CAMBODIAN SYSTEM OF WRITING
and BEGINNING READER

with Drills and Glossary

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with the assistance of
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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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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 Buri Ram, 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 Sieng, Biet, and Samre in Cambodia; the Bahnar, Hlalang, 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.

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 /gaqsoa 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 Takeo 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 Indanized 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 Tonking 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-

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. 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 — /wacéaamukrom 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.
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

<table>
<thead>
<tr>
<th>Stops:</th>
<th>Labial</th>
<th>Dental</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voiceless</td>
<td>-p</td>
<td>-t</td>
<td>-c</td>
<td>-k</td>
<td>-q</td>
</tr>
<tr>
<td>Voiced</td>
<td>b</td>
<td>d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spirants:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voiceless</td>
<td>(ɨ)</td>
<td>s</td>
<td></td>
<td></td>
<td>-h</td>
</tr>
<tr>
<td>Continuants:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>-m</td>
<td>-n</td>
<td>-ɲ</td>
<td>-ŋ</td>
<td></td>
</tr>
<tr>
<td>Semivocalic</td>
<td>-w</td>
<td>-y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral</td>
<td>-l</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trilled</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

/j/ 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.

/ŋ/ 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 /ŋ/ 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

<table>
<thead>
<tr>
<th>C₁</th>
<th>C₂</th>
<th>C₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>t</td>
<td>c</td>
</tr>
<tr>
<td>p</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>t</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>c</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>k</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>s</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>q</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>l</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

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 /kn/-), and released with slight vocalism before /q b d/ and in the sequence /kn-. 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 /æ/ and /ə/ 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: /i/, /e/, /ɛ/, /iː/, /o/, /æ/, /aː/, /uu/, /oː/, /ɔː/
10 long diphthongs: /ia/, /ie/, /iə/, /ei/, /oi/, /ae/, /aː/, /ao/, /ɔː/,
8 short vowels: /i, e, ɛ, a, o, u, ɔ, a, u,
3 short diphthongs: /ɛə, uə, ɔə/
31 vowel nuclei.

1. Other analyses of the vowel system are possible, of course, but whatever
Chart 3. Vowels

Short Vowels          Short Diphthongs

<table>
<thead>
<tr>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>Mid</td>
<td>e</td>
<td>o</td>
</tr>
<tr>
<td>Lower Mid</td>
<td>ɛ</td>
<td>a</td>
</tr>
<tr>
<td>Low</td>
<td>a</td>
<td></td>
</tr>
</tbody>
</table>

---

Phonetic Key

Long Vowels and Diphthongs

/ii/ as in /ciik/ ‘to dig’. High front unrounded vowel like English ee in cheek.

/iœ/ as in /biœ/ ‘playing cards’. Falling diphthong, moving from a high front to
a mid central position.

/ee/ as in /leœn/ ‘to play’. Higher-mid front unrounded vowel with lax and
breathy articulation; similar to French œœ in année.

/œi/ as in /kmeœœ/ ‘to be young’. Tense diphthong starting at a point lower than,
and ending at a point higher than, /œœ/ above.

/œœ/ as in /œœn/ ‘to quit’. Lower-mid front unrounded vowel with lax and
breathy articulation; similar to French ai in aide. Occurs long only.

/iœ/ as in /liœ/ ‘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.

/iœ/ as in /cœœ/ ‘to believe’. Falling diphthong, moving from a high central to
a mid central position.

/œœ/ as in /lœœ/ ‘on’. Higher-mid central unrounded vowel with lax and breathy
articulation; similar to French œœ in peœ.

/œœ/ as in /œœn/ ‘10,000’. Tense diphthong moving from a position lower than,
and ending at a point higher than, /œœ/ above.

/œœ/ as in /kaœ/ ‘work’. Tense lower-mid front-of-center unrounded vowel
similar to the French a in va. (This vowel is fricenter and higher than the
English a in Father; to pronounce it as such would confuse it with the vowel /œœ/ to
the ear of a Cambodian).

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

/æs/ as in /kaet/ ‘be born’. Falling diphthong, moving from the position of /aa/ described above, to the position of /æs/ described above.

/ao/ as in /caö/ ‘thief’. Falling diphthong, moving from a sound similar to English a in Father to a sound similar to the English o in song.

/oa/ as in /kaö/ ‘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 /uə/ 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.

/œ/ as in /rook/ ‘to seek’. Lower-mid back semi-rounded vowel with lax and breathy articulation. Occurs only long.

/œə/ as in /pœə/ ‘color’. Falling diphthong, moving from the position of /œə/ described above to a position lower and backer than /œə/ above.

**Short Vowels and Diphthongs**

/i/ as in /cit/ ‘to ride’. High front unrounded short vowel, like English i in sit.

/e/ as in /sêh/ ‘horse’. Mid front unrounded short vowel, like English e in set.

/i/ as in /kit/ ‘to think’. High central unrounded short vowel; shorter and lower than /i/ described above.

/e/ as in /bet/ ‘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.

/a/ as in /kat/ ‘to jot down’. Low central unrounded short vowel, identical in quality with its long counterpart /a/ above.

/u/ as in /tul/ ‘to keep’. High back rounded short vowel, lower in quality than its long counterpart /u/ described above.

/o/ as in /kon/ ‘film’. Mid back rounded short vowel, slightly diphthongized [oː] in some environments.

/eə/ as in /neeq/ ‘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.
/œ/ as in /kœt/ ‘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) CVČ /bot/ ‘to close’
2) CCVC /scān/ ‘to hear’
3) CCCVC /sθet/ (~ /θet/) ‘to be located’

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

1) CVV /kaa/ ‘work’
2) CVVC /baan/ ‘to have’
3) CCVV /chāi/ ‘to be ill’
4) CCVV /craan/ ‘much’
5) CCCVVC /sθaav/ (~ /sθaav/) ‘place’

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

2. Disyllables

Minor disyllables 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 /a/ in normal speech.

Examples: 
CV+Ś /kokāy ~ kokāy/ ‘to scratch about’
CrV+Ś /prokān ~ prokān ~ pokān/ ‘to object’
CVN+Ś /bakāst ~ bakāst ~ pakāst/ ‘to originate’
CrVN+Ś /prambōy ~ prambōy ~ pambahōy/ ‘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: 
/slowphāw/ (~ /sophāw/) ‘book’
/phiēsāa/ ‘language’
/būn-sūn/ ‘to pray’
/sdūc-scāan/ ‘insignificant’

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: /θʰəm+mə+dáa/ ‘usually’
- Four syllables: /pút+tə+sáh+snáa/ ‘Buddhism’
- Five syllables: /rĭc+rət+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:
- /ʃ/ in /šaek/ ‘check’ (Fr. cheque)
- /z/ in /qaziii/ ‘Asia’ (Fr. Asie)
- /g/ in /qanglei/ ‘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 
<p>| VELARS | 1   | icrobial | kəa | k | k | k |
|        | 2   | icrobial | khaa | kh | k | k |
|        | 3   | icrobial | koo | k | k | k |
|        | 4   | icrobial | khoo | kh | k | k |
|        | 5   | icrobial | yoo | y | - | y |
| PALATALS | 6   | icrobial | caa | c | c | c |
|        | 7   | icrobial | cha | ch | c | - |
|        | 8   | icrobial | cao | c | c | c |
|        | 9   | icrobial | cho | ch | c | - |
|        | 10  | icrobial | ñoo | ñ | - | ñ |</p>
<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>Symbol</th>
<th>Name</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Before Vowel</td>
</tr>
<tr>
<td>RETROFLEXES</td>
<td>11</td>
<td>🍂</td>
<td>dad</td>
<td>d</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>🍂</td>
<td>thaa</td>
<td>th</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>🍂</td>
<td>doo</td>
<td>d</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>🍂</td>
<td>thoo</td>
<td>th</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>🍂</td>
<td>naa</td>
<td>n</td>
</tr>
<tr>
<td>DENTALS</td>
<td>16</td>
<td>🍂</td>
<td>taa</td>
<td>t</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>🍂</td>
<td>thaa</td>
<td>th</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>🍂</td>
<td>tcoo</td>
<td>t</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>🍂</td>
<td>thoo</td>
<td>th</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>🍂</td>
<td>ncoo</td>
<td>n</td>
</tr>
<tr>
<td>LABIALS</td>
<td>21</td>
<td>🍂</td>
<td>baa</td>
<td>b</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>🍂</td>
<td>phaa</td>
<td>ph</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>🍂</td>
<td>coo</td>
<td>p</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>🍂</td>
<td>phoo</td>
<td>ph</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>🍂</td>
<td>mcoo</td>
<td>m</td>
</tr>
<tr>
<td>MISCELLANEOUS</td>
<td>26</td>
<td>🍂</td>
<td>yoo</td>
<td>y</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>🍂</td>
<td>roo</td>
<td>r</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>🍂</td>
<td>loo</td>
<td>l</td>
</tr>
</tbody>
</table>
The Consonant Symbols

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>Symbol</th>
<th>Name</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Before Vowel</td>
</tr>
<tr>
<td>MISCELLANEOUS</td>
<td>29</td>
<td>GetEnumerator</td>
<td>woo</td>
<td>w</td>
</tr>
<tr>
<td>(cont.)</td>
<td>30</td>
<td>GetEnumerator</td>
<td>ssa</td>
<td>s</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>GetEnumerator</td>
<td>haa</td>
<td>h</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>GetEnumerator</td>
<td>laa</td>
<td>l</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>GetEnumerator</td>
<td>qaa</td>
<td>q</td>
</tr>
</tbody>
</table>

B. NOTES ON THE CONSONANT SYMBOLS

1. The Two Series

Notice that the names of some consonant symbols have the vowel /a/ while others have the vowel /o/. Consonants which are pronounced with an inherent /a/ vowel are called /qakhoosaq/ ‘voiceless’ in Cambodian, and consonants which are pronounced with an inherent /o/ are called /hoosaq/ ‘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 /samlein/touc/ ‘small voice’ and /samlein/thom/ ‘large voice’, or /samlein/tyoan/ ‘light voice’ and /samlein/sraal/ ‘light voice’ and /samlein/thom/ ‘large voice’ respectively.
2. Conversion

Those 1st series symbols which lack a counterpart in the 2nd series, namely ပီ /baa/, ပ္ /saa/, ဝိ /baa/, and ဵ /qaa/ can be "converted" to 2nd series symbols by the addition of the diacritic ဦး /troysap/ (၃) to the 1st series symbol, giving ပီ /boo/, ပ္ /sco/, ဝိ /hoo/, and ဵ /qaa/, so that a following vowel symbol is pronounced with its 2nd series value. Those 2nd series symbols which have no counterparts in the 1st series, namely ပီ /qoo/, ဝူ /hoo/, ဝ့ /moo/, ဝဝ /yoo/, ဣ /rco/, and ဨ /wco/, can be converted to 1st series symbols by the addition of the diacritic ဦး /museqktong/ (၂'), giving ပီ /naa/, ဝူ /nhaa/, ဝ့ /maa/, ဝဝ /yaa/, ဣ /raa/, and ဨ /waa/. When a vowel symbol that is written above the consonant symbol occurs with a converted consonant symbol, the /museqktong/ (၂') and /troysap/ (၃) are replaced by the ဗ် /khiao kraom/ (၂) under the consonant symbol; e.g. ပီ /si/ 'to eat', ပီ /mein/ '10,000'. However, the /troysap/ is usually written above a converted ဝိ or ဵ despite a superscript vowel, although either form may occur; e.g. ပီ /hiig/ 'a kind of toad'; ပီ /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 /museqktong/ is also used to convert the symbol ပီ /baa/ to ဝ့ /paa/, which does not otherwise exist in the 1st series. All words spelled with ပီ follow all words spelled with ပီ in the dictionary order.

3. The Symbol ပီ /baa/

When ပီ /b/ is followed by the vowel symbol -ိ , it has the alternative form ကြဲ to distinguish it from ပီ + ိ and from ပိ ; e.g. ပီ ပီ /baay/ 'cooked rice' ပီ ပီ /caay/ 'to spend', ပီ ပီ /hay/ 'horse (lit.)'.

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

2. The /troysap/ should be carefully distinguished from the ရ္ /saq/ (၃) which occurs as an integral part of the symbols ရ္ , ရ္ , ရ္ , ရ္ , ရ္ , ရ္ , and ရ္.
The Consonant Symbols

a) When it is converted to /p/ by the /museqktoen/: ឈុ or ឈ្
ឈុ /paa/ father ឈុ /pay/ flute

b) When it occurs with a subscript:
ឈុ /pday/ husband ឈុ /praeh/ to use

Such words follow words spelled with ឈុ in the dictionary.

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

ឈុការឈុ /paccay/ money (clergy)

ឈុបាក់ /paccoban/ the present

d) In final position:

ឈុ /prap/ to tell

ឈុ /chup/ to stop

4. The Symbol ឈុ /taa/

The symbol ឈុ is normally pronounced /t/ (ឈុ /taa/ ‘old man’), ឈុ /trust/ ‘to examine’), but when it occurs as the initial symbol of disyllabic
words whose first syllable ends in a nasal /m, n, n̄, or ng/, it is pronounced /d/;
e.g. ឈុថ្មី /dangwaay/ gift. In the official Cambodian Dictionary ឈុ is used
as the initial for all disyllables whose underlying form is spelled with a ឈុ or
ឈុ, e.g.:

ឈុ /taa/ to continue > ឈុ /damnaa/ extension

ឈុ /talay/ to be valuable > ឈុ /damlay/ value

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

ឈុ /daa/ to walk > ឈុ /damnaa/ process

However, due to the homophony between ឈុ and ឈុ 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 ឈុ and ឈុ are used to represent /d/

The Consonant Symbols
in the 1st and 2nd series respectively, and the Retroflex nasal • is used to represent a 1st series \( /n/ \). The symbols \( \hat{\text{\textcircled{\text{\textkatakana}}}} \)/\( \text{tha}/\), \( \hat{\text{\textcircled{\text{katakana}}}} \)/\( \text{doo}/\) and \( \hat{\text{\textcircled{\text{katakana}}}} \)/\( \text{thoo}/\) are rare, occurring only in a few words of Pali or Sanskrit origin.

6. The Aspirates

Symbols \( \hat{\text{\textcircled{\text{katakana}}}} \), \( \hat{\text{\textcircled{\text{\textkatakana}}}} \), \( \hat{\text{\textcircled{\text{\textkatakana}}}} \), and \( \hat{\text{\textcircled{\text{katakana}}}} \), which represented aspirated consonants in the script from which they were borrowed, represent sequences of a stop + /h/ in Cambodian. When they occur as the first member of a written cluster, however, they represent the unaspirated stops /p t c k/.

7. Final -\( \hat{\text{\textcircled{\text{\textkatakana}}}} \)

Notice that when \( \hat{\text{\textcircled{\text{\textkatakana}}}} /r/ \) occurs in final position, it is not pronounced (represented \( \emptyset \) in the chart); e.g. \( \hat{\text{\textcircled{\text{\textkatakana}}}} /\text{kaa}/ \) ‘work’, \( \hat{\text{\textcircled{\text{\textkatakana}}}} /\text{kmae}/ \) ‘Cambodian’.

8. Special Combinations

The symbol \( \hat{\text{\textcircled{\text{katakana}}}} \) is combined with the subscript form of \( \hat{\text{\textcircled{\text{katakana}}}} \) (\( \hat{\text{\textcircled{\text{\textkatakana}}}} \); see Chapter V) to represent the consonant /f/; e.g. \( \hat{\text{\textcircled{\text{katakana}}}} /\text{fek}/ \) ‘to train’; \( \hat{\text{\textcircled{\text{\textkatakana}}}} /\text{kaafe}/ \) ‘coffee’. In some words \( \hat{\text{\textcircled{\text{katakana}}}} \) is pronounced /\text{waa}/ as if it were the 1st series counterpart of \( \hat{\text{\textcircled{\text{katakana}}}} \); e.g. \( \hat{\text{\textcircled{\text{katakana}}}} /\text{wou}/ \) ‘flock, crowd’. \( \hat{\text{\textcircled{\text{katakana}}}} \) also sometimes combines with the subscript forms of \( \hat{\text{\textcircled{\text{\textkatakana}}}} /\text{mao}/ \), \( \hat{\text{\textcircled{\text{katakana}}}} /\text{naa}/ \), and \( \hat{\text{\textcircled{\text{katakana}}}} /\text{lao}/ \) to represent the 1st series counterparts of those symbols; e.g. \( \hat{\text{\textcircled{\text{katakana}}}} /\text{maa}/ \), \( \hat{\text{\textcircled{\text{katakana}}}} /\text{naa}/ \), and \( \hat{\text{\textcircled{\text{katakana}}}} /\text{lao}/ \).

C. THE TWO SERIES CONTRASTED

In the following chart, each consonant symbol is correlated with its counterpart in the opposite series, and both forms are exemplified. Where possible, the examples are words whose spellings differ only with regard to the initial consonant in order to show the influence of each series on the value of a following vowel symbol. The matter is treated fully however, in Chapter IV: The Vowel Symbols.
### Chart 2. The Two Series Contrasted

<table>
<thead>
<tr>
<th>Sound</th>
<th>1st Series</th>
<th>2nd Series</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Symbol</td>
<td>Example</td>
</tr>
<tr>
<td>k</td>
<td>က က္ ကူ</td>
<td>/kəʊ/ neck</td>
</tr>
<tr>
<td>kh</td>
<td>က် က်ာ</td>
<td>/kʰæt/ to polish</td>
</tr>
<tr>
<td>j</td>
<td>ဗ ဗှု ဗော</td>
<td>/nəaw/ noise-maker</td>
</tr>
<tr>
<td>c</td>
<td>ကေ ကော</td>
<td>/kəʊ/ to inscribe</td>
</tr>
<tr>
<td>ch</td>
<td>ကော် ကော်ာ</td>
<td>/chaʊ/ interval</td>
</tr>
<tr>
<td>n</td>
<td>နား နား</td>
<td>/nəm/ to eat</td>
</tr>
<tr>
<td>d</td>
<td>ဒီ ဒီး</td>
<td>/dən/ elephant command</td>
</tr>
<tr>
<td>t</td>
<td>တား တား</td>
<td>/tən/ old man</td>
</tr>
<tr>
<td>th</td>
<td>ထား ထား</td>
<td>/thən/ vase</td>
</tr>
<tr>
<td>n</td>
<td>နား နား</td>
<td>/thān/ place, site</td>
</tr>
<tr>
<td>m</td>
<td>မော မော</td>
<td>/mən/ (~/hɪn/) that’s right</td>
</tr>
<tr>
<td>b</td>
<td>ဗော ဗော</td>
<td>/bot/ son</td>
</tr>
<tr>
<td>p</td>
<td>ပါ ပါ</td>
<td>/pəy/ flute</td>
</tr>
<tr>
<td>ph</td>
<td>ပါဖိ ပါဖိ</td>
<td>/phaay/ to run at full speed</td>
</tr>
<tr>
<td>m</td>
<td>မော မော</td>
<td>/mae/ mother</td>
</tr>
<tr>
<td>m</td>
<td>မော မော</td>
<td>/mat/ fine, powdered</td>
</tr>
<tr>
<td>Sound</td>
<td>Symbol</td>
<td>1st Series</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
<td>------------</td>
</tr>
<tr>
<td>y</td>
<td>១ ២ ៣</td>
<td>/yaan/ kind; variety</td>
</tr>
<tr>
<td>r</td>
<td>១ ២ ៣</td>
<td>/roun/ rattling noise</td>
</tr>
<tr>
<td>l</td>
<td>១ ២ ៣</td>
<td>/leii/ a personal name</td>
</tr>
<tr>
<td>w</td>
<td>១ ២ ៣</td>
<td>/way/ to hit</td>
</tr>
<tr>
<td>s</td>
<td>១ ២ ៣</td>
<td>/seii/ wicker ball</td>
</tr>
<tr>
<td>h</td>
<td>១ ២ ៣</td>
<td>/haan/ shop, store</td>
</tr>
<tr>
<td>q</td>
<td>១ ២ ៣</td>
<td>/qei/ what</td>
</tr>
<tr>
<td>f</td>
<td>១ ២ ៣</td>
<td>/teel/ to practice</td>
</tr>
</tbody>
</table>

D. FINAL CONSONANTS

Although only thirteen consonants occur finally in Cambodian syllables (See Chap. II, A), all the consonant symbols in Chart 1 except ២ ៣ ៤ , ១ ២ ៣ , ២ ៣ ៤ , ១ ២ ៣ , ១ ២ ៣ , ១ ២ ៣ , ១ ២ ៣ , and ១ ២ ៣ are used to represent final consonants in Cambodian. Although the symbol ១ ២ ៣ occurs finally in many words, it is not pronounced, since final /-r/ does not occur in Standard Cambodian. However, it sometimes serves to distinguish orthographically between homonyms, e.g.:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Example</th>
<th>Symbol</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>១ ២ ៣</td>
<td>/kaa/ to address (a letter): ១ ២ ៣ /kaa/ work</td>
<td>២ ៣ ៤</td>
<td>/kiiu/ pair: ២ ៣ ៤ /kiiu/ to draw</td>
</tr>
<tr>
<td>២ ៣ ៤</td>
<td>/pii/ from: ២ ៣ ៤ /pii/ two</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Words spelled with a final ២ ៣ ៤ 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 ុ, ិ, ូ and ុ្ខ represent final /-q/ after the vowels /a, aa, ɑ, ɔ, ө, ʊ, iə, ɪə, ʊə/, 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**

<table>
<thead>
<tr>
<th>Final Consonant</th>
<th>Representation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. -p</td>
<td>ុ</td>
<td>/riep/ to arrange</td>
</tr>
<tr>
<td></td>
<td>ិ</td>
<td>/phiəp/ aspect</td>
</tr>
<tr>
<td></td>
<td>ូ</td>
<td>/loop/ greed</td>
</tr>
<tr>
<td>2. -t</td>
<td>ុ</td>
<td>/kat/ to cut</td>
</tr>
<tr>
<td></td>
<td>ិ</td>
<td>/baat/ polite response used by men</td>
</tr>
<tr>
<td></td>
<td>ូ</td>
<td>/praakət/ exact</td>
</tr>
<tr>
<td></td>
<td>ុ</td>
<td>/qət/ brick</td>
</tr>
<tr>
<td></td>
<td>ូ</td>
<td>/baat/ to tell, recite (clergy)</td>
</tr>
<tr>
<td></td>
<td>ុ</td>
<td>/krut/ garuda</td>
</tr>
<tr>
<td></td>
<td>ុ</td>
<td>/praamət/ to scorn, despise</td>
</tr>
<tr>
<td></td>
<td>ុ</td>
<td>/qəawut/ weapon</td>
</tr>
<tr>
<td></td>
<td>ុ</td>
<td>/kaasəat/ (~ ការសាច) /June-July</td>
</tr>
<tr>
<td>3. -c</td>
<td>ុ</td>
<td>/touc/ small</td>
</tr>
<tr>
<td></td>
<td>ុ</td>
<td>/riec/ reign</td>
</tr>
<tr>
<td>4. -k (after vowels other than those in 5 below)</td>
<td>ុ</td>
<td>/cilik/ to dig</td>
</tr>
<tr>
<td></td>
<td>ុ</td>
<td>/rook/ disease</td>
</tr>
<tr>
<td>Final Consonant</td>
<td>Representation</td>
<td>Example</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>4. -k</td>
<td>ឈ</td>
<td>/muk/ face</td>
</tr>
<tr>
<td></td>
<td>១៣</td>
<td>/meek/ sky</td>
</tr>
<tr>
<td>5. -q (after /a, a, a, o, e, u, io, io, uo/)</td>
<td>ក</td>
<td>/kaaq/ refuse, residue</td>
</tr>
<tr>
<td></td>
<td>ស</td>
<td>/niæq/ dragon</td>
</tr>
<tr>
<td></td>
<td>ឈ</td>
<td>/pisaaq/ April-May</td>
</tr>
<tr>
<td></td>
<td>១៣</td>
<td>/miæq/ January</td>
</tr>
<tr>
<td></td>
<td>ឈ</td>
<td>(no consonant) after short vowels in final position</td>
</tr>
<tr>
<td>6. -m</td>
<td>២៩</td>
<td>/taam/ to follow</td>
</tr>
<tr>
<td></td>
<td>១៦</td>
<td>/dom/ picce; ៣៣</td>
</tr>
<tr>
<td></td>
<td>១៦</td>
<td>/cam/ exact; ៣៣</td>
</tr>
<tr>
<td></td>
<td>១៦</td>
<td>/cam/ remember; ៣៣</td>
</tr>
<tr>
<td>7. -n</td>
<td>២៩</td>
<td>/mion/ to have</td>
</tr>
<tr>
<td></td>
<td>២៩</td>
<td>/bouraan/ ancient</td>
</tr>
<tr>
<td>8. -n</td>
<td>២៩</td>
<td>/tìèh/ to pull</td>
</tr>
<tr>
<td>9. -ŋ</td>
<td>២៩</td>
<td>/doŋ/ to know</td>
</tr>
<tr>
<td></td>
<td>៣៣</td>
<td>(after /ii/)</td>
</tr>
<tr>
<td></td>
<td>៣៣</td>
<td>/riŋ/ dried up</td>
</tr>
<tr>
<td>10. -w</td>
<td>១២</td>
<td>/qaaw/ shirt</td>
</tr>
<tr>
<td></td>
<td>១២</td>
<td>/haw/ to call; ៣៣</td>
</tr>
<tr>
<td>Final Consonant</td>
<td>Representation</td>
<td>Example</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
<td>---------</td>
</tr>
<tr>
<td>11. -y</td>
<td>៣៤ ៣៤</td>
<td>/baay/ cooked rice; food</td>
</tr>
<tr>
<td></td>
<td>៣៧ ៣៧</td>
<td>/cay/ louse; ៣៧ /priy/ forest</td>
</tr>
<tr>
<td>12. -l</td>
<td>៣៨ ៣៨</td>
<td>/kaal/ time</td>
</tr>
<tr>
<td>13. -s</td>
<td>៣៩ ៣៩</td>
<td>/soum-toos/ I beg your pardon</td>
</tr>
</tbody>
</table>

