟ	
/am/	က ^၀	
/aŋ/	ကံ ^၀	
/ah/	က :	
6. /u/		က in unstressed syllables,
/up/		က - , ခ - ကပ , ကပ
/um/		က ^၀ , က ^၀ , ကပ , ကပ
/uq/		က in stressed syllables
7. /o/	က in unstressed syllables	
/om/	က - , ခ - က ^၀	
/oq/	က in stressed syllables	
8. /ɑ/	က -	
/am/	က ^၀ , ကပ	
/ah/	ဒဲက : , ကပ	
9. /eəq/		က - before Velar Stops
/eəŋ/		ကံ ^၀




Vowel	1st Series	2nd Series
/eəh/		គ៖, ក៖
10. /uə/		គ' - except before Labials
/uəh/		ក៖, គ៖
11. /oə/		ក៖ - except before Velars
/oəm/		ក៖




B. NOTES ON THE SUBSCRIPTS



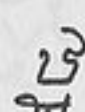

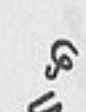

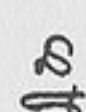
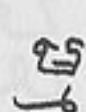
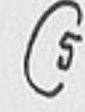
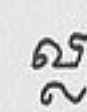
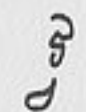
1. Shapes of the Subscripts



a) The subscripts  /khaa/,  /dɔɔ/,  /naa/,  /pɔɔ/,  /qaa/ are identical in form with their superscript counterparts.



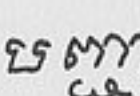


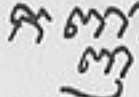


b) The subscripts  /kaa/,  /kɔɔ/,  /caa/,  /chaa/,  /taa/,  /phaa/,  /phaa/, and  /haa/ are identical with their superscript counterparts except that some small embellishment, usually referred to as ស្រក់ /sɔq/ 'hair', is omitted from top of the subscript:  in the first six examples,  in the case of  /phaa/, and  in the case of  /haa/.


c) The subscripts  /khaa/,  /chaa/,  /thaa/ are reproductions of their superscripts whose final vertical strokes extend upward and end in a "hook" on a line with the hooks of the superscript.




d) The subscripts  /baa/,  /yaa/,  /saa/ are also characterized by a right-hand vertical stroke which hooks on a line even with the top of the superscript, but their subscript portions bear little resemblance to their counterparts.






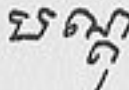
e) The remaining subscripts bear little or no formal resemblance to their superscript counterparts:           

f) The subscript  /rɔɔ/ precedes its superscript, e.g.  /trəy/ 'fish'.

g) When  /ñɔɔ/ occurs as a superscript the  element is omitted, e.g.  /bañciə/ 'to order'; when  occurs as its own subscript, it takes the full form , e.g.  /kañña/ 'young lady'; otherwise it takes the form , e.g.  /praacña/ 'intelligence'.

2. The Subscript 

The subscript  serves as a subscript both for  /daa/ and  /taa/.

In initial sequences the subscript  is always pronounced /d/; e.g.,  /pdəy/ 'husband',  /kdaa/ 'plank, board'. Medially, however, its pronunciation is unpredictable. As a general rule, it is pronounced /d/ when it occurs as a subscript to , and /t/ when subscript to ; e.g.,  /bandoh/ 'to

grow, raise'; ငှာ်း /bantoh/ 'to criticize'. In some words, however, it is also pronounced /d/ when subscript to န ; e.g., န်းာ်း /sandaoh/ 'to pity'; န်းာ်းာ်း /sandaan/ 'family, lineage'. Since န်း serves as subscript for both န်း and န်း , and န်း has no subscript form, there are only thirty-one subscripts, compared with thirty-three consonant symbols.

3. Special Combinations

Certain special combinations of superscript plus subscript represent a single phonological consonant rather than a sequence of consonants. They are:

- a) န်းာ်း /laa/ as in န်းာ်းာ်း /laan/ car
- b) န်းာ်း /faa/ ~ /waa/ as in န်းာ်းာ်း /fak/ to practice, န်းာ်းာ်း /woun/ crowd
- c) န်းာ်း /naa/ as in န်းာ်းာ်း /nəŋ/ there, that's it
- d) န်းာ်း /maa/ as in န်းာ်းာ်း /mat/ fine, powdered
- e) န်းာ်း /laa/ as in န်းာ်းာ်း /luəŋ/ king

4. Position of Vowel Symbols with Clusters

Compound vowel symbols enclose both an initial superscript and its subscript, but are pronounced after the subscript, e.g. န်းာ်းာ်း /priy/ forest, န်းာ်းာ်းာ်း /cweinj/ left, န်းာ်းာ်းာ်း /pdaəm/ to begin, န်းာ်းာ်းာ်း /priəp/ to compare. The same is true with medial written clusters, even though the superscript represents the final consonant of a preceding syllable, e.g.:

- | | |
|-------------------------------------|---------------------------------------|
| န်းာ်းာ်းာ်း /bankaət/ to originate | န်းာ်းာ်းာ်းာ်း /bankool/ pillar |
| န်းာ်းာ်းာ်းာ်း /camriəŋ/ song | န်းာ်းာ်းာ်းာ်းာ်း /camraən/ increase |

This rule results in a particularly complex spelling in the common word န်းာ်းာ်းာ်းာ်း (~ န်းာ်းာ်းာ်းာ်း) /qəyləw-nih/ 'now'.

5. Initial Clusters

a) With a very few exceptions, all occurrences of initial written clusters represent two-place initial sequences /CC-/ phonologically. When one of the aspirated

consonant symbols (ឡ , គ , ង , ន , etc.) occurs as a superscript, it represents an unaspirated stop phonologically. Aspirated consonant symbols usually occur as superscripts in words where the subscript is a voiceless consonant or a nasal, e.g.:

នៈ /ptěəh/ house, ខ័ /kñom/ I, ខ័ត្ត /ckae/ dog

Unaspirated consonant symbols usually occur as superscripts when the subscript is a voiced consonant or /r/; e.g., ក្បាល /kbaal/ 'head', ប្ដី /pdəy/ 'husband', គ្រូ /kruu/ 'teacher'. This difference in representing the same initial

consonant can be explained by the phonetic fact that in sequences of the first type, the first consonant is usually pronounced with slight phonetic aspiration, while in sequences of the second type the first consonant is usually unaspirated. These differences are non-contrastive, however, from a phonological point of view; i.e. no two initial consonant sequences ever contrast phonemically with regard to aspiration. The way in which initial consonant sequences are pronounced varies from dialect to dialect, with the result that the phonetic differences are not consistently maintained in the writing system.

For example, ខ្មែរ /kmae/ 'Khmer' is spelled with an aspirated initial, while ក្មេង /kmeinj/ 'to be young' is spelled with an unaspirated initial, although the sequence /km-/ is phonetically identical in the two words.

Thus while approximately 130 written sequences occur, there are only eighty-five phonologically permissible /CC-/ sequences at the beginning of Cambodian words.

b) When an initial cluster has an aspirated consonant symbol as a subscript, the cluster represents a three-place initial consonant sequence /CCC-/. Only

three such sequences occur in initial position: ភ្នំស្រី /sthaanii/ 'station', ម្ភៃ /mphiy/ '20', ខ្សែកាត់ /lkhaon/ 'drama'.

6. Medial Clusters

a) One subscript. An even wider distribution of superscript plus subscript combinations occurs medially than occurs initially. The great majority of medial clusters have only one subscript, although a few have two.

1) Medial clusters with nasal superscripts. The commonest source of medial clusters are disyllables whose initial syllable has the shape /CVN-/ (Consonant-Vowel-Nasal). In such words the final nasal of the first syllable is written as a superscript, and the initial consonant of the following syllable is written as a

subscript. With the superscripts នៈ , ញ្ច , and ន័ (or ណ័), there are some limitations on what symbols occur as subscripts.

When the superscript is ^{្រ}, the subscript will represent one of the consonants /k r h w q f kh/, e.g.:

- ស្រ្រាត' /səŋkat/ division
- ប្រ្រ្រាម /bəŋqaem/ sweets
- ប្រ្រាត' /bəŋhat/ to train
- ប្រ្រាម' /bəŋkham/ to enforce

When the superscript is ^{្រ្រ}, the subscript will represent one of the consonants /c ch ñ/ (i.e. will be homorganic): ប្រ្រាម' /bəŋcam/ to pledge,

- ប្រ្រាម' /bəŋchəw/ to stand on end, ស្រ្រាត' /səŋñaə/ sign

When the superscript is ^{្រ្រ} (or ^{្រ្រ}), the subscript will represent one of the consonants /d t th l y s/: ប្រ្រាម' /bəntəc/ 'a little', ស្រ្រាត' /sənsəəm/ 'dew', ស្រ្រាត' /səndaek/ 'beans', ក្រ្រាម' /kəŋlaeŋ/ 'place'. However, when the superscript is ^{្រ}, there are no limitations on the subscript; e.g.,

- ត្រ្រាម' /dəmbaəŋ/ 'weaving', ក្រ្រាម' /kəmdaw/ 'heat', ក្រ្រាម' /kəmcil/ 'laziness', ស្រ្រាត' /səŋnat/ 'confidential'.

In disyllables whose first syllable has the shape /CVm-/ the presyllable may be written either with the /niqkəhət/ ^{្រ} 1 (ត្រ្រាម' /qəqsəə riəy/ 'horizontal letters') or with the final - ្រ as a superscript and the initial of the second syllable as subscript (ត្រ្រាម' /qəqsəə dəmrəət/ 'vertical letters').

The following examples are spelled both ways:

- កំត្រាម' ~ ក្រ្រាម' /kəmpuəh/ height
- តំត្រាម' ~ ត្រ្រាម' /təmpuən/ weight
- ដំត្រាម' ~ ដ្រ្រាម' /dəmlouŋ/ potatoes
- កំស្រាត' ~ ក្រ្រាត' /kəmsət/ sad

The result is that such words are spelled first one way and then another by the literate public. However, the trend seems to be toward more general use of the more efficient /niqkəhət/ spelling at the expense of the conjunct spelling. In the official Cambodian Dictionary of the Buddhist Institute, the /niqkəhət/ spelling is usually recommended where two spellings are possible, with two notable exceptions: in words spelled with an initial ត - , and in roughly half the entries

1. See Chapter IX, A 2 e for pronunciation of this symbol.

spelled with initial ស- , the conjunct spelling is recommended:

(~ កំណើត) /damkaəŋ/ to elevate, (~ កំរូត) /damruət/ to stack,

សម្ងាត់ (~ សំនាត់ /samŋat/ confidential, សម្ល (~ សំគ្រ) /samlaa/ stew.

2) Geminate medial clusters. Medial clusters in which the subscript is a repetition of the superscript are quite common. Such written clusters usually represent doubled consonants phonologically: /kəttəyüəh/ fame,

/paccay/ contribution, /pannaalay/ library, /thoəmmədaa/ usual.

When the syllable final value of a consonant symbol differs from its syllable-initial value, such clusters represent two different but closely related consonants phonologically, e.g.:

/sapbaay/ (~ /səbaay/) to be comfortable

/qaqkeəq-məhaesəy/ 1st royal wife, /rihsəy/ bamboo

Many medial clusters have an unaspirated stop symbol as superscript with the homorganic aspirated stop symbol of the same series as subscript. Such clusters usually represent the sequence /CCh-/ phonologically, e.g.:

/qatthaathibaay/ explanation /putthoo/ heavens!

/macchaa/ fish (elegant) /woəttʰoq/ artifact

Aspirated subscripts tend to be pronounced as unaspirated consonants when they begin an unstressed syllable, e.g.:

/qaqkəraa/ letter /qattəbat/ article, composition

/puttəsaahsnaa/ Buddhism

b) Two subscripts. Three consonant symbols are written vertically in medial position in a few words, in which case the first consonant is written as a superscript and the following two are written as subscripts in the order of their pronunciation. Almost all such words contain a medial phonological sequence consisting of a nasal as the final consonant of the first syllable, followed by a syllable whose initial consonant is a stop homorganic with the preceding nasal, plus /-r-/:

/kañcrooŋ/ fox /kantray/ scissors

កន្ត្រៃ ^១ /dantroy/ music

សង្ក្រែម ^១ /sɔŋkriəm/ war

Three exceptions to this pattern occur in the following three loanwords:

- 1) កង្កែប ^១ (sometimes spelled កង្កែប ^១) /qɑŋkleh/ (~ /qɑŋglee/) English
- 2) សង្ក្រែត ^១ (sometimes spelled សង្ក្រែត ^១) /sɑŋskrət/ Sanskrit
- 3) សាស្ត្រាចារ្យ ^១ /sahstraacia/ professor²

7. Final Clusters

Many loanwords are spelled with an etymological final cluster, the subscripts of which are not pronounced, since only one consonant may occur phonologically at the end of a Cambodian word. Following are some common words spelled with final clusters:

មិត្ត ^១ /mit/ friend

ចិត្ត ^១ /cət/ heart, mind

ព្រាហ្មណ៍ ^១ /put/ Buddha

សត្វ ^១ /sat/ animal

រដ្ឋ ^១ /rɔət/ state

យាន ^១ /yüən/ motor

មនុស្ស ^១ /mənuh/

សំបុត្រ ^១ /sambot/ letter

ប្រពន្ធ ^១ /prəpuən/ wife

សមុទ្រ ^១ /samot/ ocean

ពាក្យ ^១ /piəq/ word

ព្រះសង្ឃ ^១ /preəhsɑŋ/ priest

វេជ្ជ ^១ /pɛɛt/ doctor

វិញ្ញាណ ^១ /wuəŋ/ group, circle

កម្ម ^១ /kam/ karma

ក្រចក ^១ /qaatit/ sun

បុណ្យ ^១ /bon/ merit

ខេត្ត ^១ or ខេត្រ ^១ /khaet/ province

If a final cluster has វ as superscript, they are both unpronounced, e.g.:

គ្រូ ^១ /qaacia/ 'teacher'.

However, when a word which is spelled with a final cluster occurs as the first element of a compound, the subscript is activated as the initial of a following syllable, e.g.:

2. Examples 2 and 3 actually involve four phonological medial consonants, although only two are written as subscripts.

- /mittəphiəp/ friendship
 /rōətthaaphibaal/ government
 /puttəsahsnaa/ Buddhism
 /kamməkɑɑ/ worker

VI. VOWEL GOVERNANCE

As shown in Chapter III, the pronunciation of a vowel symbol is determined, or "governed," by the series to which the initial consonant symbol belongs. However, in words with more than one initial consonant symbol, and in words of more than one syllable, the governance of the vowel series is more complex.

A. MONOSYLLABLES

1. If both superscript and subscript belong to the same series, there is no problem; e.g.

Both superscript and subscript are Series 1; vowel is Series 1:

ကျာလ /kbaal/ head ခိုနွေက /sqæek/ tomorrow ခြေ့ဒ် /pseinj/ different

Both superscript and subscript are Series 2; vowel is Series 2:

လမ္မ /lməəm/ sufficient နီဝ် /pcum/ to assemble မြာဟ် /mnoəh/ pineapple

2. If, however, the two consonant symbols belong to different series, the following two rules apply:

1) Any stop or spirant takes precedence over any continuant in determining the series of a following vowel. In other words, symbols representing the consonants of Group I below dominate symbols representing consonants of Group II:

Group I - Dominant

p t c k q
b d
f s h

Group II - Passive

m n ñ ŋ
w r l y

a) In the following examples, the dominant consonant belongs to the 1st series, so the vowel has its 1st series value.

Superscript is dominant, subscript is passive:

တြဲ /trəy/ fish ခိုနွေက /pnaek/ section ကွာ /swaa/ monkey

Superscript is passive, subscript is dominant:

မဟူ /mhoup/ food မြာဟ် /mdaay/ mother လှာ /lqaa/ pretty

b) In the following examples, the dominant consonant belongs to the 2nd series, so the vowel has its 2nd series value.

Superscript is dominant, subscript is passive:

ကျာလ /kliən/ be hungry ခိုနွေက /pnɛɛk/ eyes ကွာ /kniə/ together

Superscript is passive, subscript is dominant:

$\overset{១}{រ}្រស$ /mteeh/ a pepper

$\overset{១}{រ}ស$ /mcul/ needle

Since both consonant symbols in these examples belong to the same series, there is no problem of governance; they are listed to provide contrast with the 1st series examples in a) above.

2) When both superscript and subscript are dominant, the series of the vowel is determined by the series of subscript. In the following examples, the superscript is 1st series while the subscript is 2nd series, so the vowel has its 2nd series value.

$\overset{១}{រ}្រៈ$ /pteəh/ house $\overset{១}{រ}្រស$ /sköəl/ to know $\overset{១}{រ}្រស$ /kpuəh/ to be high

In such words, only 1st series consonants occur as superscripts, since the series of the vowel is always determined by the subscript.

B. DISYLLABLES

Both of the foregoing can be summarized in a single unified rule, which is valid for all monosyllables, as well as for most disyllables, which contain pre-vocalic consonants of differing series.

RULE: In any syllable which is preceded in the same word by consonants of different series, the series of the vowel will be determined by the last preceding stop or spirant.¹

1. In the following examples involving disyllables, the dominant consonant of the first syllable takes precedence over the passive consonant of the second syllable.

a) C₁ is 1st series, so the vowel of both syllables is 1st series:

$\overset{១}{រ}្រស$ /prayat/ to be careful

$\overset{១}{រ}្រស$ /barəy/ cigarette

$\overset{១}{រ}្រស$ /crawat/ criss-crossed

$\overset{១}{រ}្រស$ /srɔlañ/ to like

$\overset{១}{រ}្រស$ /kanlaen/ place

$\overset{១}{រ}្រស$ /kəmnaət/ birth

b) C₁ is 2nd series, so the vowel of both syllables is 2nd series:

$\overset{២}{រ}្រស$ /prolim/ dawn

$\overset{២}{រ}្រស$ /trɔnum/ a perch

1. It should be understood that this rule as stated is merely a rule of pronunciation which is pedagogically useful for reading Cambodian. Historically, of course, quite the reverse is true: it is the pronunciation of a word which "determines" how it is written.

2. In these examples, the 1st series pronunciation of the second syllable vowel is also indicated by the 1st series symbols $\overset{១}{រ}្រ$ /laa/ and $\overset{១}{រ}្រ$ /naa/, but the information is redundant.

ကံနိက /kumnit/ thought

တံညွန /tumjuən/ weight

In such words as these, of course, the problem of governance doesn't arise, since the initials of both syllables are 2nd series, with the consequence that the vowels of both syllables are 2nd series. However, these examples do illustrate the principle of "vowel harmony" which operates in disyllables whose second syllable has an initial continuant.

2. In disyllables each of whose syllables begins with a stop or spirant, the vowel series of each syllable is determined independently, consistent with the rule stated above. The great majority of such words have a 1st series vowel in the presyllable, regardless of the series of the 2nd syllable vowel.

a) 1st series vowel in both syllables:

ကကဗာ /kakaay/ to scratch about

ကကဗျာ /kaafei/ coffee

ပြဏ် /pracam/ assigned to

ဗာဏ်က /bankaət/ to originate

b) 1st series vowel in first syllable, 2nd series vowel in second syllable:

ပြတေဟ /prateeh/ country

တရသီက /tracěəq/ cool

ဟနဗ /santuuc/ fish hook

ဗံဏ် /bamplii/ to illumine

In a few words having a 2nd series stop or spirant in the second syllable, vowel harmony is maintained by requiring a 2nd series initial consonant in the first syllable.

တတေ /tətěəh/ to flap about

ညိဏ်က /cəcěək/ to discuss

တတေညိ /trətəuŋ/ distance from toes to fingertips

In a few non-harmonic disyllables, however, the typical order is reversed, with a 2nd series vowel in the first syllable and a first series vowel in the second syllable.

ဟဟာ /rəbah/ thing

ညိဏ်က /cuəndaə/ stairs

3. Exceptions to the Rule

In some disyllables with an initial ဟ in the second syllable, a 2nd series consonant in the first syllable imposes its series on the second syllable; i.e.

ဟ functions as a passive consonant.

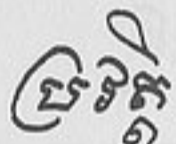
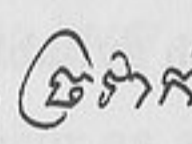
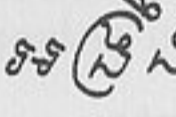
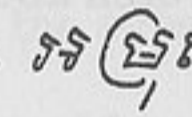
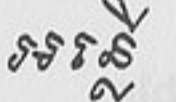
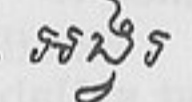
တံဟံ /tumhum/ size

တိဟာ /tiəhian/ soldier

ဝိဟာ /wihie/ temple

These words are sometimes written with a converted ឃ័រ ; e.g., គាឃ័រនិ , thus conforming to the rule. In monosyllables, however, ហ៎ is always dominant, e.g., ឃ័រនិ /lhonj/ 'papaya'.

Conversely, in some disyllables (especially in some disyllables with initial ហ័រ), a normally dominant initial consonant in the first syllable fails to impose its series on a following passive consonant:

<u>Irregular</u>	<u>Regular</u>
 /prawoət/ history	(cf.  /crawat/ criss-crossed)
 /qɑŋrɨŋ/ hammock	(cf.  /qɑmroh/ profession)
 /qɑnləə/ category	(cf.  /qɑŋwaa/ to beg)

C. POLYSYLLABLES

In longer words, the rule applies much less consistently. The following two examples are regular with regard to the rule.

- 1) គាឃ័រនិ /caettənaa/ to like
- 2) គាឃ័រនិ /weettəniə/ miserable

In the first example, the syllable -និ is pronounced /-naa/ because of a preceding 1st series គ ; in the second example, -និ is pronounced /-niə/ because of a preceding 2nd series ឃ័រ . In the following two examples, however, the first is regular, the second irregular:

- 1) សករាជ /saqkəraac/ century
- 2) សេករាជ /qaekkəriəc/ independence (rather than the expected */qaekkəraac/).

VII. DIACRITICS AND PUNCTUATION

A. DIACRITICS

The following special symbols, with the exception of the /sraq qam/ ($\overset{\circ}{-}$) and the /reəhmuk/ (\circ), are usually treated as diacritics ($\overset{\circ}{\text{វិញ្ញាប័ត្ន}}$ /wōənnəyut/) in Cambodian textbooks.

The /sraq qam/ and /reəhmuk/ are listed as vowel symbols in Cambodian dictionaries (see Chapter IV, A), although in fact they represent combinations of vowel + consonant. These diacritics typically have several designations depending on the level of speech employed. There is furthermore a certain amount of confusion between them among literate Cambodians. Each symbol is listed here by its common pedagogical name, followed by alternative designations. Some of the following have already been encountered, but are included here for completeness.

1. The $\overset{\circ}{\text{បន្តក}}$ /bantaq/ ($\overset{\circ}{-}$)

The /bantaq/ is sometimes called $\overset{\circ}{\text{ស្រ្តក}}$ /sajkat/ or $\overset{\circ}{\text{ស្រ្តសញ្ញា}}$ /reəhsañña/. Its occurrence over the final consonant symbol of a syllable shortens the vowel of that syllable.

a) In a syllable with no written vowel, it signals the short inherent vowel, i.e. /a/ after a 1st series consonant symbol, and, after a 2nd series consonant symbol, /u/ before a labial consonant and /uə/ elsewhere.

- | | |
|--|---|
| $\overset{\circ}{\text{បប}}$ /cap/ to finish | (cf. $\overset{\circ}{\text{បប}}$ /caap/ a hoe) |
| $\overset{\circ}{\text{លប}}$ /lup/ bird trap | (cf. $\overset{\circ}{\text{លប}}$ /lɔɔp/ a fish trap) |
| $\overset{\circ}{\text{លក}}$ /luəq/ to sell | (cf. $\overset{\circ}{\text{លក}}$ /lɔɔk/ to channel) |

b) The vowel $\overset{\circ}{-}$ followed by the /bantaq/ is pronounced /a/ after a 1st series consonant symbol, and, after a 2nd series consonant symbol, is pronounced /eə/ before a velar consonant symbol, and /oə/ elsewhere

- | | |
|--|--|
| $\overset{\circ}{\text{ចាប}}$ /cap/ to catch | (cf. $\overset{\circ}{\text{ចាប}}$ /caap/ sparrow) |
| $\overset{\circ}{\text{ពាក}}$ /pəəq/ to wear | (cf. $\overset{\circ}{\text{ពាក្យ}}$ /piəq/ word) |
| $\overset{\circ}{\text{មាន}}$ /moəñ/ chicken | (cf. $\overset{\circ}{\text{មាន}}$ /miəñ/ to have) |

2. $\overset{\circ}{\text{មូស្កតេន}}$ /museqkətoəñ/ ($\overset{\circ}{-}$)

The /museqkətoəñ/ is sometimes referred to as $\overset{\circ}{\text{ត្រីស្តកក្តា}}$ /tmiñ kandaŋ/ 'rat's teeth'. It has two functions:

a) to convert the 2nd series consonant symbols ង , ញ , ប , បរ , វ , and វិ , which have no counterparts in the 1st series, to 1st series symbols, thus indicating a 1st series pronunciation of the vowel symbol. It is usually written over the right-hand portion of the consonant symbol.

$\text{យាង}''$ /yaan/ kind (cf. យាង /yiaŋ/ to go (royalty))

$\text{ម៉ែ}''$ /mae/ mother (cf. ម៉ែ /mɛɛ/ polite response particle)

When the /museqkətōän/ co-occurs with a superscript vowel symbol it is replaced by the ក្របីស្រក្រាម /kbiəh kraom/ ($\frac{\text{—}}{\text{1}}$) written below the consonant. $\text{ម៉ែ}''$ > $\text{ម៉ែ}''$ /məin/ 10,000.

b) to convert the 1st series consonant symbol ប /baa/ to $\text{ប}''$ /paa/, which doesn't otherwise exist.

ប៉ាន /paan/ to cover (cf. បាាន /baan/ to have)

ប្រ /pəy/ flute (cf. ប្រ /bəy/ three)

3. ត្រៃស្រាប /trəysap/ ($\frac{\text{~}}{\text{—}}$)

The /trəysap/ is used to convert the 1st series symbols ហ , ស , ហា , and សា , which have no 2nd series counterparts, to the 2nd series symbols ហ៊ , ស៊ , ហ៊ា , and ស៊ា , so that a following vowel symbol is pronounced with its 2nd series value.

