CHAPTER 5
PHONOLOGY
5.0 Phonemic Inventory of Vowels:

There are nine vowels which are phonemic in Phom language and three vowels occur in complementary distributions. The phonemic vowels are: (1) i, (2) e, (3) i, (4) a, (5) u, (6) o, (7) o, (8) θ, (9) a. The allophonic vowels which occur in complementary distributions are: (1) I, (2) u, (3) U. In phonemic vowels, there are two front vowels, two central vowels and five back vowels. In allophonic vowels, there is one front vowel and two back vowels. The vowel chart is given below:

5.0.1 Vowel Chart:

\[ \begin{array}{ccc}
\text{Unrounded Front} & \text{Central} & \text{Back Rounded} \\
\hline
\text{V} & i & u \\
\text{E} & i & \text{High} \\
\text{R} & & \text{Lower High} \\
\text{T} & \text{Half Close} & o \\
\text{C} & \text{(close mid)} & \text{Higher Mid} \\
\text{A} & \text{Half Open} & \Lambda \\
\text{L} & \text{(open mid)} & \text{Lower Mid} \\
\text{A} & \text{X} & \text{I} \\
\text{S} & & \text{Open} \\
\end{array} \]

Figure (xii)
5.1 Phonetic description of vowels:

[ i ] front high unrounded vowel
In the production of this sound, the front part of the tongue is raised towards the hard palate and the lips are wide spread allowing air to escape out. The soft palate is raised to block air passing through nasal cavity.

[e] front higher-mid unrounded vowel
In the production of this sound, the lips are wide spread and the tongue is raised towards hard palate but not as high as in the production of [i]. The air passage through nasal cavity is blocked as soft palate is raised and the air escapes through the gap which is because of spreading of lips.

[i] central high short unrounded vowel
In the production of [i], the tongue raises towards hard palate, the point where the soft and hard palates meet. The lips are spread and allow air to pass out but not so wide spread. The tongue is in neutral position.

[a] central mean mid unrounded vowel
This sound is produced with a narrow opening of the mouth, and the air passes through this opening. The tongue is raised towards the hard palate but does not touch it and the soft palate is raised to block the nasal cavity.
[u] back high rounded vowel
In the production of this sound, the tongue is raised and the lips are rounded. The soft palate is raised to block air passage through the nasal cavity and the air passes through the rounding of the lips.

[o] back higher mid rounded vowel
In the production of this sound, the tongue is raised and the lips are rounded. The soft palate is raised to block air passage through the nasal cavity. The air escapes through the rounding of the lips.

[o] back lower mid unrounded vowel
In the production of [o], the lips are spread but not as much as in the production of [a]. The soft palate is raised to block air passage from nasal cavity. The air escapes through the gap caused by the spread of the lips.

[A] back lower mid unrounded vowel
In the production of this sound, the lips are spread and the back of the tongue raises. The soft palate rises to block air passage from the nasal cavity and the air passes through the oral cavity.

[a] low back unrounded vowel
In the production of this sound, the passage for air is open as the lips are spread. The soft palate rises to block air passage from the nasal cavity.
5.2 Phonetic description of allophonic vowels:

[I] front lower- mid unrounded vowel

This sound is produced in the same way as [i] is produced but the tongue height remains slightly low during the production of this sound. In the production of this sound the front part of the tongue is raised towards the hard palate and the lips are wide spread allowing air to escape out. The soft palate is raised to block air pass through nasal cavity.

[w] back high unrounded vowel

In the production of this sound, the lips are spread and the tongue is lowered. The soft palate is raised to block air passage through the nasal cavity and air passes through the spread of the lips.