(៣៩ is pronounced as final /-s/ only in a very formal reading style; in normal speech it is pronounced /-h/.)

| 14. -h         | ៣៣ ៣៣       | /cah/ old |
|                | ៣៩ ៣៩       | /pah/ to patch; ៣៩ /teēh/ to slap |

(-៣៩ /reēhmuk/ always represents final /-h/, and when no vowel symbol occurs, it represents /-ah/ after a 1st series consonant and /-ēēh/ 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, B1, 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 ក្រហម /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

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Name</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1st Series</td>
</tr>
<tr>
<td>1.</td>
<td>–</td>
<td>sraq qoa</td>
</tr>
<tr>
<td>2.</td>
<td>២</td>
<td>sraq qaa</td>
</tr>
<tr>
<td>3.</td>
<td>៣</td>
<td>sraq qeq</td>
</tr>
<tr>
<td>4.</td>
<td>៤</td>
<td>sraq qey</td>
</tr>
<tr>
<td>5.</td>
<td>៥</td>
<td>sraq qeq</td>
</tr>
<tr>
<td>6.</td>
<td>៦</td>
<td>sraq qeq</td>
</tr>
<tr>
<td>7.</td>
<td>៧</td>
<td>sraq qeq</td>
</tr>
<tr>
<td>8.</td>
<td>៨</td>
<td>sraq qeq</td>
</tr>
<tr>
<td>9.</td>
<td>៩</td>
<td>sraq que</td>
</tr>
<tr>
<td>10.</td>
<td>១०</td>
<td>sraq qae</td>
</tr>
<tr>
<td>11.</td>
<td>១१</td>
<td>sraq qae</td>
</tr>
<tr>
<td>12.</td>
<td>១२</td>
<td>sraq qei</td>
</tr>
<tr>
<td>13.</td>
<td>១३</td>
<td>sraq qei</td>
</tr>
<tr>
<td>14.</td>
<td>១४</td>
<td>sraq qei</td>
</tr>
<tr>
<td>15.</td>
<td>១५</td>
<td>sraq qey</td>
</tr>
<tr>
<td>16.</td>
<td>១६</td>
<td>sraq qoe</td>
</tr>
</tbody>
</table>
The Vowel Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Name</th>
<th>Values</th>
<th>Symbol</th>
<th>Name</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1st Series</td>
<td>2nd Series</td>
<td></td>
<td>1st Series</td>
</tr>
<tr>
<td>17.  ( \ddot{\circ} )</td>
<td>sraq qaw</td>
<td>aw</td>
<td>iw</td>
<td>20. ( \ddot{\circ} )</td>
<td>sraq qam</td>
</tr>
<tr>
<td>18.  ( \circ )</td>
<td>sraq qom</td>
<td>om</td>
<td>um</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.  ( \circ )</td>
<td>sraq qam</td>
<td>om</td>
<td>um(^1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. When the vowels \( \circ \) and \( \ddot{\circ} \) are recited as part of the Cambodian syllabary, they have the special syllabary pronunciations /qǝm/ and /qǝm\(^1\)/ respectively in the 2nd series. In actual words, however, they have the values shown above; in fact the phonological sequence /-ǝm/ occurs only in the 2nd series. 

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

<table>
<thead>
<tr>
<th>Symbol</th>
<th>1st Series</th>
<th>2nd Series</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value and Exemplification</td>
<td>Value and Exemplification</td>
</tr>
<tr>
<td>1.  ( \underline{\circ} )</td>
<td>/( \ddot{\circ} )/</td>
<td>/( \ddot{\circ} )/</td>
</tr>
<tr>
<td>2.  ( \underline{\circ} )</td>
<td>/( \ddot{\circ} )/</td>
<td>/( \ddot{\circ} )/</td>
</tr>
</tbody>
</table>

1. /\( \ddot{\circ} \)/: s]/kaa/ neck
2. /\( \ddot{\circ} \)/: s]/kaa/ mute
3. /\( \circ \)/: s]/kat/ jot down
4. /\( \circ \)/: s]/kaa/ mute
5. /\( \circ \)/: s]/tup/ to stop up
6. /\( \circ \)/: s]/tup/ to stop up
7. /\( \circ \)/: s]/yuǝl/ to understand
<table>
<thead>
<tr>
<th>Symbol</th>
<th>1st Series</th>
<th>2nd Series</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value and Exemplification</td>
<td>Value and Exemplification</td>
</tr>
<tr>
<td>3. - -</td>
<td>/a/ មាន  /saq/  era</td>
<td>/eo/ before Velar finals</td>
</tr>
<tr>
<td></td>
<td>៖/      ៖ /lseo/  gum-lac</td>
<td></td>
</tr>
<tr>
<td></td>
<td>៦/ elsewhere (except below)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>៦/ toep/ army</td>
<td></td>
</tr>
<tr>
<td>4. - ៦</td>
<td>/ay/ ៖/ ៖ /samay/ era</td>
<td>/iy/ ៖/ ៖ /cigy/ victory</td>
</tr>
</tbody>
</table>
| 5. - ៅ | /ea/ ៖/ ៖ /taa/ grand-
father |
|        | /oa/ ៖/ ៖ /coa/ resin |
| 6. - ំ | /aa/ ៖/ ៖ /kat/ to cut | /io/ ៖/ ៖ /cia/ to be |
| 7. - ំ | /a/ ៖/ ៖ /kat/ to cut | /eo/ before Velar finals |
|        | ៖/ toep/ to trap |
|        | ៖/ elsewhere |
|        | ៖/ koet/ he, she, they |
| 8. - - | /eq/ in stressed syllables | /iq/ in stressed syllables |
|        | ៖/ matteq/ opinion |
|        | ៖/ in unstressed syllables |
| 9. - - | /e/ in unstressed syllables | /lattig/ pre-
cept |
<p>|        | ៖/ keriyaa/ conduct |
|        | ៖/ in unstressed syllables |
|        | ៖/ nition/ story |
| 10. - ៅ | /a/ ៖/ ៖ /cat/ heart, mind | /i/ (except before ៥ ៖ ) |
|        | ៖/ cit/ near |
| 11. - ៅ | /ay/ ៖/ ៖ /catdoy/ stupa | /ii/ ៖/ ៖ /quenrrii/ power |
| 12. - ំ | /eh/ ៖/ ៖ /teh-dial/ to ridicule | /ih/ ៖/ ៖ /cih/ to ride |
| 13. - - | /a/ ៖/ ៖ /dok/ transport | /ii/ ៖/ ៖ /piii/ two |</p>
<table>
<thead>
<tr>
<th>Symbol</th>
<th>1st Series</th>
<th>2nd Series</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value and Exemplification</td>
<td>Value and Exemplification</td>
</tr>
<tr>
<td>14.</td>
<td>/əh/</td>
<td>/əh/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/ckəh/ to pry out</td>
</tr>
<tr>
<td>15.</td>
<td>/æi/</td>
<td>/æi/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/dæi/ fallow</td>
</tr>
<tr>
<td>16.</td>
<td>/og/ in stressed syllables</td>
<td>/og/ in stressed syllables</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/wɔttθɔq/ artifact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/u/ in unstressed syllables</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/kəmæa/ child</td>
</tr>
<tr>
<td>17.</td>
<td>/o/</td>
<td>/o/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/kən/ film</td>
</tr>
<tr>
<td>18.</td>
<td>/ɔh/</td>
<td>/ɔh/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/kɔŋ/ to descend</td>
</tr>
<tr>
<td>19.</td>
<td>/ou/</td>
<td>/ou/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/kəw/ to stir</td>
</tr>
<tr>
<td>20.</td>
<td>/ow/</td>
<td>/ow/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/trɔw/ correct</td>
</tr>
<tr>
<td>21.</td>
<td>/ua/</td>
<td>/ua/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/kua/ pod, ear</td>
</tr>
<tr>
<td>22.</td>
<td>/aa/</td>
<td>/aa/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/baa/ if</td>
</tr>
<tr>
<td>23.</td>
<td>/æh/</td>
<td>/æh/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/ceŋkæh/ chopsticks²</td>
</tr>
<tr>
<td>24.</td>
<td>/iɔ/</td>
<td>/iɔ/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/tiə/ dwarfed</td>
</tr>
<tr>
<td>25.</td>
<td>/iæ/</td>
<td>/iæ/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/tiəp/ bowl</td>
</tr>
<tr>
<td>26.</td>
<td>/ei/</td>
<td>/ei/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/kel/ heritage</td>
</tr>
<tr>
<td>27.</td>
<td>/ə (before Palatals)</td>
<td>/ə (before Palatals)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/mæc/ how, why</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/cɛn/ to leave</td>
</tr>
<tr>
<td>28.</td>
<td>/ch/</td>
<td>/ch/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/seh/ horse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/ih/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/nih/ this, here</td>
</tr>
<tr>
<td>Symbol</td>
<td>1st Series</td>
<td>2nd Series</td>
</tr>
<tr>
<td>--------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>Value and Exemplification</td>
<td>Value and Exemplification</td>
</tr>
<tr>
<td>29.  gifs</td>
<td>/ae/</td>
<td>/kae/ to repair</td>
</tr>
<tr>
<td>30.  gif</td>
<td>/eh/</td>
<td>/keh/ a kind of goat</td>
</tr>
<tr>
<td>31.  gif</td>
<td>/ay/</td>
<td>/pray/ salty</td>
</tr>
<tr>
<td>32.  gif</td>
<td>/ao/</td>
<td>/kao/ to shave</td>
</tr>
<tr>
<td>33.  gif</td>
<td>/ah/</td>
<td>/kah/ island</td>
</tr>
<tr>
<td>34.  gif</td>
<td>/aw/</td>
<td>/taw/ bushel</td>
</tr>
<tr>
<td>35.  gif</td>
<td>/om/</td>
<td>/dom/ piece, morsel</td>
</tr>
<tr>
<td>36.  gif</td>
<td>/am/</td>
<td>/cam/ exact</td>
</tr>
<tr>
<td>37.  gif</td>
<td>/am/</td>
<td>/cam/ to remember</td>
</tr>
<tr>
<td>38.  gif</td>
<td>/aj/</td>
<td>/tah/ to establish</td>
</tr>
<tr>
<td>39.  gif</td>
<td>/ah/</td>
<td>/tah/ to wiggle</td>
</tr>
</tbody>
</table>

1. The symbols for the diphthongs /uε, iε, iε/ (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. /cιεn/ ‘to fry’ is sometimes spelled กεεน and sometimes กεεน.

2. This word is normally spelled កεεn.

3. The symbol ច/ /reεhmuk/ 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 qiə 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 Disallow 1 and the equivalent vowel symbol; e.g. words spelled with the independent initial vowel Disallow 1 follow words spelled with an initial Disallow 2. Symbols 11 and 12 include an initial /r-/ and follow all words spelled with initial Disallow 1; symbols 13 and 14 include an initial /l-/ and follow all words spelled with an initial Disallow 1.

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 /qewpuk/ ‘father’, number 9 in /qowy/ ‘to give’, and number 14 in /liː/ ‘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

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Name</th>
<th>Equivalent</th>
<th>Value</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disallow 1</td>
<td>sraq qeq</td>
<td>Disallow 1</td>
<td>/qə-/</td>
<td>/qet/ not</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disallow 2</td>
<td>/qi-/</td>
<td>/qintuə/ the moon</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disallow 3</td>
<td>/qoə/</td>
<td>/qowyə/ now</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disallow 4</td>
<td>/qo-/</td>
<td>/qokəɑɑ/ official of ministerial rank</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disallow 5</td>
<td>/qu-/</td>
<td>/qup̄maɑɑ/ example</td>
</tr>
<tr>
<td>Disallow 2</td>
<td>sraq qoy</td>
<td>Disallow 2</td>
<td>/qoə/</td>
<td>/qoɑ/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disallow 3</td>
<td>/qoɑɑ/</td>
<td>/qoɑbaɑɑɑ/ layman</td>
</tr>
<tr>
<td>Disallow 3</td>
<td>sraq qor</td>
<td>Disallow 2</td>
<td>/qoə/</td>
<td>/qoʊ/</td>
</tr>
<tr>
<td>Disallow 4</td>
<td>sraq qou</td>
<td>Disallow 1</td>
<td>/qo-/</td>
<td>/qout/ camel</td>
</tr>
<tr>
<td>Symbol</td>
<td>Name</td>
<td>Equivalent</td>
<td>Value</td>
<td>Example</td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
<td>------------</td>
<td>-------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>5.</td>
<td>sraq qew</td>
<td>/quu/</td>
<td>/qew/</td>
<td>/quun/ deficient (lit.)</td>
</tr>
<tr>
<td>6.</td>
<td>sraq qae</td>
<td>/qae/</td>
<td></td>
<td>/qae/ at, as for</td>
</tr>
<tr>
<td>7.</td>
<td>sraq qay</td>
<td>/qay/</td>
<td></td>
<td>/qayrəwəén/ Erawan</td>
</tr>
<tr>
<td>8.</td>
<td>sraq qao</td>
<td>/qao/</td>
<td></td>
<td>/qaop/ to embrace</td>
</tr>
<tr>
<td>9.</td>
<td>sraq qao</td>
<td>/qao/</td>
<td></td>
<td>/qaoy/ to give</td>
</tr>
<tr>
<td>10.</td>
<td>sraq qaw</td>
<td>/qaw/</td>
<td></td>
<td>/qaqtwa&lt;p/ water-plant</td>
</tr>
<tr>
<td>11.</td>
<td>sraq rik</td>
<td>/ri-/</td>
<td></td>
<td>/rihsoy/ bamboo</td>
</tr>
<tr>
<td>12.</td>
<td>sraq rii</td>
<td>/rii/</td>
<td></td>
<td>/rii/ or</td>
</tr>
<tr>
<td>13.</td>
<td>sraq lik</td>
<td>/li-/</td>
<td></td>
<td>/rumliik/ to com-</td>
</tr>
<tr>
<td>14.</td>
<td>sraq lii</td>
<td>/lii/</td>
<td></td>
<td>/lii/ to hear</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Vowel</th>
<th>1st Series</th>
<th>2nd Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. /ii/</td>
<td>$\dd$</td>
<td>$\dd$</td>
</tr>
<tr>
<td>2. /ee/</td>
<td>$\dd$</td>
<td>$\dd$</td>
</tr>
<tr>
<td>3. /ei/</td>
<td>$\dd$</td>
<td>$\dd$</td>
</tr>
<tr>
<td>4. /e̞/</td>
<td>$\dd$</td>
<td>$\dd, \dd, \dd$</td>
</tr>
<tr>
<td>5. /ii/</td>
<td>$\dd$</td>
<td>$\dd, \dd, \dd$</td>
</tr>
<tr>
<td>6. /ee/</td>
<td>$\dd$</td>
<td>$\dd, \dd$</td>
</tr>
<tr>
<td>7. /ei/</td>
<td>$\dd$</td>
<td>$\dd$</td>
</tr>
<tr>
<td>8. /aa/</td>
<td>$\dd$</td>
<td>$\dd$</td>
</tr>
<tr>
<td>9. /uu/</td>
<td>$\dd, \dd$</td>
<td>$\dd$</td>
</tr>
<tr>
<td>10. /oo/</td>
<td>$\dd$</td>
<td>$\dd$</td>
</tr>
<tr>
<td>11. /ou/</td>
<td>$\dd, \dd$</td>
<td>$\dd$</td>
</tr>
<tr>
<td>12. /oe/</td>
<td>$\dd, \dd$</td>
<td>$\dd, \dd$</td>
</tr>
<tr>
<td>13. /oa/</td>
<td>$\dd, \dd$</td>
<td>$\dd, \dd$</td>
</tr>
<tr>
<td>14. /e/</td>
<td>$\dd, \dd$</td>
<td>$\dd, \dd$</td>
</tr>
<tr>
<td>15. /e/</td>
<td>$\dd, \dd$</td>
<td>$\dd, \dd$</td>
</tr>
<tr>
<td>16. /e̞/</td>
<td>$\dd, \dd$</td>
<td>$\dd, \dd$</td>
</tr>
<tr>
<td>17. /ae/</td>
<td>$\dd, \dd$</td>
<td>$\dd, \dd$</td>
</tr>
<tr>
<td>18. /ae/</td>
<td>$\dd$</td>
<td>$\dd$</td>
</tr>
<tr>
<td>Vowel</td>
<td>1st Series</td>
<td>2nd Series</td>
</tr>
<tr>
<td>-------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>19. /ao/</td>
<td>ឡា, ឡ, ឡ, ឡ</td>
<td>ឡា, ឡា, ឡ</td>
</tr>
<tr>
<td>20. /œœ/</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Short Vowels**

1. /i/
   - /iq/
   - /ih/

2. /e/
   - /eq/
   - /eh/

3. /i/
   - /ic/
   - /ihn/
   - /iy/
   - /iw/

4. /œ/
   - /œc/
   - /œn/
   - /œy/
   - /œw/
   - /œh/
<table>
<thead>
<tr>
<th>Vowel</th>
<th>1st Series</th>
<th>2nd Series</th>
</tr>
</thead>
</table>
| 5. /a/ | URLConnection | in unstressed syllables,  
| /ay/ | URLConnection |  
| /aw/ | URLConnection |  
| /am/ | URLConnection |  
| /an/ | URLConnection |  
| /ah/ | URLConnection |  
| 6. /u/ | URLConnection |  
| /up/ | URLConnection |  
| /um/ | URLConnection |  
| /uq/ | URLConnection |  
| 7. /o/ | URLConnection |  
| /om/ | URLConnection |  
| /oq/ | URLConnection |  
| 8. /a/ | URLConnection |  
| /am/ | URLConnection |  
| /ah/ | URLConnection |  
| 9. /eəq/ | URLConnection |  
| /eəl/ | URLConnection |  
| /eəl/ | URLConnection |  
| /eəl/ | URLConnection |  
| /eəl/ | URLConnection |  
| /eəl/ | URLConnection |  

\[ \text{\textit{before Velar Stops}} \]
<table>
<thead>
<tr>
<th>Vowel</th>
<th>1st Series</th>
<th>2nd Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>/eəh/</td>
<td></td>
<td>ខែ, ខន:</td>
</tr>
<tr>
<td>10. /nuə/</td>
<td></td>
<td>ខន - except before Labials</td>
</tr>
<tr>
<td>/nuəh/</td>
<td></td>
<td>ខែ, ខន/</td>
</tr>
<tr>
<td>11. /oə/</td>
<td></td>
<td>ខែ/ except before Velars</td>
</tr>
<tr>
<td>/oəm/</td>
<td></td>
<td>ខែ/</td>
</tr>
</tbody>
</table>
V. SUBSCRIPT CONSONANT SYMBOLS

A. SUBSCRIPT FORMS

When two consonant symbols are pronounced consecutively (without an intervening vowel) within a word, the second (and sometimes, in medial position, a third) consonant symbol is written in a special subscript form below the first symbol. The form of the subscript is in most cases a smaller version of its superscript counterpart, but without the (озв)/saq/ 'hair' (not to be confused with the /traysap/(озв); see Chap. II, A 2) which adorns the top of seven consonant symbols. Some subscripts, on the other hand, bear no discernible relationship to their counterparts, and must be learned in addition to the basic superscript forms. These subscripts are called စနာ/soe/>/qaqsna/ 'consonant feet' in Cambodian, and the resulting consonantal groups are referred to as စနာစနာ/qaqsna damruat/ 'combined consonants.'

Chart 1. The Subscript Forms
B. NOTES ON THE SUBSCRIPTS

1. Shapes of the Subscripts
   a) The subscripts ១ /khaa/, ២ /doo/, ៣ /naa/, ៤ /poo/, ៥ /qaa/ are identical in form with their superscript counterparts.
   b) The subscripts ៦ /kaa/, ៧ /koɔ/, ៨ /caa/, ៩ /cha/, ១០ /taa/, ១១ /phaa/, ១២ /phaa/, and ១៣ /hoo/ are identical with their superscript counterparts except that some small embellishment, usually referred to as ១៤ /soc/ ‘hair’, is omitted from top of the subscript: ១ in the first six examples, ១ in the case of ១១ /phaa/, and ១ in the case of ១៣ /hoo/.
   c) The subscripts ១៥ /khoɔ/, ១៦ /choo/, ១៧ /thoo/ 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 ១៨ /baa/, ១៩ /yoo/, ២០ /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: ២១ ២២ ២៣ ២៤ ២៥ ២៦ ២៧ ២៨ ២៩ ៣០
   f) The subscript ៣១ /rɔ/ precedes its superscript, e.g. ៣២ /trey/ ‘fish’.
   g) When ៣៣ /hoo/ occurs as a superscript the ៣ element is omitted, e.g. ៣៤ /baahia/ ‘to order’; when ៣៣ occurs as its own subscript, it takes the full form ៣៥ , e.g. ៣៦ /kaanaa/ ‘young lady”; otherwise it takes the form ៣ , e.g. ៣៧ /praanaa/ ‘intelligence’.