ហ៊ាន /hiən/ to dare (cf. ហាង /haan/ shop)

ស៊ី /quu/ dry-dock (cf. ស៊ី /qou/ exclamation)

When it co-occurs with a superscript vowel, the /trəysap/, like the /museqkətōän/ above, is replaced by the ក្របីស្រក្រាម ($\frac{\text{—}}{\text{1}}$).

$\text{ស៊ី}''$ > $\text{ស៊ី}''$ /sii/ to eat (cf. ស៊ី /səy/ caneball)

However, the /trəysap/ is usually written above a converted ហា or សា , despite a superscript vowel, although either form may occur; e.g., $\text{ហ៊ាង}''$ ~

$\text{ហាង}''$ /hiinj/ 'a kind of toad'.

4. နိက္ခဟိတံ /niqkəhət/ (◌̣)

The /niqkəhət/ (the Sanskrit anusvāra) is frequently referred to as the /sraq qam/, and sometimes as the /damləə/.

a) When placed over a consonant symbol, it represents the short inherent vowel + /m/: /-am/ with a 1st series consonant and /-um/ with a 2nd series consonant.

ဇံ /cam/ exact,

တံ /tum/ to perch

It is also commonly used in writing presyllables of shape /CVm-/ in disyllables:

ဇံဝိဇာန /camnaek/ section

တံဗိဗ် /tumvæn/ weight

(See Chapter V, 6 a 1 for a discussion of the alternation of this spelling with the conjunct spelling of such disyllables.)

b) When the /niqkəhət/ co-occurs with the vowel symbol -၇, it represents /-am/ after a 1st series consonant symbol and /-oəm/ after a 2nd series consonant symbol.

ဇံ /cam/ to remember

တံ /coəm/ bruised

c) When the /niqkəhət/ co-occurs with the vowel symbol - /, it represents /-om/ in the 1st series and /-um/ in the 2nd series:

ဇံ /dom/ piece

တံ /tum/ to be ripe

d) The /niqkəhət/ is used instead of the /bantəq/ as a vowel shorter in syllables spelled with the vowel -၇ + နိ . Such syllables are pronounced /-aŋ/ in the 1st series and /-eəŋ/ in the 2nd series.

ဇံနိ /taŋ/ to establish

တံနိ /teəŋ/ all

e) The /niqkəhət/ represents an /-aŋ/ or /-an/ in some words of Pali or Sanskrit origin.

ဇံနိတံ /saŋskrət/ (~ /samskrət/) Sanskrit

ဇံဇံ /saccaŋ/ true

ဇံဝိဇာနဇံဇာနာ /sanyook-sañña/ (~ /sanyook-sañña/) the symbol ဇံ .

5. ဇံဝိဇာနဇံဇာနာ /sanyook-sañña/ (ဇံ)

a) The /sanyook-sañña/ is used in certain words of Pali or Sanskrit origin, and usually has the same value as the short written -၇ - / . Words spelled with the /sanyook-sañña/ and a final silent subscript usually have alternative spellings without the /sanyook-sañña/:

ស្រក់ (~ ស្រក់) /saq/ rank

ត្រៃ /toəp/ army

ស្រព (~ ស្រព) /sap/ sound

វិប័ន (~ វិប័ន) /weəŋ/ palace

b) The /sanyook-sañña/ plus a final យ is pronounced /-ay/ in the 1st series and /-iy/ in the 2nd series.

សម័យ /samay/ era

ជ័យ /ciy/ victory

c) The /sanyook-sañña/ plus a final - វ is pronounced with the long diphthong /ɔə/ after a 2nd series consonant symbol (the combination apparently does not occur after 1st series consonant symbols.)

ជ័វ /cɔə/ resin

ញ័វ /ñɔə/ to tremble

តំព័រ /tumpɔə/ page

6. ត្រៃបាត់ /toəndəkhiət/ to kill (័)

The /toəndəkhiət/ is perhaps more commonly called សម្រាប /samlap/ 'to kill'. However, since /samlap/ is sometimes used to refer to the /bantaq/ (័), the term /toəndəkhiət/ is used to avoid ambiguity. It is also frequently called

បដិសេធ /patdesaet/ 'to cancel'. The /toəndəkhiət/ is placed over the final consonant symbol of certain etymological spellings to indicate that the consonant symbol is not to be pronounced. Any vowels or subscript consonants which accompany the "canceled" consonant are likewise rendered silent. If the canceled symbol is preceded by - វ , they are both unpronounced. Following are some examples of common words spelled with the /toəndəkhiət/.

ប្រយោជន៍ /prayaoc/ usefulness

ឧស្សាហ៍ /quhsaa/ diligent

កេរ្តិ៍ /kei/ reputation

ពិសោធ៍ /pisaot/ to experiment

ត្រៃបាត់ /poo/ banyan (tree)

ឧទាហរណ៍ /qutiəhɑɑ/ example

In some cases the vowel or subscript that accompanies a preceding consonant symbol is also unpronounced:

ក្សត្រីយ៍ (~ ក្សត្រី) /ksat/ king

ប្រដិសេធ៍ /can/ sandalwood

លក្ខណ៍ (~ លក្ខណ៍) /ləəq/ good manners

a) When no vowel is written, - ្ក represents /-ah/ after a 1st series consonant symbol and /-eəh/ after a 2nd series consonant symbol.

ប្កៈ /pah/ to patch ស្កៈ /sralah/ clear ប្កៈ /prateəh/ to meet

b) After the short vowel symbols ្ក, ្គ, and ្ង, the /reəhmuk/ represents /-h/ alone.

ស្កៈ /cih/ to mount, ride ក្កៈ /kəh/ to scratch ព្កៈ /puh/ to boil

c) After a long vowel symbol, the /reəhmuk/ shortens, and, except for ្ក + a 1st series consonant symbol, changes the value of the vowel symbol, as follows:

/ei/ > /e/ + /h/:

ស្កៈ /seh/ horse

/ee/ > /i/ + /h/:

ស្កៈ /nih/ this

/ae/ > /e/ + /h/:

ស្កៈ /keh/ wild goat (rare)

/ao/ > /a/ + /h/:

ស្កៈ /kəh/ island

/oo/ > /uə/ + /h/:

ស្កៈ /kuəh/ strike

/aə/ > /e/ + /h/:

ប្កៈ (~ ប្កៈ) /caŋkəh/ chopsticks

An exception to the above rule is the irregular spelling ប្កៈ /caah/ 'polite response particle used by women' in which the vowel is usually long in spite of a following /reəhmuk/.

9. យុក្កាល័យ្កៈ /yuqkələəpintuq ~ yuqkuəlpintuq/ (- ្ក)

This symbol, commonly called ប្កៈ /coc pii/ 'two dots', was only recently introduced, and occurs only after consonant symbols that are to be pronounced as stressed syllables either at the end of a word, or preceding an internal juncture in compounds. It must be carefully distinguished from the /reəhmuk/ - ្ក (8 above).

a) It is pronounced /-aq/ after a 1st series consonant and /-eəq/ after a 2nd series consonant.

ស្កៈ /sraq/ vowel

ស្កៈ /thureəq/ preoccupation

កណៈប្កៈ /kənaq-roətmuəntreə/ cabinet

b) The /yuqkələəqp̄intuq/ is also used as a diacritic in the official Cambodian Dictionary to describe the pronunciation of any consonant symbol which is to be pronounced as an independent syllable, whether stressed or unstressed.

មេត្តាភិក្ខុសាសនា (មៈតៈតៈតៈ) /meəqkətheəq-phiəsa/ Pali

ទិស្សនភាព (ទិស្ស - ហៈ) /qehsəraq-phiəp/ freedom

10. លេខប្រាំបួន /leik qahsdaa/ 'number eight' (̄)

The /leik qahsdaa/, also called លេខប្រាំបួន /leik prambəy/, occurs only over the consonants ក្រ and ដ when they represent the following words:

ក្រ /kaa/ auxiliary: then

ដ /daa/ pronoun: which

11. វិរាម /wiqriəm/ (̄)

The /wiqriəm/ (Sanskrit virāma) is sometimes used in the transcription of Sanskrit words to show that a consonant symbol is pronounced as a final consonant rather than as the initial of a following syllable:

កាត្មន (កាត្មន) /qaatman/ soul

ជ័យវរ្មណ៍ (ជ័យវរ្មណ៍) /ciyyeəq-warəman/ Jayavarman

In a more Cambodianized (and more common) spelling of such words, the /wiqriəm/ is replaced by the /sanyook-sañña/. In the standard Cambodian Dictionary the symbol (̄) is used instead of the /wiqriəm/ to indicate the pronunciation of such words (in spite of the fact that the pronunciation of such words can be unambiguously specified by the /sanyook-sañña/; see 5 above).

កាត្មន (កាត្មន) /qaatman/ soul

12. កាក្រាប /kaaqkəbaat/ (̄)

a) The /kaaqkəbaat/, also commonly called ក្រាបក្រាប /cəəŋ kqaek/ 'crow's foot', occurs in certain particles that are normally pronounced with a high or rising intonation. Some of the more common words of this kind are listed below:

ត្រុះ /nuh!/ there!

ច្រះ /caah/ polite response particle used by women

2. ខ្មែរ /khan/ (ៗ)

The /khan/, or ល្បះ /lbah/, is the Cambodian full stop. It occurs less frequently than the full stop in English (see 1 above). Although usage varies, the /khan/ normally occurs only at the end of a paragraph, i.e. a single sentence or several sentences dealing with a single theme or topic. Thus its occurrence usually signals the start of a new theme or topic in the text that follows.

3. បទបទសាសនា /baariyaosaan/ or ល្បះ /lbah/ (ៗ)

The symbol ៗ is a full stop that implies more finality than the /khan/ above. It marks the end of a chapter or an entire text.

4. កូម៉ូត /koo-mout/ 'cow's urine' (ៗ)

The /koo-mout/ is a full stop symbol that, like the /baariyaosaan/ above, marks the absolute end of a text. It is usually reserved for poetic or religious texts. It sometimes occurs as the second part of the compound symbol ៗ, which is also called /baariyaosaan/.

5. ភ្នែកកង្កែប /pnæek moəŋ/ 'cock's eye' (ៗ or ៗ)

The /pnæek moəŋ/, also called the កក្កដិវន្ត (ៗ) /kokottæneet/, is an embellishment said to represent the trunk of the elephant-god Ganesha, which marks the beginning of literary and religious texts.

6. ចំណុចពីរក្នុងស្រង /camnoc pii kuuh/ 'two dots and a slash' (ៗ)

The /camnoc pii kuuh/ is used in much the same way as the colon in English. In addition, it characteristically occurs after the quotative particle ថា (ថា ៗ) /thaa/ 'saying, as follows' and the copulative គឺ /kii/ 'that is'. A horizontal line is written between the two circles in order to distinguish it easily from the /reəhmuk/ (ៗ).

7. លេខ២ /leik too/ 'the figure 2' (ៗ)

The /leik too/, more formally called ការប្រណិទានសញ្ញា /qaameendit-sañña/, indicates that the word (or phrase) after which it occurs is to be repeated. The most common use of the /leik too/ is in the writing of reduplicative compounds.

ស្រ្តី ៗ /pseij-pseij/ various

តូច ៗ /touc-touc/ small and numerous

និមួយៗ /nimuəy-nimuəy/ each in turn

In some cases a phrase rather than a single word is to be repeated. This can be determined only by the sense of the preceding words.

បន្តិចបន្តួច ៗ /bantəc mdaaj, bantəc mdaaj/ little by little

ទំនាស់ទំនៀក ៗ /daoy laek, daoy laek/ separately

When the words at the beginning of one sentence are a repetition of those at the end of the preceding sentence, they may be represented by the /leek too/, e.g.

the words ដីខ្ញុំ /ptěəh kñom/ 'my house' in the following example:

ខ្ញុំទៅដីខ្ញុំ ៗ នៅជិតផ្សារ

/kñom tiw ptěəh kñom; ptěəh kñom niw cət psaa/
I'm going to my house; my house is near the market.

8. ៗ ៗ /laq/ or ៗ ៗ /peiyaa/

The /laq/, and less frequently the /peiyaa/, represent 'et cetera', and are both pronounced /laq/ when encountered in a text.

9. សហសញ្ញា /sahaq-sañña/ hyphen (-)

The /sahaq-sañña/ is used, as in English, to indicate that a word has been interrupted at the end of a line and is continued in the next. It is also used in verse where the poetic meter requires that a word be divided between two measures. In addition, a hyphen is commonly written between an individual's family name (which is written first in Cambodian) and succeeding names, and sometimes (especially in names of Cambodian Chinese) between all the names.

ញ៉ុក - ទិដម /ñok thaem/ Nhok Thəm

លី - ធៀម - ទេង /lii thiəm teij/ Li Thiam Teng

ទេង - ឃ្លា - ហ្នាត /seij ŋuən huət/ Seng Nguon Huot

10. The following punctuation marks are used much as in English, and may occur in Cambodian publications interspersed with the more traditional symbols discussed above. Their common Cambodian names are given below.

a) (.) ចុចមួយៗ /coc muəy/ one point

b) (,) ក្បិលស្រាវ /kbiəh/ a stroke

- c) (?) បុច្ឆសញ្ញា /bocchaq-sañña/ question mark
- d) (!) ខុតាសញ្ញា /qutiən-sañña/ exclamation mark
- e) (...) ពងត្រី /pəŋ trəy/ fish eggs
- f) ({) រ៉ាត់ /rat/ bracket
- g) (;) ចំណុចក្រចិន /camnoc kbiəh/ point-stroke
- h) (()) ទង់ក្រចក់ /wǎŋ kraɕaɕq/ fingernail curves

VIII. NUMERALS AND ABBREVIATIONS

A. NUMERALS

Cambodian numeral symbols were borrowed from the same Indic source as the alphabet. Although Arabic numerals are well known, especially in urban areas, as a result of French influence, the Indic symbols (identical with those used in Thai) are used almost exclusively in Cambodian publications.

១	២	៣	៤	៥	៦	៧	៨	៩	០
1	2	3	4	5	6	7	8	9	0

Although the symbols themselves are based on the decimal system, the names underlying them reveal an older system based on five, as can be seen in the names of the numerals 6 - 9, which are 5+1, 5+2, 5+3, and 5+4 respectively. The names of the numerals 1 - 9 and zero are as follows:

១	/muəy/	one	1	៦	/prammuəy/	six	6
២	/pii/	two	2	៧	/prampii ~ prampil/	seven	7
៣	/bəy/	three	3	៨	/prambəy/	eight	8
៤	/buən/	four	4	៩	/prambuən/	nine	9
៥	/pram/	five	5	០	/soun/	zero	0

For the numeral 7, the pronunciation /prampii/ is used only in a reading pronunciation; in normal speech it is always pronounced /prampil/.

The names of the numerals 10 - 20 are as follows:

១០	/dap/	ten	10
១១	/dap-muəy ~ muəy-dandap/	eleven	11
១២	/dap-pii ~ pii-dandap/	twelve	12
១៣	/dap-bəy ~ bəy-dandap/	thirteen	13
១៤	/dap-buən ~ buən-dandap/	fourteen	14
១៥	/dap-pram ~ pram-dandap/	fifteen	15
១៦	/dap-prammuəy ~ prammuəy-dandap/	sixteen	16

១៧	/dap-prampɨl ~ prampɨl-dandap/	seventeen	17
១៨	/dap-prambəy ~ prambəy-dandap/	eighteen	18
១៩	/dap-prambuən ~ prambuən-dandap/	nineteen	19
២០	/məphɨy ~ mphɨy/	twenty	20

For the numerals 11-19, the second form with the use of /-dandap/ 'teen' is the more colloquial.

While the names of the numerals 1-10 and 20 seem to be Cambodian in origin, the names for the numerals 30, 40, 50, 60, 70, 80, 90, 100, 1000, 10,000 and 1 million (and perhaps 0 and 10 million) are borrowed from Thai.

៣០	/saamsəp/	thirty	30
៤០	/saesəp/	forty	40
៥០	/haasəp/	fifty	50
៦០	/hoksəp/	sixty	60
៧០	/cətsəp/	seventy	70
៨០	/paetsəp/	eighty	80
៩០	/kawsəp/	ninety	90
១០០	/muəy-rəjy/	one hundred	100
១.០០០	/muəy-pōən/	one thousand	1,000
១០.០០០	/muəy-məin/	one ten-thousand	10,000
១០០.០០០	/muəy-saen/	one hundred-thousand	100,000
១.០០០.០០០	/muəy-liən/	one million	1,000,000
១០.០០០.០០០	/muəy-kaot/	one ten-million	10,000,000

All complex numerals involve combinations of the above:

២២ /mphɨy-pii/ 22

៣៩	/saamsəp-prambuən/	39
១៥៩	/muəy-rəy haasəp-prambuən/	159
២.៨៦១	/pii-pōən prambəy-rəy hoksəp-muəy/	2,861

B. NOTES ON THE NUMERALS

1. In Cambodian numerals involving four or more symbols, a period is placed after every three symbols, counting from the right to the left (as in French). This system of punctuation has little relevance to the pronunciation of Cambodian numerals, however, since each succeeding numeral is read as a separate denomination, rather than in groups of three. Such additive components, except in numbers smaller than 100, are typically separated by rising intonation (represented by a comma in the transcription). This rising intonation never occurs in compounds separated by close juncture (represented by a hyphen in the transcription).

២.៣៥៤.៧៥៥

/pii-liən, bəy-saen, pram-məin, buən-pōən, prampil-rəy, haasəp-pram/
2,000,000 + 300,000 + 50,000 + 4,000 + 700 + 55 (= 2,354,755)

No punctuation is used, however, in writing dates; e.g., ១៩១៤ - ១៩១៨
1914-1918.

2. In multiplicative compounds whose first element is មួយ /muəy/ 'one', /muəy/ is usually shortened in rapid speech to /mə-/.
មួយ /muəy/ 'one',
/muəy/ is usually shortened in rapid speech to /mə-/.

១០០ /muəy-rəy/ ~ /mə-rəy/ 100

១.០០០ /muəy-pōən/ ~ /mə-pōən/ 1,000

This reduced form almost always occurs in ម្ភៃ /məphiy ~ mphiy/ '20' (reflected in the conjunct spelling), but /muəy-phiy/ has been observed in deliberate speech.

3. The ordinal forms of Cambodian numerals are formed by placing the ordinalizing particle ទី /tii/ in front of the cardinal numerals above, in either their written or symbolic forms.

ទីមួយ (ទី១) /tii-muəy/ first

ទីសាបសិបបួន (ទី៣៤) /tii-saamsəp-buən/ thirty-fourth

4. In addition to the numeral system outlined above, reflexes of Sanskrit numerals occur in many compounds, with either cardinal or ordinal meaning; e.g.:

ម្នាក់ /qaek/ one + ភ្នាក់ងារទូត /qaqkəəq-riəccətut/ ambassador =

ឯកអគ្គរាជទូត /qaek-qaqkəəq-riəccətut/ 'first (highest) ambassador'

លេខ /leik/ number + ពីរ /too/ two = លេខពីរ /leik-too/ the symbol ៗ

បី /trəy/ three + កោណ /kaon/ angle = បីកោណ /trəy-kaon/ triangle

បួន /cattoq/ four + ជាន់ /baat/ foot = បួនជាន់ /cattobaat/ four-footed

បញ្ចសីល /pañcaq/ five + សីល /səl/ precept = បញ្ចសីល /pañcəsəl/ the

five precepts.

C. ABBREVIATIONS¹

The use of abbreviations is not as common in Cambodian as in western languages; e.g., there are no established abbreviations for the names of months. Dictionaries and other technical works tend to coin abbreviations as needed; the official Cambodian Dictionary contains a long list of abbreviations for use in giving information about lexical entries, many of which are found in other dictionaries, and many of which were invented ad hoc. In addition, the following abbreviations are relatively standardized.

1. Dates

In Cambodian dates the Christian era is generally used for most publications. However, the traditional Buddhist era is used in older publications and in religious texts, and in many publications both are used concurrently. The Buddhist era is reckoned from the year of the death of the Buddha, usually considered to be the year 543 B.C. Thus, when confronted with a Buddhist era date, subtract 543 years to obtain the Christian era equivalent, e.g., B.E. 2510 - 543 = A.D. 1967. The two eras are abbreviated as follows:

ព.ស. = ពុទ្ធសករាជ /puttəsaqkəraac/ Buddhist era

គ.ស. = គ្រិស្តសករាជ /kr̥hsaqqəraac/ Christian era

When a date is written in its full form, the day of the week precedes, followed by the day of the month, the month, and the year, as in the following example:

ព្រឹក្សត្រីមិថុនា ថ្ងៃ ទី ២៤ ខែ មករា គ.ស. ១៩៦៨

/tɲaj-put tii-məphɨy-buən məəqkəraa kr̥hsaqqəraac mūəy-pōən prambuən-roəy hoksəp-prambəy/

Wednesday, the twenty-fourth of January, 1968.

Dates may be numerically abbreviated, however, in which case only the day, month,

1. The author is indebted to Tonkin, Modern Cambodian Writing (Bibliography Item 30), for many of the abbreviations included in this section.

and year are indicated by numerals only, separated by a hyphen. The above date, in its shortest form, would be:

២២-១-១៩៧៧

2. Currency

The Cambodian monetary unit is the **រៀល** /riəl/, which is divided into 100 **សេន** /sein/ 'cents'. In accounting, **រៀល** is abbreviated **៛**, which is written between the riels and the cents as follows:

៤៥៛០០ /saesəp-pram riəl/ forty-five riels.

In columns of figures, the **៛** may be written only in the top figure and is replaced in succeeding figures by a period or a comma.

៤៥៛០០ 45 riels

៣៥,០០ 35 riels

Sometimes both a comma and a superscript **៛** are written:

៤៥,០០[៛] 45 riels

Sometimes the **៛** occurs after the cents figure:

៤៥,០០៛ 45 riels

3. The Metric System

ម.ម. = មីល្លីម៉ែត្រ /milimaet/ millimeter

ស.ម. = សង់ទីម៉ែត្រ /sanjimaet/ centimeter

ម. = ម៉ែត្រ /maet/ meter

គ.ម. = គីឡូម៉ែត្រ /kiloumaet/ kilometer

ក្រ. = ក្រាម /kraam/ gram

គ.ក្រ. = គីឡូក្រាម /kiloukraam/ kilogram

ល. = លីត្រ /liit/ litre

4. Miscellaneous

វិ.	=	វិថី	/withəy/	street
ម.វ.	=	មហាវិថី	/məhəə-witəy/	boulevard
រ.វ.	=	រុក្ខាវិថី	/ruqkhaq-witəy/	avenue
ក.ព.	=	កំពង់ចាម	/pnum-piñ/	Phnom Penh
ឧ.	=	ឧទាហរណ៍	/qutiəhəə/	for example
ន.ន.	=	និងដទៃទៀត	/niŋ datiy tiət/	and others (rare)
ស.ឧ.	=	សេកទ្រូប	/qaek-qotdam/	His Excellency
ស.រ.អា.	=	សហរដ្ឋអាមេរិក	/sahaqroət-qaameric/	U.S.A.
ស.អា.តូ.			/see-qaa-tou/	(transcription of the pronunciation of the English abbreviation) S.E.A.T.O.

D. PAGINATION

The great majority of Cambodian publications use Cambodian numerals for numbering pages in the main body of a book, usually at the top center and set off by dashes: - ១ - , - ២ - , - ៣ - , - ២៥ - , etc. Arabic numerals are very rarely used for pagination, except in some bilingual publications. For the pagination of material preliminary to the main body of a book, and for listing major headings within a chapter, the consonants of the alphabet are used in their dictionary order, e.g. ក , ខ , គ , ឃ , ង , ច , ដ , etc. These may in turn be followed by subheadings listed by numerals, in the following pattern:

ក)	A -
១)	1 -
២)	2 -
ខ)	B -
១)	1 -
២)	2 -
គ)	C -

IX. UNWRITTEN SOUNDS

A. UNWRITTEN VOWELS

In the Cambodian writing system certain vowels are indicated by the absence of a vowel symbol in specific environments. Although the following general rules are valid for the great majority of cases, there are some exceptions and ambiguities, especially in learned or unfamiliar vocabulary.

1. The Long Inherent Vowel (/aa/ɔɔ/)

a) Any stressed syllable which is to be pronounced with the long inherent vowel (/aa/ after a 1st series symbol, /ɔɔ/ after a 2nd series symbol; see Chapter IV, B) is written with the initial consonant symbol alone, with or without a following final consonant.

ត	/taa/	to continue	ក	/kɔɔ/	dumb
ឡ	/lqaa/	pretty	ឆ	/chɔɔ/	to stand
ចត	/caat/	to moor	តក	/rɔɔk/	to seek
(បកប	/prakaap/	to combine	លលក	/lɔɔlɔɔk/	dove

Since individual words are not separated in the Cambodian writing system, it is sometimes impossible to determine from the writing system alone whether a consonant symbol represents the final consonant of the preceding word or a separate

word; for example បក^១ត may be read either as /baək/ 'to open' or as /baə kaa/ 'if (the) neck'. Such ambiguities are almost always resolved, however, by context.

b) In any disyllable whose initial syllable may be pronounced in a reading pronunciation with the long inherent vowel, no vowel symbol is written. Such unstressed presyllables are pronounced in normal speech with the short vowel /a/ or /ɔ/ (depending on the series of the initial consonant symbol), and in rapid speech with the vowel /ə/. Presyllables containing a single initial consonant usually consist of a consonant which is a reduplication of the initial of the stressed second syllable, although the consonants /m r l/ also occur as initials of non-reduplicative presyllables. Presyllables containing two initial consonants consist of the clusters /pr-, tr-, cr-, kr-, or sr-/ (with pr- most common), with /r/ written as a subscript ្រ .

កក ឆ	/kakaay/ ~ /kəkaay/	to scratch about
ច្រត	/cɔcək/ ~ /cəcək/	to peck at
ត្រល	/tɔtuəl/ ~ /tətuəl/	to receive
ត្រប	/rɔbah/ ~ /rəbah/	thing

မၢ်လၢၣ် ¹	/mənuh/ ~ /mənuh/	human being
ပြေၣ်ကၢၣ်	/prənəŋ/ ~ /prənəŋ/	to compete
ပြေၣ်လၢၣ်	/prəlɪm/ ~ /prəlɪm/	dawn
ပြေၣ်လၢၣ်	/srələñ/ ~ /srələñ/	to like

c) In polysyllabic words, when the consonant symbols **ဗ** /baa/ and **မ** /moo/ occur initially and before a following -**ၣ်**-/r/, they are pronounced with their inherent vowels, long in careful speech and short in colloquial; before other consonants, the short vowels /a/eə/oə/ occur (see 3 below).