[U] back lower high unrounded vowel

This sound is produced in the same way as [u] is produced but the tongue height remains slightly lower during the production of this sound. In the production of this sound, the tongue is raised and the lips are rounded. The soft palate is raised to block air passage through the nasal cavity and the air passes through the rounding of the lips.
5.3 Distribution of phonemic vowels:

<table>
<thead>
<tr>
<th>Sounds</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>e</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>i</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>θ</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>u</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>o</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>ɔ</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>ʌ</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>a</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Table (xi)
5.3.1 **Examples:**

<table>
<thead>
<tr>
<th>Sounds</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>[i] 'blood'</td>
<td>[Šiŋi] 'today'</td>
<td>[pʰa’ci] 'mercy'</td>
</tr>
<tr>
<td></td>
<td>[ipə] 'to speak'</td>
<td>[lahiŋ] 'weapon'</td>
<td>[monŋi] 'temper'</td>
</tr>
<tr>
<td></td>
<td>[ita] 'brick'</td>
<td>[haŠi'ha] 'orphan'</td>
<td>[a?i] 'much'</td>
</tr>
<tr>
<td></td>
<td>[itpə] 'to predict'</td>
<td>[mi?] 'other'</td>
<td>[mani] 'few'</td>
</tr>
<tr>
<td>e</td>
<td>[ēpə] 'to see'</td>
<td>[len] 'train'</td>
<td>[Še] 'wet'</td>
</tr>
<tr>
<td></td>
<td>[eyanpa] 'to rescue'</td>
<td>[pela] 'box'</td>
<td>[tʰe] 'face'</td>
</tr>
<tr>
<td></td>
<td>[epə] 'to count'</td>
<td>[tʰ'ehila] 'youth'</td>
<td>[aŠo] 'mango'</td>
</tr>
<tr>
<td></td>
<td>[enpə] 'to scatter'</td>
<td>[aŠe?] 'garlic'</td>
<td>[pe] 'garden'</td>
</tr>
<tr>
<td>i</td>
<td>[iŋ] 'neck'</td>
<td>[pim] 'body'</td>
<td>[ŋapə] 'to play'</td>
</tr>
<tr>
<td></td>
<td>[ihUmaŠe?] 'onion'</td>
<td>[nik] 'food'</td>
<td>[Uŋpə] 'pain'</td>
</tr>
<tr>
<td></td>
<td>[imao] 'violin'</td>
<td>[mikʰonj] 'intentio / purpose'</td>
<td>[ipə] 'to speak'</td>
</tr>
<tr>
<td></td>
<td>[iŋmom] 'mane'</td>
<td>[Šik] 'buffalo'</td>
<td>[Šaŋpa] 'light'</td>
</tr>
<tr>
<td>a</td>
<td>[əti] 'egg'</td>
<td>[məcaŋ] 'moth'</td>
<td>[ŋopə] 'to play'</td>
</tr>
<tr>
<td></td>
<td>[əŋtu] 'seldom'</td>
<td>[pʰəL] 'fever'</td>
<td>[Uŋpə] 'pain'</td>
</tr>
<tr>
<td></td>
<td>[əli] 'four'</td>
<td>[pəpə] 'he'</td>
<td>[ipə] 'to speak'</td>
</tr>
<tr>
<td></td>
<td>[əttaipə] 'to rush'</td>
<td>[məpə] 'which'</td>
<td>[Šaŋpa] 'light'</td>
</tr>
<tr>
<td>u</td>
<td>[upon] 'rooster'</td>
<td>[Šuhai] 'comb'</td>
<td>[tʰu] 'lung'</td>
</tr>
<tr>
<td></td>
<td>[ucei] 'brother'</td>
<td>[Šule] 'pillow'</td>
<td>[Šu] 'hair'</td>
</tr>
<tr>
<td></td>
<td>[uto] 'cage'</td>
<td>[muhu?] 'cow'</td>
<td>[nu] 'rest'</td>
</tr>
<tr>
<td>o</td>
<td>[on] 'emperor'</td>
<td>[mop] 'wealth'</td>
<td>[imao] 'violin'</td>
</tr>
<tr>
<td></td>
<td>[oŠIt] 'smoke'</td>
<td>[yon] 'water'</td>
<td>[cŋyo] 'neighbor'</td>
</tr>
<tr>
<td>ə</td>
<td>[o] 'fire'</td>
<td>[yən] 'stone'</td>
<td>[kə] 'sign'</td>
</tr>
<tr>
<td></td>
<td>[əm] 'dusk'</td>
<td>[pən] 'supper'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[o] 'color'</td>
<td>[kən] 'to peel off the skin of the tree'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[øk] 'pig'</td>
<td>[kək] 'shed'</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ə</td>
<td>[ən] 'ten'</td>
<td>[kəplak] 'lid'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[am] 'mat'</td>
<td>[kələp] 'tea'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ələn] 'the act of giving birth'</td>
<td>[pən] 'clan'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[əmat] 'curd'</td>
<td>[yən] 'wing'</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>[a] 'slave'</td>
<td>[mən] 'heart'</td>
<td>[mən] 'grave'</td>
</tr>
<tr>
<td></td>
<td>[aSe] 'garlic'</td>
<td>[ca] 'old'</td>
<td>[hena] 'measles'</td>
</tr>
<tr>
<td></td>
<td>[aSoye] 'mango'</td>
<td>[man] 'sin'</td>
<td>[Sə] 'hollow'</td>
</tr>
<tr>
<td></td>
<td>[an] 'bread'</td>
<td>[pan] 'panchayat'</td>
<td>[ca] 'new'</td>
</tr>
</tbody>
</table>