2. The Subscript ៣៨
   The subscript ៣៨ serves as a subscript both for ៣ /dhaa/ and ៣ /tha/. In initial sequences the subscript ៣ is always pronounced /d/; e.g. ៣ /pdaa/ ‘husband’, ៣ /kdaa/ ‘plank, board’. Medially, however, its pronunciation is unpredictable. As a general rule, it is pronounced /d/ when it occurs as a subscript to ៣ , and /t/ when subscript to ៣ ; e.g. ៣៩ /bandoh/ ‘to
grow, raise'; ကော် /bahtoh/ 'to criticize'. In some words, however, it is also pronounced /d/ when subscript to တံ; e.g., စနှပေ /sandaoh/ 'to pity'; ကော်ကော် /sandaan/ 'family, lineage'. Since ကော် serves as subscript for both တံ and ကော်, and ကော် 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) ကော် /laː/ as in ကော်ကော် /laan/ car
b) ကော် /laː/ ~ /woː/ as in ကော်ကော် /laːk/ to practice, ကော် /woːg/ crowd
c) ကော် /naː/ as in ကော်ကော် /naŋ/ there, that's it
d) ကော် /naː/ as in ကော်ကော် /maɪ/ fine, powdered
e) ကော် /laː/ as in ကော်ကော် /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. ကော် /priː/ forest, ကော်ကော် /cuːn/ left, ကော်ကော် /pdeaŋ/ to begin, ကော်ကော် /priːp/ to compare. The same is true with medial written clusters, even though the superscript represents the final consonant of a preceding syllable, e.g.:

ကော် /banjka猎t/ to originate ကော် /banjkoʊ/ pillar
ကော် /camrjaŋ/ song ကော် /camraæŋ/ increase

This rule results in a particularly complex spelling in the common word ကော် ( ~ ကော်ကော် ) /qeyləw-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 (១, ៣, ៥, ៦, ៧, 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.:

៣: /pteəh/ house, ៣ /kməh/ I, ៥ /ckəe/ dog

Unaspirated consonant symbols usually occur as superscripts when the subscript is a voiced consonant or /r/, e.g., ៣៤/kboa/‘head’, ៥ /pdaɪ/ ‘husband’, ៥ /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, ៣៤ /kməe/ ‘Khmer’ is spelled with an aspirated initial, while ៣៤ /kməi/ ‘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: ៣៤៤ /sthaanǐ/ ‘station’, ៥ /mphī/ ‘20’, ៥ /klhaon/ ‘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 ៣, ៥, and ៥ (or ៣), there are some limitations on what symbols occur as subscripts.
Subscript Consonant Symbols

When the superscript is ą́, the subscript will represent one of the consonants /k rh w q f kh/, e.g.:


When the superscript is ą́, the subscript will represent one of the consonants /c ch n/ (i.e. will be homorganic): ą́ /baŋcam/ to pledge,


When the superscript is ą́ (or ą́́), the subscript will represent one of the consonants /d t th l y s/ ą́ /boŋcố /a little’, ą́ /sæ̯wəm/ ‘dew’, ą́ /sandack/ ‘beans’, ą́ /kæ̯laeŋ/ ‘place’. However, when the superscript is ą́, there are no limitations on the subscript; e.g.:


In disyllables whose first syllable has the shape /CVm-/ the presyllable may be written either with the /niqket/ ą́ /qaqsa riey/ ‘horizontal letters’) or with the final ą́ as a superscript and the initial of the second syllable as subscript ( ą́ /qaqsa damruet/ ‘vertical letters’).

The following examples are spelled both ways:


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 /niqket/ spelling at the expense of the conjunct spelling. In the official Cambodian Dictionary of the Buddhist Institute, the /niqket/ spelling is usually recommended where two spellings are possible, with two notable exceptions: in words spelled with an initial ą́́ , and in roughly half the entries

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1. See Chapter IX, A 2 e for pronunciation of this symbol.
spelled with initial ឱ ឱ , the conjunct spelling is recommended: ឱ ឱ( ~ ឱ ឱ )/dumkaej/ to elevate, ឱ ឱ ( ~ ឱ ឱ )/dumruat/ to stack, ឱ ឱ( ~ ឱ ឱ )/samjat/ confidential, ឱ ឱ ( ~ ឱ ឱ )/samlua/ 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: ឱ ឱ ឱ /kattayah/ fame, ឱ ឱ ឱ /paccay/ contribution, ឱ ឱ ឱ /pannaay/ library, ឱ ឱ ឱ /thoommoa/ 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.:

ឱ ឱ ឱ /sapbaay/ ( ~ /səhəay/) to be comfortable

ឱ ឱ ឱ ឱ /qaqkeey-moaysei/ 1st royal wife, ឱ ឱ ឱ /rihsay/ 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.:

ឱ ឱ ឱ ឱ /qatthaathibaay/ explanation ឱ ឱ /putthoo/ heavens!

ឱ ឱ ឱ /macchaay/ fish (elegant) ឱ ឱ ឱ /woetthoay/ artifact

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

ឱ ឱ ឱ /qaqkaay/ letter ឱ ឱ ឱ ឱ /qattabat/ article, composition

ឱ ឱ ឱ /putssahsnaay/ 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-/: ឱ ឱ ឱ /khroony/ fox ឱ ឱ ឱ /kunray/ scissors
Subscript Consonant Symbols

/dantuə/ music  /saŋkriəm/ war

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

1) ṭhiaŋ (sometimes spelled ṭhiaŋng ) /qunkleh/ (~ /qunglee/) English

2) ə (sometimes spelled əgə) /saŋskrət/ Sanskrit

3) /sahstraacaə/ professor

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:

/mit/ friend  /cət/ heart, mind

/put/ Buddha  /sat/ animal

/rost/ state  /yuən/ motor

/monuh/  /sambot/ letter

/propuon/ wife  /samot/ ocean

/piəq/ word  /preəhsan/ priest

/pect/ doctor  /wuəŋ/ group, circle

/kam/ karma  /qaatit/ sun

/bon/ merit  or /khaet/ province

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

/qaaçaə/ ‘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.
Cambodian System of Writing

.Types of Writing

Friendship: /mittəphiəp/
Government: /rōtthaaphibaal/
Buddhism: /puttəsahnsnaa/
Worker: /kamməkəd/
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:

   \( /\text{kbaal}/ \) head \( /\text{sqaek}/ \) tomorrow \( /\text{psein}/ \) different

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

   \( /\text{lmaam}/ \) sufficient \( /\text{pcum}/ \) to assemble \( /\text{mnceh}/ \) 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:

   \begin{tabular}{ll}
   Group I - Dominant & Group II - Passive \\
   \text{p} & \text{m} \\
   \text{t} & \text{n} \\
   \text{c} & \text{\_} \\
   \text{k} & \text{\_} \\
   \text{q} & \text{\_} \\
   \text{b} & \text{\_} \\
   \text{d} & \text{\_} \\
   \text{f} & \text{w} \\
   \text{s} & \text{r} \\
   \text{h} & \text{l} \\
   \end{tabular}

   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:

      \( /\text{tray}/ \) fish \( /\text{pnaek}/ \) section \( /\text{swae}/ \) monkey

      Superscript is passive, subscript is dominant:

      \( /\text{nhoup}/ \) food \( /\text{mdaay}/ \) mother \( /\text{laad}/ \) 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:

      \( /\text{klaen}/ \) be hungry \( /\text{pncek}/ \) eyes \( /\text{kniia}/ \) together
Superscript is passive, subscript is dominant:

\[\text{\textasciitilde} /\text{mteh}/ \text{a pepper} \quad  \text{\textasciitilde} /\text{mcu}/ \text{needle}\]

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.

\[\text{\textasciitilde} /\text{pceh}/ \text{house} \quad \text{\textasciitilde} /\text{skool}/ \text{to know} \quad \text{\textasciitilde} /\text{krue}/ \text{to be high}\]

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) \(C_1\) is 1st series, so the vowel of both syllables is 1st series:

   \[\text{\textasciitilde} /\text{pray}/ \text{to be careful} \quad \text{\textasciitilde} /\text{baray}/ \text{cigarette}\]

   \[\text{\textasciitilde} /\text{crwaw}/ \text{criss-crossed} \quad \text{\textasciitilde} /\text{srall/} \text{to like}\]

   \[\text{\textasciitilde} /\text{kranl}/ \text{place} \quad \text{\textasciitilde} /\text{koom/} \text{birth}\]

   b) \(C_1\) is 2nd series, so the vowel of both syllables is 2nd series:

   \[\text{\textasciitilde} /\text{prolem}/ \text{dawn} \quad \text{\textasciitilde} /\text{tronem}/ \text{a perch}\]

---

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 \(\text{\textasciitilde}\) /\text{laa}/ and \(\text{\textasciitilde}\) /\text{naa}/, but the information is redundant.
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:

/kakaay/ to scratch about  
/kaafei/ coffee

/pracam/ assigned to  
/bupkaat/ to originate

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

/prateeh/ country  
/traceeq/ cool

/santuuc/ fish hook  
/bamplisi/ 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.

/toteoh/ to flap about  
/coccekh/ to discuss

/trOOTug/ 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.

/robah/ thing  
/cuOndao/ stairs

3. Exceptions to the Rule

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

/tumhum/ size  
/tiOhien/ soldier

/wihie/ temple
These words are sometimes written with a converted ក្រុ ；e.g., មាស៊ីស៊ី，thus conforming to the rule. In monosyllables, however, ញ ឃ is always dominant, e.g., លូ /lhon/ 'papaya'.

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

<table>
<thead>
<tr>
<th>Irregular</th>
<th>Regular</th>
</tr>
</thead>
<tbody>
<tr>
<td>ព្រេច្ឆ /prawoet/ history</td>
<td>(cf. ម្រេច្ឆ /crawat/ criss-crossed)</td>
</tr>
<tr>
<td>ឈរីង /qamroh/ hammock</td>
<td>(cf. ម្រេច្ឆ /qamroh/ profession)</td>
</tr>
<tr>
<td>ក្រុរៈ /qamroh/ category</td>
<td>(cf. ម្រេច្ឆ /qamroh/ to beg)</td>
</tr>
</tbody>
</table>

C. POLYSYLLABLES

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

1) កាូំសាច /caettənəa/ to like
2) រ្្រី /weettənəa/ miserable

In the first example, the syllable -សាច is pronounced /-naa/ because of a preceding 1st series ស្ល ；in the second example, -ស្ល is pronounced /-nie/ because of a preceding 2nd series ស្ល。In the following two examples, however, the first is regular, the second irregular:

1) សាគ្រាល /saqkəraac/ century
2) ភាព្មី /qaekkəraac/ independence (rather than the expected */qaekkəraac/).
VII. DIACRITICS AND PUNCTUATION

A. DIACRITICS

The following special symbols, with the exception of the /sraq qam/ (ʊ) and
the /reəhmuk/ (ə), are usually treated as diacritics (基础知识/woənmeuyt/) in Cambodian textbooks. The /sraq qam/ and /reəhmuk/ are listed as vowel sym-
bois 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 កម្ម/bantag/ (−)

The /bantag/ is sometimes called ក្មេះ/sapat/ or ក្មេះ/reəhsaəməa/. 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 sym-
bol, /u/ before a labial consonant and /o/ elsewhere.

ចាត់ /cap/ to finish (cf. ស្មើ /caap/ a hoe)

ប្រាវ /lup/ bird trap (cf. ព្យាយ /loap/ a fish trap)

លំពែ /luəq/ to sell (cf. ស្លាប /look/ to channel)

b) The vowel − ʊ followed by the /bantag/ 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

ចាត់ /cap/ to catch (cf. ស្មើ /caap/ sparrow)

ព្យាយ /peəq/ to wear (cf. ព្យាយ /pieq/ word)

មោន /mən/ chicken (cf. សោម /mian/ to have)

2. មៃឃក /museq kotən/ (−)

The /museq kotən/ is sometimes referred to as ងូរងូរ /tmin kandao/ ‘rat’s teeth’. It has two functions:
a) to convert the 2nd series consonant symbols ខ , គ , ច , ឆ , ឆ , and ម , 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.

ខ /yaːŋ/ kind  (cf. យ /yaːŋ/ to go (royalty))

ម /mac/ mother  (cf. ឈ /mcc/ polite response particle)

When the /museqkoːtʊən/ co-occurs with a superscript vowel symbol it is replaced by the ឈ ឈ /kbiəh kramaːh/ ( - ) written below the consonant. ២២ > ២២ /məːn/ 10,000.

b) to convert the 1st series consonant symbol ប /baː/ to ប /pan/, which doesn't otherwise exist.

ព /pan/ to cover  (cf. ព /baː/ to have)

២ /pəy/ flute  (cf. ២ /beː/ three)

3. ឆែ /trəysap/ (руч)

The /trəysap/ is used to convert the 1st series symbols ច , ឃ , ញ , ញ , and ត , which have no 2nd series counterparts, to the 2nd series symbols ឆ , ឆ , ញ , ញ , and ត , so that a following vowel symbol is pronounced with its 2nd series value.

ឆ /hian/ to dare  (cf. ឆ /haaŋ/ shop)

ឆ /quu/ dry-dock  (cf. ឆ /quu/ exclamation)

When it co-occurs with a superscript vowel, the /trəysap/, like the /museqkoːtʊən/ above, is replaced by the /kbiəh kramaːh/ ( - ).

ប្រ ឍ /sii/ to eat  (cf. ប៊ /səy/ caneball)

However, the /trəysap/ is usually written above a converted ឆ , or ឆ , despite a superscript vowel, although either form may occur; e.g., ឆ ឆ /hiːŋ/ 'a kind of toad'.
4. นิ่งฮะต /niŋkʰəhət/ (False)

The /niŋkʰəhət/ (the Sanskrit anusvāra) is frequently referred to as the /sraŋ qum/, and sometimes as the /damḷəʊ/.

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.

\[ /cəm/ \] exact

\[ /tum/ \] to porch

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

\[ /cəmnaek/ \] section

\[ /tumjuən/ \] weight

(See Chapter V, 5a.1 for a discussion of the alternation of this spelling with the conjunct spelling of such disyllables.)

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

\[ /cəm/ \] to remember

\[ /cəəm/ \] bruised

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

\[ /dəm/ \] piece

\[ /tum/ \] to be ripe

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

\[ /təŋ/ \] to establish

\[ /teəŋ/ \] all

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

\[ /səŋkɾət/ (≈ /səmskɾət/) \] Sanskrit

\[ /səcəŋ/ \] true

\[ /səŋyək-səŋhəa/ (≈ /səŋyəŋk-səŋhəa/) \] the symbol ə.

5. นิ่งฮะต /sanyook-saññaa/ (False)

a) The /sanyook-saññaa/ is used in certain words of Pali or Sanskrit origin, and usually has the same value as the short written ə. Words spelled with the /sanyook-saññaa/ and a final silent subscript usually have alternative spellings without the /sanyook-saññaa/:
b) The /sanyoak-saňñaa/ plus a final -ay is pronounced /-ay/ in the 1st series and /-iy/ in the 2nd series.

\[
\text{ʀːɛ́}/\text{samay}/ \text{era} \quad \text{ɛ́}/\text{ciy}/ \text{victory}
\]

c) The /sanyoak-saňñaa/ plus a final -ʃ is pronounced with the long diphthong /æ/ after a 2nd series consonant symbol (the combination apparently does not occur after 1st series consonant symbols.)

\[
\text{ɛ́}/\text{coæ}/ \text{resin} \quad \text{崇高}/\text{næø}/ \text{to tremble}
\]

\[
\text{ 않을}/\text{tumpeø}/ \text{page}
\]

6. តំន់ៃ /toændəkhiæt/ to kill ( )

The /toændəkhiæt/ is perhaps more commonly called សម្បត /samlap/ ‘to kill’. However, since /samlap/ is sometimes used to refer to the /bantæq/ ( )
the term /toændəkhiæt/ is used to avoid ambiguity. It is also frequently called

\[
\text{៉}/\text{pætdeøæt}/ \text{to cancel}
\]
The /toændəkhiæt/ 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 -ʃ , they are both unpronounced. Following are some examples of common words spelled with the /toændəkhiæt/.

\[
\text{ឈរ)//prayaoc/ usefulness} \quad \text{ឈរ}/\text{quhsaa/ diligent}
\]
\[
\text{ឈ}/\text{kei/ reputation} \quad \text{ឈ}/\text{pisaq/ to experiment}
\]
\[
\text{ឈ}/\text{poo/ banyan (tree)} \quad \text{ឈ}/\text{quitehao/ example}
\]

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

\[
\text{ឈ}/\text{ksat/ king} \quad \text{ឈ}/\text{can/ sandalwood}
\]
\[
\text{ឈ}/\text{kên}/ \text{good manners}
\]
In certain bound compounds whose first element is written with an unpronounced final consonant symbol, the /tʰandakhet/ may occur internally.

/teŋwaŋ/ army /mooban/ in a rage

The following two related words are irregular in that the subscript, rather than the superscript, preceding the /tʰandakhet/ serves as the final of the syllable.

/prum/ Brahma /priom/ a Brahman

7. /rəbat/ ( - )

The /rəbat/, more formally known as the /rephaæq/, is the reflex of an original /r/ in Sanskrit words.

a) In most words, when it occurs over a final consonant symbol, neither the /rəbat/ nor the symbol over which it occurs is pronounced. (Because of its functional similarity to the /tʰandakhet/ in this position, the two are frequently confused.)

/boribou/ abundant /preś-kaa/ ear (royalty)

An exception is the word /qaat/ ‘essence’, where the symbol underlying the /rəbat/ is pronounced as a final.

b) In the following words, the effect of the /rəbat/ is to change the vowel /ə/ to /œ/, as well as to cancel the final consonant symbol.

/θœ/ law /pœ/ color /kœ/ pregnant

This effect is called /samleiq/ ‘trembling sound’ in Cambodian. Phonologically it is the same sound that occurs in such words as /caœ/ ‘resin’ and /naœ/ ‘to tremble’ in 5 above; in both cases a final written r is involved.

c) When the /rəbat/ appears over a medial consonant symbol, it is pronounced as the intruded syllable /-rə-/ preceding the consonant over which it appears.

Most such words are more commonly spelled with -ṛ :

/tu privek/ destitute /mocredaq/ heritage

8. /rešmuk/ ( - )

The /rešmuk/, also referred to as the /wihsækæq/ (Sanskrit visarga) or /wihsanconit/, always represents final /-h/ after a short syllable.
a) When no vowel is written, — ː represents /-ah/ after a 1st series consonant symbol and /-ēah/ after a 2nd series consonant symbol.

/proeh/ to meet /sralah/ clear /pah/ to patch

b) After the short vowel symbols ː, ː, and ː, the /rēhmuk/ represents /-h/ alone.

/ceh/ to mount, ride /kah/ to scratch /pah/ to boil

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

/ei/ > /e/ + /h:/
/ee/ > /i/ + /h:/
/ae/ > /e/ + /h:/
/ao/ > /a/ + /h:/
/oo/ > /u/ + /h:/
/aö/ > /e/ + /h:/

/sah/ horse /nīh/ this
/kah/ wild goat (rare)
/kah/ island
/kūh/ strike

An exception to the above rule is the irregular spelling /cah/ ‘polite response particle used by women’ in which the vowel is usually long in spite of a following /rēhmuk/.

9. կանթակ /yuqkæːqpin̄tuq̄ ~ yuqkæːlpin̄tuq̄ / (−ː)

This symbol, commonly called /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 /rēhmuk/ –ː (§ above).

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

/bræːq/ vowel /threːaq/ preoccupation

/kaːq-rómtmʊɲtrəj/ cabinet
b) The /yugkəːʔpəntuːc/ 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.

/sheːʔphəːc/ /meʔkəːθəʔ-phīsəː/ Pali

/sheːʔphəːs/ /kʰəʔ-phīəp/ freedom

10. leik qahsːdaː /leik qahsːdaː/ ‘number eight’ (८)

The /leik qahsːdaː/, also called /leik prambəy/, occurs only over the consonants  and  when they represent the following words:

/kɔː/ auxiliary; then

/kɔː/ pronoun: which

11. wiːqɾiːm/ ( य)

The /wiːqɾiːm/ (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:

/saːŋmaːn/ /qaatmaːn/ soul

/stiːʔjəːq-wəɾəːmaːn/ /jəyəːvəɾəːmaːn/ Jayavarman

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

/stiːʔjəːq/ /qaatmaːn/ soul

12. kəɑːqkəbaːt/ ( .ImageIcon)

a) The /kəɑːqkəbaːt/, also commonly called /ceæŋ kəɑːk/ ‘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:

/nuːl/ there!

/caːʔ/ polite response particle used by women
b) The /kaoq⁷baa⁷t/ is also used to mark the point of insertion of an omitted word or consonant symbol:

\[ \text{Cambodian} \]
\[ \text{khaoq⁷baa⁷t} (= \text{Cambodain}) \]
\[ /sasei/ \text{ to write} \]
\[ \text{khaoq⁷baa⁷t} (= \text{Cambodain}) \]
\[ /haasap-prambay riel/ \]
\[ 58 \text{ riels} \]

B. PUNCTUATION

Although the common western punctuation marks, such as . ; : ! ? . . . etc. are being used in Cambodian writing with increased frequency, as a result of French influence, there are a number of punctuation signs which are characteristically Cambodian.

1. /klaa/ space

Cambodian words are not normally separated by spaces in closely knit syntactic phrases or single-clause sentences. The /klaa/ 'space' is used in a way roughly analogous to the use of the comma in English, but is more comprehensive. There are stylistic differences from one text to another, but space typically occurs in the following situations:

a) between clauses within a sentence
b) between sentences in a cohesive group of sentences
c) after preposed adverbial words or phrases, such as "usually," "today," "that town," etc.
d) before and after proper names
e) before and after numbers
f) before and after the symbols ፪, ១, ២ ្ញ ៣, and ៤ ៥ ៦ (explained below)
g) between coordinate words in lists

Some of the uses of the /klaa/ are illustrated in the following sentence:

/khaay-ni( )khnom tiw psaa( )tiin krouc( )khoqka( )haay-ni( )qeywan psein( )psein/ Today( )I'm going to the market( )to buy oranges( )rice( )and various things.
2. ឈឨេ /khan/ ( េ )

The /khan/, or ឈឨេ /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. ឈឨេ /baariyaosaan/ or ឈឨេ /lbah/ ( េ )

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

4. ពេកមុ័យ /koo-mout/ ‘cow’s urine’ ( )

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 ឈឨេ, which is also called /baariyaosaan/.

5. ពេកកិរញ្ក្ស៊ី /paneek moen/ ‘cock’s eye’ ( ឈឨេ or េ )

The /paneek moen/, also called the ពេកកិរញ្ក្ស៊ី /kokottaneet/, is an embellishment said to represent the trunk of the elephant-god Ganesha, which marks the beginning of literary and religious texts.

6. ឈឬេ /camnoc pii kuh/ ‘two dots and a slash’ ( ំ )

The /camnoc pii kuh/ is used in much the same way as the colon in English. In addition, it characteristically occurs after the quotative particle សូ /tha/ ‘saying, as follows’ and the copulative ឬ /kii/ ‘that is’. A horizontal line is written between the two circles in order to distinguish it easily from the /reohmuk/ ( )

7. លំកូន /leik too/ ‘the figure 2’ ( )

The /leik too/, more formally called ឈឬេ /qaameendit-saanaa/, 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.

ឈឬេ /pein-pein/ various
/touc-touc/ small and numerous

/nimuey-nimuey/ 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.

/bantoc mdaan, bantoc mdaan/ little by little

/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 /ptexh khoom/ 'my house' in the following example:

/khoom tiw ptexth khoom; ptexth khoom nhow cat psaa/
I'm going to my house; my house is near the market.

8. /laq/ or /peiyal/

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

9. /sahaq-sanhaa/ hyphen (-)

The /sahaq-sanhaa/ 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.

/fok tham/ Nhok Thom

/lii thiam teih/ Li Thiam Teng

/sen buan huat/ 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) (.) /coc muay/ one point

b) (,) /kbiho/ a stroke
Diacritics and Punctuation

c) (?)  /bocchaq-saññaa/ question mark

d) (!)  /quṭiēn-saññaa/ exclamation mark

e) (...)  /pōcē trey/ fish eggs

f) ({})  /rat/ bracket

g) (;)  /camnoc kbiēh/ point-stroke

h) ()  /wūēŋ krūcāq/ fingernail curves
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.