/baa/:	ဗၣ်ဗုၣ်	/baaribou ~ baribou/	excellent
	ဗၣ်ဗုၣ်	/baariphook ~ bariphook/	to eat
	ဗၣ်ဗုၣ်	/baarisot ~ barisot/	pure
/moo/:	မၢ်လၢၣ်	/mooərənaq ~ mərənaq/	to die (eleg)
	မၢ်လၢၣ်	/mooərəkat ~ mərəkat/	emerald

2. The Short Inherent Vowel (/a/u/uə/)

a) Any sequence of two consonants without an intervening vowel symbol, the second of which carries a **ဗ** /bantaq/ (**း**) is pronounced with the short inherent vowel: /a/ after 1st series initial consonant symbols, and, after 2nd series consonant symbols, /u/ before a labial consonant, and /uə/ elsewhere.

ဗၣ်	/bat/	to turn
လၢဗ	/chup/	to stop
လၢ	/luəq/	to sell

b) Some words contain sequences of two consonant symbols which are pronounced with the short inherent vowel even though the second symbol does not carry the /bantaq/. Such words constitute exceptions to rule 1-a above, since

1. This word is sometimes written conjunctively **ဗလၢၣ်**, implying that the first two consonants are pronounced as a cluster /mnuh/, which may in fact be the case in rapid speech.

such spellings normally indicate the long inherent vowel. Some of the commonest words with this spelling are listed below:

សម	/sam/	proper	សង្គម	/saŋkum/	society
សព	/sap/	corpse	ប្រាកដ	/praakat/	exact
និគ	/cuən/	people	ជីវិត	/ciədaŋ/	Jataka
រថ	/ruət/	car	ពិភព	/pipħup/	world

c) A few stressed syllables that are spelled with a silent final subscript but no /bantaŋ/ are pronounced with the short inherent vowel. (Most words that have this spelling, however, are pronounced as if they were written with a short

វ័ ; see section 3-a.) Some common words of this kind are listed below.

សព្វ	/sap/	every	ព្រះសង្ឃ	/preəh-saŋ/	priest
វង្ស	/wuəŋ/	circle, family	ប្រពន្ធ	/pra:pəŋ/	wife

d) In all disyllables whose first syllable has no written vowel but ends in a nasal consonant symbol, the first syllable is pronounced with the short inherent vowel (with certain exceptions as shown in section 3-c below) with distribution as described in 2-a above. In such presyllables, as in those described in section 1-b above, the vowel is reduced in rapid speech to /ə/.

សម្រាប់	/samrap ~ səmrap/	for
កញ្ចប់	/kañcap ~ kəñcap/	parcel
កណ្តាល	/kandaal ~ kəndaal/	center
សង្កាត់	/saŋkat ~ səŋkat/	section, quarter
កម្មវិធី	/kumpii ~ kəmpii/	scriptures
ពន្លឺ	/puənlii ~ pənlii/	light
ពង្រីក	/puəŋriik ~ pəŋriik/	to spread, broadcast

e) Whenever the diacritic ័ (និក្ខេប័ត្ត /niqkəhət/) appears over a con-

sonant symbol with no written vowel, the syllable is pronounced with the short inherent vowel plus /-m/: /-am/ after a 1st series consonant symbol and /-um/ after a 2nd series consonant symbol.

စံ	/cam/	exact	ခံ	/kham/	to try to
တံ	/tum/	to perch	နံ	/num/	cake

The common word စံ /thom/ 'to be big' is an exception. Although it is pronounced /thom/ in most dialects, in some dialects it has the regular pronunciation /thum/.

In disyllables, presyllables of shape /CVm-/ are commonly written with the /niqkəhət/. In such syllables the vowels /a/ and /u/ are reduced in rapid speech to /ə/ as in 2-d above.

ကံလာကံ	/kamnat ~ kəmnat/	to fix, agree on	ဗံနံ	/cumniə ~ cəmnɪə/	belief
တံခံလာကံ	/cəmnaek ~ cəmnæc/	part, share	ကံနံ	/kumnɪt ~ kəmnɪt/	thought

3. The Short Vowels /a/eə/oə/

All other syllables involving unwritten vowels are pronounced as if they were written with the short vowel symbol -၇- ; i.e. /a/ after a 1st series consonant symbol, and /eə/ or /oə/ after a 2nd series consonant symbol (see Chapter VII, A 1 b for distribution).

a) Stressed syllables that are written with a silent final subscript but no vowel symbol are typically pronounced as if they were written with the vowel symbol

-၇- . (A few such words, however, are pronounced with the short inherent vowel; see section 2-c above.) Some of the more common words of this type are listed below.

လံ	/sap/	sound	ယံ	/yeəq/	demon
တံ	/sat/	animal	တံ	/troəp/	wealth
ကံ	/kam/	fate	ဟံ	/prawəət/	history
ခံ	/khan/	the symbol	လံ	/sambat/	possessions

b) In words of more than one syllable (other than the types already discussed in sections 1 and 2 above), consonant symbols with no written vowel are pronounced as separate syllables with the vowel /a/ or /eə/ (depending on the series) when stressed, and /ə/ when unstressed. When stressed, such syllables are pronounced with an unwritten final glottal stop /-q/; i.e. /-aq/ and /-eəq/.

ကံ	/qaqrun ~ qərun/	dawn
ကံ	/qanaakuət/	future

យុគលេខប័ណ្ណ /yukləəqpintuq/ the symbol :
 សហរដ្ឋ /səhaqröt/ republic

The following very literary word is an extreme example of a sequence of consonant symbols, each of which is pronounced as an independent syllable:

បដិមាព្រះវិញ្ញាណៈ /pathəmaq-puttəwaccənaq/ first words of the Buddha

The stressed finals /-aq/ or /-əəq/ are sometimes indicated in the writing system by the use of the /yukləəqpintuq/ (:) when they occur in a final syllable, or preceding an internal juncture within a compound (see Chapter VII, A 9 b):

ត្រូវៈ /thureəq/ preoccupation
 ថ្នាក់ៈ /thaanaq/ position
 កណៈកម្មការៈ /kənaq-kamməkāa/ commission

In learned vocabulary borrowed from Sanskrit and Pali, a consonant symbol which is pronounced in learned speech as an independent syllable may be pronounced in more colloquial speech as the final consonant of the preceding syllable:

បដិមា /pathamaq/ ~ /patham/ first
 យុគលេខប័ណ្ណ /yukləəqpintuq/ ~ /yukkuəlpintuq/ the symbol -:

c) In some words whose second consonant symbol serves as the final of the first syllable, the first syllable is pronounced with the short vowel /a/ or /əə/, depending on the series.

សច្ចា /saccaa/ to promise បច្ចុប្បន្ន /paccoban/ the present
 សត្រូវ /sattrəw/ enemy វិណ័យប័ណ្ណ /wəənnəyut/ diacritic

In some words whose second consonant is វិ, an initial 2nd series consonant symbol is pronounced with a 1st series rather than a 2nd series vowel:

វិញ្ញាណៈ /raccənaa/ fine arts, crafts
 វិញ្ញាណុក្រម /waccənaanukram/ dictionary

In some disyllables with a medial double palatal nasal ញ្ញ, the first syllable has the vowel /a/, rather than the short inherent described for disyllables of this kind in section 2-d above.

កញ្ចាញ /kañña/ young woman

សញ្ញាញ /sañña/ sign, indication

d) The unwritten vowel /eə/ occurs in one very common word whose spelling is irregular with respect to initial cluster, series, and vowel:

នេត្ត /neəq/ familiar 2nd person pronoun

B. UNWRITTEN CONSONANTS

1. Internal Doubling

In many words of more than one syllable, a medial consonant symbol serves both as the final consonant of one syllable and the initial consonant of the next; phonologically the consonant is doubled, and the extra syllable, if no vowel is written, is pronounced with the short vowel /a/eə/ (depending on the series) if stressed, and /ə/ if unstressed. (See section A 3 b)

-ត- > /-tt-/ ចេត្តា /caettənaa/ to like

សត្រូវ /sattrəw/ enemy

-ត- > /-td-/ ចេត្តាស្តុប /caetdəy/ stupa

-ច- > /-cc-/ ចេត្តា /raccənaa/ art

-និ- > /-cc-/ ការងារស៊ីវិល /riəccəkəa/ civil service

-ក- > /-kk-/ ឯករាជ្យ /qaekkeriəc/ independent

-ល- > /-ll-/ ពលរដ្ឋ /puəllərəət/ citizenry

-ស- > /-hs-/ សាសនា /saahsənaa ~ sahsnaa/ religion

សាស្ត្រាចារ្យ /saahstraaciaa/ professor

2. Unwritten /-q/ after Stressed Short Vowels



a) The unwritten vowels /a/eə/, when stressed, are followed by a final /-q/, both medially and finally.

Medially: គមន្តស្រ្ត /qaqmənuh/ inhuman (supernatural)

គមន្តស្រ្ត /qaqphiy/ fearless

Finally: គមន្តស្រ្ត /qaqkhoosaq/ voiceless

រយៈ /rəyəəq/ interval

b) The short vowels  and , when no final consonant is written, are pronounced, when stressed, with a final /-q/. Medially this final /-q/ tends to occur after all such vowels in a careful or reading pronunciation, but disappears with loss of stress in a more colloquial pronunciation. It always occurs finally.

Medially: ករុណា /kaqruqnaa ~ karunaa ~ kənaa/ mercy

កិរិយា /keqriqyaa ~ keriyaa/ conduct

Finally: លាតិកា /latthiq ~ ləthiq/ belief, precept

អាយុ /qaayuq ~ qayuq/ age

សីហនុ /siihanuq/ Sihanouk

c) There is one example of an unwritten final /-k/.

តុ /tok/ table

X. IRREGULAR SPELLINGS

In the preceding sections we have been dealing primarily with the "regular" aspects of the Cambodian writing system, in the sense that the pronunciation of any symbol or sequence of symbols could be unambiguously predicted, given sufficient information about the environment of the symbol, or about the composition of a constellation of symbols. The purpose of this section is not to provide an exhaustive list of irregularities, such as those found in only one or two words, but rather to point up irregular spellings which occur in enough words to constitute "sub-systems" of the writing system. The first three irregularities below have already been encountered in the preceding chapters, but are included here to provide an inventory of the major sub-systems.

1. /ɑ/ũə/ instead of /ɑɑ/ɔɔ/

Some syllables spelled with a sequence of two consonant symbols are pronounced with a short vowel /ɑ/ or /ũə/, rather than with the expected long /ɑɑ/ or /ɔɔ/ (see Chapter IX, A 1 a).

សម	/sɑm/	proper		(cf. សម	/sɑɑm/	fork)
រថ	/ruət/	car		(cf. រក	/rɑɑk/	search for)

2. /ɑ/ũə/ instead of /ɑ/ěə/ǒə/

Some syllables spelled with a sequence of two consonants the second of which has a silent subscript, are pronounced with the short inherent vowel /ɑ/ or /ũə/, rather than the usual /ɑ/, /ěə/ or /ǒə/ (see Chapter IX, A 3 b).

សព្វ	/sɑp/	every		(cf. សព្វ	/sɑp/	sound)
យន្ត	/yuən/	motor		(cf. យន្ត	/yeəq/	demon)

3. Exceptions to the Governance Rule

As a rule, the pronunciation of a vowel symbol is determined by the series of a preceding dominant consonant symbol (see Chapter VI, B). In some disyllabic and polysyllabic words, however, a passive 2nd series consonant symbol does not yield to a preceding dominant 1st series consonant symbol.

កន្លែង	/qɑŋrɨŋ/	hammock		(cf. កម្រិត	/qɑŋwɑɑ/	to beg)
ឯករាជ្យ	/qɑekkəriəc/	independence		(cf. សករាជ	/sɑqkəraac/	era)

In some disyllables whose second syllable begins with the normally dominant 1st series ហ , the ហ is dominated by a preceding 2nd series consonant symbol.

តាហ្គាង	/tiəhiən/	soldier	(cf. ម្ហូប /mhoup/ food)
វិហារ	/wihə/	temple	(cf. រហូត /rəhout/ until)

4. Silent Final Short Vowel Symbols

Some words are spelled with an unpronounced final short vowel symbol:

ភូមិ	/phuum/	village	(cf. ល្មើស /ləthiq/ precept)
ជីវិត	/ciət/	life	(cf. បញ្ជី /matteq/ decision)
ញាតិ	/ñiət/	relative	
ក្រសួង	/kot/	monk's quarters	
ប្រវត្តិ	/prawōət/	history	
ហេតុ	/haet/	reason	(cf. វិធាន /wōəthoq/ artifact)
សាសនា	/thiət/	cremated remains	

5. /ae/εε/ instead of /ei/ee/

In some words, the vowel symbol ខ័ - is pronounced as if it were ខ័ - ; i.e. /ae/ in 1st series and /εε/ in the 2nd. Below are some of the most common of these words:

ខេត្ត	/khaet/	province	
គ្រូបង្ហាត់	/pεet/	doctor	
ប្រាសាទ	/caetdəy/	stupa	
បំបាត់	/patdesaet/	to cancel, destroy	
ចូរ	/caettənaa/	to like	(cf. វិវិសា /weetəniə/ miserable)
ហេតុ	/haet/	reason	

6. /əy/ instead of /e/

The vowel symbol ខ័ - in some words is pronounced as if it were written ខ័ - when it occurs in a non-final syllable.

បិតា /bəydaa/ father

ស្នែង /səytaa/ (~ /seqlaa/) stone

ប្លែកៗ /bəysaac/ ghost

7. /a/ instead of /ə/

In a few words the constellation វ-្រ with a 1st series consonant symbol is pronounced /-ac/ rather than the regular /-əc/:

ស្រេច /srac/ completely (cf. ម្រេច /məc/ why)

ស្រេច /səmrac/ to finish

ស្រួច /sdac/ King

ស្រួចៗ /səmdac/ royal title

Last vertical element second

Consonants: ឃ ង ឃ ឃ

Vowels: ខ-ៗ ខ-ៗ ខ-ៗ

Top left hook added second

Consonants: ង ង ង

Lower element second

Subscript: ៗ Vowel: ៗ Independent vowels: ៗ ៗ ៗ ៗ

c) Three strokes

Consonants: ង ង

Vowels: ៗ, ៗ, ៗ, ៗ, ៗ

Independent vowels: ៗ ៗ

d) Four strokes

Vowels: ៗ, ៗ, ៗ Independent vowel: ៗ

2. The Symbol ៗ or ៗ

The vowel symbol ៗ or ៗ, in both written and printed styles, is usually attached to, or written as a continuation of, a preceding consonant symbol.

a) In consonant symbols surmounted by a /sq/ (ៗ), the /sq/ is extended and attached to a following ៗ, as follows:

ក កា, ក កិ, ក កា, ក កា, ក តា, ក តិ, ក ភិ

b) The sequence ង + ៗ is written ងា /baa/ to distinguish it from the sequence ងា /caa/ (shown above), and from ងា /haa/.

c) ៗ is written as a continuation of the preceding consonant symbol in the following sequences:

ឃ កិ	ង តិ	ង យិ	ង លា
ង កិ	ង តិ	ង រិ	ង កា
ង កិ	ង និ	ង លិ	
ង កា	ង មិ	ង សា	

d) -ៗ is attached to the following consonant symbols:

ខា	khaa	ដា	diə	ពា	piə	វា	wiə
ងា	ŋiə	ណា	naa	ផា	phaa	ហា	haa
ញា	ñiə	ថា	thaa				

3. Word Composition

In composing words, all “on-the-line” symbols, whether consonants or vowels, are written in a sequence from left to right. In vertical combinations, first all subscript symbols, and then all superscript symbols, are added before proceeding to the next “on-the-line” symbol, except for the vowel symbols -ៗ, -ៗ, or ៗ- , which are completed before writing the subscript. The sequence of writing steps is shown in the following examples:

Step 1	Step 2	Step 3	Step 4	Step 5		
1) ប	ប្ត	ប្ត្រ			/pdəy/	husband
2) ស	សា	សា្ត	សា្តប	សា្តប្ត	/sdap/	to hear
3) ប	បង្ក	បង្ក្រ	បង្ក្រ	បង្ក្រប	/bankhouc/	to ruin
4) ប	បន	បន្ត	បន្ត្រ	បន្ត្រក	/bankaet/	to originate

A /cəəŋ rəw/ ្រ is added after the consonant, or consonant + ៗ, to which it is subscript, and before a superscript vowel, and is usually drawn large enough to include a subscript consonant symbol. When it is not the initial element in a word, a small space is left preceding the consonant symbol to which it is subscript to accommodate its later addition, as in the following examples:

Step 1	Step 2	Step 3	Step 4	Step 5		
1) ស	្រស	្រស្រ			/srəy/	woman
2) ត	តប	ត្រប	ត្រប្រ	ត្រប្រន	/craən/	much, many
3) ស	ស មា	ស្រមា	ស្រមាប	ស្រមាប្ត	/samrap/	for
4) ត	ត ន	ត ន្ត	ត ន្ត្រ	ត ន្ត្រ	/dantrey/	music

However, the /cəəŋ rəw/ is written before (in time), and usually does not include,

a following subscript vowel symbol or the second part of the composite vowel symbols ្រ and ្ល :

Step 1	Step 2	Step 3	Step 4	Step 5		
1) ប					/proh/	male
2) ត					/trəw/	correct
3) ត					/truət/	to examine
4) ប	ប	ប្រ	ប្រ	ប្រប	/priəp/	to compare
5) ត	ត	ត្រ	ត្រ	ត្រ	/kriəŋ/	accessory

B. STYLES OF SCRIPT

There are two basic styles of script in modern Cambodian: ក្រអួប្រាស្រ្ត /qaqsaa criəŋ/ 'slanted script', and ក្រអួប្រាស្រ្តឃ្លាត /qaqsaa muul/ 'round script'.

The first is by far the more common, and is used for running texts in publications of all kinds, such as novels, textbooks, and newspapers. A variation of this,

ក្រអួប្រាស្រ្តឃ្លាត /qaqsaa chəw/ 'standing script' is simply a vertical form of the

slanted script, and is used for chapter headings or subtitles, and in some publications replaces the slanted script entirely. The second style, /qaqsaa muul/, is more archaic and much more elaborate. While most of the letters are similar in

shape to their slanted counterparts, a few, notably ក /kaa/, ង /ŋəw/, គ /nəw/, and ត /təw/, have entirely different shapes, and must be learned by the student in addition to the basic slanted forms. This elaborate script is used for titles of books, major headings, newspaper headlines, religious texts, proper names, and inscriptions on public monuments and buildings. /qaqsaa muul/ also has a variant, ក្រអួប្រាស្រ្តខ្មែរ /qaqsaa khəam/ 'Cambodian script', which differs

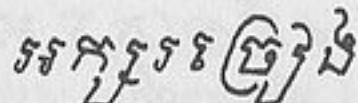
from /muul/ only slightly, but which seems actually to be in more common use than /muul/, although both forms are commonly referred to as /muul/ by the general public. These four styles of script can be compared in the following concordance.

Concordance of Script Styles

	<u>Slanted Script</u>	<u>Standing Script</u>	<u>Round Script</u>	<u>Cambodian Script</u>
1.	ក	ក	ក	ក
2.	ខ	ខ	ខ	ខ
3.	គ	គ	គ	គ
4.	ឃ	ឃ	ឃ	ឃ
5.	ង	ង	ង	ង
6.	ច	ច	ច	ច
7.	ដ	ដ	ដ	ដ
8.	ន	ន	ន	ន
9.	ល	ល	ល	ល
10.	ឃ្លា	ឃ្លា	ឃ្លា	ឃ្លា
11.	ដួ	ដួ	ដួ	ដួ
12.	ថ្ងៃ (ថ្ងៃ)	ថ្ងៃ (ថ្ងៃ)	ថ្ងៃ (ថ្ងៃ)	ថ្ងៃ (ថ្ងៃ)
13.	ក្រ	ក្រ	ក្រ	ក្រ
14.	ស	ស	ស	ស
15.	ណា	ណា	ណា	ណា
16.	ត	ត	ត	ត
17.	ប្រ	ប្រ	ប្រ	ប្រ
18.	ទ	ទ	ទ	ទ
19.	ដ	ដ	ដ	ដ

	<u>Slanted Script</u>	<u>Standing Script</u>	<u>Round Script</u>	<u>Cambodian Script</u>
20.	ន	ន	ន	ន
21.	ប	ប	ប	ប
22.	ជ	ជ	ជ	ជ
23.	ព	ព	ព	ព
24.	ក	ក	ក	ក
25.	ម	ម	ម	ម
26.	ឃ	ឃ	ឃ	ឃ
27.	រ	រ	រ	រ
28.	ល	ល	ល	ល
29.	វ	វ	វ	វ
30.	ស	ស	ស	ស
31.	ហ	ហ	ហ	ហ
32.	ឡ	ឡ	ឡ	ឡ
33.	ឥ	ឥ	ឥ	ឥ

C. SAMPLES OF HANDWRITING STYLES

The style of script used throughout this book, except in Selection 50 of the Reader, which is typewritten, is that of carefully written 

/qaqsaa criəŋ/ ‘slanted script.’ Following are four samples of handwritten styles: careful and rapid masculine handwriting, and careful and rapid feminine handwriting. The text used in all four samples is taken from Selection 16 of the Reader (Part Three), as follows:

/taə look-qəwpuk niŋ neəq-mdaay sok-sapbaay ciə ri:i-tee? camnaek koun wiñ, sok niŋ tuk ciə kaa-thoəmmədaa. səp-tŋay-nih, kaa-ruəh-niw knoŋ salaa twəə qaoy koun miən cət nik-rəlik dəl pteəh niŋ kruəsaa ciə riəy-riəy/

‘I hope that you (Father and Mother) are well. As for me, things are going as

usual. These days, life in school makes me continually homesick for my home and family.'

1. Careful Masculine Style

តើលោក ឪពុក និង ម្តាយ មាន អាយុ ប៉ុន្មាន ឆ្នាំ ? ចំណែក
កូន វិញ មាន អាយុ ប៉ុន្មាន ឆ្នាំ ? ឪពុក ម្តាយ មាន ការងារ អ្វី ?
សាលា ឪពុក មាន ចំនួន គ្រូ បង្រៀន ប៉ុន្មាន គ្រូ ? មាន គ្រូ ណា ណា ឡើយ ?

2. Rapid Masculine Style

តើលោក ឪពុក និង ម្តាយ មាន អាយុ ប៉ុន្មាន ឆ្នាំ ? ចំណែក
កូន វិញ មាន អាយុ ប៉ុន្មាន ឆ្នាំ ? ឪពុក ម្តាយ មាន ការងារ អ្វី ?
សាលា ឪពុក មាន ចំនួន គ្រូ បង្រៀន ប៉ុន្មាន គ្រូ ? មាន គ្រូ ណា ណា ឡើយ ?

3. Careful Feminine Style

តើលោក ឪពុក និង ម្តាយ មាន អាយុ ប៉ុន្មាន ឆ្នាំ ? ចំណែក
កូន វិញ មាន អាយុ ប៉ុន្មាន ឆ្នាំ ? ឪពុក ម្តាយ មាន ការងារ អ្វី ?
សាលា ឪពុក មាន ចំនួន គ្រូ បង្រៀន ប៉ុន្មាន គ្រូ ? មាន គ្រូ ណា ណា ឡើយ ?

4. Rapid Feminine Style

តើលោក ឪពុក និង ម្តាយ មាន អាយុ ប៉ុន្មាន ឆ្នាំ ? ចំណែក
កូន វិញ មាន អាយុ ប៉ុន្មាន ឆ្នាំ ? ឪពុក ម្តាយ មាន ការងារ អ្វី ?
សាលា ឪពុក មាន ចំនួន គ្រូ បង្រៀន ប៉ុន្មាន គ្រូ ? មាន គ្រូ ណា ណា ឡើយ ?

D. TYPEWRITTEN STYLE

Cambodian typescript is currently available from only three companies: Adler, Olympia (both of West Germany), and Varitype (U.S.A.). Both Adler and Olympia use the keyboard designed by Mr. Keng Vansak, Dean of the Faculty of Letters in Phnom Penh. This keyboard is less than satisfactory from several points of view: the style is far less pleasing than almost any style of printed Cambodian in com-

mon use; since Cambodian consonant symbols vary greatly in width (e.g. ឆ vs. ង), the necessity of assigning each symbol the same amount of space on the keyboard results in highly artificial spacing; and there are not enough keys on a standard keyboard to accommodate all the different elements of the Cambodian writing system, so that many symbols must be composed of elements which do double or triple duty. The style used by the Varitype machine is more satisfactory from an aesthetic point of view, although the subscript consonants are unnaturally small; the major difficulty is that the Varitype machine is designed to accommodate many different writing systems by installing a different bank of type for each language. The great number of different elements in the Cambodian writing system make it necessary to use two banks, or hemispheres, so that it is necessary to rotate the banks while typing, sometimes in the middle of a word, making it a very cumbersome and time-consuming procedure.

The sample shown below was typed on an Adler machine; the text is the same as that used in the handwritten samples in C above.

តើលោកឪពុកនឹងអ្នកម្តាយ សុខសប្បាយជាប្រទេស ចំណែកកូនវិញសុខនឹងទុក្ខ
 ជាការធម្មតា ។ សព្វថ្ងៃនេះការសង់នៅក្នុងសាលា ធ្វើឱ្យខ្ញុំ
 នឹកឮកង់ផ្លូវនឹងគ្រួសារជានិច្ច ។ ។

E. SAMPLES OF PRINTED STYLES

Cambodian publications use a great variety of attractive and artistic printed styles. Samples 1-5 below illustrate the first five consonant symbols of the Cambodian alphabet in slanted, standing, Cambodian, round, and shaded Cambodian styles respectively. Sample 6 is the standard slanted script (/qaqsaa criəŋ/) which is used for running text in newsprint and most books. Sample 7 illustrates the standing script (/qaqsaa chəw/) which is used in subheadings and running text in some books; e.g., Volumes I - IV of the Buddhist Institute's Collection of Cambodian Folktales (Item 5 in the Bibliography) are printed entirely in this standing script. Samples 8 and 9 are in Cambodian style (/qaqsaa khəom/), which is generally used for titles, proper names, and inscriptions on signs and public buildings; although it is technically /qaqsaa khəom/, it would be referred to by the generic term /muul/ by the general public. Samples 8 - 15 were all taken from the weekly publication /neəq ciət nyum/ (The Nationalist), which illustrates the great variety of display styles that may occur in a single publication.

The text of each sample is transcribed and translated below as an aid to the student in reading the unfamiliar styles of script.