Table (xii)
5.4 Minimal pairs showing contrastive distribution:

The contrasts could be found mostly in monosyllabic words as Phom roots are generally monosyllabic. The contrasts are also present at word medial positions and word final positions in bi-syllabic words.

**i, e**

[Ši] ‘dog’
[Še] ‘wet’
[pi] ‘old female’
[pe] ‘garden’
[Šul] ‘brain’
[Šule] ‘pillow’

**i, a**

[Ši] ‘dog’
[Ša] ‘hollow’
[tIn] ‘disease’
[tan] ‘to wait’
[opi] ‘grand mother’
[opa] ‘father’

**a, o**

[pah] ‘panchayat’
[poh] ‘male’
[paŋpə] 'bald, erosion'
[poŋpə] 'mistake, error'
[mok] 'run'
[mak] 'waste'

a, A

[an] 'bread'
[ʌn] 'ten'
[man] 'sin'
[maŋ] 'corpse'
[caŋpə] 'to eat till the stomach is filled'
[caŋpə] 'chasing'

ʌ, ɔ

[pʰʌŋ] 'clan'
[pʰɔŋ] 'dinner'

[kaŋhan] 'the act of heating'
[koŋhan] 'to peel off the skin of the tree'
[yan] 'wing'
[yəŋ] 'stone'
a , u

[a] 'slave'
[u] 'hen'
[ca] 'new'
[cu] 'mouth'
[Ša] 'hollow'
[Šu] 'hair'

u , ū

[cu] 'mouth'
[cu] 'flower'
[ŋu] 'banana'
[ŋu] 'breath'
[Šu] 'hair'
[Šu] 'nine'

ɔ , o

[yɔŋ] 'rock, stone'
[yɔŋ] 'water'
[pʰɔŋ] 'dinner'
[pʰɔŋ] 'spear'
[mɔk] 'current'
[mɔk] 'run'
[pʰaŋ] 'clan'
[pʰoŋ] 'spear'
[yəŋ] 'wing'
[yoŋ] 'water'
[ʃəŋ] 'up'
[ʃoŋ] 'bottom'

[a , i]

[ʃaŋ] 'net'
[ʃiŋ] 'place'
[ʃampə] 'to heal'
[ʃimpə] 'to seige'
[paŋ] 'panchayat'
[piŋ] 'flood'

[e , u]

[še] 'kidney'
[šə] 'nine'
[pe] 'garden'
[pə] 'all'
[t^e] ‘face’

[t^w] ‘plural’

a , c

[a] ‘slave’

[ə] ‘fire’

[p^an] ‘clan’

[p^əŋ] ‘dinner’

[hampu] ‘watering the plants’

[hompu] ‘jumping or to go through’

e , a

[p^əL] ‘fever’

[p^aL] ‘forest’

[šaŋpa] ‘light’

[šaŋpa] ‘forehead’

[ŋapa] ‘to play’

[ŋapa] ‘mad’

e , a

[še] ‘wet’

[ša] ‘hole’

[pehe] ‘old, elder (in comparison)’
[paha] ‘man’
[Sule] ‘pillow’
[Sula] ‘white’

5.5 Allophonic vowels:

There are three vowels in Phom language which occur in complementary distributions. They are: I, U and U.

5.5.1 Distribution of allophonic vowels:

<table>
<thead>
<tr>
<th>Sounds</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>U</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>U</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

Table (xiii)

[I] occurs in complementary distribution with [i]. [I] and [i] are the allophones of same phoneme /I/.