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:

1 /muay/ one 6 /prammuoy/ six
2 /pii/ two 7 /prampii ~ prampil/ seven
3 /beay/ three 8 /prambay/ eight
4 /buon/ four 9 /prambuon/ nine
5 /pram/ five 0 /soun/ zero

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

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

10 /dap/ ten
11 /dap-muay ~ muay-dandap/ eleven
12 /dap-pii ~ pii-dandap/ twelve
13 /dap-beay ~ beay-dandap/ thirteen
14 /dap-buon ~ buon-dandap/ fourteen
15 /dap-pram ~ pram-dandap/ fifteen
16 /dap-prammuoy ~ prammuoy-dandap/ sixteen
Numerals and Abbreviations

acb /dəp-prampil ~/prampil-dandap/ seventeen 17
acb /dəp-prambey ~/prambey-dandap/ eighteen 18
acb /dəp-prambuen ~/prambuen-dandap/ nineteen 19
acb /mphiy ~/mphiy/ 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, 100,000, 1 million (and perhaps 0 and 10 million) are borrowed from Thai.

acb /saamsəp/ thirty 30
acb /saesəp/ forty 40
acb /haasəp/ fifty 50
acb /hoksəp/ sixty 60
acb /cətsəp/ seventy 70
acb /paetsəp/ eighty 80
acb /kawsəp/ ninety 90
acb /muey-rooy/ one hundred 100
acb /muey-poən/ one thousand 1,000
acb /muey-mən/ one ten-thousand 10,000
acb /muey-saen/ one hundred-thousand 100,000
acb /muey-liən/ one million 1,000,000
acb /muey-kaot/ one ten-million 10,000,000

All complex numerals involve combinations of the above:

acb /mphiy-pii/ 22
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).

/ pii-lian, bey-saen, pram-mein, buon-poön, prampil-rooy, haasep-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., ១០០៤ - ១៩១៨.

2. In multiplicative compounds whose first element is ១ /muøy/ ‘one’, /muøy/ is usually shortened in rapid speech to /mə-/.

/ muøy-rooy/ ~ / mərooy/ 100
/ muøy-poön/ ~ / məpoön/ 1,000

This reduced form almost always occurs in / mephiy / mphiy / ‘20’ (reflected in the conjunct spelling), but / muøy-phiy/ has been observed in deliberate speech.

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

/ tii-muøy/ first
/ tii-saamsap-buen/ 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.:
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:

\[
\text{B.E.} = \text{៧០០០}\text{/puttasaqkaraac/ Buddhist era}
\]

\[
\text{A.D.} = \text{២៥១០}\text{/krihsaqkaraac/ Christian era}
\]

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:

\[
/\text{tay-put tii-maphiy-buon meaqkaraa krihsaqkaraac muiy-poen prambuen-rooy hoksap-pramboy/}
\]

Wednesday, the twenty-fourth of January, 1968.

Dates may be numerically abbreviated, however, in which case only the day, month,
and year are indicated by numerals only, separated by a hyphen. The above date, in its shortest form, would be:

\[ \text{Jan} \text{- 13} \text{- 2012} \]

2. Currency

The Cambodian monetary unit is the ដដ /riel/, which is divided into 100 ដដ /sein/ ‘cents’. In accounting, ដដ is abbreviated ៛, which is written between the riels and the cents as follows:

\[ ៛500 /saespram riel/ forty-five riels. \]

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.

\[ ៛300 \] 45 riels

\[ ៛200 \] 35 riels

Sometimes both a comma and a superscript ៛ are written:

\[ ៛100 \] 45 riels

Sometimes the ៛ occurs after the cents figure:

\[ ៛800 \] 45 riels

3. The Metric System

\[ \text{cm} = \text{កម/ millimeter} \]
\[ \text{cm} = \text{ច/ centimeter} \]
\[ \text{m} = \text{ម/ meter} \]
\[ \text{km} = \text{ក/ kilometer} \]
\[ \text{g} = \text{ក/ gram} \]
\[ \text{kg} = \text{កូ/ kilogram} \]
\[ \text{L} = \text{ល/ litre} \]
4. Miscellaneous

اكتساب /witheuy/  
/witheuy/  
ارادة /mohaa-witheuy/  
/ruqkaq-witheuy/  
/num-pin/  
/pekq-poem/  
/raam-poem/  
/nig dotiy tis/  
/qeek-qotdm/  
/sahqroet-qameriy/  
/see-qaa-ton/  
(U.S.A.)  
(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:  ,  ,  ,  ,  , 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.  ,  ,  ,  ,  ,  ,  ,  , etc. These may in turn be followed by subheadings listed by numerals, in the following pattern:

A -

1 -

2 -

B -

1 -

2 -

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 (/ɒ/ /o/)

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

- ៣ ២ /taa/  to continue ៣ /ko/  dumb
- ៣ ៣ /lqaa/  pretty ៣ ២  /choo/  to stand
- ៣ ៤ /caat/  to moor ២ /rook/  to seek
- ៣ ៥ /prakaap/  to combine ៣ ៥ /look/  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 ៣ ១  may be read either as /baek/ ‘to open’ or as /baa ko/ ‘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 /o/ (depending on the series of the initial consonant symbol), and in rapid speech with the vowel /o/. 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 /mr/ 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 ៣ .

- ៣ ៦ /kkaay/ ~ /kaaay/  to scratch about
- ៣ ៧ /ccak/ ~ /ceak/  to peck at
- ៣ ៨ /tual/ ~ /tual/  to receive
- ៣ ៩ /roab/ ~ /roab/  thing
Unwritten Sounds

\[ \text{human being} \]

\[ \text{to compete} \]

\[ \text{dawn} \]

\[ \text{to like} \]

c) In polysyllabic words, when the consonant symbols /\text{ba}/ /\text{ma}/ 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 /\text{a}/ /\text{e}/ /\text{o}/ occur (see 3 below).

\[ /\text{ba}/ : \text{excellent} \]

\[ /\text{ma}/ : \text{to eat} \]

\[ /\text{e}/ : \text{pure} \]

\[ /\text{ar}/ : \text{to die (eleg)} \]

\[ /\text{em}/ : \text{emerald} \]

2. The Short Inherent Vowel (/\text{a}/ /\text{u}/ /\text{ø}/)

a) Any sequence of two consonants without an intervening vowel symbol, the second of which carries a /\text{a}/ /\text{e}/ /\text{ø}/ is pronounced with the short inherent vowel: /\text{a}/ after 1st series initial consonant symbols, and, after 2nd series consonant symbols, /\text{u}/ before a labial consonant, and /\text{ø}/ elsewhere.

\[ /\text{b}/ : \text{to turn} \]

\[ /\text{ch}/ : \text{to stop} \]

\[ /\text{lu}/ : \text{to sell} \]

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 /\text{a}/. Such words constitute exceptions to rule 1-a above, since

1. This word is sometimes written conjunctively \[ \text{mmuh} \], implying that the first two consonants are pronounced as a cluster /\text{muh}/, 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:

\[\begin{align*}
\text{សំ} & /\text{sam}/ \quad \text{proper} & \text{សំណាក} & /\text{sajkum}/ \quad \text{society} \\
\text{សាអ} & /\text{sap}/ \quad \text{corpse} & \text{ព្រាក} & /\text{praakat}/ \quad \text{exact} \\
\text{រ៉៣} & /\text{cøen}/ \quad \text{people} & \text{ឆាស} & /\text{ciødaq}/ \quad \text{Jataka} \\
\text{រ៉២} & /\text{ruøt}/ \quad \text{car} & \text{ពីផេ} & /\text{piphup}/ \quad \text{world}
\end{align*}\]

c) A few stressed syllables that are spelled with a silent final subscript but no \( /\text{bantcq}/ \) are pronounced with the short inherent vowel. (Most words that have this spelling, however, are pronounced as if they were written with a short \( -\tilde{a}^- \); see section 3-a.) Some common words of this kind are listed below.

\[\begin{align*}
\text{សាអ} & /\text{sap}/ \quad \text{every} & \text{ព្រះ} & /\text{preb-san}/ \quad \text{priest} \\
\text{វោន} & /\text{wuøn}/ \quad \text{circle, family} & \text{ព្រំ} & /\text{prapuøn}/ \quad \text{wife}
\end{align*}\]

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 \( /a^\text{}$/.

\[\begin{align*}
\text{សារៗ} & /\text{samrap} \sim \text{samrap}/ \quad \text{for} \\
\text{ក្} & /\text{kαnɔŋ} \sim \text{kαnɔŋ}/ \quad \text{parcel} \\
\text{កុដារ} & /\text{kandaal} \sim \text{kandaal}/ \quad \text{center} \\
\text{សេក} & /\text{sajkat} \sim \text{sajkat}/ \quad \text{section, quarter} \\
\text{កៅ} & /\text{kumpii} \sim \text{kampii}/ \quad \text{scriptures} \\
\text{ហ៊្} & /\text{púnlii} \sim \text{púnlii}/ \quad \text{light} \\
\text{ពាក្ស} & /\text{pɑŋrîli} \sim \text{pɑŋrîli}/ \quad \text{to spread, broadcast}
\end{align*}\]

e) Whenever the diacritic \( \tilde{\text{a}} \) (\( /\text{nįqkehat}/ \)) appears over a consonant symbol with no written vowel, the syllable is pronounced with the short inherent vowel plus \( /\text{-m}/ \) \( /\text{-am}/ \) after a 1st series consonant symbol and \( /\text{-um}/ \) after a 2nd series consonant symbol.
Unwritten Sounds

\[ /cam/ \] exact \[ /kham/ \] to try to

\[ /tum/ \] to perch \[ /num/ \] cake

The common word \[ /thom/ \] ‘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 \[ /niqkaht/ \]. In such syllables the vowels \[ /a/ \] and \[ /u/ \] are reduced in rapid speech to \[ /o/ \] as in 2-d above.

\[ /kamnat \sim kəmnət/ \] to fix, \[ /cumənə \sim cəmnə/ \] belief agree on

\[ /cemnaek \sim cəmnaeck/ \] part, \[ /kəmnət \sim kəmnət/ \] thought share

3. The Short Vowels \[ /a/ \sim e\={o}/ \sim o\={o}/ \]

All other syllables involving unwritten vowels are pronounced as if they were written with the short vowel symbol \[-^\_\-\] ; i.e. \[ /a/ \] after a 1st series consonant symbol, and \[ /e\={o}/ \] or \[ /o\={o}/ \] after a 2nd series consonant symbol (see Chapter VII, A 1b 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 \[-^\_\-\] . (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.

\[ /sap/ \] sound \[ /yəeq/ \] demon

\[ /sat/ \] animal \[ /troyeq/ \] wealth

\[ /kam/ \] fate \[ /prowoət/ \] history

\[ /khan/ \] the symbol \[ /sombat/ \] 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 \[ /e\={o}/ \] (depending on the series) when stressed, and \[ /a/ \] when unstressed. When stressed, such syllables are pronounced with an unwritten final glottal stop \[-q;/ \] i.e. \[ /-aq/ \] and \[ /-eq/ \].

\[ /qaærun \sim qəørərn/ \] dawn

\[ /qanaakwət/ \] future
The following very literary word is an extreme example of a sequence of consonant symbols, each of which is pronounced as an independent syllable:

柬埔寨: /pathamaq-puttawaccanag/ first words of the Buddha

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

**個**: /thureòq/ preoccupation

**個**: /thaanaq/ position

**個**: /kònaq-kammakaa/ 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 first consonant of the preceding syllable:

ประเทศไทย /pathamaq/ ~ /patham/ first

/yuqkolèqointuq/ /yuqkolèqointuq/ 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 /ə/ or /eə/, depending on the series.

**個**: /sacca/ to promise  **個**: /paccoban/ the present

**個**: /sattròw/ enemy  **個**: /wönnayut/ diacritic

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

**個**: /raccena/ fine arts, crafts

**個**: /waccaamukram/ dictionary

In some disyllables with a medial double palatal nasal , the first syllable has the vowel /a/, rather than the short inherent described for disyllables of this kind in section 2-d above.
d) The unwritten vowel /eə/ occurs in one very common word whose spelling is irregular with respect to initial cluster, series, and vowel:

\[
\text{ê ŋ \nu} /\text{neə}/ \text{ familiar 2nd person pronoun}
\]

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/ (depending on the series) if stressed, and /ə/ if unstressed. (See section A 3 b)

\[
\begin{align*}
\text{-ə-} & \rightarrow \text{-tt-/} & \text{ɔtəkə} & /\text{caettonəa/} & \text{to like} \\
\text{ɔtəkə} & \rightarrow \text{-trəw/} & \text{ɛəkə} & /\text{sattəw/} & \text{enemy} \\
\text{-ət-} & \rightarrow \text{-td-/} & \text{ɔtəkə} & /\text{caetdəy/} & \text{stupa} \\
\text{-əc-} & \rightarrow \text{-cc-/} & \text{ɛəkə} & /\text{raccənəa/} & \text{art} \\
\text{-əc-} & \rightarrow \text{-cc-/} & \text{ɛəkə} & /\text{riəcəkəa/} & \text{civil service} \\
\text{-ək-} & \rightarrow \text{-kk-/} & \text{ɛəkə} & /\text{gaekəriəc/} & \text{independent} \\
\text{-əl-} & \rightarrow \text{-ll-/} & \text{ɛəkə} & /\text{puelərət/} & \text{citizenry} \\
\text{-əs-} & \rightarrow \text{-hs-/} & \text{ɛəkə} & /\text{saahsenəa ~ sahnsəa/} & \text{religion} \\
\text{ɔtəkə} & \rightarrow \text{-straəa/} & \text{ɔtəkə} & /\text{saahstraəaəa/} & \text{professor}
\end{align*}
\]

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: ការអាតាម /qaqmənuh/  inhuman (supernatural)

/qaqphiy/  fearless

Finally: ការដាក់សាប /qaqkhoosaq/  voiceless

/rayeeq/  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: ការសុណី /kaqrʊŋnaa ~ karunaa ~ kənaa/  mercy

/keqrɪqyaam ~ keriyaam/  conduct

Finally: ស្រី /latthiəq ~ ləthiəq/  belief, precept

/qaayuq ~ qayuq/  age

/siihanuq/  Sihanouk

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

/tek/  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 out 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. /a/ᵣə/ instead of /a/ɔa/

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

ह survived proper (cf. ⟨ŋa⟩ /sɔm/ fork)

ह /ruət/ car (cf. ⟨ŋa⟩ /rook/ search for)

2. /a/ᵣə/ instead of /a/ɛə/ɔə/

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

ह survived every (cf. ⟨ŋa⟩ /sɔp/ sound)

ह /jənə/ motor (cf. ⟨ŋa⟩ /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.

ह /qɔrɪg/ hammock (cf. ⟨ŋa⟩ /qaʊwɔa/ to beg)

ह /qae̯kəriəc/ independence (cf. ⟨ŋa⟩ /saqkəraac/ era)

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


4. Silent Final Short Vowel Symbols

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

- /mui/ village (cf. /lehti/ precept)
- /riet/ life (cf. /matteq/ decision)
- /riet/ relative
- /kot/ monk’s quarters
- /proasat/ history
- /het/ reason (cf. /wosthoo/ artifact)
- /thiet/ cremated remains

5. /æi/ instead of /ei/ee/

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

- /kheet/ province
- /pext/ doctor
- /caetday/ stupa
- /patdesaat/ to cancel, destroy
- /caetaan/ to like (cf. /weetania/ miserable)
- /het/ reason

6. /ay/ instead of /e/

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

father

stone

ghost

7. /a/ instead of /ə/

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

completely (cf. ้ก /məc/ why)

to finish

King

royal title
XI. WRITING

A. HANDWRITING

Cambodians take great pride in their writing system, and penmanship has traditionally been highly valued as a discipline in the schools, and especially in the curriculum of the pagoda schools. The Cambodian script lends itself easily to flourish and embellishment, as is evidenced by the variety of styles in common use, and a carefully written text is aesthetically quite pleasing.

In careful writing, the following conventions are observed:

1. Symbol Composition

   Individual symbols are drawn, where possible, in a continuous motion from left to right. Superscript elements, called /saq/ 'hair', such as $\text{Issuer}$, are added second. Short horizontal strokes are added last.

   a) One stroke

      Left to right

      Consonant symbols:  introductory  introductory

      Subscript symbols:  introductory

      Vowel symbols:  introductory

      Independent vowel symbols:  introductory

      Numerals:  introductory

      Bottom to top

      Consonants:  introductory Vowels:  introductory

      Subscripts:  introductory

      Right to left, lower part first where possible

      Subscripts:  introductory

      Vowel:  introductory Numerals:  introductory

   b) Two strokes

      Superscript element added second

      Consonants:  introductory

      Vowels:  introductory Independent vowels:  introductory
Last vertical element second

Consonants: ็ก ง ฅ ฆ Vowels: ฆ- ฅ- ฅ-

Top left hook added second

Consonants: ง ฅ ฆ

Lower element second

Subscript: ฅ Vowel: ฅ Independent vowels: ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ

c) Three strokes


Independent vowels: ฅ ฅ

d) Four strokes

Vowels: ฅ- ฅ- ฅ- ฅ- ฅ- 客家 Independent vowel: ฅ

2. The Symbol -ฅ or -ฅ

The vowel symbol -ฅ or -ฅ, 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 /saː/ ( ฅ ), the /saː/ is extended and attached to a following -ฅ , as follows:

ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ 🔞

b) The sequence ฅ + ฅ is written ฅ /baa/ to distinguish it from the sequence ฅ /caa/ (shown above), and from ฅ /iaa/.

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

ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ ฅ  %{g}

崴

How many Vowels do you written above (ข้องข้ามา) your mother's name?
d) の is attached to the following consonant symbols:


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 の, の, or の, which are completed before writing the subscript. The sequence of writing steps is shown in the following examples:

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) る</td>
<td>る</td>
<td>る</td>
<td>/pday/</td>
<td>husband</td>
</tr>
<tr>
<td>2) る</td>
<td>る</td>
<td>ろ</td>
<td>/sdap/</td>
<td>to hear</td>
</tr>
<tr>
<td>3) る</td>
<td>ろ</td>
<td>ろ</td>
<td>/boakhoe/</td>
<td>to ruin</td>
</tr>
<tr>
<td>4) る</td>
<td>ろ</td>
<td>ろ</td>
<td>/boakast/</td>
<td>to originate</td>
</tr>
</tbody>
</table>

A /ceay roo/ の is added after the consonant, or consonant + の, to which it is subscript, and before a superscript vowel, and is usually drawn large enough to include a subscript. 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:

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) る</td>
<td>る</td>
<td>る</td>
<td>/srøy/</td>
<td>woman</td>
</tr>
<tr>
<td>2) る</td>
<td>ろ</td>
<td>ろ</td>
<td>/craøj/</td>
<td>much, many</td>
</tr>
<tr>
<td>3) る</td>
<td>ろ</td>
<td>ろ</td>
<td>/samrap/</td>
<td>for</td>
</tr>
<tr>
<td>4) る</td>
<td>ろ</td>
<td>ろ</td>
<td>/dantroy/</td>
<td>music</td>
</tr>
</tbody>
</table>

However, the /ceay roo/ is written before (in time), and usually does not include,
a following subscript vowel symbol or the second part of the composite vowel symbols  $\ddot{\text{a}}$ and $\ddot{\text{e}}$ :  

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) $\ddot{\text{a}}$</td>
<td>$\ddot{\text{a}}$</td>
<td>$\ddot{\text{a}}$</td>
<td>$\ddot{\text{a}}$</td>
<td>/proh/ male</td>
</tr>
<tr>
<td>2) $\ddot{\text{e}}$</td>
<td>$\ddot{\text{e}}$</td>
<td>$\ddot{\text{e}}$</td>
<td>$\ddot{\text{e}}$</td>
<td>/trow/ correct</td>
</tr>
<tr>
<td>3) $\ddot{\text{u}}$</td>
<td>$\ddot{\text{u}}$</td>
<td>$\ddot{\text{u}}$</td>
<td>$\ddot{\text{u}}$</td>
<td>/trust/ to examine</td>
</tr>
<tr>
<td>4) $\ddot{\text{i}}$</td>
<td>$\ddot{\text{i}}$</td>
<td>$\ddot{\text{i}}$</td>
<td>$\ddot{\text{i}}$</td>
<td>/priep/ to compare</td>
</tr>
<tr>
<td>5) $\ddot{\text{u}}$</td>
<td>$\ddot{\text{u}}$</td>
<td>$\ddot{\text{u}}$</td>
<td>$\ddot{\text{u}}$</td>
<td>/kriep/ accessory</td>
</tr>
</tbody>
</table>

**B. STYLES OF SCRIPT**

There are two basic styles of script in modern Cambodian:  $\dddot{\text{c}}$ /qaqsa criem/ ‘slanted script’, and  $\dddot{\text{c}}$ /qaqsa 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,  $\dddot{\text{c}}$ /qaqsa choo/ ‘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, /qaqsa muul/, is more archaic and much more elaborate. While most of the letters are similar in shape to their slanted counterparts, a few, notably  $\ddot{\text{c}}$ /kaa/,  $\dddot{\text{c}}$ /nou/,  $\dddot{\text{c}}$ /nou/, and  $\ddot{\text{c}}$ /tou/, 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. /qaqsa muul/ also has a variant,  $\dddot{\text{c}}$ /qaqsa khaam/ ‘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

<table>
<thead>
<tr>
<th>Slanted Script</th>
<th>Standing Script</th>
<th>Round Script</th>
<th>Cambodian Script</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2.</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>3.</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>4.</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>5.</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>6.</td>
<td>17</td>
<td>18</td>
<td>19</td>
</tr>
</tbody>
</table>
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 /qawsoo chriy/~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:

/taw look-qawwuk nih ne_sq-mdhay sok-sapbaay cie rii-tee? camaek koun wi_n, sok nih tuk cie kaa-tho_mmeeaa. sap-tay-nih, kaa-rush-nih knok salaa twee qaw y koun mi_en ca_t nik rollik dal pleh nih kruessaa cie ri_y-ri_y/

'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

2. Rapid Masculine Style

3. Careful Feminine Style

4. Rapid Feminine Style

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. ប vs. ស), 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.

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 (/qaaqsa criag/) which is used for running text in newssheet and most books. Sample 7 illustrates the standing script (/qaqsa choa/) 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 (/qaqsa khoom/), which is generally used for titles, proper names, and inscriptions on signs and public buildings; although it is technically /qaqsa khoom/, it would be referred to by the generic term /muul/ by the general public. Samples 8–15 were all taken from the weekly publication /neaq ciat niyum/ (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.)


'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. /ceu yee yom pramaat meep-nej baaw-priew yee yom/  
   'Let's not mistreat our servants.'
8. /ween-yiem daemboy bomraa saathiernanapun nisw kron pnum-piin/  
   'Remaining open to serve the public in Phnom Penh'
9. /qumpee-clien-pien nay kaap-toep . . . /'the army's aggression . . .'  
10. /ciot, sahsnaa, riec-baalay/ 'Nation - Religion - Throne'
11. /noteq ciot niyum/ 'The Nationalist'
12. /preeoh-sunnisot poedamiens/ 'Royal Press Conference'
13. /kaect stin-traey/ 'Stung Treng Province'
14. /kaa-samhated/ 'Confidential'
15. /buerateen/ 'Abroad'

1.

2.

3.

4.