- 1-5. (The first five letters of the Cambodian alphabet, with subscripts.)
- 6. /qəwpuk-mdaay klah bandaoy koun touc-touc qaoy cee-bañcao kñom-kamdaa. cuən-kaal koun nuh way-dam-cram-theəq phaaŋ haq-douc ciə miən qaamnaac niŋ twəə-baap neəq-kamsat-tuurəkuət taam cət pipruəh-tae kluən kaət laəŋ miən sambat-troəp./

'Some parents allow even quite small children to insult their servants. Sometimes these children even beat and kick their servants, as if they had the right to mistreat poor unfortunates as they wish just because they were born wealthy.'

7. /cou yəəŋ kom prəmaat məəŋ-ŋiəy baaw-priəw yəəŋ/
'Let's not mistreat our servants.'
8. /ween-yiəm daəmbəy bəmraə saathiərənaqcuən nɨw kroŋ pnum-piñ/
'Remaining open to serve the public in Phnom Penh'
9. /qəmpəə-clien-piən nɨy kəəŋ-toəp . . . / 'the army's aggression . . .'
10. /ciət, sahsnaa, riəc-baalaŋ/ 'Nation - Religion - Throne'
11. /nəəŋ ciət niyum/ 'The Nationalist'
12. /preəh-sənnisət pəədamiən/ 'Royal Press Conference'
13. /khaet stiŋ-traeŋ/ 'Stung Treng Province'
14. /kaa-samŋat/ 'Confidential'
15. /baərətəeh/ 'Abroad'

1. ក ខ គ ឃ ង
ក ខ គ ឃ ង

2. ក ខ គ ឃ ង
ក ខ គ ឃ ង

3. ក ខ គ ឃ ង
ក ខ គ ឃ ង

4. ក ខ គ ឃ ង
ក ខ គ ឃ ង

5. ក ខ គ ឃ ង

6. ឥតកម្មាយទ្វះបណ្តោយកូនតូចៗ ឲ្យដេរបណ្តោរខ្ញុំក៏ដរ ជួនកាលកូននោះ
 វាយដំប្រំណាក់ផង ហាក់ដូចជា មានអំណាចនឹងធ្វើបាបអ្នកកំសត់ទុក្ខតាមចិត្ត
 ពីព្រោះតែខ្លួនកើតឡើងមានសម្បត្តិទ្រព្យ ។

7. ចូរយើងកុំប្រមាថិមាក់ងាយ បារព្រាវិយើង

8. ចេនយាម ដើម្បីបំរើសាធារណជន នៅក្នុងភ្នំពេញ

9. **អំពើល្មោងពាននៃកងទ័ព**

10. **ជាំគិ សាសនា ពង្រមង្គិទ**

11. **អ្នកជាំគិនិយម**

12. **ព្រះស្និសីន សារពើមាន**

13. **ខេត្តស៊ីអង្ករ**

14. **ការសម្រួល**

15.

A large, stylized Khmer word 'ប្រទេស' (Préah Sê) is displayed in a bold, outlined font. The characters are thick and have a black outline, giving them a three-dimensional appearance. The word is centered on the page.

I. INTRODUCTION

Part One of this book presents a formal analysis of the relationship between sound and symbol in modern Cambodian. The purpose of this section is to provide the student with a step-by-step introduction to reading and writing Cambodian words. Each exercise introduces a small amount of new material. The exercises are cumulative, building on and reinforcing points that have already been introduced. Periodic review exercises provide a test of the student's progress, and refer by number to the exercise in which each point was first introduced. The student should go back and review the exercise dealing with any point in the review exercise with which he has difficulty.

Since the primary aim of this section, and indeed, of the entire book, is to develop facility in reading, the great majority of the exercises involve a symbol-to-sound operation. However, some of the exercises involve a sound-to-symbol operation (much less predictable in Cambodian), since it is felt that the most effective way to help the student recognize the sometimes minute differences between symbols is to have him draw them himself.

As in Part One, it is assumed that the student is familiar with the transcription system used in the author's Spoken Cambodian, of which a summary is presented for convenience below.

However, if the student is unfamiliar with the sound system of spoken Cambodian, or if he intends to use this section without the aid of a native speaker, he should read carefully the chapter on Phonology in Part One. To use this section effectively, the student should follow these directions:

- 1) Cover the answer to each exercise (marked A.) with a blank sheet of paper.
- 2) Write the answer called for on the paper, and pronounce it aloud.
- 3) Check your answer against the correct answer which follows each exercise.
- 4) If you have made a mistake, practice the exercise until you can do it correctly from memory.

II. PHONOLOGICAL SUMMARY








Consonants

	Labial	Dental	Palatal	Velar	Glottal
Stops:					
Voiceless	-p	-t	-c	-k	-q
Voiced	b	d			
Spirants:					
Voiceless	(f)	s			-h
Continuants:					
Nasal	-m	-n	-ñ	-ŋ	
Semivocalic	-w		-y		
Lateral		-l			
Trilled		r			

Vowels

Long Vowels			Long Diphthongs			Short Vowels			Short Diphthongs	
ii	ɨɨ	uu	iə	ɨə	uə	i	ɨ	u	uə	
ee	əə	oo	ei	əi	ou	e	ə	o	eə	oə
ɛɛ	aa	ɔɔ	ae	aə	ao	a				
	ɑɑ			ə		ɑ				
	(10)			(10)		(8)			(3)	

III. CONSONANTS

- There are 33 consonant symbols in the Cambodian writing system. How many different consonant sounds are there in the Cambodian language (refer to Phonological Summary)?
A. 18
- Thus there are about twice as many consonant symbols as are needed to represent the consonant sounds of the language. In fact there are two ways to represent every consonant sound, so that there are actually two series of consonant symbols in the Cambodian writing system. The pronunciation of a vowel symbol is determined by the series to which the preceding consonant symbol belongs. Every vowel symbol then has _____ values or pronunciations.
A. 2
- When a consonant symbol is written alone, with no accompanying vowel symbol, it is pronounced with an "inherent" vowel. The inherent vowel with which 1st series consonant symbols are pronounced is /ɑɑ/. The first letter of the Cambodian alphabet is . It is a 1st series consonant which represents the sound /k/. Write, transcribe, and pronounce the symbol  with its inherent vowel.
A.  kɑɑ
- When a 2nd series consonant symbol is written with no accompanying vowel symbol, it is pronounced with the "inherent" vowel /ɔɔ/. The 2nd series consonant symbol representing /k/ is . Write, transcribe, and pronounce it.
A.  kɔɔ
- The initial consonant sequences /kh-, ch-, th-, ph-/ are represented by unit symbols, although phonologically they are clusters. The 1st series symbol for the cluster /kh-/ is . Write, transcribe, and pronounce it.
A.  khaa

6. The 2nd series symbol for /kh-/ is ខ្ម . Write, transcribe, and pronounce it.

A. ខ្ម khoo

7. All nasal symbols (except ន័រ /n/), when unmodified, are pronounced with the 2nd series inherent vowel, and are classed as 2nd series consonant symbols. (The conversion of nasal symbols to 1st series will be discussed later.) The symbol for the velar nasal /ŋ/ is ង្គ . Write, transcribe, and pronounce it.

A. ង្គ ញ៉

8. You have now been introduced to the first five letters of the Cambodian alphabet. They are: ក ខ គ ឃ ង . The Cambodian alphabet is divided into five groups, based on position of articulation, proceeding from the back to the front of the mouth, and one residual group usually labeled miscellaneous. The letters in the group above are all Velars. Within each articulatory group, the order of letters is as follows:

1st series unaspirated consonant symbol (ក)

1st series aspirated consonant symbol (ខ)

2nd series unaspirated consonant symbol (គ)

2nd series aspirated consonant symbol (ឃ)

2nd series homorganic nasal (ង)

Write, transcribe, and pronounce the Velar series above.

A. ក kaa, ខ khaa, គ koo, ឃ khoo, ង ញ៉

9. Every vowel symbol (with the exception of three, which will be discussed later) has two pronunciations, depending on the series of the initial consonant. In spelling a word aloud, however, Cambodians usually refer to vowel symbols by their 1st series values, regardless of the series of the preceding consonant. The vowel symbol -្ម is called /sraq qaa/ 'the vowel qaa'. Its first series value is /aa/. ក + ្ម is written ក្ម . Write, transcribe, and pronounce it.

A. ក្ម kaa

10. The second series value of -្ម is /iə/. គ + ្ម is written គ្ម . Write, transcribe, and pronounce it.

A. គ្ម kiə

11. Write, transcribe, and pronounce the following syllables: ខា ឃា ងា

A. ខា khaa, ឃា khiə, ងា ញ៉

12. ច is the 1st series consonant symbol for /c/. Its 2nd series counterpart is ន . Write, transcribe, and pronounce the syllables ចា and នា .

A. ចា caa, នា ciə

13. The second group of consonant symbols in the Cambodian alphabet are the Palatals. They are: ច /caɔ/, ឆ /chaɔ/, និ /ciə/, ឆា /chaə/, and ញ /ñiə/. Write, transcribe, and pronounce each of them in combination with the vowel symbol ា .

A. ចា caa, ឆា chaa, និ ciə, ឆា chə, ញា ñiə

14. The vowel symbol េ is called /sraq qəy/. Its 1st series value is /əy/ and its 2nd series value is /ii/. Write, transcribe, and pronounce the syllables កេ and កិ .

A. កេ kəy, កិ kii

15. You should now be able to read 30 different Cambodian syllables, as follows:

ក ខ គ ឃ ង ច ឆ ន ល ញ
 កា ខា កា ឃា ងា ចា ឆា នា លា ញា
 កេ ខេ កិ ឃិ ងិ ចិ ឆិ និ លិ ញិ

Transcribe and pronounce them.

A. kaa, khaa, kəy, khəy, kii, khii, ɲiə, cəy, chəy, cii, chii, ñiə, kaa, khaa, kiə, khiə, ɲiə, caa, chaa, ciə, chiə, ñiə, kəy, khəy, kii, khii, ɲii, cəy, chəy, cii, chii, ñii

16. Now take the 30 syllables you have transcribed above and write as many of them as you can using the Cambodian symbols. Refer to the symbols in Exercise 15 only for those symbols you have been unable to remember.

17. The symbols និ /daɔ/, ធិ /thaɔ/, ទ្វិ /dɔə/, ឆា /thəə/, ណា

/naɔ/ are referred to as the Retroflexes, based on their values in the Indian writing system from which the Cambodian writing system is derived. Their position of articulation is not retroflex, however, but dental. They follow the Palatals and precede the "true" Dentals in the alphabetical order. ទ្វិ and ឆា are rare, occurring in only a few loanwords. ណា is the only nasal

symbol which belongs to the 1st series. Transcribe and pronounce the following syllables: ដៃ ថា ទី ដា នា

A. dəy, thaa, dii, thiə, naa

18. Now write the syllables you have transcribed above in the Cambodian alphabet without referring to the symbols in Exercise 17.

19. Notice that ដិ /cɔɔ/ and ដី /daa/ differ only with regard to the top element, referred to as the /sɔq/ 'hair'. Write, transcribe, and pronounce the following syllables: ដា ដា ដៃ ដៃ ដី ដី

A. ដា daa, ដា ciə, ដៃ cii, ដៃ dəy, ដី daa, ដី cɔɔ

20. The vowel symbol is called /sraq qou/. Its 1st series value is /ou/ and its 2nd series value is /uu/. Transcribe and pronounce the following

syllables: ក ក ក ក ខ ខ ឃ ឃ ង ង ញ ញ

A. kou, kuu, cou, cuu, khou, khuu, dou, duu, nou, ɲuu

21. Write each of the above transcriptions in the Cambodian alphabet without referring to Exercise 20.

22. The Dentals of the Cambodian alphabet are as follows:

ត taa, ថ thaa, ន ɲaa, ត ថា, ន ណ

Transcribe and pronounce the following syllables:

ត ត ថា ថា ត ត ថ ថ ថ ថ ថ
 ត ត ថ ថ ថ

A. taa, tiə, thaa, thiə, niə, təy, tii, thəy, thii, nii, tou, tuu, thou, thuu, nuu

23. Write the Cambodian equivalents of the syllables in 22-A above without referring to the exercise.

24. Note that there are two representations for 1st series /thaa/: the Retroflex ថ and the Dental ថ ; and two representations for the 2nd series /thɔɔ/: the Retroflex ឆ and the Dental ឆ . These are the only two

cases of true redundancy among Cambodian consonant symbols. The Dental symbols are far more common in both cases. Write the following syllables two ways: thaa, thaa, they, thou.

A. ថ្លា ថ្លា ថ្លា ថ្លា

25. Write the following syllables two ways: thoo, thio, thii, thuu

A. តូ តូ តូ តូ

26. Note that the 2nd series counterpart of ណា /naa/ is ន /nəw/. Transcribe and pronounce the following syllables:

ណា នា នា នា

A. naa, niə, nəy, nii, nuu, nou, naa, nəw

27. Now write the syllables in 26-A in Cambodian symbols without referring to the exercise.

28. In some printed styles, ឆ /chaa/ and តូ /thoo/ differ in shape only with regard to the height of the right-hand upright and its concluding circle. In written style, however (as below), ឆ /chaa/ usually has a distinguishing loop in the lower left corner. Write, transcribe, and pronounce:

ឆា ឆា តូ តូ

A. ឆា chaa, តូ thio, តូ thuu, តូ chou, ឆា chəy, តូ thii

29. The vowel symbol ខេ - is called /sraq qei/. Its 1st series value is /ei/ and its 2nd series value is /ee/. Transcribe and pronounce the following syllables:

ខេ ខេ ខេ ខេ ខេ ខេ ខេ ខេ ខេ ខេ ខេ

A. kei, kee, dei, cee, tee, tei, nei, thei, kee, chee, nee

30. Now reproduce the syllables in 29-A in Cambodian script without referring to the exercise.

31. You have been introduced to 20 consonant symbols (the Velar, Palatal, Retroflex, and Dental groups of five symbols each) and five vowels (the

“inherent,” ្រ, ្រ, ្រ, and ខេ -), so that you should now be

able to read 100 different Cambodian syllables. Transcribe and pronounce them.

- | | | | | |
|---------|---------|---------|---------|----------|
| 1. ក | 21. ក្រ | 41. គ | 61. គ្រ | 81. គ្រា |
| 2. ក្រ | 22. កា | 42. កា | 62. កា | 82. ក |
| 3. ខ | 23. ខា | 43. ខ | 63. ខា | 83. ខា |
| 4. ខ្រ | 24. ខ្រ | 44. ខ្រ | 64. ខ្រ | 84. ខ្រា |
| 5. ង | 25. ង | 45. ង | 65. ង | 85. ង |
| 6. ងា | 26. ងា | 46. ងា | 66. ងា | 86. ងា |
| 7. ឃ | 27. ឃ | 47. ឃ | 67. ឃ | 87. ឃ |
| 8. ឃា | 28. ឃា | 48. ឃា | 68. ឃា | 88. ឃា |
| 9. ជ | 29. ជ | 49. ជ | 69. ជ | 89. ជ |
| 10. ជ្រ | 30. ជ្រ | 50. ជ្រ | 70. ជ្រ | 90. ជ្រ |
| 11. ត | 31. ត | 51. ត | 71. ត | 91. ត |
| 12. ត្រ | 32. ត្រ | 52. ត្រ | 72. ត្រ | 92. ត្រ |
| 13. តា | 33. តា | 53. តា | 73. តា | 93. តា |
| 14. តា | 34. តា | 54. តា | 74. តា | 94. តា |
| 15. តា | 35. តា | 55. តា | 75. តា | 95. តា |
| 16. តា | 36. តា | 56. តា | 76. តា | 96. តា |
| 17. តា | 37. តា | 57. តា | 77. តា | 97. តា |
| 18. តា | 38. តា | 58. តា | 78. តា | 98. តា |
| 19. តា | 39. តា | 59. តា | 79. តា | 99. តា |
| 20. តា | 40. តា | 60. តា | 80. តា | 100. តា |

34. We will now consider the last of the five articulatory groups of consonants in the Cambodian alphabet, the Labials. They are, respectively, ប /baa/, ផ ផា /phaa/, ព ពា /paa/, ភ ភា /phaa/, and ម មា /maa/. Write, transcribe, and pronounce the following syllables:

ប ផា ពា ភា មា ប

A. ប bəy, ផា phaa, ពា pii, ភា phiə, មា miə, ប mi

35. When ប is followed by the vowel symbol -ៗ, it is written ប្រ /baa/ to distinguish it from ហា /haa/ (to be discussed later) and from ច + ៗ, which is ចា . Write, transcribe, and pronounce the following syllables: ប ប្រ ចា ហា មា

A. ប baa, ប្រ baa, ចា caa, ហា haa, មា miə

36. Notice that ផ ផា /phaa/ differs from ផា ផា /thaa/ only in the uppermost element, or /saq/. Write, transcribe, and pronounce the following syllables:

ផា ផា ផា ផា ផា ផា ផា

A. ផា phaa, ផា thiə, ផា thii, ផា phəy, ផា chəy, ផា phei,

ផា phee

37. The following grid shows the first 25 consonant symbols of the Cambodian alphabet in the order in which they occur in Cambodian dictionaries and in oral recitation. On a separate sheet of paper draw a similar grid with 25 squares and practice until you can reproduce the chart from memory.

	1st Series		2nd Series (except ណ)		
	Unaspirated	Aspirated	Unaspirated	Aspirated	Nasal
Velars	ក kaa	ខ khaa	គ kəə	ឃ khaə	ង ŋəə
Palatals	ច caa	ឆ chaa	ជ cəə	ឈ chaə	ញ ɲəə
Retroflexes	ដ daa	ត thaa	ឌ dəə	ឍ thaə	ណ naa
Dentals	ត taa	ថ thaa	ទ təə	ឝ thaə	ន nəə
Labials	ប baa	ផ phaa	ព pəə	ភ phaə	ម məə

38. The next four letters of the Cambodian alphabet (nos. 26–29 in order) are ឃ /yəə/, រ /rəə/, ល /ləə/, វ /wəə/. Like the nasals, they represent continuants (i.e. are pronounced with voicing throughout) and belong to the 2nd series. (The conversion of continuants to 1st series will be dealt


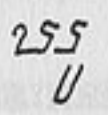
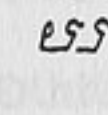
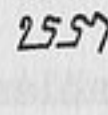
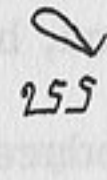
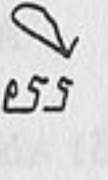
with later.) Notice that វ /wəə/ differs from រ /rəə/ only in having an additional flourish at the top. Write, transcribe, and pronounce the following syllables:









ឃា រា លា វា ឃ រ ល វ

A. ឃា yia, រា ria, លា lia, វា wia, ឃ yii, រ riɨ,
 ល liɨ, វ wii

39. Notice that ឃ differs from ឃ /khaə/ only in that the initial circle is drawn to the right of the first upright rather than to the left. Write, transcribe, and pronounce the following:










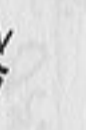
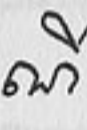
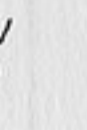
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



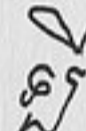



A.  yuu,  khuu,  yiə,  khiə,  khii,  yii














40. The last four letters of the Cambodian alphabet (nos. 30–33) are  /saa/,  /haa/,  /laa/,  /qaa/. They are all pronounced (when unconverted) with the 1st series inherent vowel. Transcribe and pronounce the following syllables:    






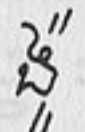
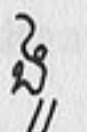
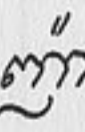
A. saa, hei, laa, qaa, səy, hou, lei, qəy

41. Now write the syllables in 40-A in Cambodian script without reference to the exercise.

42.  /laa/ is the 1st series counterpart of  /law/, parallel with  /naa/ and  /naw/. Write, transcribe, and pronounce the following syllables:        










A.  lai,  liə,  nai,  niə,  lai,  lii,  nai,  nii

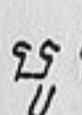
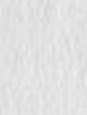
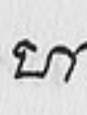

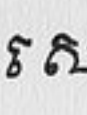
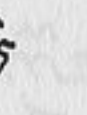
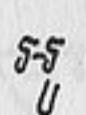

43. The 2nd series continuants  ,  ,  ,  ,  , and  have no separate counterparts in the 1st series. They can be converted to 1st series by the addition of the /museqkətəŋ/ or /tmiñ kandao/ ‘rat’s teeth’ ():  /ɲaa/,  /ṇaa/,  /maa/,  /yaa/,  /raa/,  /waa/. Transcribe and pronounce the following:

A. yaa, yiə, rei, ree, waa, wiə, maa, miə, ɲou, ɲuu, ṇaa, ṇiə

44. Write the syllables in 43-A in the Cambodian script.

45. The 1st series consonants  ,  ,  , and  have no separate counterparts in the 2nd series. They can be converted to the 2nd series by the addition of the /trəysap/ ():  /baw/,  /saw/,  /haw/, and  /qaw/. Transcribe and pronounce the following:

A. bou, buu, haa, hiə, sei, see, qou, quu, bəy, bii

46. Now reproduce the syllables in 45-A in Cambodian script.

47. Whenever a /museqkətoəŋ/ ($\overset{''}{-}$) or /trəysap/ ($\overset{\sim}{-}$) converter co-occurs with one of the superscript vowel symbols, such as $\overset{\vee}{-}$ or $\overset{\vee}{-}$, it is usually replaced (except in the case of $\overset{\sim}{\text{្រ}}$; see 45 above) by a short vertical stroke ($\overset{\vee}{-}$), called /kbiəh kraom/, at the bottom of the consonant symbol; e.g. $\overset{\vee}{\text{ស}}$ /sii/, $\overset{\vee}{\text{ត}}$ /qii/, although $\overset{\vee}{\text{ស}}$ and $\overset{\vee}{\text{ត}}$ do occur. Write, transcribe, and pronounce the following:

A. $\overset{\vee}{\text{ស}}$ səy, $\overset{\vee}{\text{ស}}$ sii, $\overset{\vee}{\text{ប}}$ mii, $\overset{\vee}{\text{ប}}$ məy, $\overset{\vee}{\text{ត}}$ qii, $\overset{\vee}{\text{ត}}$ qəy, $\overset{\vee}{\text{ប}}$ ɲii, $\overset{\vee}{\text{ប}}$ ɲəi

48. Since ៧ /pəə/ has no 1st series counterpart, the /museqkətoəŋ/ ($\overset{''}{-}$) is also used to convert 1st series ប /baa/ to $\overset{''}{\text{ប}}$ /paa/. Transcribe and pronounce the following: បា $\overset{''}{\text{បា}}$ $\overset{\vee}{\text{ប}}$ $\overset{\vee}{\text{ប}}$ $\overset{\vee}{\text{ប}}$ $\overset{\vee}{\text{ប}}$ រប $\overset{''}{\text{រប}}$

A. baa, paa, bəy, pəy, bou, pou, bei, pei

49. Now write the above syllables in Cambodian script.

50. The consonant /f/ is represented by the symbol ហ plus the subscript form of វ : ហ្វ /faa/. It belongs to the 1st series unless converted by use of the /trəysap/: ហ្វ /fəə/. ហ្វ in some words is pronounced like $\overset{''}{\text{វ}}$: /waa/. In some words ហ plus the subscript form of ម (ហ្ម /maa/) occurs instead of $\overset{''}{\text{ម}}$ as the 1st series counterpart of ម ; likewise in some words ហ plus the subscript form of ន (ហ្ស /naa/) is used instead of ណ as the 1st series counterpart of ន , and ហ plus the subscript form of ល (ហ្ល /laa/) occurs instead of ត្រ as the 1st series counterpart of ល . Transcribe and pronounce the following:

ហ្វ រហ្វ ហ្វ $\overset{\sim}{\text{ហ្វ}}$ $\overset{''}{\text{ហ្វ}}$ ហ្ស ណា ហ្ស ត្រ ហ្ល

A. faa, fei, fiə, fii, maa, maa, naa, naa, laa, laa

51. The following chart shows both the 1st and 2nd series representations for each of the 18 consonants shown in the Phonological Summary on page 87 as well as for the clusters kh, ch, th, and kh, totaling fifty different consonant representations in Cambodian. Rare symbols are enclosed in parentheses. Study the chart, then cover the 2nd series column with a sheet of paper and supply the 2nd series counterparts of the symbols in the 1st series column. Next cover the 1st series column and reproduce the 1st series counterparts of the symbols in the 2nd series.

Consonant	1st Series		2nd Series	
	Symbol	Name	Symbol	Name
1. k	ក	kaa	ក	កោ
2. kh	ខ	khaa	ខ	កខោ
3. ŋ	ង	ŋaa	ង	ងោ
4. c	ច	caa	ច	ចោ
5. ch	ច	chaa	ច	ចោ
6. ñ	ញ	ña	ញ	ញោ
7. d	ដ	daa	ដ	ដោ
8. t	ត	taa	ត	តោ
9. th	ត (ត)	thaa	ត	តោ
	(ត)	thaa	(ត)	តោ
10. n	ណ (ណ)	naa	ណ	ណោ
11. b	ប	baa	(ប)	បោ
12. p	ប	pa	ប	បោ
13. ph	ផ	phaa	ផ	ផោ

ring in final position represents final /-p/, although 𑜉 is by far the most common representation of final /-p/. (Consult the chart in Exercise 37.) Transcribe and pronounce the following:

𑜉𑜃 𑜉𑜄 𑜉𑜅𑜃 𑜉𑜆𑜃 𑜉𑜇𑜃

A. tɔp, tɔp, saap, phiəp, liəp

56. Any Retroflex or Dental stop symbol in final position represents final /-t/, although 𑜉 is the most common. Transcribe and pronounce the following:

𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂

A. caat, baat, kaat, baat, kuut, kiət, maat, saat, baat

57. Any Palatal stop symbol in final position represents final /-c/, only 𑜉 and 𑜉 occur. Transcribe and pronounce the following:

𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂

A. touc, qaac, riəc, kaac, puuc

58. After one of the vowels /a, aa, ɔ, ɔɔ, ɛə, uə, iə, ɪə, uə/ any Velar stop symbol in final position represents final /-q/. Transcribe and pronounce:

𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂

A. kaaq, niəq, miəq, caaq, saaq

59. After any other vowel, any Velar stop symbol represents final /-k/. Transcribe and pronounce the following:

𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂

A. ciik, riik, meek, leek, rɔk, mɔk

60. Transcribe and pronounce the following syllables:

𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂

A. couk, cuuk, ciəq, paaq, yɔk, ɲiəq, reek

61. All the nasal symbols have the same values in final position as in initial position, except that 𑜉 after 𑜉 represents /-ŋ/ rather than /-ñ/. Transcribe and pronounce:

𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂 𑜉𑜃𑜂

A. caam, niəm, laan, maan, ciəŋ, tiəñ, miŋ, leŋ, riŋ, saañ

62. The continuant symbols 𑄣, 𑄤, and 𑄥 have the same values in final as in initial position. Transcribe and pronounce:

𑄣𑄣 𑄣𑄤 𑄣𑄥 𑄤𑄣 𑄤𑄤 𑄤𑄥 𑄥𑄣 𑄥𑄤

- A. baay, kaal, qaaw, niəy, peel, liiw, coul

63. 𑄦 in final position represents final /-h/. Transcribe and pronounce:

𑄦𑄣𑄦 𑄦𑄤𑄦 𑄦𑄥𑄦 𑄦𑄧𑄦 𑄦𑄨𑄦

- A. saah, miəh, muuh, ceeh, kuuh

V. VOWELS

You have already learned that the value (or pronunciation) of a vowel symbol depends on the series to which the preceding consonant belongs. The following chart shows the 1st and 2nd series values of the six vowel symbolizations (including the lack of a vowel symbol, which indicates the inherent vowel) that you have encountered so far.