/ i /

[i]

[I]

[I] occurs before nasals, nasal velars and before alveolar and [i] elsewhere.
5.5.2 Examples:

[ŋIn] ‘silver’

[laitIn] ‘disease’

[ciŋmei] ‘peace’

[niŋnoi] ‘nature’

[amIt] ‘trumpet’

[oŠIt] ‘smoke’

[Ši] ‘dog’

[lahilonoŋ] ‘weapon’

[ŠInjiʔ] ‘today’

[ haŠiʔha] ‘orphan’

[u] occurs in complementary distribution with [i]. [u] and [i] are the allophones of the same phoneme [i]

/u/  [i]  [u]

[u] occurs after palatal nasal and at word final positions and [i] elsewhere.

5.5.3 Examples:

[ŋuha] ‘female’

[oŋu] ‘mother’

[pu] ‘all’
[Šampw] ‘heal’

[ihUmaŠe]’ onion’

[pιŋ] ‘flood’

[Šik] ‘buffalo’

[Šimpw] ‘seige’

[U] occurs in complementary distribution with [u]. [U] and [u] are the allophones of the same phoneme [u].

\[
\begin{array}{c}
/ u / \\
| \searrow \\
\text{[u]} \\
| \text{[U]} \\
\end{array}
\]

[U] occurs before nasals and velars and [u] elsewhere.

5.5.4 Examples:

[pUŋ] ‘barn’

[tUŋpə] ‘pain’

[ihUmaŠe] ‘onion’

[Umtpinoŋ] ‘cheek’

[ŠUkyan] ‘tortoise’

[ŠUktan] ‘button’

[cu] ‘mouth’

[Šu] ‘hair’

[uwar] ‘horn bill’

[muhuŋ] ‘cow’
5.6 **Diphthongs in Phom:**

Diphthongs are the sequences of those two vowels that occur adjacent to each other and there is the process of glide from one vowel to the other. The glide starts with the first vowel and the second vowel forwards the glide. There is a single noticeable change during a syllable. The first vowel is a nuclear and the second vowel is a peripheral vowel. There are four diphthongs in Phom. They are:

1. [ei],
2. [ai],
3. [au],
4. [oi].

5.6.1 **Distribution of Diphthongs:**

<table>
<thead>
<tr>
<th>Diphthongs</th>
<th>initial</th>
<th>medial</th>
<th>final</th>
</tr>
</thead>
<tbody>
<tr>
<td>ei</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>ai</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>au</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>oi</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Table (xiv)

Note that the nuclear vowel is always a low back unrounded vowel which is followed by a peripheral vowel either front high or back high vowel. The mid vowels (both front and back) as nuclear vowels are followed by a front high vowel as peripheral vowel, but they do not occur in word initial position.
5.6.1.1 Examples:

<table>
<thead>
<tr>
<th>Diphthongs</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>ei</td>
<td></td>
<td>[meiŋ] 'elephant'</td>
<td>[køyei] 'horse'</td>
</tr>
<tr>
<td></td>
<td>[aipa]</td>
<td>'hunger'</td>
<td></td>
</tr>
<tr>
<td>ai</td>
<td>[ai] 'boat'</td>
<td>[maila] 'boar'</td>
<td>[pʰai] 'meat'</td>
</tr>
<tr>
<td></td>
<td>[aiŋ] 'hunger'</td>
<td>[ŋai] 'to write'</td>
<td>[ŋai] 'I'</td>
</tr>
<tr>
<td>au</td>
<td>[auŋ] 'surplus'</td>
<td>[tau] 'work'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[auŋ] 'sincere'</td>
<td>[ŋau] 'haze'</td>
<td></td>
</tr>
<tr>
<td>oi</td>
<td></td>
<td>[moila] 'altar'</td>
<td>[ŋəŋoi] 'nature'</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[ŋoi] 'polite'</td>
<td></td>
</tr>
</tbody>
</table>

Table (xv)

5.6.2 Minimal pairs showing contrast in Diphthongs:

**ei, ai**

[pʰei] 'cost / price'

[pʰai] 'meat'

[lei] 'to belong'

[laï] 'book'

**au, ei**

[ŋau] 'haze'

[ŋei] 'gum'
[pʰau] ‘forest’

[pʰei] ‘cost / price’

au , ai

[tau] ‘work’

[tai] ‘go’

[pʰau] ‘forest’

[pʰai] ‘meat’

ai , oi

[maila] ‘boar’

[moila] ‘altar’
5.7 **Phonemic Inventory of Consonants:**

There are nineteen phonemic consonants and one allophonic consonant in Phom language. The phonemic consonants are: p, pʰ, t, tʰ, k, kʰ, c, ?, m, n, ɳ, ɻ, ʃ, ɻ, l, w, y and the allophonic consonant is L. The voiced plosives are in free variation with their voiceless counterparts in the language.