5.
6. ជាមួយនឹងប្រកួតប្រសិទ្ធភាព បានប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព ប្រតិបតីក្នុងការប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព ពេលណាម្ចាស់ពេលណាហើយ ប្រកួតប្រសិទ្ធភាព បានប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព

7. ប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព បានប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព

8. ប្រកួតប្រសិទ្ធភាព បានប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព បានប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព

9. ប្រកួតប្រសិទ្ធភាព បានប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព

10. ប្រកួតប្រសិទ្ធភាព បានប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព

11. ប្រកួតប្រសិទ្ធភាព បានប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព

12. ប្រកួតប្រសិទ្ធភាព បានប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព

13. ប្រកួតប្រសិទ្ធភាព បានប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព

14. ប្រកួតប្រសិទ្ធភាព បានប្រការក្នុងការផ្សារប្រកួតប្រសិទ្ធភាព
ปราบ
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

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

87
III. CONSONANTS

1. 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

2. 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

3. 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 /oa/. The first letter of the Cambodian alphabet is ئ. It is a 1st series consonant which represents the sound /k/. Write, transcribe, and pronounce the symbol ئ with its inherent vowel.
   A. ئ kao

4. When a 2nd series consonant symbol is written with no accompanying vowel symbol, it is pronounced with the “inherent” vowel /ɔa/. The 2nd series consonant symbol representing /k/ is ئ. Write, transcribe, and pronounce it.
   A. ئ kao

5. 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 ئ. Write, transcribe, and pronounce it.
   A. ئ khao
6. The 2nd series symbol for /kh-/ is ២៤០ . Write, transcribe, and pronounce it.
   A. ២៤០ ួអ

7. All nasal symbols (except ៣ ៣ /ŋ/), 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 ៣ ៤ ។ Write, transcribe, and pronounce it.
   A. ៣ ៤ ួអ

8. You have now been introduced to the first five letters of the Cambodian alphabet. They are: ០ ២ ៣ ៤ ៤ ។ 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 (០)
1st series aspirated consonant symbol (២)
2nd series unaspirated consonant symbol (៣)
2nd series aspirated consonant symbol (៤)
2nd series homorganic nasal (៤)

Write, transcribe, and pronounce the Velar series above.
   A. ០ កា, ២ ូង, ៣ ួអ, ៤ ួអ, ៤ ួអ

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 ២ ៤ is called /sraq qaa/ ‘the vowel qaa’. Its first series value is /aa/. ០ + ២ ៤ is written ០ ២ ។ Write, transcribe, and pronounce it.
   A. ០ កា

10. The second series value of ២ ៤ is /ia/. ០ + ២ ៤ is written ០ ២ ។ Write, transcribe, and pronounce it.
    A. ០ ២ កែ

11. Write, transcribe, and pronounce the following syllables: ២ ២ ៣ ៣ ។
    A. ២ ២ ូង, ២ ២ ូង, ២ ២ ូង
12. $\ddot{c}$ is the 1st series consonant symbol for /c/. Its 2nd series counterpart is $\ddot{g}$. Write, transcribe, and pronounce the syllables $\dddot{m}$ and $\dddot{n}$.

A. $\ddot{c}$ caa, $\ddot{g}$ cie

13. The second group of consonant symbols in the Cambodian alphabet are the Palatals. They are: $\dddot{f}$ /caaf/, $\dddot{h}$ /choa/, $\dddot{l}$ /coo/, $\dddot{m}$ /choa/, and $\dddot{n}$ /noo/. Write, transcribe, and pronounce each of them in combination with the vowel symbol $\ddot{a}$.

A. $\dddot{f}$ caa, $\dddot{h}$ chaa, $\dddot{l}$ cie, $\dddot{m}$ chaa, $\dddot{n}$ nie

14. The vowel symbol $\ddot{a}$ is called /sraaq qoy/. Its 1st series value is /ey/ and its 2nd series value is /ii/. Write, transcribe, and pronounce the syllables $\dddot{a}$ and $\dddot{a}$.

A. $\dddot{a}$ key, $\dddot{a}$ kii

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

![Cambodian syllables]

Transcribe and pronounce them.

A. ka, kh, k, kh, y, ca, cha, caa, cha, cho, noo, kaa, khaa, kii, kii, y, caa, cha, cie, chio, nie, key, khoy, kii, kii, y, ca, choy, cii, chii, nie

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 $\dddot{a}$ /daa/, $\dddot{h}$ /tha/, $\dddot{g}$ /doo/, $\dddot{m}$ /tho/, $\dddot{n}$ /naa/ 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. $\ddot{g}$ and $\dddot{m}$ are rare, occurring in only a few loanwords. $\dddot{n}$ is the only nasal
symbol which belongs to the 1st series. Transcribe and pronounce the
following syllables: က ပ ဖ မ န

A. ကု, ပု, ဖု, မု, နု

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

19. Notice that ဖ /coo/ and ရ /daa/ differ only with regard to the top
element, referred to as the /saq/ 'hair'. Write, transcribe, and pronounce
the following syllables: ရာ ရီ ဆို စို ဖ ရ

A. ရု တာ, ဆီ ခို, စို, ဖု, နု, ကု, ရု

20. The vowel symbol ဌ is called /sraq qou/. Its 1st series value is /ou/
and its 2nd series value is /uu/. Transcribe and pronounce the following
syllables: ကိ ကု ကျ ကျ် ကျ်း ကျ်းး ကျ်းးး

A. ကျ်းးးး, ကျ်းးး, ကျ်း, ကျ်းးး, ကျ်းးးး, ကျ်းးးး

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:

 fragile

Transcribe and pronounce the following syllables:

A. မု, မု, မု, မု, မု, မု, မု, မု

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

24. Note that there are two representations for 1st series /thao/: the Retro-
flex ထ and the Dental ထ ; and two representations for the 2nd series
/thao/: the Retroflex ဖိ and the Dental ဖိ. 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: thoa, thaa, thoy, thou.

A. ៣ ៤ ៥ ៦

25. Write the following syllables two ways: thoa, thiə, thiɪ, thuə

A. ៣ ៤ ᫄ ᫃

26. Note that the 2nd series counterpart of ណ /naa/ is ល /nəo/. Transcribe and pronounce the following syllables:

A. naa, nie, ney, nii, nuu, nou, naa, nəo

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

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

A. ឃ ᫄ ᫃ thoa, ឃ thia, ឃ thuu, ឃ chou, ឃ choy, ឃ thiɪ

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

A. kei, koe, dei, cee, tee, tei, nei, thei, khee, 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,” –ə, –ə, –ə, and –ə), so that you should now be
able to read 100 different Cambodian syllables. Transcribe and pronounce them.

<table>
<thead>
<tr>
<th>No.</th>
<th>Syllable</th>
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<tbody>
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<td>1</td>
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</table>
34. We will now consider the last of the five articulatory groups of consonants in the Cambodian alphabet, the Labials. They are, respectively, SizePolicy
/bac/, SizePolicy
/phac/, SizePolicy
/pac/, SizePolicy
/phac/, and SizePolicy
/pac/. Write, transcribe, and pronounce the following syllables:

A. SizePolicy
bay, SizePolicy
phaa, SizePolicy
pii, SizePolicy
phie, SizePolicy
mie, SizePolicy
mii

35. When SizePolicy
 is followed by the vowel symbol -SizePolicy
 , it is written SizePolicy
/bac/ to distinguish it from SizePolicy
/bac/ (to be discussed later) and from SizePolicy
 + -SizePolicy
 , which is SizePolicy
 . Write, transcribe, and pronounce the following syllables: SizePolicy
bac, SizePolicy
baa, SizePolicy
caa, SizePolicy
haa, SizePolicy
mie

36. Notice that SizePolicy
/phac/ differs from SizePolicy
/thac/ only in the uppermost element, or /saq/. Write, transcribe, and pronounce the following syllables:

A. SizePolicy
phaa, SizePolicy
thie, SizePolicy
thii, SizePolicy
phay, SizePolicy
chey, SizePolicy
phei,
SizePolicy
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 ១/២/៣/៤)  
<table>
<thead>
<tr>
<th>Unaspirated</th>
<th>Aspirated</th>
<th>Unaspirated</th>
<th>Aspirated</th>
<th>Nasal</th>
</tr>
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<tbody>
<tr>
<td><strong>Velars</strong></td>
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<td>kko</td>
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<tr>
<td><strong>Palatals</strong></td>
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<td>coco</td>
<td>choo</td>
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<td>daa</td>
<td>thaa</td>
<td>dco</td>
<td>thoo</td>
<td>១១</td>
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<td><strong>Dentals</strong></td>
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<td>thaa</td>
<td>too</td>
<td>thoo</td>
<td>១៥</td>
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<tr>
<td><strong>Labials</strong></td>
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<tr>
<td>baa</td>
<td>phaa</td>
<td>pco</td>
<td>phoo</td>
<td>១៨</td>
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</tbody>
</table>

38. The next four letters of the Cambodian alphabet (nos. 26–29 in order) are ១២/១៣/១៤/១៥. 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 ១៥/១៦/ differs from ១៧/១៨/ only in having an additional flourish at the top. Write, transcribe, and pronounce the following syllables: ១២១៣១៥១៦១៧១៨ ១៩ ២០

A. ១១ yia, ១២ riə, ១៣ liə, ១៤ wia, ១៥ yil, ១៦ riə, ១៧ liii, ១៨ wii

39. Notice that ១៩ differs from ២០/២១/ 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: ២១ ២២ ២៣ ២៤ ២៥ ២៦
40. The last four letters of the Cambodian alphabet (nos. 30–33) are sū /saː/, ṭa  /haː/, sū /laː/, sū /qaː/. They are all pronounced (when unconverted) with the 1st series inherent vowel. Transcribe and pronounce the following syllables: ṭaː sūaː ṭaː sūaː ṭaː sūaː

A. saa, hei, laa, qaa, sēy, hou, lei, qøy

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

42. ṭa  /laː/ is the 1st series counterpart of sū /laː/, parallel with ṭa  /noː/ and sū /noː/. Write, transcribe, and pronounce the following syllables: ṭaː sūaː ṭaː sūaː ṭaː sūaː

A. ṭaː laa, ṭaː liː, ṭaː maa, ṭaː nia, ṭaː ley, ṭaː līi, ṭaː nēy, ṭaː nīi

43. The 2nd series continuants ṭu, ṭo, ṭh, ṭh, ṭh, and ṭu have no separate counterparts in the 1st series. They can be converted to 1st series by the addition of the /museq-katōn/ or /tmīn kandaɔ/ ‘rat’s teeth’ (−): ṭu /yaa/, ṭu /nāː/, ṭu /māː/, ṭu /yaa/, ṭu /raː/, ṭu /koa/. Transcribe and pronounce the following:

A. yaa, yia, roi, ree, waa, wiː, maa, mia, ṭou, yuu, nāː, nīe

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

45. The 1st series consonants ṭu, ṭo, ṭh, and ṭu have no separate counterparts in the 2nd series. They can be converted to the 2nd series by the addition of the /troysiːp/ (−): ṭu /bʊː/, ṭo /sʊː/, ṭh /hʊː/, and ṭu /qʊː/. Transcribe and pronounce the following:

A. bʊː, sʊː, hʊː, bʊː
A. bou, buu, haa, sii, see, gou, guu, bay, bii

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

47. Whenever a /museqkatoen/ ( " ) or /troyasap/ ( " ) converter co-occurs with one of the superscript vowel symbols, such as — or — , it is usually replaced (except in the case of キ ; see 45 above) by a short vertical stroke ( — ), called /khiəh kraom/, at the bottom of the consonant symbol; e.g. キ/ /sii/, キ/ /qii/, although キ and キ do occur. Write, transcribe, and pronounce the following:

48. Since キ /paa/ has no 1st series counterpart, the /museqkatoen/ ( " ) is also used to convert 1st series キ/ /baa/ to キ/ /paa/. Transcribe and pronounce the following: キ キ キ キ キ キ キ キ

A. baa, paa, bay, pay, bou, pou, bei, pei

49. Now write the above syllables in Cambodian script.

50. The consonant /f/ is represented by the symbol キ plus the subscript form of キ : キ/ /fuu/. It belongs to the 1st series unless converted by use of the /troyasap/ : キ/ /fuu/. キ in some words is pronounced like キ/ /wuu/. In some words キ plus the subscript form of キ ( キ/ /maa/) occurs instead of キ as the 1st series counterpart of キ ; likewise in some words キ plus the subscript form of キ ( キ/ /maa/) is used instead of キ as the 1st series counterpart of キ , and キ plus the subscript form of キ ( キ/ /lau/) occurs instead of キ as the 1st series counterpart of キ . Transcribe and pronounce the following:
A. faa, fei, fie, 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.

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<tr>
<th>Consonant</th>
<th>1st Series</th>
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<td>2. kh</td>
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<td>3. g</td>
<td>gpu</td>
<td>yaa</td>
</tr>
<tr>
<td>4. c</td>
<td>ခ</td>
<td>caa</td>
</tr>
<tr>
<td>5. ch</td>
<td>ခ</td>
<td>chaa</td>
</tr>
<tr>
<td>6. ñ</td>
<td>န</td>
<td>ñaa</td>
</tr>
<tr>
<td>7. d</td>
<td>တ</td>
<td>daa</td>
</tr>
<tr>
<td>8. t</td>
<td>သ</td>
<td>taa</td>
</tr>
<tr>
<td>9. th</td>
<td>ध (ध)</td>
<td>thaa</td>
</tr>
<tr>
<td>10. n</td>
<td>န (န)</td>
<td>naa</td>
</tr>
<tr>
<td>11. b</td>
<td>ब</td>
<td>baa</td>
</tr>
<tr>
<td>12. p</td>
<td>ပ</td>
<td>paa</td>
</tr>
<tr>
<td>13. ph</td>
<td>फ</td>
<td>phaa</td>
</tr>
<tr>
<td>Consonant</td>
<td>1st Series</td>
<td>2nd Series</td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>Symbol</td>
<td>Name</td>
<td>Symbol</td>
</tr>
<tr>
<td>14. m</td>
<td>$\ddot{m}$</td>
<td>maa</td>
</tr>
<tr>
<td>15. y</td>
<td>$\ddot{y}$</td>
<td>yaa</td>
</tr>
<tr>
<td>16. r</td>
<td>$\ddot{r}$</td>
<td>raa</td>
</tr>
<tr>
<td>17. l</td>
<td>$\ddot{l}$</td>
<td>laa</td>
</tr>
<tr>
<td>18. w</td>
<td>$\ddot{w}$</td>
<td>waa</td>
</tr>
<tr>
<td>19. s</td>
<td>$\ddot{s}$</td>
<td>saa</td>
</tr>
<tr>
<td>20. h</td>
<td>$\ddot{h}$</td>
<td>haa</td>
</tr>
<tr>
<td>21. f</td>
<td>$\ddot{f}$</td>
<td>faa</td>
</tr>
<tr>
<td>22. q</td>
<td>$\ddot{q}$</td>
<td>qaa</td>
</tr>
</tbody>
</table>

IV. FINAL CONSONANTS

52. According to the Phonological Summary, what consonants occur in final position in Cambodian syllables?
   A. p, t, c, k, q, h, m, n, n, y, w, y, and l

53. What consonants never occur finally?
   A. b, d, f, s, and r

54. Nevertheless, almost all the consonant symbols are used to represent final consonants in Cambodian words, so there is much more redundancy in the representation of final consonants than in initial consonants. Although many words are spelled with a final $\ddot{r}$, it is not pronounced. However, it sometimes serves to distinguish orthographically between homonyms (see Part One, III, D). Transcribe and pronounce the following:

   A. kaa, kaa, kuu, kuu, pii, pii

55. The final stops /p, t, c, k, q/ may each be represented by a variety of symbols. Any Labial stop symbol (nasals are continuants and not stops) occur-
ring in final position represents final /-p/, although  is by far the most common representation of final /-p/. (Consult the chart in Exercise 37.) Transcribe and pronounce the following:

A. taap, taap, saap, phiap, liap

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

A. caat, baat, koat, baat, kuut, kiwt, maat, saat, baat

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

A. touc, qaac, riac, kaac, puuc

58. After one of the vowels /a, aa, a, aa, e, e, u, u, i, i, u/ any Velar stop symbol in final position represents final /-k/. Transcribe and pronounce:

A. kaac, niac, miaq, caaq, saaq

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

A. ciik, riik, meek, leek, rook, mook

60. Transcribe and pronounce the following syllables:

A. couk, cuuk, ciaq, paaq, yock, niac, reek

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

A. caam, niem, laan, maan, cien, tiein, miin, leen, riin, saan
62. The continuant symbols ែ ោ ៤ ៨ and ១ have the same values in final as in initial position. Transcribe and pronounce:

A. baay, kaal, qaw, niay, peel, liiw, coul

63. ៥ in final position represents final /-h/. Transcribe and pronounce:

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.

<table>
<thead>
<tr>
<th>Symbolization</th>
<th>1st Series Value</th>
<th>2nd Series Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ø</td>
<td>oo</td>
<td>oe</td>
</tr>
<tr>
<td>ō</td>
<td>oo</td>
<td>ee</td>
</tr>
<tr>
<td>ō</td>
<td>oo</td>
<td>ee</td>
</tr>
<tr>
<td>æ</td>
<td>ou</td>
<td>uu</td>
</tr>
<tr>
<td>ŭ</td>
<td>ei</td>
<td>ee</td>
</tr>
</tbody>
</table>

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 /kɑː/, ក /kɑːt/, ក /kɑː/, ក /kɑːt/. 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:

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 (Cambodian Cambodian Cambodian Cambodian Cambodian). Transcribe and pronounce: ḷu ḷu ḷu ḷu ḷu (see Exercise 59)

A. caap, cup, toom, tum, loop, 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 /uː/. Transcribe and pronounce:

CambodianCambodianCambodianCambodianCambodianCambodian

A. koot, kœt, yœl, yœl, look, lœq, pœh

68. Write the above syllables in Cambodian script.

69. Transcribe and pronounce: ḷu ḷu ḷu ḷu ḷu ḷu ḷu

A. cup, cuœl, lup, lœq, tup, tuœn

70. Transcribe and pronounce:

CambodianCambodianCambodianCambodianCambodian

A. caap, cap, caap, cup, cuœq, kaap, kaq, look, lœq

71. Write the above syllables in Cambodian script.

72. When the final consonant symbol of a syllable spelled with Cambodian carries
the /bantak/, the 1st series pronunciation is /a/. Transcribe and pronounce:

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 -ŋ is /eə/ before any Velar Stop symbol
   (๛, ง, nants, เปรีย) and /eə/ before any other consonant symbol.
   (Consult Exercise 59 for the value of Velar stop symbols after /eə/.)
   Transcribe and pronounce: ອំា ំា ឈ្មោះ និសេ មើឈ មេឈ ឈ្មើ
   A. ciəq, ceəq, miəq, meəq, piəq, peəq

75. Write the above syllables in Cambodian script.

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

A. kiət, koət, tian, toən, miən, moən

77. Transcribe and pronounce: ៉យ ៉យ ៉យ ៉យ ៉យ ៉យ ៉យ ៉យ
   A. teəq, toən, peəq, poən, ceəq, coən

78. Transcribe and pronounce:

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 ៛/. Notice that it differs from
   /ʊ/ 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 /-iəq/ in the 2nd series. (A stressed syllable is any syllable
   in isolation, or any word-final syllable.) Transcribe and pronounce:

A. qəy, qeq, qii, qiəq, teəq, teq, yiə, yiəq

81. When it occurs in an unstressed syllable with no written final consonant,
82. When $\circ$ 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: 

A. cat, cit, can, kit, cilik, pit, bat, tac, tīn

83. When $\circ$ precedes a final $-\text{uss}$, it has the same value as $\circ$: /əy/ in the 1st series and /i/ in the 2nd series (this spelling occurs in only a few words). Transcribe and pronounce: 

A. tøy, tīi

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

A. dok, tik, cek, nik, yiit, mein, phok

85. Write the following syllables two ways: cat, cit, hap, min

A. 

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

A. coq, tuq, thoq, muq

87. In all other environments $\circ$ represents /o/ in the 1st series and /u/ in the 2nd series. Transcribe and pronounce:
A. kon, kun, phot, thun, qoh, lup, koun, muel

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. ɕuŋ ɕuŋ ɕuŋ ɕuŋ ɕuŋ ɕuŋ ɕuŋ ɕuŋ ɕuŋ

89. There are three vowel symbols whose values are unaffected by the series of the initial consonant. They are /sraq qua/, /sraq qiə/, and /sraq qie/. Their values are /ua/, /iə/, and /iə/ respectively. Transcribe and pronounce:

A. kua, kue, cie, cia, tion, tion, riən, biən

90. Write each of the following syllables two ways: chuen, khian, cuen

A. ɕuŋ ɕuŋ ɕuŋ ɕuŋ ɕuŋ ɕuŋ ɕuŋ ɕuŋ ɕuŋ

91. Notice that the value of /iə/ is the same as the 2nd series value of /ŋ/. Write the following syllables three ways: tian, kit, phiəŋ

A. ɕiəŋ ɕiəŋ ɕiəŋ ɕiəŋ ɕiəŋ ɕiəŋ ɕiəŋ ɕiəŋ ɕiəŋ

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

A. mœc, pic, cœn, pïn, ceik, meek

93. Thus the three vowel symbols /æ/, /ə/, and /e/ are all pronounced alike before a Palatal final. Write the following syllables three ways: tœc, pic, cœn, pïn
94. The vowel symbol ១ -  is called /sraq qaa/. Its value is /ae/ in the 1st series and /ae/ in the 2nd series. Transcribe and pronounce:

A. tae, chea, kaet, keat, baek, khaeñ, neah

95. Write the above syllables in Cambodian script.

96. The vowel symbol ១ -  is called /sraq qae/. Its value is /ac/ in the 1st series and /ee/ in the 2nd series. Transcribe and pronounce:

A. kae, kæe, saen, mœen, taen, pœeø

97. The vowel symbol ១ -  is called /sraq qay/. It must be carefully distinguished in both pronunciation and writing from ១ -  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:

A. day, tiy, cay, niy

98. The vowel symbol ១ -  is called /sraq qao/. Its values are /ac/ in the 1st series and /oo/ in the 2nd series. Transcribe and pronounce:

A. kao, kœo, taœø, roœø, maœø, khao, loøp

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

100. The vowel symbol ១ -  is called /sraq qaw/. Its 1st series value is /aw/ and its 2nd series value is /iw/. Like ១ -  in 97 above, it already includes a final consonant, so it is never followed by a written final consonant symbol. It is distinguished from ១ -  only by an additional stroke at the top right. Transcribe and pronounce:

A. taw, tiw, caw, niw, haw, piw
101. The symbol ș is a diacritic whose formal name is /uqkəhət/, but which is commonly treated as a vowel symbol with the name /sraq qam/. Its 1st series value is /aŋ/ and its 2nd series value is /um/. (The word ș/ţhəm/ '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: ș ș ș ș ș ș ș
A. cam, cum, kham, tum, qam, kham

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

103. When ș is combined with ș to form ș ș it is called /sraq qom/. Its 1st series value is /om/ and its 2nd series value is identical with the 2nd series value of ș above. Transcribe and pronounce:
A. dom, tum, kóm, cum, som, pum

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

105. The symbol ș ș is called /sraq qam/. Its 1st series value is /am/ and its 2nd series value is /oəm/. Transcribe and pronounce:
A. cam, koəm, kəm, koəm, naəm, noəm

106. Consult Exercises 72 and 74, then write the following syllables: cap, cam, coəp, coəm, noəp, nam
A. ș ș ș ș ș ș ș

107. The configuration ș is called /sraq qam ʂə/. Its 1st series value is /aŋ/, its 2nd series value is /eəŋ/. Transcribe and pronounce:
A. ș ș ș ș ș ș ș
A. tæŋ, teŋ, phaŋ, phēŋ

108. The symbol － is called /reːhmuk/ or /sraŋ qah/. When no vowel symbol is written it represents /ah/ after a 1st series consonant symbol and /ēh/ after a second series consonant symbol. Transcribe and pronounce:

A. tah, teːh, pah, phēh

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

A. ṙaːn, ṙaːn, sān, sān

110. After the short vowel symbols －, －, and －, the /reːhmuk/ represents final /-h/ alone. The configurations －, －, and － are sometimes referred to as /sraŋ qeh/, /sraŋ qəh/, and /sraŋ qoh/ respectively. Transcribe and pronounce:

A. ceh, ciḥ, kəh, piḥ, coh, puh

111. After the long vowel symbols ṙ-, ṙ-, and ṙ-, the /reːhmuk/ both shortens and changes the value of the vowel symbol. (An exception is the irregular spelling ṙː /caah/ ‘polite response particle used by women’ which is usually pronounced long in spite of a following /reːhmuk/.) The configuration ṙ- is sometimes referred to as /sraŋ qeh/. It is /eh/ in the 1st series and /ih/ in the 2nd series. Transcribe and pronounce:

A. seh, nih, pheh, ciḥ

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

A. ṙː araːŋ, ṙː araːŋ, nēː jæːnː, jæːnː

113. The configuration ṙ- is sometimes called /sraŋ qəh/. Its 1st series value is /ah/ and its 2nd series value is /uːh/. (An exception is the irregular spelling ṙː /nuːh/ ‘that, there’.) Transcribe and pronounce:
114. Consult Exercises 64 and 67, then write the following syllables two ways:
kah, kəh, sah, puəh

A. កាម កែហ សែហ ពុ្ហ

115. The configurations ៨-៨ and ៨-៩ are sometimes called /sraq ២_sound/ and /sraq ២_sound/ respectively. They occur only in the 1st series, and then only rarely. Their 1st series values are /២_sound/ and /២_sound/. Write, transcribe, and pronounce:

A. ស្បេ ២_sound

116. In Exercises 58 and 59 it was pointed out that final Velar stop symbols (២, ៣, ៤, ៥ Antar) represent final /-q/ after the vowels /a, aː, u, caa, eə, uə, ia, iə, uə/, and final /-k/ after all other vowels. Transcribe and pronounce the following syllables:

A. cik, phiəq, nik, ceik, caaq, caq, rook, luəq, neəq, bouk, tuuk, kiaq, muəq, loek, meek, saaq, saq, mok, niəq

117. The symbol ៧ is called /sanyook-saŋnaa/ and is treated as a diacritic in Cambodian textbooks, but it functions like a vowel. Its value in most environments is the same as the configuration ៧-៧; i.e. /a/ in the 1st series and /eə/ or /oə/ in the 2nd series (see Exercises 72-78). Transcribe and pronounce:

A. saq, təəp, sap, leəq, saŋ, weəŋ

118. When the /sanyook-saŋnaa/ occurs in the environment ៧្ទ, its value is /a/ in the 1st series and /i/ in the 2nd series. Transcribe and pronounce:

A. phay, phiəy, caq, ciəy

119. In the environment ៩, the /sanyook-saŋnaa/ represents the diphthong
/əə/ in the 2nd series. (The combination apparently doesn’t occur after 1st series initial consonant symbols.) Transcribe and pronounce:

A. əə, əə, əə, theə

120. The configuration \( \text{-}_1 \text{-}_2 \) is pronounced /əw/ in the 1st series and /ιw/ in the 2nd series. Transcribe and pronounce: əə, sou, ιw, kuu

A. əə, sou, ιw, 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.

a. Practice reciting the names of the vowel symbols until you can recite them in the proper sequence without referring to the chart.

b. Cover the 1st and 2nd series values of the symbols and reproduce the 1st series values by reference only to the symbols.

c. Cover the 2nd series values of the symbols and reproduce them by reference only to the symbols.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Name</th>
<th>Exercise</th>
<th>1st Series Value</th>
<th>2nd Series Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ( \text{ -}_1 )</td>
<td>sraq qaa</td>
<td>3</td>
<td>a</td>
<td>əə</td>
</tr>
<tr>
<td>2. ( \text{ -}_1 \text{-}_2 )</td>
<td>64, 65</td>
<td>a</td>
<td>u before Labial finals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>67</td>
<td></td>
<td>uə elsewhere</td>
<td></td>
</tr>
<tr>
<td>3. ( \text{ -}_1 \text{-}_2 )</td>
<td>sanyook-saññaα</td>
<td>117</td>
<td>a</td>
<td>eə before Velar finals</td>
</tr>
<tr>
<td></td>
<td>117</td>
<td></td>
<td>eə elsewhere</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(except below)</td>
<td></td>
</tr>
<tr>
<td>4. ( \text{ -}_1 \text{-}_2 )</td>
<td>118</td>
<td>ay</td>
<td>iy</td>
<td></td>
</tr>
<tr>
<td>5. ( \text{ -}_1 \text{-}_2 )</td>
<td>119</td>
<td></td>
<td>eə</td>
<td></td>
</tr>
<tr>
<td>6. ( \text{ -}_1 \text{-}_2 )</td>
<td>sraq qaa</td>
<td>9</td>
<td>a</td>
<td>iə</td>
</tr>
<tr>
<td>Symbol</td>
<td>Name</td>
<td>Exercise</td>
<td>1st Series Value</td>
<td>2nd Series Value</td>
</tr>
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<td>--------</td>
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<td>----------</td>
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<td>-----------------------------------</td>
</tr>
<tr>
<td>7.</td>
<td><img src="image" alt="Symbol" /></td>
<td>72, 74</td>
<td>a</td>
<td>ḫ before Velar finals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>74</td>
<td></td>
<td>ḫ elsewhere</td>
</tr>
<tr>
<td>8.</td>
<td>sraq qeq</td>
<td>80</td>
<td>e in stressed syllables</td>
<td>iq in stressed syllables</td>
</tr>
<tr>
<td></td>
<td></td>
<td>81</td>
<td>e in un stressed syllables</td>
<td>i in un stressed syllables</td>
</tr>
<tr>
<td>9.</td>
<td><img src="image" alt="Symbol" /></td>
<td>87</td>
<td>e</td>
<td>i (except before ḫ ḫ)</td>
</tr>
<tr>
<td>10.</td>
<td><img src="image" alt="Symbol" /></td>
<td>83</td>
<td>ey</td>
<td>ii</td>
</tr>
<tr>
<td>11.</td>
<td><img src="image" alt="Symbol" /></td>
<td>110</td>
<td>oh</td>
<td>ih</td>
</tr>
<tr>
<td>12.</td>
<td>sraq qeq</td>
<td>14</td>
<td>ey</td>
<td>ii</td>
</tr>
<tr>
<td>13.</td>
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<td>e</td>
<td>i</td>
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<td>110</td>
<td>e in</td>
<td>th</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>un stressed syllables</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>sraq qeq</td>
<td>33</td>
<td>e i</td>
<td>ii</td>
</tr>
<tr>
<td>16.</td>
<td>sraq qeq</td>
<td>86</td>
<td>o in stressed syllables</td>
<td>u in stressed syllables</td>
</tr>
<tr>
<td></td>
<td></td>
<td>87</td>
<td>o in un stressed syllables</td>
<td>u in un stressed syllables</td>
</tr>
<tr>
<td>17.</td>
<td><img src="image" alt="Symbol" /></td>
<td>87</td>
<td>o</td>
<td>u</td>
</tr>
<tr>
<td>18.</td>
<td><img src="image" alt="Symbol" /></td>
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<td>oh</td>
<td>uh</td>
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<td>19.</td>
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<td>ou</td>
<td>uu</td>
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<td>e in</td>
<td>u</td>
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<td></td>
<td></td>
<td></td>
<td>un stressed syllables</td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>sraq qeq</td>
<td>94</td>
<td>e in</td>
<td>e</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>un stressed syllables</td>
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<tr>
<td>23.</td>
<td><img src="image" alt="Symbol" /></td>
<td>115</td>
<td>e in</td>
<td>e</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>un stressed syllables</td>
<td></td>
</tr>
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<td>Name</td>
<td>Exercise</td>
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<td>2nd Series Value</td>
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<td>------------------</td>
<td>------------------</td>
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<td>24. $\nu$</td>
<td>sraq qie</td>
<td>89</td>
<td>ie</td>
<td>ie</td>
</tr>
<tr>
<td>25. $\nu$</td>
<td>sraq qie</td>
<td>89</td>
<td>ie</td>
<td>ie</td>
</tr>
<tr>
<td>26. $\nu$</td>
<td>sraq qei</td>
<td>29</td>
<td>ei</td>
<td>ee</td>
</tr>
<tr>
<td>27. $\nu$</td>
<td>sraq qel</td>
<td>92</td>
<td>a (before Palatals)</td>
<td>i (before Palatals)</td>
</tr>
<tr>
<td>28. $\nu$</td>
<td>sraq qel</td>
<td>111</td>
<td>eh</td>
<td>ih</td>
</tr>
<tr>
<td>29. $\nu$</td>
<td>sraq qae</td>
<td>96</td>
<td>ae</td>
<td>ee</td>
</tr>
<tr>
<td>30. $\nu$</td>
<td>sraq qae</td>
<td>115</td>
<td>eh</td>
<td></td>
</tr>
<tr>
<td>31. $\nu$</td>
<td>sraq qay</td>
<td>97</td>
<td>ay</td>
<td>iy</td>
</tr>
<tr>
<td>32. $\nu$</td>
<td>sraq qao</td>
<td>98</td>
<td>ao</td>
<td>oo</td>
</tr>
<tr>
<td>33. $\nu$</td>
<td>sraq qaw</td>
<td>113</td>
<td>ah</td>
<td>uouh</td>
</tr>
<tr>
<td>34. $\nu$</td>
<td>sraq qaw</td>
<td>100</td>
<td>aw</td>
<td>iw</td>
</tr>
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<td>35. $\nu$</td>
<td>sraq qom</td>
<td>103</td>
<td>om</td>
<td>um</td>
</tr>
<tr>
<td>36. $\nu$</td>
<td>sraq qam</td>
<td>101</td>
<td>am</td>
<td>um</td>
</tr>
<tr>
<td>37. $\nu$</td>
<td>sraq qam</td>
<td>105</td>
<td>am</td>
<td>oem</td>
</tr>
<tr>
<td>38. $\nu$</td>
<td>sraq qah</td>
<td>107</td>
<td>aj</td>
<td>eou</td>
</tr>
<tr>
<td>39. $\nu$</td>
<td>sraq qah</td>
<td>108</td>
<td>ah</td>
<td>eou</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tibetic Text (B)</th>
<th>Romanized</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>བརྨ</td>
<td>(9)</td>
<td>work</td>
</tr>
<tr>
<td>2.</td>
<td>སྤྲུལ</td>
<td>(87)</td>
<td>movie</td>
</tr>
<tr>
<td>3.</td>
<td>བོད་པ་</td>
<td>(94)</td>
<td>be born</td>
</tr>
<tr>
<td>4.</td>
<td>བྲུ་</td>
<td>(115)</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>ནང་གསུང་ལུག</td>
<td>(115)</td>
<td>a kind of animal</td>
</tr>
<tr>
<td>6.</td>
<td>བསྟན་</td>
<td>(113)</td>
<td>island</td>
</tr>
<tr>
<td>7.</td>
<td>བོད་པ་</td>
<td>(98)</td>
<td>trousers</td>
</tr>
<tr>
<td>8.</td>
<td>བོད་པ་</td>
<td>(101)</td>
<td>to try (to)</td>
</tr>
<tr>
<td>9.</td>
<td>བོད་པ་</td>
<td>(98)</td>
<td>ox, cow</td>
</tr>
<tr>
<td>10.</td>
<td>བྲོ་བོད་ལུག</td>
<td>(94)</td>
<td>to see</td>
</tr>
<tr>
<td>11.</td>
<td>བྲོ་བོད་ལུག</td>
<td>(89)</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>བན་</td>
<td>(3)</td>
<td>spade</td>
</tr>
<tr>
<td>13.</td>
<td>བན་</td>
<td>(64)</td>
<td>to finish</td>
</tr>
<tr>
<td>14.</td>
<td>བན་</td>
<td>(118)</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>བན་</td>
<td>(72)</td>
<td>to catch</td>
</tr>
<tr>
<td>16.</td>
<td>བན་</td>
<td>(110)</td>
<td>to descend</td>
</tr>
<tr>
<td>17.</td>
<td>བན་</td>
<td>(20)</td>
<td>to enter</td>
</tr>
<tr>
<td>18.</td>
<td>བདོན་</td>
<td>(29)</td>
<td>banana</td>
</tr>
<tr>
<td>19.</td>
<td>བདོན་</td>
<td>(92)</td>
<td>to exit</td>
</tr>
<tr>
<td>20.</td>
<td>བད་བོད་ལུག</td>
<td>(105)</td>
<td>to remember</td>
</tr>
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<td>attached</td>
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<td>(80)</td>
<td></td>
</tr>
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<td>བད་བོད་ལུག</td>
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<td>to ride</td>
</tr>
<tr>
<td>24.</td>
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<td>(14)</td>
<td>to dig</td>
</tr>
<tr>
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<td>བད་བོད་ལུག</td>
<td>(89)</td>
<td>to help</td>
</tr>
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<td>26.</td>
<td>བད་བོད་ལུག</td>
<td>(89)</td>
<td>to believe</td>
</tr>
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<td>བད་བོད་ལུག</td>
<td>(105)</td>
<td>bruised</td>
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<td>བད་བོད་ལུག</td>
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<td>sick</td>
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<tr>
<td>29.</td>
<td>བད་བོད་ལུག</td>
<td>(105)</td>
<td>to eat</td>
</tr>
<tr>
<td>30.</td>
<td>བད་བོད་ལུག</td>
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<td>བད་བོད་ལུག</td>
<td>(84)</td>
<td>to transport</td>
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<td>བད་བོད་ལུག</td>
<td>(33)</td>
<td>fallow</td>
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<tr>
<td>33.</td>
<td>བད་བོད་ལུག</td>
<td>(97)</td>
<td>hand</td>
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<tr>
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<td>བད་བོད་ལུག</td>
<td>(103)</td>
<td>piece</td>
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<td>བད་བོད་ལུག</td>
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<td></td>
</tr>
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<td>(100)</td>
<td>to ridicule</td>
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<td>བད་བོད་ལུག</td>
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<td>but</td>
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<td>Translation</td>
<td>No.</td>
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<td>39</td>
<td>ရ်ကင်</td>
<td>(107) to establish</td>
<td>60</td>
</tr>
<tr>
<td>40</td>
<td>ဖ်</td>
<td>(86)</td>
<td>61</td>
</tr>
<tr>
<td>41</td>
<td>ကမ္ဘာ့</td>
<td>(117) army</td>
<td>62</td>
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<tr>
<td>42</td>
<td>မိုးကြည်</td>
<td>(82) to buy</td>
<td>63</td>
</tr>
<tr>
<td>43</td>
<td>အိုး</td>
<td>(84) water</td>
<td>64</td>
</tr>
<tr>
<td>44</td>
<td>ရုံး</td>
<td>(20) boat</td>
<td>65</td>
</tr>
<tr>
<td>45</td>
<td>လျှော့</td>
<td>(100) to go</td>
<td>66</td>
</tr>
<tr>
<td>46</td>
<td>လုံး</td>
<td>(103) ripe</td>
<td>67</td>
</tr>
<tr>
<td>47</td>
<td>စိန်ကိုင်</td>
<td>(107) all</td>
<td>68</td>
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<tr>
<td>48</td>
<td>လူ</td>
<td>(108) to slap</td>
<td>69</td>
</tr>
<tr>
<td>49</td>
<td>လွေး</td>
<td>(74) person</td>
<td>70</td>
</tr>
<tr>
<td>50</td>
<td>ကြက်ကလေး</td>
<td>(10) dragon</td>
<td>71</td>
</tr>
<tr>
<td>51</td>
<td>သံကူး</td>
<td>(83)</td>
<td>72</td>
</tr>
<tr>
<td>52</td>
<td>ကြက်ကလေး</td>
<td>(110) this</td>
<td>73</td>
</tr>
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<td>53</td>
<td>ဗီး</td>
<td>(97) of</td>
<td>74</td>
</tr>
<tr>
<td>54</td>
<td>မျက်ဆန်</td>
<td>(9) rice</td>
<td>75</td>
</tr>
<tr>
<td>55</td>
<td>ကြက်ကလေး</td>
<td>(82) to close</td>
<td>76</td>
</tr>
<tr>
<td>56</td>
<td>ဗျည်</td>
<td>(14) three</td>
<td>77</td>
</tr>
<tr>
<td>57</td>
<td>ဗျည်</td>
<td>(45)</td>
<td>78</td>
</tr>
<tr>
<td>58</td>
<td>ကြက်ကလေး</td>
<td>(89) four</td>
<td>79</td>
</tr>
<tr>
<td>59</td>
<td>ကြက်ကလေး</td>
<td>(89) cards</td>
<td>80</td>
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</tbody>
</table>
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 pìn t̤uə/ ‘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 ꥐ is called /sraq qeq pìn t̤uə/ , ‘the independent vowel /qeq/’.

In most words it is equivalent to ꥐ , although in some words it may be pronounced ꥐ or ꥐ . Transcribe and pronounce the following syllables: ꥐ ( ꥐ ) , ꥐ ( ꥐ ) , ꥐ ( ꥐ ) ‘now’.

A. qot, qin, qoylaw

124. The symbol ꥐ is called /sraq qøy pìn t̤uə/ . It occurs in only a few words, in which it has the same value as ꥐ . Transcribe and pronounce:

Sâva ꥐ ꥐ ꥐ Northeast

A. qøysou, qøysaan

125. The symbol ꥐ is called /sraq qøq pìn t̤uə/ . Its value in most words is equivalent to ꥐ , although in some words it may be pronounced ꥐ or ꥐ . Transcribe and pronounce:

A. qokñaa, qup, qaobaasq
126. The symbol descripcion de la imagen /sraq qow piñ tue/ is equivalent to  descripcion de la imagen and occurs in the word  descripcion de la imagen ‘father’. Transcribe and pronounce:  descripcion de la imagen
A. qow, qewpuk

127. The symbol  descripcion de la imagen /sraq qou piñ tue/ usually has the 1st series value  descripcion de la imagen , but it may also have the 2nd series value  descripcion de la imagen . Transcribe and pronounce:
A. qout, quan, 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: qew, qey, qe-, qo-, qou
A. 

130. Write in Cambodian script two equivalents of each of the following:
A. 

131. The symbol  descripcion de la imagen /sraq qae piñ tue/ is always equivalent to  descripcion de la imagen . Write, transcribe, and pronounce:  descripcion de la imagen
A. qae, qaeq, qaeq, qaeti\textsuperscript{eq}

132. The symbol  descripcion de la imagen /sraq qay piñ tue/ is equivalent to  descripcion de la imagen . Write, transcribe, and pronounce:  descripcion de la imagen
A. qay, riigay
133. The two symbols 𞄜 and 𞄝 are both called /sraq qao pi'n tua/. They are both equivalent to 𞄝. 𞄜 is the more common of the two; 𞄝 occurs in the word 𞄜 /qaoy/ 'to give' ( 𞄝 is the subscript form of 𞄝; it does not normally represent a final consonant). Write, transcribe, and pronounce:

A. 𞄜 qao, 𞄝 qao, 𞄝 qaoy, 𞄝 qaop, 𞄝 qaoon

134. The symbol 𞄜 /sraq qaw pi'n tua/ is equivalent to 𞄝. It is extremely rare. Write, transcribe, and pronounce:

A. 𞄜 qaw, 𞄝 qawlaa

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

A. 𞄜 (𞄝), 𞄝 (𞄝), 𞄝 (𞄝), 𞄜 (𞄝), 𞄜 (𞄝)

136. All of the preceding independent vowel symbols include the initial consonant /q-/. The symbols 𞄜 /sraq rix/ and 𞄜 /sraq riː/ include initial /r-/, and are equivalent to 𞄜 and 𞄜 respectively. 𞄝 is the spelling for the common conjunction 'or'. 𞄝 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. 𞄝 rix, 𞄝 rit, 𞄜 rii, 𞄝 rixk

137. The symbols 𞄜 /sraq lik/ and 𞄜 /sraq liː/ include an initial /l-/
and are equivalent to \( \mathfrak{c} \) and \( \mathfrak{d} \) respectively. \( \mathfrak{c} \) is the spelling for the common word ‘to hear’. Write, transcribe, and pronounce:

\[
\mathfrak{c} \quad \mathfrak{d} \\
\mathfrak{d} \quad \mathfrak{d}
\]

A. \( \mathfrak{c} \mathfrak{c} \) lik, \( \mathfrak{d} \mathfrak{d} \) lii, \( \mathfrak{c} \mathfrak{d} \) lîik

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

\[
\mathfrak{c} \quad \mathfrak{d} \quad \mathfrak{d} \\
\mathfrak{d} \quad \mathfrak{c} \quad \mathfrak{d} \quad \mathfrak{d} \\
\mathfrak{d} \quad \mathfrak{d} \quad \mathfrak{d}
\]

A. \( \mathfrak{c} \mathfrak{c} \) rîk, \( \mathfrak{d} \mathfrak{d} \) rii, \( \mathfrak{d} \mathfrak{c} \) rîk, \( \mathfrak{d} \mathfrak{d} \) lîk, \( \mathfrak{c} \mathfrak{d} \) lii, \( \mathfrak{d} \mathfrak{d} \) lîik

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 \( \mathfrak{c} \). Words spelled with \( \mathfrak{c} \) and \( \mathfrak{d} \) follow all words spelled with initial \( \mathfrak{c} \), and words spelled with \( \mathfrak{c} \) and \( \mathfrak{d} \) follow all words spelled with initial \( \mathfrak{c} \).) 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.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Exercise</th>
<th>Equivalent Spelling</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ( \mathfrak{c} )</td>
<td>136</td>
<td>( \mathfrak{c} \mathfrak{c} )</td>
<td>ri-</td>
</tr>
<tr>
<td>2. ( \mathfrak{d} )</td>
<td>136</td>
<td>( \mathfrak{d} \mathfrak{d} )</td>
<td>riïi</td>
</tr>
<tr>
<td>3. ( \mathfrak{c} )</td>
<td>137</td>
<td>( \mathfrak{d} \mathfrak{d} )</td>
<td>li-</td>
</tr>
<tr>
<td>4. ( \mathfrak{d} )</td>
<td>137</td>
<td>( \mathfrak{d} \mathfrak{d} )</td>
<td>liïi</td>
</tr>
<tr>
<td>5. ( \mathfrak{c} )</td>
<td>123</td>
<td>( \mathfrak{c} \mathfrak{c} )</td>
<td>qè-</td>
</tr>
<tr>
<td>6. ( \mathfrak{d} )</td>
<td>124</td>
<td>( \mathfrak{d} \mathfrak{d} )</td>
<td>qèy</td>
</tr>
<tr>
<td>7. ( \mathfrak{c} )</td>
<td>125</td>
<td>( \mathfrak{c} \mathfrak{c} )</td>
<td>qè-</td>
</tr>
<tr>
<td>8. ( \mathfrak{d} )</td>
<td>127</td>
<td>( \mathfrak{d} \mathfrak{d} )</td>
<td>qou</td>
</tr>
<tr>
<td>Symbol</td>
<td>Exercise</td>
<td>Equivalent Spelling</td>
<td>Transcription</td>
</tr>
<tr>
<td>--------</td>
<td>----------</td>
<td>---------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>9. ꞇ</td>
<td>126</td>
<td>ꞇ</td>
<td>qew</td>
</tr>
<tr>
<td>10. Ꞇ</td>
<td>131</td>
<td>Ꞇ</td>
<td>qae</td>
</tr>
<tr>
<td>11. ꞇ</td>
<td>132</td>
<td>ꞇ</td>
<td>qay</td>
</tr>
<tr>
<td>12. ꞇ</td>
<td>133</td>
<td>ꞇ</td>
<td>qao</td>
</tr>
<tr>
<td>13. ꞇ</td>
<td>133</td>
<td>ꞇ</td>
<td>qao</td>
</tr>
<tr>
<td>14. ꞇ</td>
<td>134</td>
<td>ꞇ</td>
<td>qaw</td>
</tr>
</tbody>
</table>

**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 ꞇ (in unstressed position) is pronounced /ni−/, and the syllable ꞇ is pronounced /tian/, then ꞇ is pronounced /nition/. Transcribe and pronounce the following disyllables: ꞇ to speak, ꞇ language, ꞇ chair, ꞇ book

A. niyot, phiæaa, kawqey, siæwpìw

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:

\[
\begin{align*}
\text{꜃ ꞇ} & \text{ kilo, ꞇ ꞇ coffee, ꞇ ꞇ clever, ꞇ ꞇ age} \\
\text{꜃ ꞇ} & \text{ kilou, kafei, pukae, qayuq} \\
\end{align*}
\]

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 /o/ after a 2nd series consonant. These vowels are reduced to /ə/ in rapid speech. Transcribe and pronounce the following words: ꞇ ꞇ ꞇ to scratch, ꞇ ꞇ ꞇ to argue, ꞇ ꞇ ꞇ persuade, ꞇ ꞇ ꞇ human (final ꞇ is silent),

\[
\begin{align*}
\end{align*}
\]
Independent Vowel Symbols

(thing), smooth, to receive

A. kakaay, cceek, babuul, monuh, robah, roliln, totuel

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 ʃ, 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 /a/ after a 2nd series /p, t, c, or k/, both being reduced to /a/ in rapid speech; s- in such presyllables is always 1st series. ( ʃ with a subscript always has the value /p.3/) Transcribe and pronounce:

ʃ reserve, ʃ dawn, ʃ to meet, ʃ to reverse, ʃ a perch, ʃ confused, ʃ twisted, ʃ to like

A. prukan, prilm, prateeh, tralap, tronun, oralam, krawioc, srilaan

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 ʃ̆ /saq/ 'hair' which adorns the top of seven consonant symbols (not to be confused with ʃ̆ /traysap/ which converts 1st series symbols to 2nd series). Some subscripts, however, bear no discernible relationship to their counterparts. Subscript consonants are called /coen qaqsoo/ 'consonant feet', and the resulting consonant clusters are called /qaqsoo damruat/ 'stacked-up letters'.