Symbolization	1st Series Value	2nd Series Value
∅	aa	oo
𑄣	aa	iə
𑄤	əy	ii
𑄥	ie	ii
𑄦	ou	uu
𑄧	ei	ee

The value of a vowel symbolization can be affected also by the final consonant symbol, and by various diacritical marks. In fact, it is the total configuration of symbols that determines the pronunciation of a syllable in the Cambodian writing system. Fortunately, there is a finite number of such configurations, and with practice you will learn to recognize them easily. Furthermore, the pronunciation of the configurations is, with few exceptions, regular and predictable. Cambodian is much more regular in this respect than the English spelling system, where a given spelling may represent several pronunciations, as in rough, bough, cough, slough, etc. There is a certain amount of sound-to-symbol redundancy, however, where a given sound may be represented in several different ways, parallel with

the “so, sew, sow,” situation in English. In other words, it is easier to read Cambodian correctly than to write it correctly. In this section, the value of a vowel symbolization when final in the syllable is given first, followed by its values as modified by final consonants and diacritics, if different.

64. You have learned that when a syllable is spelled with a single consonant, or with an initial consonant symbol and an unmodified final consonant symbol, it is pronounced with the inherent vowel; e.g. ក /kaa/, កក /kaat/, ក ក ក /kəə/, កក ក /kəət/. However, when the final symbol carries a /bantaq/ (̣) or ‘shortener’, the syllable is pronounced with its “short inherent” value, which in the 1st series is /a/. Transcribe and pronounce:

កក កក ̣ ចច ចច ̣ បប បប ̣ កក ̣

A. kaat, kat, caap, cap, baan, ban, qah

65. When the initial consonant symbol belongs to the 2nd series, the short inherent vowel is /u/ before any Labial consonant symbol (ប ជ ព ក ច).

Transcribe and pronounce: ជច ជច ̣ ចច ចច ̣ លក លក ̣

A. cəəp, cup, təəm, tum, ləəp, lup

66. Now write the above syllables in Cambodian script.

67. When the final consonant symbol is any consonant symbol other than a Labial, the vowel is /uə/. Transcribe and pronounce:

កក កក ̣ ឃឃ ឃឃ ̣ លក លក ̣ (see Exercise 59) ពក ̣

A. kəət, kuət, yəəl, yuəl, lək, luəq, puəh

68. Write the above syllables in Cambodian script.

69. Transcribe and pronounce: ជច ជច ̣ លច លច ̣ តក តក ̣ តក ̣

A. cup, cuəl, lup, luəq, tup, tuən

70. Transcribe and pronounce:

ចច ចច ̣ ជច ជច ̣ ជក កក កក ̣ លក លក ̣

A. caap, cap, cəəp, cup, cuəq, kaq, kaq, lək, luəq

71. Write the above syllables in Cambodian script.

72. When the final consonant symbol of a syllable spelled with ̣ carries

the /bantaq/, the 1st series pronunciation is /a/. Transcribe and pro-

nounce: កាត កាត' បាត បាត' បាត បាត' បាត បាត'

A. kaat, kat, caah, cah, baat, bat, caaq, caq

73. Write the syllables in 72-A in Cambodian script.

74. The 2nd series value of ៀ is /eə/ before any Velar Stop symbol (ក, ខ, គ, ឃ) and /oə/ before any other consonant symbol. (Consult Exercise 59 for the value of Velar stop symbols after /eə/.)

Transcribe and pronounce: មិក មិក' មិក មិក' មិក មិក'

A. ciəq, ceəq, miəq, meəq, piəq, peəq

75. Write the above syllables in Cambodian script.

76. Transcribe and pronounce (refer to Exercise 74):

កិក កិក' កិក កិក' កិក កិក'

A. kiət, koət, tiən, toən, miən, moən

77. Transcribe and pronounce: តិក តិក' តិក តិក' តិក តិក'

A. teəq, toən, peəq, poən, ceəq, coən

78. Transcribe and pronounce:

កាត កាត' កាត កាត' កាត កាត' កាត កាត' កាត កាត'

A. kaaq, kaq, piəq, peəq, poən, phiəp, phoəp, chap, coəp, cap

79. Write the syllables in 78-A in Cambodian script.

80. The vowel symbol ៀ is called /sraq qeq/. Notice that it differs from

ៀ /əy/ only in the absence of an upright stroke. When it occurs in a

stressed syllable with no written final consonant, it represents /-eq/ in the 1st series and /-iq/ in the 2nd series. (A stressed syllable is any syllable in isolation, or any word-final syllable.) Transcribe and pronounce:

ៀ ៀ ៀ ៀ ៀ ៀ ៀ ៀ

A. qəy, qeq, qii, qiq, təy, teq, yii, yiq

81. When it occurs in an unstressed syllable with no written final consonant,

◌̄ represents /e/ in the 1st series and /i/ in the 2nd series. Transcribe and pronounce: ကိရိယာ နိတိ

A. keriyaa, nitien

82. When ◌̄ is followed in the same syllable by a written final consonant, its 1st series value is /ə/ and its 2nd series value is /i/. Transcribe and pronounce: ဗိဇာ နိဇာ ဗိဇာ နိဇာ ဗိဇာ နိဇာ ဗိဇာ နိဇာ ဗိဇာ

A. cət, cit, cən, kit, ciik, pit, bət, təc, tiñ

83. When ◌̄ precedes a final -ယာ, it has the same value as ◌̄ : /əy/ in the 1st series and /ii/ in the 2nd series (this spelling occurs in only a few words). Transcribe and pronounce: တိယာ နိယာ

A. təy, tii

84. The symbol ◌̄ is called /sraq qəq/. It occurs only in syllables having a written final consonant. Its pronunciation is identical with that of ◌̄ before a final consonant, i.e. /ə/ in the 1st series and /i/ in the 2nd series. Transcribe and pronounce: သိက နိက ဗိက နိက ဗိက နိက သိက

A. dək, tik, cək, nik, yɪit, məin, phək

85. Write the following syllables two ways: cət, cit, həp, mɪn

A. ဗိဇာ နိဇာ ဗိဇာ နိဇာ ဗိဇာ နိဇာ ဗိဇာ နိဇာ

86. The vowel symbol ◌̄ is called /sraq qoq/. When it occurs in stressed syllables with no written final consonant, it represents /-oq/ in the 1st series and /-uq/ in the 2nd series. (An exception to this is the word for 'table' တု /tok/ which is pronounced with a final unwritten /-k/.) Transcribe

and pronounce: ဗု နု ဗု နု

A. coq, tuq, thoq, muq

87. In all other environments ◌̄ represents /o/ in the 1st series and /u/ in the 2nd series. Transcribe and pronounce:

ကု နု နု နု နု နု နု နု နု

A. kon, kun, phot, thun, qoh, lup, koun, muul

88. You have now met two ways to represent the finals /-up/ and /-um/ (see Exercise 65). Write the following syllables two ways: cup, cum, lup, lum

A. cup cup cum cum lup lup lum lum

89. There are three vowel symbols whose values are unaffected by the series of the initial consonant. They are u /sraq quə/, ie /sraq qiə/, and io /sraq qiə/. Their values are /uə/, /iə/, and /iə/ respectively. Transcribe and pronounce:

ku ku cie cie tieu tieu rieu rieu

A. kuə, kuə, ciə, ciə, tiən, tiən, riəŋ, biəŋ

90. Write each of the following syllables two ways: chuən, khieŋ, cuən

A. chue chue khieu khieu cu cu

91. Notice that the value of io is the same as the 2nd series value of u . Write the following syllables three ways: tien, kiət, phiəŋ

A. tieu tieu kie kie kie phi phi phi

92. In Exercise 29 you learned that the values of ie are /ei/ and /ee/. However, when ie occurs in a syllable whose final consonant symbol is a Palatal symbol (ch , sh , sh , sh , sh), its 1st series value is /ə/ and its 2nd series value is /i/. Transcribe and pronounce:

mich pic cəñ piñ ceik mEEK

A. məc, píc, cəñ, piñ, ceik, meek

93. Thus the three vowel symbols u , ie , and io are all pronounced alike before a Palatal final. Write the following syllables three ways: təc, pic, cəñ, piñ

tich tich tich pie pie pie
 pich pich pich pi pi pi

94. The vowel symbol ្រ is called /sraq qaə/. Its value is /aə/ in the 1st series and /əə/ in the 2nd series. Transcribe and pronounce:

តា ចា កាត កាត បាក់ បាក់ក្យ ក្យាត

A. taə, chəə, kaət, kəət, bæk, khəəñ, ñəəh

95. Write the above syllables in Cambodian script.

96. The vowel symbol ្រ is called /sraq qae/. Its value is /ae/ in the 1st series and /εε/ in the 2nd series. Transcribe and pronounce:

កា តា កាត តាត កាត្យ តាត្យ

A. kae, kεε, saen, mεεn, taεŋ, pεεŋ

97. The vowel symbol ្រ is called /sraq qay/. It must be carefully distinguished in both pronunciation and writing from ្រ above. Its 1st series value is /-ay/, and its 2nd series value is /-iy/. It is never followed in the same syllable by a final consonant symbol since it represents both a vowel and a final consonant /-y/. Transcribe and pronounce:

ត្រាយ ត្រាយ ត្រាយ ត្រាយ

A. day, tiy, cay, niy

98. The vowel symbol ្រ is called /sraq qao/. Its values are /ao/ in the 1st series and /oo/ in the 2nd series. Transcribe and pronounce:

កា កា កាត្យ កាត្យ កាត្យ កា កាត

A. kao, koo, taon, roon, maon, khao, loop

99. Write the syllables in 98-A above in Cambodian script.

100. The vowel symbol ្រ is called /sraq qaw/. Its 1st series value is /aw/ and its 2nd series value is /iw/. Like ្រ in 97 above, it already includes a final consonant, so it is never followed by a written final consonant symbol. It is distinguished from ្រ only by an additional stroke at the top right. Transcribe and pronounce:

A. taw, tiw, caw, niw, haw, piw

តាវ តាវ តាវ តាវ តាវ តាវ

101. The symbol $\overset{\circ}{-}$ is a diacritic whose formal name is /niqkəhət/, but which is commonly treated as a vowel symbol with the name /sraq qam/. Its 1st series value is /am/ and its 2nd series value is /um/. (The word $\overset{\circ}{\text{thom}}$ /thom/ 'big' is irregular.) Since it always includes the final consonant /-m/, it is never followed in the same syllable by a written final consonant symbol. Transcribe and pronounce: $\overset{\circ}{\text{th}}$ $\overset{\circ}{\text{ni}}$ $\overset{\circ}{\text{q}}$ $\overset{\circ}{\text{th}}$ $\overset{\circ}{\text{ni}}$ $\overset{\circ}{\text{th}}$

A. cam, cum, kham, tum, qam, khum

102. Consult Exercise 64, then write the following syllables two ways: cam, qam, kham

A. $\overset{\circ}{\text{th}}$ $\overset{\circ}{\text{ni}}$ $\overset{\circ}{\text{q}}$ $\overset{\circ}{\text{th}}$ $\overset{\circ}{\text{ni}}$ $\overset{\circ}{\text{th}}$

103. When $\overset{\circ}{-}$ is combined with $\overset{\circ}{/}$ to form $\overset{\circ}{/}$ it is called /sraq qom/. Its 1st series value is /om/ and its 2nd series value is identical with the 2nd series value of $\overset{\circ}{-}$ above. Transcribe and pronounce:

$\overset{\circ}{/}$ $\overset{\circ}{/}$ $\overset{\circ}{/}$ $\overset{\circ}{/}$ $\overset{\circ}{/}$ $\overset{\circ}{/}$

A. dom, tum, kom, cum, som, pum

104. Consult Exercise 87, then write the following syllables 4 ways: tum, cum.

A. $\overset{\circ}{\text{th}}$ $\overset{\circ}{\text{ni}}$ $\overset{\circ}{\text{q}}$ $\overset{\circ}{\text{th}}$ $\overset{\circ}{\text{ni}}$ $\overset{\circ}{\text{th}}$

105. The symbol $\overset{\circ}{-}$ is called /sraq qam/. Its 1st series value is /am/ and its 2nd series value is /oəm/. Transcribe and pronounce:

$\overset{\circ}{\text{th}}$ $\overset{\circ}{\text{ni}}$ $\overset{\circ}{\text{q}}$ $\overset{\circ}{\text{th}}$ $\overset{\circ}{\text{ni}}$ $\overset{\circ}{\text{th}}$

A. cam, coəm, kam, koəm, ñam, ñoəm

106. Consult Exercises 72 and 74, then write the following syllables: cap, cam, coəp, coəm, ñoəp, ñam

A. $\overset{\circ}{\text{th}}$ $\overset{\circ}{\text{ni}}$ $\overset{\circ}{\text{q}}$ $\overset{\circ}{\text{th}}$ $\overset{\circ}{\text{ni}}$ $\overset{\circ}{\text{th}}$

107. The configuration $\overset{\circ}{-}$ is called /sraq qam ŋəw/. Its 1st series value is /aŋ/; its 2nd series value is /eəŋ/. Transcribe and pronounce:

$\overset{\circ}{\text{th}}$ $\overset{\circ}{\text{ni}}$ $\overset{\circ}{\text{q}}$ $\overset{\circ}{\text{th}}$ $\overset{\circ}{\text{ni}}$ $\overset{\circ}{\text{th}}$

A. taŋ, teǎŋ, phaŋ, pheǎŋ

108. The symbol $- \circ$ is called /reǎhmuk/ or /sraq qah/. When no vowel symbol is written it represents /ah/ after a 1st series consonant symbol and /eǎh/ after a second series consonant symbol. Transcribe and pronounce:

ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ

A. tah, teǎh, pah, pheǎh

109. Consult Exercise 72, then write the following syllables two ways: cah, sah

A. ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ

110. After the short vowel symbols $\overset{\circ}{-}$, $\overset{\circ}{-}$, and $\overset{\circ}{-}$, the /reǎhmuk/ represents final /-h/ alone. The configurations $\overset{\circ}{-} \circ$, $\overset{\circ}{-} \circ$, and $\overset{\circ}{-} \circ$ are sometimes referred to as /sraq qeh/, /sraq qəh/, and /sraq qoh/ respectively. Transcribe and pronounce: ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ

A. ceh, cih, kəh, pih, coh, puh

111. After the long vowel symbols ṣṣṣṣ, ṣṣṣṣ, and ṣṣṣṣ, the /reǎhmuk/ both shortens and changes the value of the vowel symbol. (An exception is the irregular spelling ṣṣṣṣ⁺ /caah/ 'polite response particle used by women' which is usually pronounced long in spite of a following /reǎhmuk/.) The configuration ṣṣṣṣ \circ is sometimes referred to as /sraq qeh/. It is /eh/ in the 1st series and /ih/ in the 2nd series. Transcribe and pronounce:

ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ

A. seh, nih, pheh, cih

112. Consult Exercise 110, then write the following syllables two ways: ceh, cih, neh, nih

A. ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ

113. The configuration ṣṣṣṣ \circ is sometimes called /sraq qah/. Its 1st series value is /ah/ and its 2nd series value is /uǎh/. (An exception is the irregular spelling ṣṣṣṣ \circ /nuh/ 'that, there'.) Transcribe and pronounce:

ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ ṣṣṣṣ

A. kah, kuəh, bah, puəh, sah, luəh

114. Consult Exercises 64 and 67, then write the following syllables two ways:
kah, kuəh, sah, puəh

A. កាហ៍ កាៈ កាហ៍ កាៈ សាហ៍ សាៈ ពាហ៍ ពាៈ

115. The configurations $\text{ៈ} - \text{ៈ}$ and $\text{ៈ} - \text{ៈ}$ are sometimes called /sraq qəh/
and /sraq qeh/ respectively. They occur only in the 1st series, and then
only rarely. Their 1st series values are /əh/ and /eh/. Write, transcribe,

and pronounce: កៈ កៈ កៈ កៈ

A. កៈ kəh, កៈ keh

116. In Exercises 58 and 59 it was pointed out that final Velar stop symbols
(ក , ខ , ក , ឃ) represent final /-q/ after the vowels /a, aa, a,
aa, eə, uə, iə, iə, uə/, and final /-k/ after all other vowels. Transcribe
and pronounce the following syllables:

កៈ កា
កា កា

A. ciik, phiəq, niik, ceik, caaq, caq, rook, luəq, nəəq, bouk, tuuk,
kiəq, muəq, lək, meek, saaq, saq, mək, niəq

117. The symbol $- \text{ៈ} -$ is called /sanyook-sañña/ and is treated as a diacritic
in Cambodian textbooks, but it functions like a vowel. Its value in most en-
vironments is the same as the configuration $- \text{ៈ} -$; i.e. /a/ in the 1st
series and /eə/ or /oə/ in the 2nd series (see Exercises 72–78). Tran-

scribe and pronounce: សៈ កៈ សៈ កៈ សៈ កៈ សៈ កៈ សៈ កៈ សៈ កៈ

A. saq, toəp, sap, leəq, saŋ, weəŋ

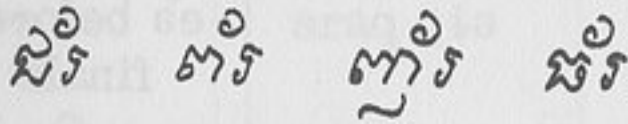
118. When the /sanyook-sañña/ occurs in the environment $- \text{ៈ}$, its value
is /a/ in the 1st series and /i/ in the 2nd series. Transcribe and pro-

nounce: សៈ កៈ កៈ កៈ កៈ កៈ សៈ កៈ

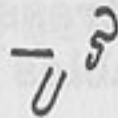
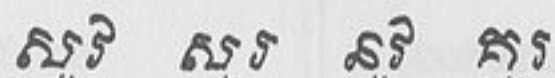
A. phay, phiy, cay, ciy

119. In the environment $- \text{ៈ}$, the /sanyook-sañña/ represents the diphthong

/ɔə/ in the 2nd series. (The combination apparently doesn't occur after 1st series initial consonant symbols.) Transcribe and pronounce:



A. ɔə, pɔə, ñɔə, thɔə

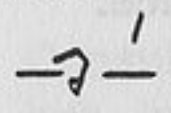

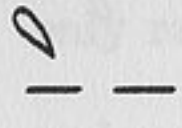
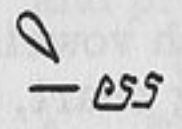
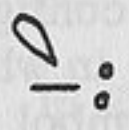
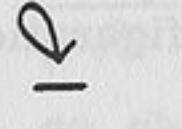

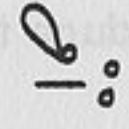
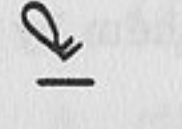

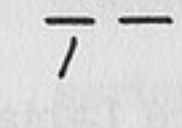
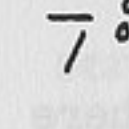

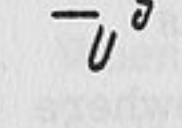
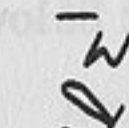
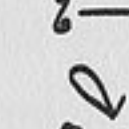

120. The configuration  is pronounced /əw/ in the 1st series and /iɰw/ in the 2nd series. Transcribe and pronounce: 

A. səw, sou, niɰw, kuu

121. You have now been introduced to all the configurations by which vowels are represented in the Cambodian writing system. In the following chart, the 1st and 2nd series values of each vowel symbol, as well as each configuration by which vowels are represented, are shown in the sequence in which they occur in the standard Cambodian dictionary. Each vowel symbol is followed by its name. Notice that the name of a symbol or configuration may be different from its actual value in either series.

- Practice reciting the names of the vowel symbols until you can recite them in the proper sequence without referring to the chart.
- Cover the 1st and 2nd series values of the symbols and reproduce the 1st series values by reference only to the symbols.
- Cover the 2nd series values of the symbols and reproduce them by reference only to the symbols.

Symbol	Name	Exercise	1st Series Value	2nd Series Value
1. —	sraq qaa	3	aa	ɔə
2. — — ^l		64, 65	a	u before Labial finals
		67		uə elsewhere
3. — ^o —	sanyook-sañña	117	a	eə before Velar finals
		117		oə elsewhere (except below)
4. — ^o ៥៥		118	ay	iɰy
5. — ^o ៥		119		ɔə
6. — ^o ៥	sraq qaa	9	aa	iə

Symbol	Name	Exercise	1st Series Value	2nd Series Value
7. 		72, 74	a	eǎ before Velar finals
		74		õə elsewhere
8. 	sraq qeq	80	eq in stressed syllables	iq in stressed syllables
		81	e in unstressed syllables	i in unstressed syllables
9. 		87	ə	ɨ (except before ʉʃ)
10. 		83	əy	ii
11. 		110	eh	ih
12. 	sraq qəy	14	əy	ii
13. 	sraq qəq	84	ə	ɨ
14. 		110	əh	ɨh
15. 	sraq qəɨ	33	əɨ	ɨɨ
16. 	sraq qoq	86	oq in stressed syllables	uq in stressed syllables
		87	o in unstressed syllables	u in unstressed syllables
17. 		87	o	u
18. 		110	oh	uh
19. 	sraq qou	20	ou	uu
20. 		120	əw	ɨw
21. 	sraq quə	89	uə	uə
22. 	sraq qaə	94	aə	əə
23. 		115	əh	

Symbol	Name	Exercise	1st Series Value	2nd Series Value
24.	sraq qiə	89	iə	iə
25.	sraq qiə	89	iə	iə
26.	sraq qei	29	ei	ee
27.		92	ə (before Palatals)	ɨ (before Palatals)
28.		111	eh	ih
29.	sraq qae	96	ae	εε
30.		115	eh	
31.	sraq qay	97	ay	ɨy
32.	sraq qao	98	ao	oo
33.		113	ah	uəh
34.	sraq qaw	100	aw	ɨw
35.	sraq qom	103	om	um
36.	sraq qam	101	am	um
37.	sraq qam	105	am	oəm
38.		107	aŋ	eəŋ
39.	sraq qah	108	ah	eəh

122. If you have successfully mastered the preceding 121 exercises, you are now prepared to read any regular single-initial monosyllabic word in the Cambodian language. The following list includes every configuration by which vowels are regularly represented in the Cambodian writing system. Most of the examples in the list are actual words in the language, and are followed by their definitions as a matter of interest. They are listed in the order in which they would occur in the standard Cambodian dictionary. Each example is followed by the number of the exercise in which that particular vowel representation was presented. Transcribe and pronounce each word. When

you have completed the list check your answers. Then go back and review the exercises in which the syllables you have transcribed incorrectly were introduced.

- | | | | |
|-----------|------------------------|-----------|-------------------|
| 1. ការ | (9) work | 20. ចាំ | (105) to remember |
| 2. ភ្នំ | (87) movie | 21. ជ្រាប | (74) attached |
| 3. កើត | (94) be born | 22. រួច | (80) |
| 4. ក្រុំ | (115) | 23. ជិះ | (110) to ride |
| 5. ក្រុំ | (115) a kind of animal | 24. រុក | (14) to dig |
| 6. កោះ | (113) island | 25. ជួយ | (89) to help |
| 7. ខោ | (98) trousers | 26. ជឿ | (89) to believe |
| 8. ខំ | (101) to try (to) | 27. ខូ | (105) bruised |
| 9. គោ | (98) ox, cow | 28. ជំងឺ | (33) sick |
| 10. ឃើញ | (94) to see | 29. ញ៉ាំ | (105) to eat |
| 11. ជ្រុះ | (89) | 30. ជួយ | (83) |
| 12. ចាត់ | (3) spade | 31. ជួយ | (84) to transport |
| 13. ចប់ | (64) to finish | 32. ជួយ | (33) fallow |
| 14. ច្រើន | (118) | 33. ដៃ | (97) hand |
| 15. ចាប់ | (72) to catch | 34. ដុំ | (103) piece |
| 16. ចុះ | (110) to descend | 35. ដក់ | (80) |
| 17. ចូល | (20) to enter | 36. ដក់ | (100) to ridicule |
| 18. ប្រក់ | (29) banana | 37. ដក់ | (89) dwarfed |
| 19. ចេញ | (92) to exit | 38. ដក់ | (96) but |

- | | | | | | |
|-----|-------|--------------------|-----|-------|----------------|
| 39. | ကား | (107) to establish | 60. | ပူ | (48) flute |
| 40. | ည | (86) | 61. | ဉ်း | (108) to patch |
| 41. | တပ် | (117) army | 62. | တံ | (119) color |
| 42. | တင် | (82) to buy | 63. | တ | (14) from |
| 43. | တစ် | (84) water | 64. | တစ် | (14) two |
| 44. | တင်္က | (20) boat | 65. | တုံး | (110) to boil |
| 45. | တင် | (100) to go | 66. | တင်္ဂ | (92) jewel |
| 46. | တံ | (103) ripe | 67. | တင်္ဂ | (92) full |
| 47. | တင်္ဂ | (107) all | 68. | တင်္ဂ | (96) cup |
| 48. | တုံး | (108) to slap | 69. | တင်္ဂ | (113) stomach |
| 49. | တင်္ဂ | (74) person | 70. | တင်္ဂ | (118) to fear |
| 50. | တင်္ဂ | (10) dragon | 71. | တင်္ဂ | (10) to have |
| 51. | တင်္ဂ | (83) | 72. | တင်္ဂ | (87) face |
| 52. | တင်္ဂ | (110) this | 73. | တင်္ဂ | (29) sky |
| 53. | တင်္ဂ | (97) of | 74. | တင်္ဂ | (92) why |
| 54. | တင်္ဂ | (9) rice | 75. | တင်္ဂ | (4) to take |
| 55. | တင်္ဂ | (82) to close | 76. | တင်္ဂ | (65) evening |
| 56. | တင်္ဂ | (14) three | 77. | တင်္ဂ | (86) |
| 57. | တင်္ဂ | (45) | 78. | တင်္ဂ | (101) to cry |
| 58. | တင်္ဂ | (89) four | 79. | တင်္ဂ | (89) to study |
| 59. | တင်္ဂ | (89) cards | 80. | တင်္ဂ | (67) to sell |

- | | |
|--------------------------|-----------------------|
| 81. ល្ងិ្គ (117) gum-lac | 85. ខ្នុរ (111) horse |
| 82. សក់ (64) hair | 86. ហៅ (100) to call |
| 83. ស្តី (117) word | 87. ខ្លះ (110) |
| 84. ស្រី (120) | 88. ខ្លះ (110) |

VI. THE INDEPENDENT VOWEL SYMBOLS

Besides the "dependent" vowel symbols already discussed that always accompany an initial consonant symbol, there are 14 independent vowel symbols called /sraq piñ tuə/ 'self-sufficient vowels', which occur in initial position in some words, and which include an initial consonant, usually /q-/. Since these symbols occur in relatively few words, Cambodians themselves disagree on their use and pronunciation. Some independent vowel symbols, however, occur in very common words, such as 'to give', 'father', and 'bamboo', so it is necessary to learn them for reading even simple materials. The short independent vowel symbols must be followed by a final consonant symbol; the long vowel symbols may stand alone.

123. The symbol កិ is called /sraq qeq piñ tuə/, 'the independent vowel /qeq/'.

In most words it is equivalent to ក៏, although in some words it may be pronounced កិ្គ or កិ្ឃ. Transcribe and pronounce the following syllables: កិក (កិ្គ), កិន (កិ្គ), កិឡូ (កិ្គ) 'now'.

A. qət, qin, qəyləw

124. The symbol ក្លិ is called /sraq qəy piñ tuə/. It occurs in only a few words, in which it has the same value as ក៏. Transcribe and pronounce:

ក្លិស្វរ Siva ក្លិសាន Northeast

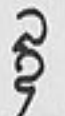
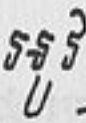
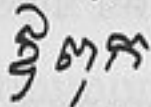
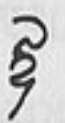
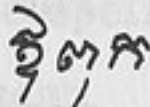
A. qəysou, qəysaan


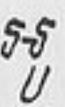

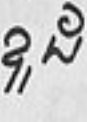
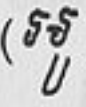
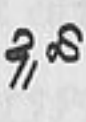
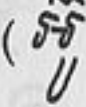
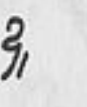
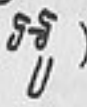
125. The symbol ក្និ is called /sraq qoq piñ tuə/. Its value in most words is equivalent to ក៏, although in some words it may be pronounced កិ្គ or

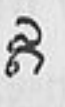
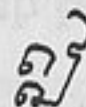
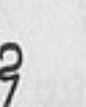
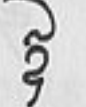
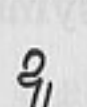


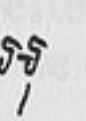
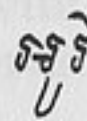

ក្និ្គ. Transcribe and pronounce:

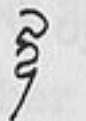
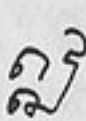
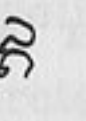
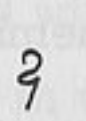
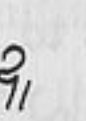
ក្និក្និ (ក្និ), ក្និប (កិ្គ), ក្និបាសក (ក្និ្គ)

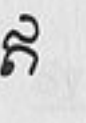
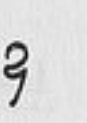
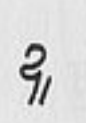
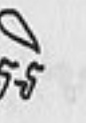
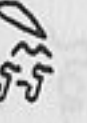

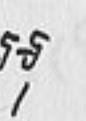
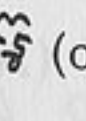
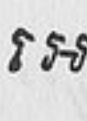
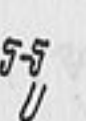
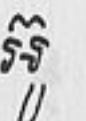
A. qokña, qup, qaobaasq

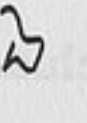
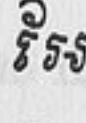
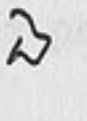
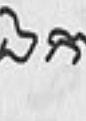
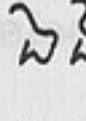
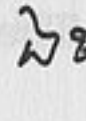




126. The symbol  /sraq qəw piñ tuə/ is equivalent to  and occurs in the word  'father'. Transcribe and pronounce:  
 A. qəw, qəwpuk


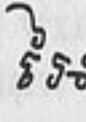
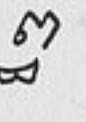
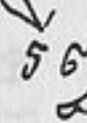
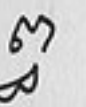
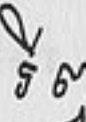
127. The symbol  /sraq qou piñ tuə/ usually has the 1st series value , but it may also have the 2nd series value . Transcribe and pronounce:
 ()  ()  ()
 A. qout, quun, qou

128. For each of the following independent vowel symbols, write the most common equivalent in Cambodian script:     
 A.     

129. Write the independent vowel symbol for which each of the following is the commonest equivalent: qəw, qəy, qə-, qo-, qou
 A.     

130. Write in Cambodian script two equivalents of each of the following:
  
 A.   (or ),   (or ),  

131. The symbol  /sraq qae piñ tuə/ is always equivalent to .
 Write, transcribe, and pronounce:    
 A.  qae,  qæk,  qaen,  qaetiət

132. The symbol  /sraq qay piñ tuə/ is equivalent to . Write, transcribe, and pronounce:  
 A.  qay,  riiqay

133. The two symbols ㄅ and ㄆ are both called /sraq qao piñ tuə/. They are both equivalent to ᳵᳶ᳗ . ㄅ is the more common of the two; ㄆ occurs in the word ㄅᳵ /qaoy/ 'to give' (ㄆ is the subscript form of ᳵ ; it does not normally represent a final consonant). Write, transcribe, and pronounce: ㄆ ㄅ ㄅᳵ ㄅᳶ ㄅᳶᳵ

A. ㄆ qao, ㄅ qao, ㄅᳵ qaoy, ㄅᳶ qaop, ㄅᳶᳵ qaon

134. The symbol ㄅᳶᳵ /sraq qaw piñ tuə/ is equivalent to ᳵᳶ᳗ᳵ . It is extremely rare. Write, transcribe, and pronounce: ㄅᳶᳵ ㄅᳶᳵᳵᳶ᳗ᳵ

A. ㄅᳶᳵ qaw, ㄅᳶᳵᳵᳶ᳗ᳵ qawlaa




135. Notice that ㄅ ㄅᳶ ㄅᳶᳵ ㄅᳶᳵᳶ᳗ᳵ ㄅᳶᳵᳶ᳗ᳵ all have the same base ㄅ . A good way to distinguish them is to remember that ㄅ /qo-/ and ㄅᳶ /qou/ are "bald"; the "hair" of ㄅᳶᳵ /qəw/ attaches at the left, while that of ㄅᳶᳵᳶ᳗ᳵ /ao/ and ㄅᳶᳵᳶ᳗ᳵ /aw/ attaches at the right. Write each of the following symbols with its commonest equivalent:

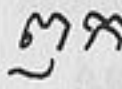

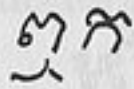
A. ㄅ (ᳵ), ㄅᳶ (ᳶᳵ), ㄅᳶᳵ (ᳶᳵᳶ᳗ᳵ), ㄅᳶᳵᳶ᳗ᳵ (ᳵᳶ᳗ᳵ), ㄅᳶᳵᳶ᳗ᳵ (ᳵᳶ᳗ᳵ)

136. All of the preceding independent vowel symbols include the initial consonant /q-/. The symbols ㄅᳶᳵᳶ᳗ᳵ /sraq rik/ and ㄅᳶᳵᳶ᳗ᳵᳶ᳗ᳵ /sraq ri:ik/ include initial /r-/, and are equivalent to ᳶᳵᳶ᳗ᳵ and ᳶᳵᳶ᳗ᳵᳶ᳗ᳵ respectively. ㄅᳶᳵᳶ᳗ᳵ is the spelling for the common conjunction 'or'. ㄅᳶᳵᳶ᳗ᳵᳶ᳗ᳵ is pronounced with a final (-k) only in its syllabary pronunciation; in actual words it is pronounced with the final consonant which is written. Write, transcribe, and pronounce:

A. ㄅᳶᳵᳶ᳗ᳵ rik, ㄅᳶᳵᳶ᳗ᳵᳶ᳗ᳵ rit, ㄅᳶᳵᳶ᳗ᳵᳶ᳗ᳵᳶ᳗ᳵ ri:ik, ㄅᳶᳵᳶ᳗ᳵᳶ᳗ᳵᳶ᳗ᳵᳶ᳗ᳵ ri:ik

137. The symbols ㄅᳶᳵᳶ᳗ᳵᳶ᳗ᳵ /sraq lik/ and ㄅᳶᳵᳶ᳗ᳵᳶ᳗ᳵᳶ᳗ᳵᳶ᳗ᳵ /sraq li:ik/ include an initial /l-/



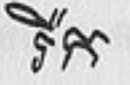
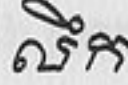
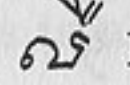
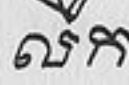
and are equivalent to  and  respectively.  is the spelling for the common word 'to hear'. Write, transcribe, and pronounce:








  

















A.  lik,  lii,  liik

138. Write the equivalent of, and transcribe, each of the following:

A.  rik,  riï,  riik,  lik,  lii,  liik

139. The following chart lists the independent vowel symbols in their dictionary order. (Words spelled with independent vowel symbols involving initial /q-/ immediately precede words spelled with equivalent vowel symbols under the initial consonant symbol  - . Words spelled with  and  follow all words spelled with initial  - , and words spelled with  and  follow all words spelled with initial  - .) Each symbol is followed by the number of the exercise in which it was introduced, its equivalent spelling, and its transcription. Cover the equivalent spelling and transcription columns with a sheet of paper and practice until you can write them from memory.

<u>Symbol</u>	<u>Exercise</u>	<u>Equivalent Spelling</u>	<u>Transcription</u>
1. 	136		ri-
2. 	136		riï
3. 	137		li-
4. 	137		liï
5. 	123		qə-
6. 	124		qəy
7. 	125		qo-
8. 	127		qou

<u>Symbol</u>	<u>Exercise</u>	<u>Equivalent Spelling</u>	<u>Transcription</u>
9. ឡ	126	qəw	qəw
10. ឆ	131	qae	qae
11. ឡ	132	qay	qay
12. ឡ	133	qao	qao
13. ឡ	133	qao	qao
14. ឡ	134	qaw	qaw

VII. SOME DISYLLABLES

140. Disyllables in Cambodian typically consist of an unstressed presyllable followed by a stressed main syllable. In the disyllables in this section, the vowel of each successive syllable is determined by the series of its initial consonant symbol, as in the monosyllables you have met. If the syllable

ឆ (in unstressed position) is pronounced /ni-/, and the syllable ឡ is pronounced /tiən/, then ឆឡ is pronounced /nitien/. Transcribe and pronounce the following disyllables: ឆ ឡ ឡ to speak, កា ឡ language, ឡ ឡ chair, ឡ ឡ book

A. niyiəy, phiəsaə, kawqəy, siəwphiw

141. Although some presyllables are written with long vowel symbols, they are usually reduced to short vowels in normal speech. Transcribe and pronounce the following disyllables with short presyllable vowels:

ឡ kilo, កា ឡ coffee, ឡ ឡ clever, ឡ ឡ age

A. kilou, kafei, pukae, qayuq

142. When a presyllable is represented by a single consonant symbol (frequently a reduplication of the initial consonant of the main syllable) it is pronounced with the unwritten vowel /a/ after a 1st series consonant and /ɔ/ after a 2nd series consonant. These vowels are reduced to /ə/ in rapid speech. Tran-

scribe and pronounce the following words: កក ឡ to scratch, ឡ ឡ ឡ to argue, ឡ ឡ persuade, ឡ ឡ human (final ឡ is silent),

၅၅၅' thing, ၅၅၅' smooth, ၅၅၅' to receive

A. kakaay, cɔcɛɛk, babuəl, mənuh, rəbɔh, rəliiŋ, tətuel

143. Presyllables containing two initial consonant symbols consist of the clusters /pr-, tr-, cr-, kr-, or sr-/, with /pr-/ the most common. In such clusters, -r- is written in its subscript form $\underset{-}{r}$, and the syllable (as in 142 above) is pronounced with the vowel /a/ after a 1st series /p, t, c, or k/ and with the vowel /ɔ/ after a 2nd series /p, t, c, or k/, both being reduced to /ə/ in rapid speech; s- in such presyllables is always 1st series. (၅ with a subscript always has the value /p/.) Transcribe and pronounce:

ပြကန်' to reserve, ပြလိမ် dawn, ပြဆေး to meet, ပြည့်ပြန်' to reverse, ပြခံ a perch, ပြည့်' confused, ပြည့်' twisted, ပြည့်' to like

A. prakan, prəlɪm, prətɛəh, tralap, trənum, cralam, krawiəc, sralaɲ

VIII. SUBSCRIPT CONSONANT SYMBOLS









When two consonants are pronounced consecutively within a word (without an intervening vowel), the second (and sometimes, in medial position, a third) consonant symbol is written in a special subscript form below the first symbol. The subscript always follows the superscript in pronunciation. The form of the subscript is in most cases a smaller version of its superscript counterpart, but





without the $\overset{\sim}{-}$ /saq/ 'hair' which adorns the top of seven consonant symbols


(not to be confused with $\overset{\sim}{-}$ /trəysap/ which converts 1st series symbols to 2nd series). Some subscripts, however, bear no discernible relationship to their counterparts. Subscript consonants are called /cəəŋ qaqsaa/ 'consonant feet', and the resulting consonant clusters are called /qaqsaa damruət/ 'stacked-up letters'.









144. The subscripts $\underset{၅}{၅}$ $\underset{၅}{၅}$ $\underset{၅}{၅}$ $\underset{၅}{၅}$ and $\underset{၅}{၅}$ are identical in form with their superscript counterparts. Subscripts are called '/cəəŋ ___/'; e.g., $\underset{၅}{၅}$ is called /cəəŋ khaa/ 'subscript /khaa/'. Write each of the above consonants with its subscript, and transcribe and pronounce the name of the subscript.

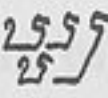
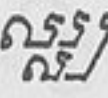
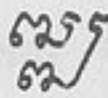
A. $\underset{၅}{၅}$ cəəŋ khaa, $\underset{၅}{၅}$ cəəŋ dɔɔ, $\underset{၅}{၅}$ cəəŋ naa, $\underset{၅}{၅}$ cəəŋ pɔɔ, $\underset{၅}{၅}$ cəəŋ qaɔ

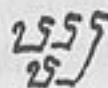
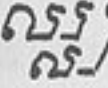
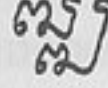
145. The subscripts        and  differ from their superscript counterparts only in the absence of the /sq/ 'hair':

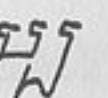
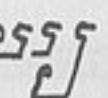
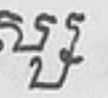
 for the first six examples above,  for  and  for


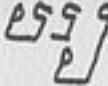
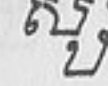
 . Write each of the above consonants with its subscript, and transcribe and pronounce the names of the subscripts.

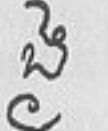
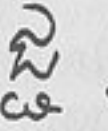
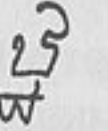
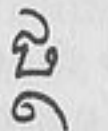
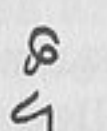

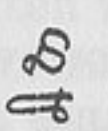
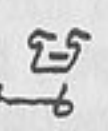

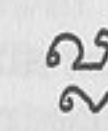
- A.  cəəŋ kaa,  cəəŋ kaa,  cəəŋ caa,  cəəŋ chaa,
 cəəŋ taa,  cəəŋ phaa,  cəəŋ phaa,  cəəŋ haa


146. The subscripts    are reproductions of their superscript counterparts whose final vertical strokes extend upward and end in a "hook" even with the hooks of the superscript symbols. Write each combination, and transcribe and pronounce the subscript name.

- A.  cəəŋ khaa,  cəəŋ chaa,  cəəŋ thaa

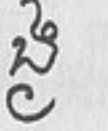
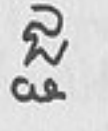
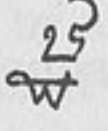
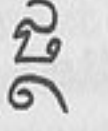
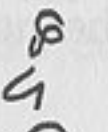

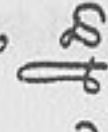
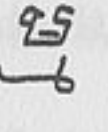



147. The subscripts    are also characterized by a right-hand vertical stroke which hooks on a line even with the top of the superscript symbols, but their subscript portions differ in shape from their counterparts. Write each combination, and transcribe and pronounce the names of the subscripts.

- A.  cəəŋ baa,  cəəŋ yaa,  cəəŋ saa

148. The remaining subscripts bear little or no resemblance to their counterparts:           Note that

 /cəəŋ raa/ is the only subscript which is written to the left of the

consonant symbols it accompanies. Write each of the above combinations, and transcribe and pronounce the names of the subscripts.

- A.  cəəŋ ŋaa,  cəəŋ caa,  cəəŋ thaa,  cəəŋ thaa,
 cəəŋ taa,  cəəŋ thaa,  cəəŋ naa,  cəəŋ maa,
 cəəŋ raa,  cəəŋ laa,  cəəŋ waa

149. When the symbol ၤ / $\bar{n}\bar{a}$ / occurs with any subscript whatever, the element ၤ is omitted; e.g., ၤ / $\bar{n}\bar{a}$ $\text{c}\bar{a}\bar{e}\bar{y}$ $\text{c}\bar{a}$ /. When ၤ occurs as its own subscripts, it takes the full form ၤ ; e.g., ၤ / $\bar{n}\bar{a}$ $\text{c}\bar{a}\bar{e}\bar{y}$ $\bar{n}\bar{a}$ /. When subscript to any other consonant symbol, / $\text{c}\bar{a}\bar{e}\bar{y}$ $\bar{n}\bar{a}$ / takes the form ၤ ; e.g., ၤ / $\text{c}\bar{a}$ $\text{c}\bar{a}\bar{e}\bar{y}$ $\bar{n}\bar{a}$ /. Write and transcribe the following combinations: ၤ ၤ ၤ

A. ၤ $\bar{n}\bar{a}$ $\text{c}\bar{a}\bar{e}\bar{y}$ $\text{c}\bar{a}$, ၤ $\text{c}\bar{a}$ $\text{c}\bar{a}\bar{e}\bar{y}$ $\bar{n}\bar{a}$, ၤ $\bar{n}\bar{a}$ $\text{c}\bar{a}\bar{e}\bar{y}$ $\bar{n}\bar{a}$

150. Certain special combinations of superscript plus subscript represent single phonological consonants: ၤ / $\text{t}\bar{a}$ / plus ၤ / $\text{c}\bar{a}\bar{e}\bar{y}$ $\text{b}\bar{a}$ / equal ၤ / $\text{l}\bar{a}$ /, as in ၤ / $\text{l}\bar{a}\bar{n}$ / 'car'; ၤ / $\text{h}\bar{a}$ / plus ၤ / $\text{c}\bar{a}\bar{e}\bar{y}$ $\text{w}\bar{a}$ / equal ၤ / $\text{f}\bar{a}$ /, as in ၤ / $\text{k}\bar{a}\bar{a}\bar{f}\bar{e}\bar{i}$ / 'coffee', and sometimes / $\text{w}\bar{a}$ /, as in ၤ / $\text{w}\bar{a}\bar{u}\bar{y}$ / 'crowd'; ၤ plus ၤ / $\text{c}\bar{a}\bar{e}\bar{y}$ $\text{m}\bar{a}$ / equal ၤ / $\text{m}\bar{a}$ /, as in ၤ / $\text{m}\bar{a}\bar{t}$ / 'fine'; ၤ plus ၤ / $\text{c}\bar{a}\bar{e}\bar{y}$ $\text{n}\bar{a}$ / equal ၤ / $\text{n}\bar{a}$ /, as in ၤ / $\text{n}\bar{a}\bar{y}$ / 'there'; ၤ plus ၤ / $\text{c}\bar{a}\bar{e}\bar{y}$ $\text{l}\bar{a}$ / equal ၤ / $\text{l}\bar{a}$ / as in ၤ / $\text{l}\bar{u}\bar{a}\bar{y}$ / 'king'. Write, transcribe, and pronounce:

A. ၤ ၤ ၤ ၤ ၤ ၤ
 ၤ ၤ ၤ ၤ ၤ ၤ
 ၤ ၤ ၤ ၤ ၤ ၤ
 ၤ ၤ ၤ ၤ ၤ ၤ

151. Although there are thirty-three consonant symbols, there are only thirty-one different subscripts, since ၤ / $\text{c}\bar{a}\bar{e}\bar{y}$ $\text{t}\bar{a}$ / serves as subscript for both ၤ and ၤ , and ၤ / $\text{c}\bar{a}\bar{e}\bar{y}$ $\text{l}\bar{a}$ / serves as subscript for both ၤ and ၤ . In the chart below, write the appropriate subscript for each of the thirty-three consonant symbols (two forms for / $\text{c}\bar{a}\bar{e}\bar{y}$ $\bar{n}\bar{a}$ /):

ក	ខ	គ	ឃ	ង	
ច	ឆ	ជ	ឈ	ណ	ញ
ដ	ឋ	ត	ឌ	ណ	
ក	ខ	គ	ឃ	ង	
ច	ឆ	ជ	ឈ	ណ	ញ
ដ	ឋ	ត	ឌ	ណ	
ក	ខ	គ	ឃ	ង	
ច	ឆ	ជ	ឈ	ណ	ញ
ដ	ឋ	ត	ឌ	ណ	

IX. INITIAL CLUSTERS

152. With a very few exceptions, all occurrences of written initial clusters (initial consonant symbol plus subscript) represent two-place initial sequences /CC-/ phonologically. When one of the aspirated consonant symbols (ខ kh, ឆ ch, ត th, ដ ph, etc.) occurs in conjunction with a subscript, it represents an unaspirated stop /k, c, t, or p/ phonologically. For example, in ត្រៃ /thae/ 'to care for', ត represents /th-/, but in ត្រៃ /tlay/ 'expensive', it represents /t-/. In other words, there is never an initial contrast between /CC-/ and /ChC-/ in Cambodian. For example, the pronunciations of the initial sequences in ក្មេង /kmeinj/ 'child' and ក្មេង /kmae/ 'Cambodian' are identical, although the first is spelled with ក and the second with ខ . Transcribe and pronounce the following: ក្បាល head, ខ្សាល, ក្រ together, ប្រ space, ច្បា គ្រ clear, ត្រ dog, ត្រ to complain, ត្រ arrow, ត្រ strange, ត្រ fruit. (Remember that ប with a subscript is pronounced /p-/. The vowels of the last two examples have their 1st series values.)

- A. kbaal, kbaal, kniə, kliə, cbah, ckae, tqouñ, tnuu, plaek, plae

153. When an aspirated consonant symbol occurs as a subscript in a written initial cluster, the cluster represents a three-place initial consonant sequence /CCC-/. Only three such sequences occur in initial position:

ရွာနီဗာ (- နီဗာ = /nii/) station, နိဗ္ဗာ twenty, ရလ္လှာဒိ drama.

Transcribe and pronounce the above three words (ရလ္လှာဒိ is pronounced with a 1st series vowel).

A. sthaanii, mphiy, lkhaon

154. The subscript $\bar{\text{၇}}$ is always pronounced /-d-/ in initial clusters. Tran-

scribe and pronounce: $\bar{\text{ဗ}}$ husband, $\bar{\text{က}}$ hot, $\bar{\text{ဗာဗ်}}$ to listen, $\bar{\text{ဗဗ်}}$ to originate.

A. pdəy, kdaw, sdap, pdaəm

155. You have already learned that the value of a vowel symbol is determined by the series of the preceding consonant (Exercise 2). However, in words written with an initial cluster of consonant symbols, the governance of the vowel is more complex. If both the initial consonant symbol and its subscript belong to the same series, there is no problem. In the following words, both consonant and subscript are 1st series, so the vowel has its

1st series value: $\bar{\text{ဗာဗာ}}$ to weave, $\bar{\text{နိဗ္ဗာ}}$ tomorrow, $\bar{\text{နိဗ္ဗိဗ်}}$ different, $\bar{\text{ဗာဗ}}$ board, $\bar{\text{ဗိဗာ}}$ flower, $\bar{\text{ဗာဗ}}$ sugar, $\bar{\text{ဗိဗ်}}$ to inform, $\bar{\text{နိဗ္ဗာ}}$ dog. Transcribe and pronounce these words.

A. tbaañ, sqaek, pseij, kdaa, pkaa, skaa, pdəj, ckae

156. In the following words, both the initial consonant symbol and its subscript belong to the 2nd series, so the vowel is pronounced with its 2nd series

value. Transcribe and pronounce: $\bar{\text{ဗာဗ}}$ enough, $\bar{\text{နိဗ္ဗာ}}$ mountain, $\bar{\text{ဗာဗ်}}$ pineapple, $\bar{\text{နိဗ္ဗာ}}$ forest, $\bar{\text{ဗာဗ}}$ hungry, $\bar{\text{နိဗ္ဗာ}}$ fire, $\bar{\text{နိဗ္ဗာ}}$ bed.

A. lməəm, pnəm, mnəəh, prəy, kliən, pləəj, krɛɛ

157. When the initial consonant symbol and its subscript belong to different series, any symbol representing a stop or spirant takes precedence over any continuant in determining the series of a following vowel symbol. In other words, symbols representing the consonants of Group 1 below dominate symbols representing consonants of Group 2.