144. The subscripts ʃ ʃ and ʃ ʃ are identical in form with their superscript counterparts. Subscripts are called '/coen=/'; e.g., ʃ is called /coen khaa/ 'subscript /khaa/.' Write each of the above consonants with its subscript, and transcribe and pronounce the name of the subscript.

A. ʃ ceen khaa, ʃ ceen cco, ʃ ceen ndp, ʃ ceen cco, ʃ ceen ndp, ʃ ceen cco, ʃ ceen ndp
145. The subscripts ဗ ဗဗ ဗဗ ဗဗဗ ဗဗဗ and ဗ differ from their superscript counterparts only in the absence of the /saq/ 'hair': င for the first six examples above, င for င and င for ငု. Write each of the above consonants with its subscript, and transcribe and pronounce the names of the subscripts.

A. င ငု ငု ငု ငု ငု ငု ငု ငု

146. The subscripts သာ သာ သာ သာ 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. သာ သာ သာ သာ သာ သာ သာ သာ သာ

147. The subscripts စာ စာ စာ စာ 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. စာ စာ စာ စာ စာ စာ စာ စာ စာ

148. The remaining subscripts bear little or no resemblance to their counterparts: ဗ ဗ ဗ ဗ ဗ ဗ ဗ ဗ ဗ Note that /ဆိုး ဗိုး/ 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. ဆိုး ဗိုး ဗိုး ဗိုး ဗိုး ဗိုး ဗိုး ဗိုး ဗိုး
149. When the symbol မ /ńoo/ occurs with any subscript whatever, the element င  is omitted; e.g., မ /ńoo ကက। When မ occurs as its own subscripts, it takes the full form င ; e.g., မ /ńoo ကက। When subscript to any other consonant symbol, /cıęŋ ńoo/ takes the form င ; e.g., င /cıęŋ ńoo। Write and transcribe the following combinations:

A. က /cıęŋ ကက, င /cıęŋ ńoo, င /cıęŋ ńoo


A. կ /ııı /leey, կ /ııı /kaafei, կ /ııı /woun, կ /ııı /mat, կ /ııı /ney, կ /ııı /ley

151. Although there are thirty-three consonant symbols, there are only thirty-one different subscripts, since င /cıęŋ տո, serves as subscript for both င and င, and င /cıęŋ լո, serves as subscript for both င and င.

In the chart below, write the appropriate subscript for each of the thirty-three consonant symbols (two forms for /cıęŋ ńoo/);
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 (ကkh, ခch, ခth, ဖph, etc.) occurs in conjunction with a subscript, it represents an unaspirated stop /k, c, t, or p/ phonologically. For example, in ကိုး /thaę/ ‘to care for’, က represents /th-/ , but in ကိုး /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 ကိုး /kmeıŋ/ ‘child’ and ကိုး /kmaę/ ‘Cambodian’ are identical, although the first is spelled with က and the second with ခ. Transcribe and pronounce the following: ကိုး head, ကိုးŋ ကိုး together, ကိုး space, ကိုး clear, ကိုး ကိုး dog, ကိုးး to complain, ကိုး arrow, ကိုးး strange, ကိုး fruit. (Remember that က with a subscript is pronounced /p-/.

The vowels of the last two examples have their 1st series values.)

A. kbaal, kbaal, knio, klię, cbah, ckae, tgoün, 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:

\[ \text{роди} = /\text{ni}i/ \text{ station, } \text{двад} = \text{twenty, } \text{драма} = \text{drama}. \]

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

A. sthanii, mphiy, lhao
Group 1 - Dominant  Group 2 - Passive

\[
\begin{array}{c}
\text{p} \\
\text{t} \\
\text{k} \\
\text{c} \\
\text{q} \\
\text{m} \\
\text{n} \\
\text{ŋ} \\
\text{b} \\
\text{d} \\
\text{s} \\
\text{h} \\
\text{w} \\
\text{r} \\
\text{l} \\
\text{y}
\end{array}
\]

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:

- fish, woman, monkey, section, Cambodian, medicine, road, rice.

A. trey, srey, swaa, pnaek, kmae, tarn, plaw, srow

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:

- food, mother, pretty, flour, game,
- papaya.

A. mhoup, mdaay, lqu'a, msaw, lbaen, lhong

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:

- house, high, to know,
- bridge, river, thin, cheek, toward,
- lazy.

A. pteah, kpuah, skoel, spian, stiy, skoom, troel, cpueh, kcil

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. I
2. eyes
3. section
4. borrow
5. in
6. together
<table>
<thead>
<tr>
<th>No.</th>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>ទំនៀម</td>
<td>Cambodian</td>
</tr>
<tr>
<td>8.</td>
<td>ប្រាំ</td>
<td>high</td>
</tr>
<tr>
<td>9.</td>
<td>ប្លេង</td>
<td>to suspend</td>
</tr>
<tr>
<td>10.</td>
<td>ផ្លែ</td>
<td>fruit</td>
</tr>
<tr>
<td>11.</td>
<td>ច្រើន</td>
<td>much</td>
</tr>
<tr>
<td>12.</td>
<td>ប្រើ</td>
<td>to use</td>
</tr>
<tr>
<td>13.</td>
<td>បោះ</td>
<td>onion</td>
</tr>
<tr>
<td>14.</td>
<td>ស្រើស</td>
<td>easy</td>
</tr>
<tr>
<td>15.</td>
<td>ស្រដៀង</td>
<td>pretty</td>
</tr>
<tr>
<td>16.</td>
<td>បន្ទាន់</td>
<td>after</td>
</tr>
<tr>
<td>17.</td>
<td>គ្រប់</td>
<td>enough</td>
</tr>
<tr>
<td>18.</td>
<td>ប្លែក</td>
<td>to fall</td>
</tr>
<tr>
<td>19.</td>
<td>ក្បពែ</td>
<td>head</td>
</tr>
<tr>
<td>20.</td>
<td>ដុំ</td>
<td>left-hand</td>
</tr>
<tr>
<td>21.</td>
<td>កោះ</td>
<td>door</td>
</tr>
<tr>
<td>22.</td>
<td>សួគ្រឹត</td>
<td>market</td>
</tr>
<tr>
<td>23.</td>
<td>ទ្រេស</td>
<td>drama</td>
</tr>
<tr>
<td>24.</td>
<td>រាល់</td>
<td>afternoon</td>
</tr>
<tr>
<td>25.</td>
<td>លើស</td>
<td>lazy</td>
</tr>
<tr>
<td>26.</td>
<td>ស្រ្តី</td>
<td>to know</td>
</tr>
<tr>
<td>27.</td>
<td>ប្រុង</td>
<td>husband</td>
</tr>
<tr>
<td>28.</td>
<td>ទ្រឹស្តុក</td>
<td>twenty</td>
</tr>
<tr>
<td>29.</td>
<td>សារ</td>
<td>food</td>
</tr>
<tr>
<td>30.</td>
<td>ស្ត្រាល</td>
<td>bridge</td>
</tr>
<tr>
<td>31.</td>
<td>ស្តោត</td>
<td>to die</td>
</tr>
<tr>
<td>32.</td>
<td>ក្រូច</td>
<td>different</td>
</tr>
<tr>
<td>33.</td>
<td>តំបន់</td>
<td>place</td>
</tr>
<tr>
<td>34.</td>
<td>ទឹកប្រាក់</td>
<td>river</td>
</tr>
<tr>
<td>35.</td>
<td>ប្រឹក្សាម</td>
<td>to cough</td>
</tr>
<tr>
<td>36.</td>
<td>ស្តុក</td>
<td>guest</td>
</tr>
<tr>
<td>37.</td>
<td>ឆ្កិត</td>
<td>cat</td>
</tr>
<tr>
<td>38.</td>
<td>បាន</td>
<td>because</td>
</tr>
<tr>
<td>39.</td>
<td>អ្វី</td>
<td>what</td>
</tr>
<tr>
<td>40.</td>
<td>ប្រែស្អាត</td>
<td>hungry</td>
</tr>
<tr>
<td>41.</td>
<td>ស្រូវឈាយ</td>
<td>pepper</td>
</tr>
<tr>
<td>42.</td>
<td>ឈឺ</td>
<td>deep</td>
</tr>
<tr>
<td>43.</td>
<td>ឈ្មោះ</td>
<td>name</td>
</tr>
<tr>
<td>44.</td>
<td>ស្លុះ</td>
<td>road</td>
</tr>
<tr>
<td>45.</td>
<td>ច្រូត</td>
<td>string</td>
</tr>
<tr>
<td>46.</td>
<td>ឆ្នាំញ</td>
<td>dog</td>
</tr>
<tr>
<td>47.</td>
<td>ប្រាក់</td>
<td>class</td>
</tr>
<tr>
<td>48.</td>
<td>ប្រាក់</td>
<td>sweet</td>
</tr>
</tbody>
</table>
50. ʁun ː ʁ Sand  53. ʁɨn ː ʁ Blind
51. ʁuːn ː ʁ Pineapple  54. ʁeːn ː ʁ Shade

A. 1. khom  15. lgæə  29. mhoup  43. cmuːəh
2. pæk  16. kraoy  30. spien  44. tnal
3. pnaek  17. lmoom  31. slap  45. ksaɛ
4. keːŋ  18. tleːŋ  32. pseiŋ  46. ckaɛ
5. knoŋ  19. khaal  33. sthaan  47. tnaq
6. knie  20. cweĩŋ  34. stĩŋ  48. pqaem
7. kmae  21. twĩə  35. kqæəq  49. plaw
8. kpʊəh  22. psaə  36. pʰiəw  50. ksəc
9. pyuə  23. lkhaoŋ  37. cmaa  51. mnəəh
10. plaɛ  24. lŋiəc  38. pruːəh  52. mriəm
11. craɛn  25. kcil  39. qwəy  53. kwaq
12. praɛ  26. skoːəl  40. kliən  54. mlup
13. ktʰm  27. pdeŋ  41. mteəh
14. sruəl  28. mphiy  42. crīw

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: ʁəː k cigaret, ʁəːŋ k to hurry,
ʁuːŋ k criss-crossed, ʁoːŋ k approximately, ʁəːŋ k to like,
ʁəːŋ k ant.

A. baarəŋ, praŋ, crwat, pramaan, srəalan, srəməcəc

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: า a perch, า a thought, า dawn, า coolie, า to shoulder.

A. tionum, kumnit, prələm, kuulii, prəneeq

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 ə ), and the second syllable maintains its 2nd series value, as in: ə-deg hammock, ə-də category, ə-de ə stroke, ə-də history (second syllable pronounced /-wət/). Transcribe and pronounce them. (The first syllable of the first example above is pronounced /qən/-, and of the second and third examples, /qən-/) 

A. qərin, qənleo, qənluun, prawət

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 pronounce: ə-run ə to scratch, ə-rə to compare, ə-rə to announce, ə-rə lineage.

A. kakaay, prədouc, prəkaah, trəkoul

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: ə-rə country, ə-rə ə to meet, ə-rə cool, ə-rə to illumine, ə-rə dark.

A. prəteeh, prəteəh, trəseq, bəmplii, srətum

166. In some disyllables an initial ə in the second syllable is passive rather than dominant, as in ə-lə size, ə-lə soldier, ə-lə temple. These words are sometimes written with a converted ə ; e.g., ə-lə, thus conforming to the rule stated in Exercise 164 above. Transcribe and pronounce them.

A. tumhum, tiohiən, wiiə
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., កាលាថ/ /kmilaŋ/, 'strength'. The initial syllable in such words has no written vowel, but is pronounced as if there were a /ɓantɑŋ/ ( ) over the nasal, i.e. /ɑ/ after a 1st series initial, and after a second series initial, /u/ before ɗ and /ʊə/ 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., ត្ការ /ˈbunːkaːt/ 'to originate'. The series of the 2nd syllable vowel is determined by the rule described in Exercise 161. Transcribe and pronounce:

place, យឹត to press, ប្រវត្ត battle, ដឹក for, ម្រៅ to originate, ឈ្ិ window, គ្រិត to force, ម្រៅ to up-end, ម្រៅ fort, យាយ to hope, សេច room, សុខ society (final syllable pronounced សុខ).

A. កាលាថ, សិកាល, សុបាយ, សុមរ, ប្រការ, បាស្វាយ, ប្រការ, ហាក់, ហោត្ត, ហោត្ត, ហោត្ត, ហោត្ត, ហោត្ត, ហោត្ត, ហោត្ត, ហោត្ត.

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

strip, ស្វែង quarrel, ប្រុក vegetable, ល្អ light, ឈ្ិ package, ម្ដាទ to carry, ប្រសី to teach, ស្វែង to spread.

A. ក្រុម, ក្រុម, សម្រាប, ព្រោះ, ការ, ចេញ, ប្រាណ, ត្រៀប, ត្រៀប.

169. You learned in Exercise 154 that ក/ /səŋ tɑ/ is always pronounced /-d-/ in initial clusters. Medially, however, its pronunciation is unpredictable. As a general rule, when it occurs subscript to ក/ it is pronounced -ɗ-, and when subscript to ស, it is pronounced /-t-/.

Following this rule,
transcribe and pronounce the following: មូល្នឹក middle, មែន a little, ស្រណ្តឈរ tongue, មុត to continue, សាប់ indifferent, បំបោក beans, ប្រុងប្រយោគ length.

A. kandaal, bantoc, qandaat, buntaq, kantaey, sondaek, bundaoy

170. In some words, however, – is pronounced -d- even when subscript to ដ , as in នាង lineage, បង្ហាញ to pity. Transcribe and pronounce them.
A. sandaan, sandach

171. When គ occurs as the initial symbol of presyllables of shape /CVN-/, it has the value /d-/ . Transcribe and pronounce: ប្រកប to correct, ដោល្លែង weaving, គ្រូ value.
A. damruet, damrew, dambaan, damlay

172. Disyllables whose 1st syllable has the shape /CVm-/ may be written either with a medial cluster (/qaqsaq damruet/ ‘stacked letters’) or with the /niqkoet/ ( – ), commonly called /sraq qam/. For example, /kamlag/ ‘strength’ may be spelled either in the /qaqsaq damruet/ form គ្រូ, or in the /qaqsaq riéy/ ‘consecutive letters’ form គ្រូ (or គ្រូ, since គ dominates គ , although គ in such syllables is more common). The result is that there is disagreement among Cambodians themselves 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 គ – , and in roughly half the entries spelled with initial គ្រ – , the conjunct spelling is recommended.

Write the following words two ways: /damruet/ stacked, /kamsat/ desstitute, /samlao/ stew, /tumpoun/ weight, /kampuah/ height, /damlouh/ (initial គ ) potatoes, /samlao/ to like.

A. គ្រូ, គ្រូ; គ្រូ, គ្រូ; គ្រូ, គ្រូ; គ្រូ, គ្រូ; គ្រូ, គ្រូ; គ្រូ, គ្រូ.
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 $\text{-} \, \text{a} \, \text{-}$, i.e. /a/ in the 1st series and /æa/ or /oa/ in the 2nd series (see Exercises 72–74). Transcribe and pronounce:  Ho minimal, mba sign, prom promise, d article, y library ( z z ).

A. kaññaa, saññaa, sacaa, wōthtoq, 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:

$\text{हा, हा} (1\text{st syllable pronounced हा})$ happy, $\text{हा} (\text{see Exercise 63})$ bamboo, $\text{हा} (1\text{st syllable pronounced हा})$ proper.

A. sapbaay, rihsay, kō̃pby

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:

$\text{श्र} \, \text{scissors, श्र music, श्र fox, श्र war.}$

A. kontray, dnutray, kancroon, saŋkriem

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

$\text{श्र Indian English, श्र Sanskrit (1st syllable usually pronounced /saǥ-/), श्र professor (the second -०- represents /-hs-/},$ so that the cluster actually represents the sequence /-hstr-/ phonologically; initial vowel is reduced to /a/; final $\text{a}$ is silent). Transcribe and pronounce them.

A. queklee ( ~ quagleee), sanskrēt, sahstraaca

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

$\text{श्र to hope, श्र to bring to a stop, श्र an interjection, श्र artifact.}$
A. saqkhim, baŋchup, putthoo, wōetthoq

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: Ԃenberg; letter (the 1st syllable is pronounced like Ԃenberg), Ԃenberg article, story (the 1st syllable is pronounced like Ԃenberg, the last like Ԃenberg), Ԃenberg Buddhism ( Ԃenberg is pronounced /sahsnaa/).

A. qaŋkarked, qattəbaat, puttasahsnaa

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: Ԃenberg friend, Ԃenberg Buddha, Ԃenberg human, Ԃenberg word, Ԃenberg merit, Ԃenberg heart, mind, Ԃenberg letter, Ԃenberg ocean (1st syllable /sə-/), Ԃenberg sun, Ԃenberg state (pronounced like Ԃenberg).

A. mət, put, monuh, pieq, bon, cət, sambot, səmət, qaətət, rəət

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: Ԃenberg friendship, Ԃenberg Buddhism, Ԃenberg government.

A. mətəphiəp, puttasahsnaa, rəətthaaphibaaal

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 /caan rəə/, which precedes.

For example, the word Ԃenberg is spelled /baap, ŋəap, caan kaap, sraap qaə, təəap/. Transcribe and pronounce the syllables used in spelling the following words: 1. Ԃenberg rice 2. Ԃenberg to have 3. Ԃenberg woman 4. Ԃenberg to
create 5. ง่าย to hope 6. มีน regular

8. ยินดี to Buddhism.

A. 1. บ้า, sraq qaa, yaa
2. ม้า, sraq qaa, nco
3. สดุ, sreb raa, sraq qey
4. บ้า, sreb taa, sraq qae, moc
5. สดุ, moc, sreb khoq, sraq qey, moc
6. ข้าว, sraq qam, laa, sraq qam, yoc
7. บ้า, sreb raa, caa, sraq qam
8. ผู้, sraq qoq, taa, sreb thoq, sda, sraq qaa, saa, nco, sraq qaa

182. When the /rēhmuk/ occurs alone after a consonant, it is called /sraq qah/. However, when it follows a vowel symbol, it is called /rēhmuk/ and follows the name of the vowel symbol. Diacritics are usually named following the consonant to which they apply, except that the /kbiāh 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. ฟ้า to slap
2. ผู้ to descend
3. อำเภอ: horse
4. ต้อง because
5. ต้อง to dare
6. ผู้ to eat
7. ความ kind
8. โอกาส 10,000
9. ผู้ to cut
10. ผู้ he, she.

A. 1. ต้า, sraq qah
2. ค้า, sraq qoq, rēhmuk
3. สดุ, sraq qei, rēhmuk
4. ผู้, sraq qai, yaa, sreb raa, sraq qao, rēhmuk
5. ห้า, trēysap, sraq qaa, nco
6. สดุ, sreb qey, kbiāh kraom
7. ย้า, museqkētoēn, sraq qaa, yaa
8. ม้า, sraq qei, kbiāh kraom, nco
9. ข้าว, sraq qaa, taa, bantaq
10. ผู้, sraq qaa, taa, bantaq

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

a. when written with the /museqkētoēn/ ( ) or its equivalent form
   ( ) as in ผ้า /paa/ ‘father’ and ภายน/ ‘flute’;

b. when it occurs with a subscript, as in ผู้ /pdāy/ ‘husband’;

c. and in syllable final position, as in ชุด /chup/ ‘to stop’.

In some words, an initial ผ้า is pronounced /p-/ even though it is written neither with the /museqkētoēn/ nor a subscript. Such words are listed
inconsistently in the dictionary, sometimes occurring with the ဃ's, sometimes with the ႏ's. Transcribe and pronounce the following words, all of which are pronounced with an initial /pa-/: ကိုရှင်  cause, ကိုရှင်  the present (final syllable pronounced /-ban/), ကိုရှင်  to cancel ( ႏ represents /-td-/; final vowel irregularly pronounced as ႏ ), ကိုရှင်  intelligence.

A. paccay, paccopban, patdesaet, pañña

184. Transcribe and pronounce the following words with particular attention to the value of ဃ: ဃ three, ဃ  flute, ဃ  sin, ဃ  to use, ဃ  intelligence, ဃ  persuade, ဃ  country, ဃ  how much.

A. ၲ, ၲ, ၲ, ၲ, ၲ, ၲ, ၲ, ၲ, ၲ, ၲ, ၲ, ၲ

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. အထား (64) to jot down 7. ချစ် (142) to quarrel
2. မား (65) to absorb 8. လော (143) to bite each other
3. သား (87) to smoke 9. လော (143) dawn
4. မည် (64) to tie 10. စီး (167) opening, gap
5. မည် (64) to come 11. စီး (168) quarrel
6. စီး (142) persuade 12. စီး (168) wall

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 pro-
nounced as if they were written ــ. Transcribe and pronounce:
1. קג speech 2. יג animal 3. קג fate 4. יג demon
5. קג the symbol 6. יג wealth 7. יג history
8. יג possessions (the final ــ is silent in examples 7 and 8)

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 /banta/. (ــ). The following words are of this type; transcribe
and pronounce them. קג every, קג family, קג motor,
קר ngồi wife, קג priest
A. sap, וג, יג, קרפ, קרפ, קרג

188. Some words whose final syllables are spelled with a sequence of consonant
symbols, which would normally indicate the long inherent vowel, are pro-
nounced with the short inherent vowel, even though the final consonant does
not carry the /banta/. Transcribe and pronounce the following words of
this type: 1. קג proper 2. יג corpse 3. יג people 4. יג
car 5. יג society 6. יג exact 7. יג Jataka (ость-
d) 8. יג world.