Group 1 - Dominant

Group 2 - Passive

p t c k q

m n ñ ŋ

b d

w r l y

f s h

In the following words, the initial consonant symbol is a dominant 1st series consonant, so the vowel has its 1st series value. Transcribe and pronounce:

𑄎 fish, 𑄏 woman, 𑄐 monkey, 𑄑 section, 𑄒 Cam-
bodian, 𑄓 medicine, 𑄔 road, 𑄕 rice.

A. trəy, srəy, swaa, pnaek, kmae, tnam, pləw, srəw

158. In the following words, the subscript is a dominant 1st series consonant symbol, so the vowel has its 1st series value. Transcribe and pronounce:

𑄖 food, 𑄗 mother, 𑄘 pretty, 𑄙 flour, 𑄚 game,
𑄛 papaya.

A. mhoup, mdaay, lqaa, msaw, lbaen, lhon

159. When both the initial consonant symbol and its subscript are dominant, the series of the vowel is determined by the subscript. In such words, only 1st series consonants occur as initial consonant symbols, since the series of the vowel is always determined by the subscript. Transcribe and pronounce

the following words: 𑄜 house, 𑄝 high, 𑄞 to know,
𑄟 bridge, 𑄠 river, 𑄡 thin, 𑄢 cheek, 𑄣 to-
ward, 𑄤 lazy.

A. ptěəh, kpŭəh, sköəl, spiən, stɪŋ, skəəm, tpöəl, cpŭəh, kcɪl

160. You should now be able to determine the proper vowel series for any monosyllable spelled with an initial consonant cluster. Transcribe and pronounce the following words. If you have any trouble, refer to Exercises 155-159.

1. 𑄥 I

4. 𑄦 borrow

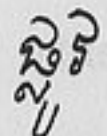
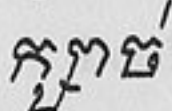
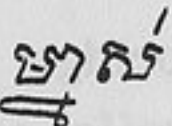
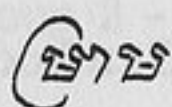
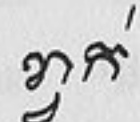
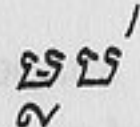
2. 𑄧 eyes

5. 𑄨 in

3. 𑄩 section

6. 𑄪 together

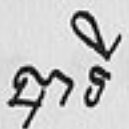
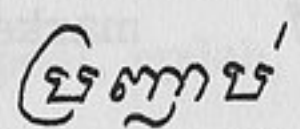
7.	ខ្មែរ	Cambodian	28.	រឹង	twenty
8.	ខ្ពស់	high	29.	ម្ហូប	food
9.	ព្រួញ	to suspend	30.	ស្ពាន	bridge
10.	ផ្លែឈើ	fruit	31.	ស្លាប់	to die
11.	ច្រើន	much	32.	ខុសៗគ្នា	different
12.	ប្រើ	to use	33.	ទីកន្លែង	place
13.	ខ្នុរ	onion	34.	ទន្លេ	river
14.	ងាយ	easy	35.	ក្អក	to cough
15.	ល្អ	pretty	36.	ភ្ញៀវ	guest
16.	ក្រោយ	after	37.	cat	
17.	គ្រប់គ្រាន់	enough	38.	ព្រោះ	because
18.	ធ្លាក់	to fall	39.	អ្វី	what
19.	ក្បាល	head	40.	ឃ្នក	hungry
20.	ដៃឆ្វេង	left-hand	41.	ម្ហូបរមាំង	pepper
21.	ទ្វារ	door	42.	ជ្រៅ	deep
22.	ផ្សារ	market	43.	ឈ្មោះ	name
23.	រឿង	drama	44.	ផ្លូវ	road
24.	ល្ងាច	afternoon	45.	ខ្សែ	string
25.	ឆ្ងល់	lazy	46.	ឆ្កែ	dog
26.	ស្គាល់	to know	47.	ថ្នាក់	class
27.	ប្តី	husband	48.	ស្រស់	sweet

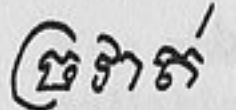
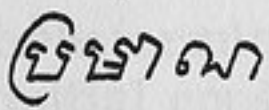
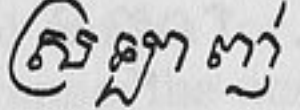
49.  road50.  sand51.  pineapple52.  finger53.  blind54.  shade

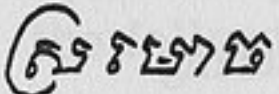
- | | | | |
|------------|------------|------------|-----------|
| A. 1. kñom | 15. lqaa | 29. mhoup | 43. cmũəh |
| 2. pnɛɛk | 16. kraoy | 30. spiən | 44. tndl |
| 3. pnaek | 17. lmɔəm | 31. slap | 45. ksae |
| 4. kcəy | 18. tlěəq | 32. pseij | 46. ckae |
| 5. knoŋ | 19. kbaal | 33. sthaan | 47. tnaq |
| 6. kniə | 20. cweij | 34. stiŋ | 48. pqaem |
| 7. kmae | 21. twiə | 35. kqaaq | 49. pləw |
| 8. kpũəh | 22. psaa | 36. pñiəw | 50. ksac |
| 9. pyuə | 23. lkhaon | 37. cmaa | 51. mnõəh |
| 10. plae | 24. lŋiəc | 38. prũəh | 52. mriəm |
| 11. craən | 25. kcɪl | 39. qwəy | 53. kwaq |
| 12. praə | 26. skõəl | 40. kliən | 54. mlup |
| 13. ktɪm | 27. pdəy | 41. mteeh | |
| 14. sruəl | 28. mphɪy | 42. crɪw | |

X. GOVERNANCE OF VOWEL SERIES IN WORDS OF MORE THAN ONE SYLLABLE

161. In words of more than one syllable, as in monosyllables, the vowel series in any syllable is governed by the last preceding dominant consonant symbol. In the following words, the dominant initial consonant of the 1st syllable takes precedence over the passive initial consonant of the 2nd syllable.

Transcribe and pronounce:  cigarette,  to hurry,

 criss-crossed,  approximately,  to like,

 ant.

A. baarəy, prañap, crowat, pramaan, sralañ, sramaoc

162. In the following words, the initial dominant consonant symbol belongs to the 2nd series, and both syllables have 2nd series vowel pronunciations. The problem of governance does not arise here, however, since both syllables

have 2nd series initials. Transcribe and pronounce: တိန် a perch, ကိန်ကိ thought, တလံဗ dawn, ကျလ် coolie, တေကင် to shoulder.

A. trɔnum, kumnit, prɔlɪm, kuulii, prɔnɛəq

163. In a few words, however, a 2nd syllable initial continuant does not yield to a 1st series dominant initial in the first syllable (especially in some disyllables with an initial ဟ), and the second syllable maintains its 2nd series value, as in: ဟမိဗိ hammock, ဟဒ်နိ category, ဟဒ်နိဗိ stroke, ဗြဒ်နိ history (second syllable pronounced /-wǒət/). Transcribe and pronounce them. (The first syllable of the first example above is pronounced /qɑŋ-/, and of the second and third examples, /qɑn-/.)

A. qɑŋrɪŋ, qɑnləə, qɑnluuŋ, prawǒət

164. In disyllables each of whose syllables begins with a dominant consonant, the vowel series of each syllable is determined independently, consistent with the rule stated in Exercise 161 above. In the following words each syllable begins with a dominant 1st series consonant. Transcribe and pro-

nounce: ကကဗာ to scratch, ဗြညိဗ to compare, ဗြကဗ to announce, တြကျလ် lineage.

A. kakaay, prɑdɔuc, prakaah, trɑkɔul

165. In the following words, the 1st syllable begins with a dominant 1st series consonant and the second with a dominant 2nd series consonant. Transcribe

and pronounce: ဗြဒ်ကဗ country, ဗြဒ်ဝဲ to meet, တြညိကင် cool, ဗြဒ်ကျလ် to illumine, ဗြဒ်နိ dark.

A. prateeh, pratɛəh, trɑcɛəq, bɑmpli:i, sratum

166. In some disyllables an initial လှ in the second syllable is passive rather than dominant, as in တိလှ size, တလှကဗ soldier, တိလှကဗ temple.

These words are sometimes written with a converted လိ ; e.g.,

တလိကဗ , thus conforming to the rule stated in Exercise 164 above.

Transcribe and pronounce them.

A. tumhum, tiəhiən, wihiə

XI. MEDIAL CLUSTERS

167. The commonest type of disyllables in Cambodian are disyllables whose initial syllable has the shape /CVN-/ (Consonant-Vowel-Nasal). In such words the final nasal of the first syllable is written on the line and the initial consonant of the 2nd syllable is written as its subscript; e.g., កម្លាំង /kamlaŋ/, 'strength'. The initial syllable in such words has no written vowel, but is pronounced as if there were a /bantaŋ/ ($\bar{\text{—}}$) over the nasal, i.e. /a/ after a 1st series initial, and after a second series initial, /u/ before ២ and /üə/ before other nasal symbols (see Exercises 64-67). All these presyllable vowels tend to be reduced to /ə/ in rapid speech. As with initial clusters, elements of the vowel symbol of the main syllable may be written before, above, below, and following the entire cluster; e.g., បង្កើត /baŋkaət/ 'to originate'. The series of the 2nd syllable vowel is determined by the rule described in Exercise 161. Transcribe and pronounce:

កន្លែង place, សង្កត់ to press, ចម្បាំង battle, សម្រាប់ for,
 បង្កើត to originate, បង្អួច window, បង្ខំ to force, បញ្ចប់
 to up-end, បន្ទាយ fort, សង្ឃឹម to hope, បន្ទប់ room,
 សង្គម society (final syllable pronounced គម).

A. kanlaeŋ, saŋkat, cambaŋ, samrap, baŋkaət, baŋquəc, baŋkham, bañchəw, bantiəy, saŋkhim, bantup, saŋkum

168. The following words involve all three of the vowel alternants /a/u/üə/ that occur in initial syllables of shape /CVN-/. Transcribe and pronounce:

ចម្រុក strip, និរន្តរៈ quarrel, បន្លែ vegetable, ពន្លឺ light,
 កញ្ចប់ package, និព្វាន to carry, បង្រៀន to teach, ពង្រីក to spread.

A. camriəq, cumlüəh, banlae, püənlɨɨ, kañcap, cüəñcuun, baŋriən, püəŋriik

169. You learned in Exercise 154 that $\bar{\text{—}}$ /cəəŋ taa/ is always pronounced /-d-/ in initial clusters. Medially, however, its pronunciation is unpredictable. As a general rule, when it occurs subscript to ្លា it is pronounced -d-, and when subscript to ្ល , it is pronounced /-t-/. Following this rule,

transcribe and pronounce the following: កណ្តាល middle, បង្អួច
 a little, អណ្តាត tongue, បង្អួច to continue, កន្ត្រៃ indifferent,
 សន្លឹក beans, បន្ទាយ length.

A. kandaal, bantəc, qandaat, bantaa, kantaəy, sandaek, bandaoy

170. In some words, however, ្រ is pronounced -d- even when subscript to
 ្រ, as in សន្តាន lineage, សន្តាស to pity. Transcribe and
 pronounce them.

A. sandaan, sandaoh

171. When ្រ occurs as the initial symbol of presyllables of shape /CVN-/,
 it has the value /d-/. Transcribe and pronounce: ្រ stacked up,
 ្រ to correct, ្រ weaving, ្រ value.

A. damruət, damrəw, dambaañ, damlay

172. Disyllables whose 1st syllable has the shape /CVm-/ may be written either
 with a medial cluster (/qaqsaa damrüt/ ‘stacked letters’) or with the
 /niqkəhət/ (្រ), commonly called /sraq qam/. For example, /kamlay/
 ‘strength’ may be spelled either in the /qaqsaa damrüt/ form ក្រាំង,
 or in the /qaqsaa riəy/ ‘consecutive letters’ form កំឡាំង (or កំលាំង,
 since ក dominates ល, although ្រ in such syllables is more com-
 mon). The result is that there is disagreement among Cambodians them-
 selves about how such words are spelled. The trend, however, seems to be
 toward preference of the more efficient /sraq qam/ spelling at the expense
 of the conjunct spelling. In the official Cambodian dictionary the /sraq qam/
 spelling is usually recommended where two spellings are possible, with two
 exceptions: in words spelled with initial ្រ - , and in roughly half the
 entries spelled with initial ស - , the conjunct spelling is recommended.

Write the following words two ways: /damrüt/ stacked, /kamsat/ destitute,
 /samlaa/ stew, /tumñən/ weight, /kampüəh/ height, /damloun/ (initial ្រ)
 potatoes, /samlañ/ to like.

A. ្រ, ្រ; ក្រាំង, កំលាំង; ស្រ, សំឡ; ទ្រង់, ទំលឹង;
 ក្រង់, កំពង់; ្រ, ្រ; ស្រាញ់, សំឡាញ់.

173. Medial clusters in which the subscript is a repetition of the preceding consonant (geminate clusters) usually represent doubled consonants phonologically. The initial syllable of such words, if it has no written vowel, is usually pronounced as if it were written $-ṛ̥-$, i.e. /a/ in the 1st series and /ěə/ or /ōə/ in the 2nd series (see Exercises 72-74). Transcribe and pronounce:

កញ្ចក់ girl, សញ្ចក់ sign, សញ្ចា promise, វិញ្ច article,
 បណ្ណសាលា library (ប = ប").

A. kañṅaa, sañṅaa, saccaa, wōətthoq, pannaalay

174. When the syllable-final value of a consonant symbol differs from its syllable-initial value, a geminate cluster represents two different but closely related consonants phonologically. Transcribe and pronounce:

សប្បុរស (1st syllable pronounced សាប') happy, ប្រស្សី (see Exercise 63) bamboo, គប្បី (1st syllable pronounced កាប') proper.

A. sapbaay, rihəy, kōəpbəy

175. A few words have medial clusters with two subscripts, resulting in three consonant symbols written vertically. Almost all three-symbol clusters consist of a nasal final in the first syllable, followed by a syllable whose initial consonant is a stop of the same articulatory position (homorganic) as the nasal, plus /-r-/. Transcribe and pronounce the following:

កន្ត្រី scissors, កន្ត្រី music, កន្ត្រី កន្ត្រី កន្ត្រី fox, សន្ត្រី កន្ត្រី កន្ត្រី war.

A. kantray, dantrəy, kañcrooŋ, saŋkriəm

176. Exceptions to this pattern occur in the following three loanwords:

កន្ត្រី កន្ត្រី កន្ត្រី English, សន្ត្រី កន្ត្រី កន្ត្រី Sanskrit (1st syllable usually pronounced /saŋ-/), សន្ត្រី កន្ត្រី កន្ត្រី professor (the second -ស- represents /-hs-/,

so that the cluster actually represents the sequence /-hstr-/ phonologically; initial vowel is reduced to /a/; final -ត្រី is silent). Transcribe and pronounce them.

A. qaŋkleeh (~ qaŋglee), saŋskrət, sahraaaca

177. As in initial position, medial clusters which have an aspirated consonant as subscript represent the sequence /-CCh-/. Transcribe and pronounce:

សប្បុរស to hope, បណ្ណសាលា to bring to a stop, វិញ្ច an interjection,
 វិញ្ច artifact.

A. saŋkɨm, bañchup, putthoo, wǎtthoq

178. Aspirated subscripts in medial clusters tend to be pronounced as unaspirated consonants when they begin an unstressed syllable. In the following words, the subscripts begin unstressed syllables which are pronounced with the unwritten vowel /-ə-/. Transcribe and pronounce: វិទ្យាសាស្ត្រ letter (the 1st syllable is pronounced like វិទ្យា), វិទ្យាសាស្ត្រ article, story (the 1st syllable is pronounced like វិទ្យា , the last like សាស្ត្រ), ពុទ្ធសាសនា Buddhism (សាសនា is pronounced /sahsnaa/).

A. qaɣkəraa, qattəbət, puttəsahsnaa

XII. WRITTEN FINAL CLUSTERS

179. Many loanwords are spelled with etymological final clusters, the subscripts of which are not pronounced. Transcribe and pronounce the following

words: មិត្ត friend, ពុទ្ធ Buddha, មនុស្ស human, ពាក្យ word, បុណ្យ merit, ចិត្ត heart, mind, សំបុត្រ letter, សមុទ្រ ocean (1st syllable /sə-/), អាទិត្យ sun, រដ្ឋ state (pronounced like វាត់).

A. mīt, put, mənuh, piəq, bon, cət, sambot, səmot, qaatit, rǎət

180. When a word that is spelled with a silent final subscript occurs in the first element of a compound, the subscript is pronounced as the initial of the following, usually unstressed, syllable. Transcribe and pronounce the following:

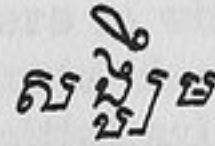
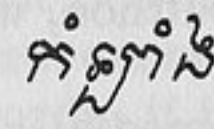
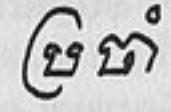
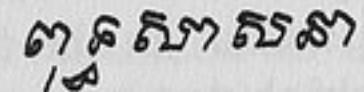
ing: មិត្តភាព friendship, ពុទ្ធសាសនា Buddhism, រដ្ឋាភិបាល government.

A. mītthəphiəp, puttəsahsnaa, rǎətthaaphibaal


181. In spelling words aloud, Cambodians pronounce consonant symbols with their inherent vowels, regardless of the series of a following vowel. Vowel symbols are referred to by their 1st series values, regardless of their pronunciation in the word being spelled. Subscript consonants are cited after superscript consonants, even in the case of /cəəŋ rɔə/, which precedes.



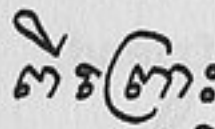

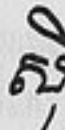
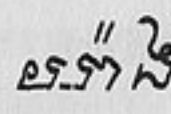
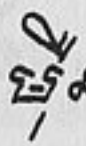

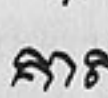
For example, the word បន្លែក is spelled /baa, ŋɔə, cəəŋ kaa, sraq qaə, taa/. Transcribe and pronounce the syllables used in spelling the following

words: 1. បន្លែក rice 2. មាន to have 3. ស្រី woman 4. ចូល to


- create 5.  to hope 6.  strength 7.  regular
 8.  Buddhism.







- A. 1. baa, sraq qaa, yaa
 2. maa, sraq qaa, naa
 3. sda, caey raa, sraq qay
 4. baa, caey taa, sraq qaə, maa
 5. sda, nya, caey khaa, sraq qaq, maa
 6. kaa, sraq qam, laa, sraq qam, nya
 7. baa, caey raa, cda, sraq qam
 8. paa, sraq qoq, taa, caey thaa, sda, sraq qaa, sda, naa, sraq qaa


182. When the /rěəhmuk/ occurs alone after a consonant, it is called /sraq qah/. However, when it follows a vowel symbol, it is called /rěəhmuk/ and follows the name of the vowel symbol. Diacritics are usually named following the consonant to which they apply, except that the /kbiəh kraom/ is named following both the initial consonant symbol and vowel to which it applies. Transcribe and pronounce the spelling of the following words: 1.  to slap

2.  to descend 3.  horse 4.  because 5.  to dare
 6.  to eat 7.  kind 8.  10,000 9.  to cut
 10.  he, she.

- A. 1. taa, sraq qah
 2. cda, sraq qoq, rěəhmuk
 3. sda, sraq qei, rěəhmuk
 4. paa, sraq qai, paa, caey raa, sraq qao, reəhmuk
 5. hda, trəysap, sraq qaa, naa
 6. sda, sraq qay, kbiəh kraom
 7. yaa, museqkətōən, sraq qaa, nya
 8. maa, sraq qai, kbiəh kraom, naa
 9. kaa, sraq qaa, taa, bantaq
 10. kaa, sraq qaa, taa, bantaq

183. You have learned that the symbol  /baa/ represents /p/:

- a. when written with the /museqkətōən/ () or its equivalent form () as in  /paa/ 'father' and  /pəy/ 'flute';
 b. when it occurs with a subscript, as in  /pdəy/ 'husband';
 c. and in syllable final position, as in  /chup/ 'to stop'.

In some words, an initial  is pronounced /p-/ even though it is written neither with the /museqkətōən/ nor a subscript. Such words are listed

inconsistently in the dictionary, sometimes occurring with the $\text{ပ}''$'s, sometimes with the ပ 's. Transcribe and pronounce the following words, all of which are pronounced with an initial /pa-/: ပဉ္စေဉ် cause, ပဉ္စပဉ်း the present (final syllable pronounced /-ban/), ပဉ်းတေဉ် to cancel (ဉ် represents /-td-/, final vowel irregularly pronounced as $\text{ဉ်} -$), ပဉ်းဉ်း intelligence.

A. paccay, paccopban, patdesaet, pañña

184. Transcribe and pronounce the following words with particular attention to the value of ပ : ပ three, ပ flute, ပာဉ်း sin, ပဉ်း to use, ပဉ်းဉ်း intelligence, ပဉ်းပဉ်း persuade, ပဉ်းတေဉ် country, ပဉ်းဉ်း how much.

A. bəy, pəy, baap, praə, pañña, babuəl, prateeh, ponmaan

XIII. UNWRITTEN VOWELS

185. The following words summarize all of the spellings so far introduced by which vowels are represented without a written vowel symbol. Transcribe and pronounce them. Each word is followed by the number of the exercise in which that particular unwritten vowel spelling was introduced. If you are in doubt as to what vowel is represented, turn back and review the appropriate exercise.

- | | |
|-------------------------------------|--|
| 1. ကတ (64) to jot down | 7. ညဉ်းညဉ်း (142) to quarrel |
| 2. ညဉ်း (65) to absorb | 8. ပဉ်းဉ်း (143) to bite each other |
| 3. ညဉ်း (67) to smoke | 9. ပဉ်းဉ်း (143) dawn |
| 4. ညဉ်း (64) to tie | 10. ညဉ်းညဉ်း (167) opening, gap |
| 5. ညဉ်း (64) to come | 11. ညဉ်းညဉ်း (168) quarrel |
| 6. ညဉ်းညဉ်း (142) persuade | 12. ညဉ်းညဉ်း (168) wall |

A. 1. kat 2. cup 3. cūəq 4. caaŋ 5. mək 6. babuəl 7. cəcək
8. prakham 9. prəlīm 10. canlah 11. cumlūəh 12. cūəñcəəŋ

186. In addition to the above examples of unwritten vowels, words which are written with a silent final subscript but no vowel symbol are typically pronounced as if they were written $-ʔ'$. Transcribe and pronounce:

1. ṣap speech 2. sat animal 3. kam fate 4. yǎq demon
 5. ṣam the symbol 6. trǎp wealth 7. prawǎt history
 8. sambat possessions (the final $-$ is silent in examples 7 and 8)

- A. 1. sap 2. sat 3. kam 4. yǎq 5. khan 6. trǎp 7. prawǎt
 8. sambat

187. A few words which are spelled with a final silent subscript and no written vowel are pronounced with the short inherent vowel as if they carried a final /bantaq/ ($-'$). The following words are of this type; transcribe and pronounce them.

- ṣap every, ṣap family, yǎq motor,
 trǎp wife, ṣap priest

- A. sap, wǎṅ, yǎn, prapǎn, prǎḥsaṅ

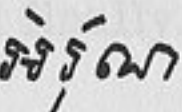
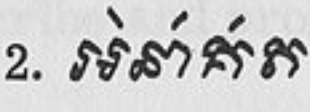
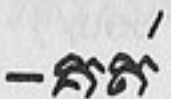
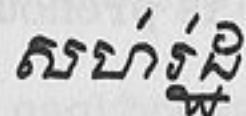
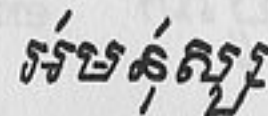
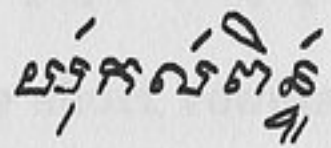
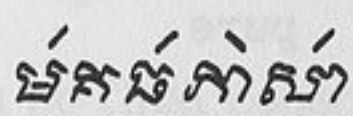
188. Some words whose final syllables are spelled with a sequence of consonant symbols, which would normally indicate the long inherent vowel, are pronounced with the short inherent vowel, even though the final consonant does not carry the /bantaq/. Transcribe and pronounce the following words of

- this type: 1. sam proper 2. sap corpse 3. cǎn people 4. rǎt car
 5. saṅkum society 6. praakat exact 7. ciǎdaq Jataka (ṣ =
 d) 8. pipḥup world.

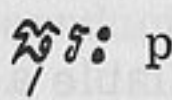
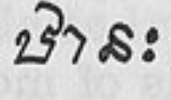

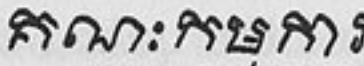
- A. 1. sam 2. sap 3. cǎn 4. rǎt 5. saṅkum 6. praakat 7. ciǎdaq
 8. pipḥup

189. In words of more than one syllable (other than the types discussed above) consonant symbols with no written vowel are pronounced as separate syllables with the vowel /a/ after a 1st series symbol and /ǎ/ after a 2nd series symbol when stressed, both reduced to /ə/ when unstressed. In a formal or reading pronunciation such syllables are pronounced with an unwritten final /-q/. For example, ṣap 'dawn', is pronounced /qarun/ in normal speech, reduced to /qərən/ in rapid speech; in very formal speech it would be pronounced /qaqrun/. In the following examples, heavily stressed syllables are marked $ˈ$, syllables with medium stress are marked $ˌ$,

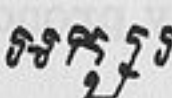
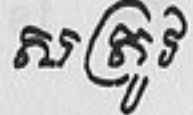

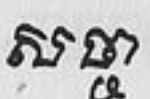
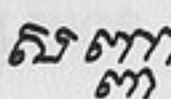
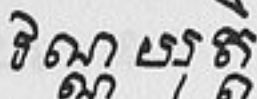

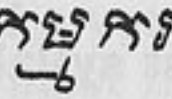
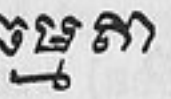


and unstressed syllables are unmarked. Transcribe and pronounce them.

- 1.  dawn
- 2.  future (final syllable is pronounced as if written -)
- 3.  republic
- 4.  non-human
- 5.  the symbol -:
- 6.  Pali



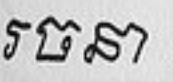
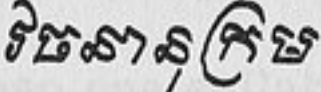
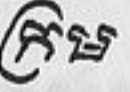

- A. 1. qarun 2. qanaakuət 3. səhaqrōət 4. qaqmənuh
- 5. yuqkələəqpintuq 6. mēəqkəthēəq-phiəsaa

190. The stressed finals /-aq/ or /-ěəq/ are sometimes indicated in the writing system by the use of the /yuqkələəqpintuq/ (-:) when they occur in a final syllable, or preceding an internal juncture within a compound. (This sign must be carefully distinguished from the /rěəhmuk/ -°). Transcribe and pronounce the following:  preoccupation,  position,  interval,  commission.




- A. thurěəq, thaanaq, rəyěəq, kənaq-kamməkaa

191. In some words whose second consonant symbol serves as the final of the first syllable, the first syllable is pronounced /a/ in the 1st series and /ěə/ or /ōə/ in the 2nd series (see Exercises 72-74). Transcribe and pronounce the following:  letters,  enemy ( represents the doubled consonant /-tt-/),  to promise,  sign,  diacritic (final  is silent),  worker,  usually ( = d),  January.

- A. qaqsɑɑ, sattɾəw, saccaa, saññaɑ, wōənnəyut, kamməkɑɑ, thōəmmədaɑ, mēəqkəraɑ

192. In some words whose second consonant symbol is  , an initial consonant symbol of the 2nd series is pronounced with the vowel /a/;  in such words represents a double consonant /-cc-/. Transcribe and pronounce:  handicraft,  dictionary (- = ).

- A. raccənaɑ, waccənaanukɾam

193. In polysyllabic words, when the consonant symbols  or  occur initially and before  , they are pronounced with their normal inherent vowels rather than with a/ěə/ōə. Transcribe and pronounce (the series of the second syllable in the first three words is irregular):

1. ပၢ်စၢ်စၢ် to eat (elegant)
 2. ပၢ်ပုၤဃၢ် excellent (ပုၤဃၢ် is pronounced /bou/)
 3. ပၢ်စၢ်စၢ် pure
 4. ဗၢ်မး to die (elegant)
 5. ဗၢ်ကၢ် emerald (ကၢ် is pronounced like ကၢ်^1)
- A. 1. baariphook 2. baaribou 3. baarisot 4. mǝrənaq 5. mǝrəkət

XIV. UNWRITTEN CONSONANTS

194. In many words of more than one syllable a medial consonant symbol serves both as the final consonant of one syllable and the initial consonant of the next; phonologically the consonant is doubled, and the extra syllable, if no vowel is written, is pronounced with the short vowel /ə/. Transcribe and pronounce the following:

1. စၢ်စၢ် to like (စ - is irregularly pronounced /ae/))
2. စၢ်စၢ်ဗၢ် stupa (စ - is irregularly pronounced /ae/; ဗ = /-td-/)
3. မၤဗၢ် enemy (first syllable has /-a-/))
4. စၢ် art (first syllable has /-a-/))
5. မၤဗၢ်ဗၢ် civil service
6. မၤဗၢ်ဗၢ် era (ဗ = /-qk-/)
7. မၤဗၢ်ဗၢ် citizenry (first syllable pronounced like မၤဗၢ်^1)
8. မၤဗၢ်ဗၢ် religion (first syllable shortened to /-a-/, 2nd ဗ = /-hs-/)
9. မၤဗၢ်ဗၢ်ဗၢ် professor

- A. 1. caettənaa 2. caetdəy 3. sattɾəw 4. raccənaa 5. riəccəkəaa
6. saqkəraac 7. pǝəllərōət 8. sahsnaa 9. sahstraacaa

195. You have learned that the unwritten vowels /a/ and /ěə/ in stressed syllables with no written final are pronounced with a final /-q/, both medially

the following words: ^၂ကျွေးကျွေးကံတရား virtue, ^၂ကံတရား who?,
^၂ကီလူမီတာ kilometer, ^၂ပတ်ပတ် to pester, ^၂ပတ်ပတ် tattered.

A. kunaanuphiəp, nōnaa, kiloumaet, rəŋəw, rəyay

199. In the following words, however, even ^၂ကံ and ^၂ကံ submit to the govern-
 nance rule. Transcribe and pronounce: ^၂ကံ ^၂ကံ ^၂ကံ commerce, ^၂ကံ ^၂ကံ
 clock.

A. piənɪc, niəlɪkaa

200. A number of words are spelled with an unpronounced final short vowel sym-
 bol. Transcribe and pronounce the following examples: ^၂ကံ village,
^၂ကံ life, ^၂ကံ monk's quarters, ^၂ကံ reason (^၂- is irregular-
 ly pronounced /ae/) ^၂ကံ history (final syllable pronounced as if writ-
 ten ^၂), ^၂ကံ to behave.

A. phuum, ciət, kot, haet, prawōət, prəprɪt

201. In some words, the vowel symbol ^၂- is pronounced like ^၂- , i.e. /ae/
 in the 1st series and /ɛɛ/ in the 2nd series. Transcribe and pronounce the
 following: ^၂ကံ reason, ^၂ကံ or ^၂ကံ province, ^၂ကံ doctor,
^၂ကံ stupa (^၂ = /-dt-/) ^၂ကံ to cancel (first syllable is
 pronounced /pat-/) ^၂ကံ to like (^၂ = /-tt-/).

A. haet, khaet, pɛɛt, caetdəy, patdesaet, caettənaa

202. The vowel symbol ^၂- is pronounced like ^၂- in some 1st series initial
 syllables. Transcribe and pronounce: ^၂ကံ father (^၂ = /-d-/),
^၂ကံ stone, ^၂ကံ spirit.

A. bəydaa, səylaa, bəysaac

203. In a few words the configuration ^၂- ^၂ with a 1st series consonant sym-
 bol is pronounced /-ac/ rather than the regular /-əc/. Transcribe and

pronounce: နှစ်စွဲ completely, နှစ်ပြည့် to complete, နှစ်ဆီ' flesh, နှစ်ဆီ king, နှစ်ဆီဆီ a royal title.

A. srac, samrac, sac, sdac, samdac

XVI. SOME ADDITIONAL DIACRITICS

204. The following diacritics have already been introduced: 1. နှစ်ဆီ' /bantaq/ - (Exercises 64-78) 2. မှုဆီကဆီ /museqkətōən/ - , - (Exercises 43 and 48) 3. နှစ်ဆီ /trəysap/ - , - (Exercise 45) 4. နှစ်ဆီ /niqkəhət/ - (Exercises 101-107) 5. နှစ်ဆီဆီ /sanyook-sañnaa/ - - (Exercises 117-119).

Another important diacritic is the နှစ်ဆီဆီ /tōəndəkhiət/ (-), sometimes referred to as the နှစ်ဆီ /samlap/ 'to kill', or the နှစ်ဆီ /patdesaet/ 'to cancel'. It is placed over the final consonant symbol of certain etymologically spelled words to indicate that the final consonant symbol is not to be pronounced. Any vowel or subscript consonant symbols which accompany the canceled consonant symbol are likewise unpronounced. If the canceled symbol is preceded by နှစ် , they are both unpronounced. Transcribe and pronounce the following words involving the

/tōəndəkhiət/: နှစ်ဆီဆီ usefulness, နှစ်ဆီဆီ diligent (နှစ် = /qu-/), နှစ်ဆီ heritage, နှစ်ဆီဆီ to experiment, နှစ်ဆီ banyan (tree), နှစ်ဆီဆီ example, နှစ်ဆီဆီ to say (elegant).

A. prayaoc, quhsaa, kei, pisaot, poo, qutiəhəa, prasaah

205. In some words the vowel or subscript which accompanies a preceding consonant symbol is also unpronounced, as in the following three words. Transcribe and pronounce them. နှစ်ဆီ (or နှစ်ဆီ) king, နှစ်ဆီ (~ နှစ်ဆီ) good manners, နှစ်ဆီ sandalwood.

A. ksāt, lěəq, can

206. In certain compounds whose first element is written with an unpronounced final consonant symbol, the /tǝəndəkhiət/ may occur internally. Transcribe


and pronounce: ទ័ព្រឹត្តិយា *army* (archaic; final syllable pronounced as if ព្រឹត្តិ) ទ័ព្រឹត្តិយា *in a rage*.

A. reepǝl, moobəŋ

207. The following two related words are irregular in that the subscript rather than the superscript consonant preceding the /tǝəndəkhiət/ serves as the

final of the syllable. Transcribe and pronounce: ព្រហ្មណ៍ *Brahma*,
ព្រហ្មណ៍ *a Brahman*.

A. prum, priəm

208. The រាបាត /rəbaat/ () is the reflex of an original /r/ in Sanskrit loanwords. In most words, when it occurs over a final consonant symbol neither the /rəbaat/ nor the consonant over which it occurs is pronounced. (Because of its functional similarity to the /tǝəndəkhiət/ in this position, the two are frequently confused.) An exception is the word ភាវី /qaat/ 'essence', where the symbol underlying the /rəbaat/ is pronounced as the final of the syllable. Transcribe and pronounce: បរិបូណ៌ *abundant* (see 193), ព្រះករណី *ear* (royal vocabulary).

A. baaribou, prěəh-kaa

209. In the following words the effect of the /rəbaat/ is to change the vowel /ɔə/ to /ɔə/, as well as to cancel the final consonant symbol. This effect is

called សំរៀងស្រ្គិ */səmleij n̄ə/* 'trembling sound' in Cambodian. It

is the same sound that occurs in such words as ជ័រ */cəə/* 'resin' and

ស្រ្គិ */n̄ə/* 'to tremble' (Exercise 119); in both cases a final រ symbol

is involved. Transcribe and pronounce: ច្បាប់ *law*, ពណ៌ *color*,

ភ្នំ *pregnant*.

A. thəə, pəə, kəə

210. When the /rəbaat/ appears over a medial consonant symbol, it is pronounced as the intruded syllable /-rə-/ preceding the consonant symbol over which

it occurs. Most such words are more commonly spelled with $-r-$.

Transcribe and pronounce: គំនិត (\sim គំនិត) destitute (first syllable pronounced long; final syllable pronounced គិត), ប្រតិភូ (\sim ប្រតិភូ) legacy (Exercise 193; final syllable pronounced ប្រិក).

A. tuurəkūət, mōrədaq

211. The លេខប្រាំបី /leik qahsdaa/ 'number eight' (\sim លេខប្រាំបី), also called លេខប្រាំបី /leik prambəy/, occurs only in the following two words: $\text{ក្រ$ resultative auxiliary: then; $\text{ណា$ relative pronoun: which. It has no effect on the pronunciation. Transcribe and pronounce them.

A. kaa, daa

212. The កាកបាត /kaaqkəbaat/ (\sim កាកបាត) more commonly called /cəəŋ kqaek/ 'crow's foot' occurs in certain particles which are normally pronounced with a high or rising intonation. This intonation can be indicated in the transcription by / ! /. Transcribe and pronounce: នោះ! there!, នោះ! female response particle ($- \text{៎} = /-h/$), ណា! \sim ហោះ! hortatory particle, អើ! derisive particle (initial /h-/).

A. nuh!, caah, naa! \sim nah!, hah!

213. The /kaaqkəbaat/ is also used to mark the point of insertion of an omitted word or consonant symbol. Rewrite the following words correctly, then

transcribe and pronounce: សរសេរ to write (neither រ is pronounced) ហាសប្រាំបីរៀល 58 riels.

A. សរសេរ sasei ហាសប្រាំបីរៀល haasəp-prambəy riəl

214. The លេខពីរ /leik too/ ៗ 'figure two' indicates that the word (or phrase) after which it occurs is to be repeated. The most common use of the /leik too/ is in the writing of reduplicative compounds, as in

ស្រីៗ /srəy-srəy/ 'women'. Transcribe and pronounce: និមួយៗៗ various, តូចៗៗ small and numerous, $\\text{និមួយៗៗ}$ each in turn.

A. pseij-pseij, touc-touc, nimuəy-nimuəy

215. In some cases a phrase rather than a single word is to be repeated. This can be determined only by the context. The following phrases are frequently written with the /leik too/. Transcribe and pronounce them.

បន្តិចបន្តួច ៗ little by little, រំលាយខ្លួនគ្នា ៗ separately.

A. bantəc mədaɲ, bantəc mədaɲ; daoy laek, daoy laek

216. When the word or words at the end of one sentence are to be repeated at the beginning of next, the two sentences may be “telescoped” by the use of the /leik too/. The following two sentences share the words “my house.” Transcribe and pronounce:

ខ្ញុំទៅផ្ទះខ្ញុំ ៗ ផ្ទះខ្ញុំនៅជិតផ្សារ

I'm going to my house. My house is near the market.

A. kñom tɨw ptěəh kñom; ptěəh kñom nɨw cɨt psaa.

XVII. VOWEL REDUCTION IN PRESYLLABLES

217. In rapid speech the vowels in presyllables of shape CV- (Exercise 142), CrV- (Exercise 143), and CVN- (Exercise 167), tend to be reduced to /ə/. Transcribe both the careful and rapid pronunciations of each of the follow-

ing words: កកាឃា to scratch about, ទទួល to receive, របបស[៍] thing, មនុស្ស human, ប្រទេស country, ប្រឡាក់ to like, ក្រប water buffalo, ព្រលឹម dawn, បង្កើត to originate, សំឡេង voice, និព្វាន to owe, កន្លែង place, ពង្រីក to spread, ជិវ្រាវៈ quarrel, និព្វានិវៈ wall, សំបុត្រ letter.

A. kakaay, kəkaay; tətuaɛl, tətuaɛl; rəbɔh, rəbɔh; mənuh, mənuh; prətəeh, prətəeh; sɾalaɲ, sɾəlaɲ; krəbəy, krəbəy; prəlɨm, prəlɨm; bəŋkaət, bəŋkaət; sɔmleɨŋ, səmleɨŋ; cumpěəq, cəmpěəq; kənlaeŋ, kənlaeŋ; pŭəŋriik, pəŋriik; cumlŭəh, cəmlŭəh; cŭəñcěəŋ, cəñcěəŋ; sambot, səmbot.

218. The presyllable of the following two common words is reduced in rapid speech to /tə-/. Transcribe the careful and rapid pronunciations of each.

ដដដល same, សរសរសរ to write.

A. dadael, tədael; sasei, təsei

219. Some presyllables that are written with a long vowel may be pronounced long in careful speech, but they are pronounced in normal speech with a short vowel (Exercise 141). Transcribe and pronounce the following words

two ways: សាលា hall, វ័យ age, ច្នៃក្តី clever, ព្រោះ because, កាហ្វេ coffee, បុរាណ ancient, ស្រព្វសំឡេង euphonic, គូលី coolie.

A. saalaa, salaa; qaayuq, qayuq; puukae, pukae; piipruəh, pipruəh; kaafei, kafei; bouraan, boraan; piiruəh, piruəh; kuulii, kulii

XVIII. NUMERALS

220. Cambodian numeral symbols were borrowed from the same Indic source as the Cambodian alphabet; as with Arabic numerals, there are only ten different symbols. The names of Cambodian numerals, however, come from various sources. The ten symbols are listed below with their Cambodian names. Notice that the names of the symbols 6-9 are based on a system of five. The final syllable of 'seven' is pronounced /-pii/ only in a reading pronunciation; otherwise it is /-pɨl/. Transcribe and pronounce them.

1.	១	មួយ	one	A. 1. muəy
2.	២	ពីរ	two	2. pii
3.	៣	បី	three	3. bəy
4.	៤	បួន	four	4. buən
5.	៥	ប្រាំ	five	5. pram
6.	៦	ប្រាំមួយ	six	6. prammuəy
7.	៧	ប្រាំពីរ	seven	7. prampɨl
8.	៨	ប្រាំបី	eight	8. prambəy
9.	៩	ប្រាំបួន	nine	9. prambuən
0.	០	សូន្យ	zero	0. soun

221. Practice the above symbols until you can write them and pronounce them from memory.

222. Transcribe the names of the numerals 10-20 shown below. The names of the numerals 11-19 have two forms; the second is the more colloquial. Separate the elements of numeral compounds with a hyphen.

10.	၁၀	သိပ်		ten	
11.	၁၁	သိပ်ဗုဗာ	~	ဗုဗာသိဇ္ဇာပ်	eleven
12.	၁၂	သိပ်တီ	~	တီသိဇ္ဇာပ်	twelve
13.	၁၃	သိပ်ပ	~	ပသိဇ္ဇာပ်	thirteen
14.	၁၄	သိပ်ဗုဗ	~	ဗုဗသိဇ္ဇာပ်	fourteen
15.	၁၅	သိပ်ဇြာံ	~	ဇြာံသိဇ္ဇာပ်	fifteen
16.	၁၆	သိပ်ဇြာံဗုဗာ	~	ဇြာံဗုဗာသိဇ္ဇာပ်	sixteen
17.	၁၇	သိပ်ဇြာံတီ	~	ဇြာံတီသိဇ္ဇာပ်	seventeen
18.	၁၈	သိပ်ဇြာံပ	~	ဇြာံပသိဇ္ဇာပ်	eighteen
19.	၁၉	သိပ်ဇြာံဗုဗ	~	ဇြာံဗုဗသိဇ္ဇာပ်	nineteen
20.	၂၀	ဝိဇ္ဇာံ		twenty	

A. 10. dap

11. dap-muəy ~ muəy-dandap

12. dap-pii ~ pii-dandap

13. dap-bəy ~ bəy-dandap

14. dap-buən ~ buən-dandap

15. dap-pram ~ pram-dandap

16. dap-prammuəy ~ prammuəy-dandap

17. dap-prampil ~ prampil-dandap

18. dap-prambəy ~ prambəy-dandap

19. dap-prambuən ~ prambuən-dandap

20. mphiy

223. The names of the numerals 30, 40, 50, 60, 70, 80, and 90 are borrowed from Thai and bear no relation to the names of the numerals 3-9. Transcribe and pronounce them.

30.	៣០	សាមសិប	thirty	A. saamsəp
40.	៤០	ទិសសិប	forty	saesəp
50.	៥០	ហាសិប	fifty	haasəp
60.	៦០	ហុកសិប	sixty	hoksəp
70.	៧០	ចិតសិប	seventy	cətsəp
80.	៨០	ប៉ែតសិប	eighty	paetsəp
90.	៩០	កៅសិប	ninety	kawsəp

224. The multiplier /muəy/ 'one' in the following compounds is shortened in normal speech to /mə-/; e.g. /muəy-roy/ ~ /məroy/ 'one hundred'. Transcribe and pronounce the following numbers both ways.

- | | | | |
|----|------------|-----------|---|
| 1. | ១០០ | មួយរយ | one hundred |
| 2. | ១.០០០ | មួយពាន់ | one thousand |
| 3. | ១០.០០០ | មួយម៉ឺន | one ten-thousand |
| 4. | ១០០.០០០ | មួយរយពាន់ | one hundred-thousand |
| 5. | ១.០០០.០០០ | មួយលាន | one million |
| 6. | ១០.០០០.០០០ | មួយសែន | one ten-million (final ^០ silent) |

- | | | |
|----|-----------------------|-----------------------|
| A. | 1. muəy-roy ~ məroy | 4. muəy-saen ~ məsaen |
| | 2. muəy-pǎən ~ məpǎən | 5. muəy-liən ~ məliən |
| | 3. muəy-məin ~ məməin | 6. muəy-kaot ~ məkaot |

225. In Cambodian numerals involving four or more symbols, a period is placed after every three symbols, counting from the right (as in French). This system of punctuation has little relevance to the pronunciation of Cambodian numerals, however, since each succeeding numeral is read as a separate denomination, rather than in groups of three. Transcribe the names of the following numerals, separating each denomination larger than 100 by a comma in the transcription.

1.	២២	វិញ្ញាណ	22
2.	៣៧	សាមសិបប្រាំបី	38
3.	១៥៧	មួយរយប្រាំបួន	159
4.	២.៧៦១	ពីរពាន់ប្រាំបីរយហុកសិបមួយ	2,861
5.	២.៣៤៥.៦៧៧	ពីរពាន់បីសែនបួនម៉ឺនប្រាំពាន់ ប្រាំមួយរយបួនសិបប្រាំបី	2,345,678

- A. 1. mphi-y-pii
 2. saamsəp-prambəy
 3. muəy-rəy, haasəp-prambuən
 4. pii-pōən, prambəy-rəy, hoksəp-muəy
 5. pii-liən, bəy-saen, buən-məin, pram-pōən, prammuəy-rəy, cətsəp-prambəy

226. Both the Buddhist Era and the Christian Era are used in Cambodian, although the latter is more common in secular life. The Buddhist Era date is obtained by adding 543 years to the Christian Era date; e.g. A.D. 1968 +

543 = B.E. 2511. The word for Buddhist Era is ព្រះសករាជ

/puttəsaqkəraac/ and is abbreviated ព.ស. . The word for Christian Era

is គ្រិស្តសករាជ /kr̥hsaqqəraac/ and is abbreviated គ.ស. . When a

date is written in its full form, the day of the week precedes, followed by the day of the month, the month, and the year. Transcribe and pronounce the following two dates:

1. វិញ្ញាណ ថ្ងៃ ទី ២៨ មករា គ.ស. ១៩៦៨
 Wednesday, the twenty-eight of January, A.D. 1968

2. វិញ្ញាណ ថ្ងៃ ទី ១៦ កក្កដា ព.ស ២៥១១
 Monday, the sixteenth of July, B.E. 2511

- A. 1. tɲay-put tii-mphi-y-prambəy mēəqkəraa kr̥hsaqqəraac məpōən prambuən-rəy hoksəp-prambəy.
 2. tɲay-can tii-dəp-prammuəy kaqqədəa puttəsaqkəraac pii-pōən pram-rəy dəp-muəy.

APPENDIX B

Transliteration System for Khmer Script

This system of transliteration is a modification of that proposed by Lewitz (1969), and was developed by Franklin Huffman of Cornell University and Edwin Bonsack of the U.S. Library of Congress for the use of librarians in cataloguing publications in Khmer. A transliteration system, unlike the transcription system outlined in Appendix A, is not based on pronunciation, but is rather a one-to-one conversion of the symbols of one writing system to those of another writing system. The great disadvantage of this system is that, being based on the original values of the Indic characters in which Khmer was first written, it obscures the pronunciation of modern Khmer; its advantages are its relative simplicity and the fact that it makes possible the etymological reconstruction - although not the current usage - of Pali and Sanskrit loanwords in Khmer.

Consonants and Subscripts			Dependent Vowels			Independent Vowels		Diacritics	
ក	ក	k	ឆ	ឆ	dh	x	xa	ខ	xai
ខ	ខ	kh	ន	ន	n	xx	xax	ខា	xo
គ	គ	g	ប	ប	p	ខា	xau	ខា	xau
ឃ	ឃ	gh	ផ	ផ	ph	ខ	xam	ខ	xam
ង	ង	ñ	ព	ព	b	x:	xah	ខ	rx
ច	ច	c	ភ	ភ	bh	x:	xà	ខ	x°
ឆ	ឆ	ch	ម	ម	m	ខា	xâx	ខ	x'
ជ	ជ	j	យ	យ	y	ខ	xi	ខ	x'
ឈ	ឈ	jh	រ	រ	r	ខ	xī	ខ	x'
ញ	ញ	ñ	ល	ល	l	ខ	xī	ខ	x'
ដ	ដ	t	វ	វ	v	ខ	xī	ខ	x'
ថ	ថ	th	ស	ស	s	ខ	xu	ខ	x'
ឌ	ឌ	d	ហ	ហ	h	ខ	xū	ខ	x'
ណ	ណ	ṅ	ឡ	ឡ	ḷ	ខ	xua	ខ	x'
ត	ត	t	ស	ស	s	ខ	xoe	ខ	x'
ថ	ថ	th	ហ	ហ	h	ខ	xya	ខ	x'
ទ	ទ	d	ឡ	ឡ	ḷ	ខ	xia	ខ	x'
			អ	អ	q	ខ	xe	ខ	x'
						ខ	xae	ខ	x'

Notes

1. In the consonant columns, x shows the position of the superscript relative to the subscript. A subscript is always romanized after the superscript, without an intervening vowel, as in ក្រក្រវ៉ាត់ krakhvák.
 2. When ញ occurs as a superscript, the lower element is omitted, as in ញ្ញ ñj. When ញ occurs as its own subscript, it takes the full form x, as in កញ្ញា kaññā. Otherwise, the subscript has the form of the lower element alone, as in ខ្ល khñ.
 3. The consonant ឃ, followed by the vowel ា, takes the form ម.
 4. In the vowel columns, x shows the position of the consonant relative to the vowel. This applies both to the Khmer and to the romanization columns. It should be noted that an x in the Khmer column can also represent a final consonant with no vowel following, in which case it is romanized simply as x, as in ទ័ត dăb.
 5. The consonants ម and ហ are always preceded by a vowel, but, being finals, never themselves bear a vowel. They may, however, be preceded by vowels other than ា, as in តុម tum, រេស seh.
 6. The diacritics ខ̣ and ខ̣̣ are romanized by x'' and x' immediately following the consonant they modify. They have the alternative form ខ̣ when they co-occur with one of the superscript vowels ខ̣, ខ̣̣, and ខ̣̣̣. When ខ̣ co-occurs with one of the superscript vowels and with one of the consonants ឃ, ញ, ម, ឃ, រ, វ, ឃ, or ឃ, it is romanized as x'', as in ប៊ី p''i. When ខ̣ co-occurs with one of the superscript vowels and with one of the consonants ឃ, ឃ, or ឃ, it is romanized as x', as in ស៊ី s'i. Otherwise ខ̣ represents the vowel ុ, as in មុន mun.
 7. The diacritics ខ̣°, ខ̣', ខ̣', and ខ̣' in the romanization column are placed after the last letter of the word in which they occur, as in ក្រស៊ីតិយ៍ ksatriy°, ចាៈ cāh', តា ta', កាត្មន៍ qātman'.
 8. Conventional signs are:

ញ	romanized by repeating the preceding word or phrase
្រ	romanized as .l.
្រ	romanized as .p.
-	romanized by means of the hyphen (-)
ៈ	romanized by means of the colon (:)
្រ, ្រ	romanized by means of the period (.)
- The full-stop signs ្រ and ្រ are omitted in romanization.

9. In Khmer, words are not written separately; spacing occurs only after longer phrases. In romanization, however, the shortest written form which can stand alone as a word is treated as such. This applies also to Pali and Sanskrit loanwords. Other loanwords have the same divisions as in the original language.
10. Two adjustments must be made in the above system for typewritten Khmer: 1) The symbol ឡ should be transliterated o rather than au, as in ឡឃ oy. 2) The symbol ខ̣ does double duty for both ខ̣ and ខ̣̣; in the two particles ក̣ and ត̣, it should be transliterated ka' and ta'; in all other occurrences it should be transliterated x', as in ប្រយោជន៍ prayojan'.