189. In words of more than one syllable (other than the types discussed above)
consonant symbols with no written vowel are pronounced as separate sylla-
bles with the vowel /a/ after a 1st series symbol and /ə/ 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 un-
written final /-q/. For example, יג ‘dawn’, is pronounced /qarun/
in normal speech, reduced to /qarun/ in rapid speech; in very formal speech
it would be pronounced /qarun/. In the following examples, heavily stressed
syllables are marked ــ, syllables with medium stress are marked ــ.
and unstressed syllables are unmarked. Transcribe and pronounce them.

1. ฝ่ำน dawn 2. ผังกิจ future (final syllable is pronounced as
if written -กิจ ) 3. รัฐสกุล republic 4. นิรภัย non-human
5. โศก the symbol -: 6. ซึ่ง คัมภีร Pali

A. 1. qarun 2. qanaakrāt 3. sehaqroōt 4. qaqmēnuh
5. yuqkōlōqāpintuq 6. meeqkēthēq-phīēsaa

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

A. thurēq, thaanaq, royēq, kēnaq-kammēkāa

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 /ēq/
or /ēq/ in the 2nd series (see Exercises 72–74). Transcribe and pronounce
the following: ใต letters, ใจ enemy ( ใ represents the
doubled consonant /-tt-/), ใส to promise, ใร sign, ใซ ใส diacritic (final - is silent), ใก worker, ใทē usually ( ใ =
d), ใมē January.

A. qaqsua, sattrēw, sacca, saññaa, wōemayut, kammēkāa, thōemmēdaa,
mēeqkēraa

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

A. raccēnaa, waccēnaanukrum

193. In polysyllabic words, when the consonant symbols ใ or ใ occur ini-
tially and before ใ , they are pronounced with their normal inherent
vowels rather than with a/ēq/ēq. Transcribe and pronounce (the series of
the second syllable in the first three words is irregular):
1. နတ်စ်စစ် to eat (elegant)

2. နှင်းင်းန်း excellent (နှင်း is pronounced /bou/)

3. နတ်နိုင် pure

4. နမ်းနား to die (elegant)

5. နီးနား emerald (နီး is pronounced like နမ်း)

A. 1. baquirhook 2. baquirbou 3. baqrisot 4. maqranq 5. maqrekot

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. ဒါဆောင် to like (фа is irregularly pronounced /ae/)

2. ဒါဒ်း stupa (fa is irregularly pronounced /ae/; ဒ် = -td-)

3. မစ်စ်စစ် enemy (first syllable has /-a-/)

4. မစ်စ် art (first syllable has /-a-/)

5. မန်နိုင် civil service

6. မန်နိုင် era (မ် = /qk-/)

7. မိန်းများ citizenry (first syllable pronounced like မိန်း)

8. မိန်းများ religion (first syllable shortened to /-a-/; 2nd မ် = -hs-)

9. မိန်းစ်းများ professor


195. You have learned that the unwritten vowels /ə/ and /əə/ in stressed syllables with no written final are pronounced with a final /-q/, both medially
and finally. Transcribe and pronounce: ḫtraîn ḫtraîn non-human, ḫtraîn getResult fearless, ḫtraînResults voiceless, ḫtraînResults interval.

A. qaquiremah, qaquirephi, qaquirehosaq, qaquireq

196. The short vowels  \( \hat{\text{a}} \) and  \( \hat{\text{e}} \), when no final consonant is written, are always pronounced with a final  /-q/ in final syllables. (One exception is the unwritten final  /-k/ of ḫtraînResults tokResults ‘table’,.) Medially such vowels are followed by  /-q/ in a careful reading pronunciation, but the  /-q/ disappears in a more colloquial pronunciation. Transcribe each of the following examples first in a careful pronunciation and then in a more colloquial pronunciation. ḫtraînResults mercy (second syllable irregularly pronounced with 2nd series value), ḫtraînResults conduct (second syllable is irregularly pronounced in the 2nd series, third syllable reverts to 1st series), ḫtraînResults precept, ḫtraînResults age (first syllable is  /qa-\) in normal speech), ḫtraînResults Sihanouk (first syllable irregularly pronounced with 2nd series vowel).

A. kaquirenaq, karauna; kequirenya, keriya; /fwqCritical’/qCritical’, /fwqCritical’/qCritical’; qaquireuq, qaquireuq; siharenaq, sihareuq

XV. SOME IRREGULAR SPELLINGS

197. The rule that the pronunciation of a vowel symbol is determined by the last preceding dominant consonant symbol in the same word (see Exercises 157 and 161) is without exception in monosyllables, is fairly regular in disyllables (see Exercises 163 and 166 for exceptions), but is less regular in polysyllabic words. Of the following three-syllable words, the first three are regular throughout (with regard to governance of vowel series); the fourth is irregular in the final syllable. Transcribe and pronounce them.

\( \hat{\text{a}} \) to like, \( \hat{\text{e}} \) miserable, \( \hat{\text{a}} \) era, \( \hat{\text{e}} \) independence.

A. caquirenaa, weettonia, saquirenaa, qaqueriociq

198. In words of more than one syllable, the occurrence of a converted sonorant symbol (  \( \hat{\text{a}} \),  \( \hat{\text{e}} \),  \( \hat{\text{e}} \),  \( \hat{\text{e}} \),  \( \hat{\text{e}} \),  \( \hat{\text{e}} \) or  \( \hat{\text{e}} \) or  \( \hat{\text{e}} \)) converts the vowel of the syllable in which it occurs to 1st series, but has no effect on succeeding syllables. This constitutes an exception to the rule that sonorant symbols are always passive. Transcribe and pronounce
the following words: ’Brien  virtue,  คมะ who?, นิล 4 kilometer, ปิ่น to pester, ถุง tattered.

A. คูน่า, น้อย, กลับมา, ร่าง, รอาย

199. In the following words, however, even รวม and ติ submit to the governance rule. Transcribe and pronounce: คุณ 4 commerce, คุณ 4 clock.

A. ผ่าน, นิลิค้า

200. A number of words are spelled with an unpronounced final short vowel symbol. Transcribe and pronounce the following examples: บ้าน village, ชี life, พระ monk’s quarters, ชัย reason (ิ is irregularly pronounced /æ/) ประวัติ history (final syllable pronounced as if written วิ), ต้อง to behave.

A. ผุ้, คสต, โคต, หาต, พราวดี, ปารีต

201. In some words, the vowel symbol ิ is pronounced like ิ, i.e. /æ/ in the 1st series and /ɛɛ/ in the 2nd series. Transcribe and pronounce the following: ชัย reason, ซู or ชู province, แพทย์ doctor, พระสุมาส stupa (ง = /-dt-/) พระแก้ว to cancel (first syllable is pronounced /pat-/) พระแก้ว to like (ง = /-tt-/).

A. หาต, ก้าต, ปัต, กำต, กะต, พระ, ทะสอาต, กำตเนา

202. The vowel symbol ม is pronounced like ม in some 1st series initial syllables. Transcribe and pronounce: บ้าน father (ผ = /-d-/), หิน stone, บุญ spirit.

A. บกดา, แกลล, บกสอาค

203. In a few words the configuration ิ- with a 1st series consonant symbol is pronounced /-ac/ rather than the regular /-oc/. Transcribe and
pronounce: ဗ်စီ completely, ဗီးဗီး to complete, ဗျူး flesh, ဗျူး king, ဗိုလ် a royal title.

A. sraç, samraç, sac, sdac, samdac

XVI. SOME ADDITIONAL DIACRITICS

204. The following diacritics have already been introduced: 1. ဗီးဗီး /bantaq/ (Exercises 64–78) 2. ဗ်စီးဗီး /museqkətən/ , (Exercises 43 and 48) 3. ဗ်စီးဗီး /tręysap/ , (Exercise 45) 4. ဗ်စီးဗီး /niqkət/ (Exercises 101–107) 5. ဗ်စီးဗီး /sanyook-saήnəa/ (Exercises 117–119).

Another important diacritic is the ဗ်စီး /təʊndəkhiət/ ( ), sometimes referred to as the ဗ်စီး /samləp/ ‘to kill’, or the ဗ်စီး /patdesət/ ‘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 ဗ်, they are both unpronounced. Transcribe and pronounce the following words involving the /təʊndəkhiət/:

- ဗ်စီးဗီး /məngəmən/ usefulness, ဗ်စီးဗီး /ku/- diligent ( /ku/-), ဗ်စီးဗီး /kiŋ/ heritage, ဗ်စီးဗီး /təʊndəkhiət/ to experiment, ဗ်စီးဗီး banyan (tree), ဗ်စီးဗီး /kiŋ/ example, ဗ်စီးဗီး /puŋ/ to say (elegant).

A. prayaoc, quhsaa, kei, pisaqt, poo, qutisəoa, prusaah

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. ဗ်စီးဗီး (or ဗ်စီးဗီး) king, ဗ်စီးဗီး ( ~ ဗ်စီးဗီး ) good manners, ဗ်စီးဗီး sandalwood.

A. ksat, leeq, can
206. In certain compounds whose first element is written with an unpronounced final consonant symbol, the /tʰândekhiət/ may occur internally. Transcribe and pronounce: ការីសារក្ុង  army (archaic; final syllable pronounced as if ហ្គេ / ឈេ /) ការីសារក្ុង in a rage.
A. រ៉ឺរ៉ឺ, មុឺញ

207. The following two related words are irregular in that the subscript rather than the superscript consonant preceding the /tʰândekhiət/ serves as the final of the syllable. Transcribe and pronounce: ប្រៃ្មិន Brahma, ប្រម្មិន a Brahman.
A. ព្រីម, ព្រីម

208. The ឈូរ /rbɑːt/ is the reflex of an original /r/ in Sanskrit loanwords. In most words, when it occurs over a final consonant symbol neither the /rbɑːt/ nor the consonant over which it occurs is pronounced. (Because of its functional similarity to the /tʰândekhiət/ in this position, the two are frequently confused.) An exception is the word សុី /qaat/ ‘essence’, where the symbol underlying the /rbɑːt/ is pronounced as the final of the syllable. Transcribe and pronounce: ជេីសុី abundant (see 193), ជេីសុី ear (royal vocabulary).
A. ប៉ូរូ, ប្រែឺញ-ការ

209. In the following words the effect of the /rbɑːt/ is to change the vowel /ɔː/ to /oː/, as well as to cancel the final consonant symbol. This effect is called សុីសងសូរ /sumleɪŋ /ɔː / ‘trembling sound’ in Cambodian. It is the same sound that occurs in such words as សិង /ɔː / ‘resin’ and ក្ដៀែ /hoː / ‘to tremble’ (Exercise 119); in both cases a final ə symbol is involved. Transcribe and pronounce: សិង law, សិង color,
ក្ដៀែ pregnant.
A. ធៃ, ពិៃ, ក្ដៀ

210. When the /rbɑːt/ appears over a medial consonant symbol, it is pronounced as the intruded syllable /-ɾə-/ preceding the consonant symbol over which
it occurs. Most such words are more commonly spelled with  noreferrer
Transcribe and pronounce:  noreferrer ( ~  noreferrer ) destitute (first syllable pronounced long; final syllable pronounced  noreferrer ),  noreferrer ( ~  noreferrer ) legacy (Exercise 193; final syllable pronounced  noreferrer ).  
A. tuurekëet, mooreddq

211. The  noreferrer /leik qahsdaw/ ‘number eight’ ( ~ ), also called  noreferrer /leik prambëy/, occurs only in the following two words: resultative auxiliary: then;  noreferrer relative pronoun: which. It has no effect on the pronunciation. Transcribe and pronounce them.  
A. kaa, daw

212. The  noreferrer /kaaqkëbaat/ ( ~ ) more commonly called /coon kqaeq/ ‘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:  noreferrer there!,  noreferrer female response particle ( ~ = /-h/),  noreferrer hortatory particle,  noreferrer derisive particle (initial /h-/).
A. nul!, caah, naa! ~ nah!, hah!

213. The /kaaqkëbaat/ 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:  noreferrer to write (neither  noreferrer is pronounced)  noreferrer 58 riels.
A.  noreferrer sasei  noreferrer haasæp-prambëy riel

214. The  noreferrer /leik too/  noreferrer ‘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  noreferrer /sray-sray/ ‘women’. Transcribe and pronounce:  noreferrer various,  noreferrer small and numerous,  noreferrer each in turn.  
A. psein-psein, touc-touc, niumay-niumay
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.

A. bontac meau, bontac meau; daoy laek, daoy laek

216. When the word or words at the end of one sentence are to be repeated at the beginning of the 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:

I'm going to my house. My house is near the market.

A. knom tiw pteh knom; pteh knom new Cat 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 /a/. Transcribe both the careful and rapid pronunciations of each of the following words: ḫemmus to scratch about, ḫemn to receive, ḫemn thing, ḫemhn human, ḫemnh country, ḫemnh to like, ḫemnh water buffalo, ḫemnh dawn, ḫemnh to originate, ḫemnh voice, ḫemnh to owe, ḫemnh place, ḫemnh to spread, ḫemnh quarrel, ḫemnh wall, ḫemnh letter.

A. kukaay, ḫekaay; tetuəl, tetuəl; ḫeəbah, ḫeəbah; mənuəh, mənuəh; pratee, pratee; ḫrañr, ḫrañr; ḫrebaay, ḫrebaay; pralim, pralim; ḫajkaast, ḫajkaast; samleem, samleem; ḫeempiəq, ḫeempiəq; ḫenlaen, ḫenlaen; ḫenəriik, ḫenəriik; cumlishe, cumlishe; cuənceən, cuənceən; sambot, sambot.

218. The presyllable of the following two common words is reduced in rapid speech to /to-/. Transcribe the careful and rapid pronunciations of each.

A. dadael, tedael; sasei, tasei

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: നാല് hall, വയ്‍ഷ്യ അക്കുകള്‍, ചെമ്മ് clever, കുരുക്കി because, കുരുക്കി coffee, ചെമ്മ് അക്കുകള്‍, എഴുത്ത് euphonic, കുരുക്കി coolie.

A. saalaa, saala; qaayuq, qaayuq; puukae, pukae; piiprüu, piiprüu; kaafei, kaafei; buraan, boraan; piiprüu, piiprüu; kuullii, kuullii

**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 /-pil/ only in a reading pronunciation; otherwise it is /-pil/. Transcribe and pronounce them.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Cambodian</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ສ</td>
<td>一</td>
<td>one</td>
</tr>
<tr>
<td>2. ສ</td>
<td>つ</td>
<td>two</td>
</tr>
<tr>
<td>3. ສ</td>
<td>三</td>
<td>three</td>
</tr>
<tr>
<td>4. ສ</td>
<td>四</td>
<td>four</td>
</tr>
<tr>
<td>5. ສ</td>
<td>五</td>
<td>five</td>
</tr>
<tr>
<td>6. ສ</td>
<td>六</td>
<td>six</td>
</tr>
<tr>
<td>7. ສ</td>
<td>七</td>
<td>seven</td>
</tr>
<tr>
<td>8. ສ</td>
<td>八</td>
<td>eight</td>
</tr>
<tr>
<td>9. ສ</td>
<td>九</td>
<td>nine</td>
</tr>
<tr>
<td>0. ສ</td>
<td>零</td>
<td>zero</td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th>Number</th>
<th>Khmer</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>១០ ១០០</td>
<td>ten</td>
</tr>
<tr>
<td>11</td>
<td>១១ ១១១</td>
<td>eleven</td>
</tr>
<tr>
<td>12</td>
<td>១២ ២២២</td>
<td>twelve</td>
</tr>
<tr>
<td>13</td>
<td>១៣ ៣៣៣</td>
<td>thirteen</td>
</tr>
<tr>
<td>14</td>
<td>១៤ ៤៤៤</td>
<td>fourteen</td>
</tr>
<tr>
<td>15</td>
<td>១៥ ៥៥៥</td>
<td>fifteen</td>
</tr>
<tr>
<td>16</td>
<td>១៦ ៦៦៦</td>
<td>sixteen</td>
</tr>
<tr>
<td>17</td>
<td>១៧ ៧៧៧</td>
<td>seventeen</td>
</tr>
<tr>
<td>18</td>
<td>១៨ ៨៨៨</td>
<td>eighteen</td>
</tr>
<tr>
<td>19</td>
<td>១៩ ៩៩៩</td>
<td>nineteen</td>
</tr>
<tr>
<td>20</td>
<td>២០ ២០២</td>
<td>twenty</td>
</tr>
</tbody>
</table>

A. 10. dap

11. dap-muøy 〜 muøy-dandap
12. dap-pii 〜 pii-dandap
13. dap-bøy 〜 bøy-dandap
14. dap-buën 〜 buën-dandap
15. dap-pram 〜 pram-dandap
16. dap-prammuøy 〜 prammuøy-dandap
17. dap-prampil 〜 prampil-dandap
18. dap-prambøy 〜 prambøy-dandap
19. dap-prambuën 〜 prambuën-dandap
20. mphy 〜

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.
224. The multiplier /muay/ ‘one’ in the following compounds is shortened in normal speech to /ma-'; e.g. /muay-rocy/ ~ /mercy/ ‘one hundred’. Transcribe and pronounce the following numbers both ways.

1. ๑๐๐ ១០០ one hundred
2. ๑,๐๐๐ ១,០០០ one thousand
3. ๑๐,๐๐๐ ១០,០០០ one ten-thousand
4. ๑๐๐,๐๐๐ ១០០,០០០ one hundred-thousand
5. ๑,๐๐๐,๐๐๐ ១,០០០,០០០ one million
6. ๑๐,๐๐๐,๐๐๐ ១០,០០០,០០០ one ten-million (final silent)

A. 1. muay-rocy ~ meroey
2. muay-poem ~ meroen
3. muay-maen ~ memaen
4. muay-saen ~ mosaen
5. muay-lien ~ melien
6. muay-kaot ~ makaot

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.
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 /puttasaqkəraac/ and is abbreviated ស.ស. The word for Christian Era is /krīhsaqkəraac/ and is abbreviated ស. 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. ពីរ ឈុត ចាប់ ស.ស. ដុល្លា  
   Wednesday, the twenty-eighth of January, A.D. 1968

2. ព្រឹត្តិការ ១៦ ខែ រុក្សិ  
   Monday, the sixteenth of July, B.E. 2511

A. 1. ត្រូវ-ពីរ-មូវី-ព្តែម មេចីក្កាង ក្ក្លាមេសាខេល មេដឹង ព្រមបេសាខេល-រុក្សិ ហីគ្រៀន-ព្តែម  
   2. ត្រូវ-កែន តី-រុក្សិ ព្រម្បិៗ ការកែន ពីរ-ដឹង ព្រម-រុក្សិ ដុល្លា-មេអ៊ី
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.

<table>
<thead>
<tr>
<th>Consonants and Subscripts</th>
<th>Dependent Vowels</th>
<th>Independent Vowels</th>
<th>Diacritics</th>
<th>Numerals</th>
</tr>
</thead>
<tbody>
<tr>
<td>រ x</td>
<td>២ ២ h</td>
<td>១ ២ xa</td>
<td>២ xai</td>
<td>១ x, ២ x”</td>
</tr>
<tr>
<td>្ក x kh</td>
<td>២ ២ n</td>
<td>២ x xax</td>
<td>២ xau</td>
<td>២ x, ៣ x’</td>
</tr>
<tr>
<td>៣ x g</td>
<td>២ ២ p</td>
<td>២ x x̄x</td>
<td>២ x̄x</td>
<td>២ x, ២ rx</td>
</tr>
<tr>
<td>៤ x j</td>
<td>២ ២ ph</td>
<td>២ x x̄x</td>
<td>២ x̄x</td>
<td>២ x̄ x”</td>
</tr>
<tr>
<td>៥ x n</td>
<td>២ ២ b</td>
<td>២ x̄x</td>
<td>២ x̄x</td>
<td>២ x̄ x’</td>
</tr>
<tr>
<td>៦ x c</td>
<td>២ ២ nh</td>
<td>២ x̄x</td>
<td>២ x̄x</td>
<td>២ x̄ x’</td>
</tr>
<tr>
<td>៧ x ch</td>
<td>២ ២ m</td>
<td>២ x̄x</td>
<td>២ x̄x</td>
<td>២ x̄ x’</td>
</tr>
<tr>
<td>៨ x j</td>
<td>២ ២ n</td>
<td>២ x̄x</td>
<td>២ x̄x</td>
<td>២ x̄ x’</td>
</tr>
<tr>
<td>៩ x j</td>
<td>២ ២ n</td>
<td>២ x̄x</td>
<td>២ x̄x</td>
<td>២ x̄ x’</td>
</tr>
<tr>
<td>១០ x t</td>
<td>២ ២ l</td>
<td>២ x̄x</td>
<td>២ x̄x</td>
<td>២ x̄ x’</td>
</tr>
<tr>
<td>១១ x th</td>
<td>២ ២ v</td>
<td>២ x̄x</td>
<td>២ x̄x</td>
<td>២ x̄ x’</td>
</tr>
<tr>
<td>១២ x dh</td>
<td>២ ២ s</td>
<td>២ x̄x</td>
<td>២ x̄x</td>
<td>២ x̄ x’</td>
</tr>
<tr>
<td>១៣ x nh</td>
<td>២ ២ h</td>
<td>២ x̄x</td>
<td>២ x̄x</td>
<td>២ x̄ x’</td>
</tr>
<tr>
<td>១៤ x th</td>
<td>២ ២ l</td>
<td>២ x̄x</td>
<td>២ x̄x</td>
<td>២ x̄ x’</td>
</tr>
<tr>
<td>១៥ x th</td>
<td>២ ២ q</td>
<td>២ x̄x</td>
<td>២ x̄x</td>
<td>២ x̄ x’</td>
</tr>
</tbody>
</table>

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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 \( \text{khr̥} \) krakhvák.

2. When \( m \) occurs as a superscript, the lower element is omitted, as in \( m n̄ \). When \( m \) occurs as its own subscript, it takes the full form \( m̄ \), as in \( m̄ā \) kañña. Otherwise, the subscript has the form of the lower element alone, as in \( m \) khān.

3. The consonant \( v \), followed by the vowel \( ā \), takes the form \( ʊ̄ \).

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 column. 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 \( s̄n̄ \) dāb.

5. The consonants \( x̘ \) and \( x̘ā \) are always preceded by a vowel, but, being finals, never themselves bear a vowel. They may, however, be preceded by vowels other than \( a \), as in \( s̄n̄ \) tum, \( s̄n̄ \) sah.

6. The diacritics \( x̘ \) and \( x̘̄ \) are romanized by \( x̘ \) and \( x̘̄ \) immediately following the consonant they modify. They have the alternative form \( x \) when they co-occur with one of the superscript vowels \( x̘, x̘̄, x̘̄ā, \) and \( x̘̄\). When \( x \) co-occurs with one of the superscript vowels and with one of the consonants \( b, m, w, r, s, \) or \( v, \) it is romanized as \( x̘ \) as in \( s̄p̄i \). When \( x \) co-occurs with one of the superscript vowels and with one of the consonants \( w, m, \) or \( s, \) it is romanized as \( x̘ \) as in \( s̄i \). Otherwise \( x \) represents the vowel \( u, \) as in \( s̄u \) mun.

7. The diacritics \( x̘, x̘̄, x̘̄ā, \) and \( x̘̄ \) in the romanization column are placed after the last letter of the word in which they occur, as in \( s̄p̄ī \) ksatriya, \( s̄p̄ī \) cañña, \( s̄p̄ī \) ta, \( s̄p̄ī \) gātan.

8. Conventional signs are:

- romanized by repeating the preceding word or phrase
- romanized as \( .l \)
- romanized as \( .p \)
- romanized by means of the hyphen (-)
- romanized by means of the colon (:)
- romanized by means of the period (.)

The full-stop signs \( ʊ \) and \( ʊ̄ \) 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 ກ should be transliterated o rather than au, as in ຫ oy. 2) The symbol ຌ does double duty for both ຍ and ຌ; in the two particles ຄ and ຄ, it should be transliterated ka‘ and ta‘; in all other occurrences it should be transliterated 互相, as in 互相 prayojan‘.