The use of /r/ and /l/ varies among the speakers. /r/ is present only in borrowed words.

5.7.1 **Consonantal Chart:**

<table>
<thead>
<tr>
<th>Manner of Articulation</th>
<th>Place of Articulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bilabial Unasp asp</td>
</tr>
<tr>
<td>Plosive</td>
<td>p</td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
</tr>
<tr>
<td>Fricative</td>
<td>ʃ</td>
</tr>
<tr>
<td>Trill</td>
<td>r</td>
</tr>
<tr>
<td>Semi-Vowel</td>
<td>w</td>
</tr>
<tr>
<td>Lateral</td>
<td>L</td>
</tr>
</tbody>
</table>

Table (xvi)
5.7.2 **Phonetic Description of Phonemic Consonants:**

[p] **voiceless bilabial unaspirated stop.**

This sound is produced by two lips. The upper lip is the passive articulator and lower lip is the active articulator. There is complete stop in the oral cavity by closing the lips, and the air escapes through the opening.

[pʰ] **voiceless bilabial aspirated stop.**

This sound is produced in the same way as [p], but there is only extra puff of air (aspiration) in producing this sound.

[t] **voiceless alveolar unaspirated stop.**

In the production of this sound, the tip and blade of the tongue touches the back of the teeth at the alveolar ridge. The soft plate is raised so that air cannot escape through nasal cavity. The air from the lungs escapes through the opening.

[tʰ] **voiceless aspirated alveolar stop.**

This sound is produced in the same way as [t] but there is only extra puff of air (aspiration) in the production of this sound.

[k] **voiceless unaspirated velar stop.**

In the production of this sound, the back of the tongue is raised towards the soft palate and velum is raised to block the air pass through nose. There is stop of air in the soft palate and air escapes through oral cavity with an opening.
[kʰ] voiceless aspirated velar stop.
This sound is produced in the same way as [k] except that there is extra puff of air (aspiration) in the production of this sound.

[c] voiceless palatal unaspirated stop.
In the production of this sound, the front of the tongue touches the hard palate and the soft palate is raised to block the air escaping through nasal cavity. The air from the lungs, which is blocked by tongue and hard palate, releases through the opening.

[ʔ] voiceless glottal stop.
This sound is produced when the vocal cords are held tightly and the air from the lungs is blocked or completely stopped and when the glottis is opened by separating the vocal cords, the air moves out suddenly through oral cavity.

[m] bilabial nasal.
In the production of this sound, both the lips are used and in which upper lip is passive articulator and lower lip is the active articulator. There is lowering of velum in such a way that some air escapes through nasal cavity.

[n] alveolar nasal.
In the production of this sound, the blade of the tongue touches the alveolar ridge. There is lowering of soft palate so that some air escapes through nose.
[ŋ] palatal nasal.
In the production of this sound, the front of the tongue touches the hard palate and the soft palate is lowered that some air escapes through nasal cavity.

[ŋ] velar nasal.
In the production of this sound, the back of the tongue touches the soft palate and soft plate is lowered, so that some air escapes through nose.

[S] post-alveolar voiceless fricative.
In the production of this sound, the tongue raises towards post-alveolar region. The soft plate is raised to block air escaping from nose. The air releases through oral cavity gradually.

[h] voiceless glottal fricative.
In the production of the sound, the air from the lungs passes through glottis. The tongue remains in natural position.

[r] alveolar trill.
In the production of this sound, the tongue touches the alveolar ridge. There is rapid tapping of the tongue and the air escapes through oral cavity.
[l] alveolar lateral.

In the production of this sound, the tongue touches the alveolar region and there is block for air passage through the middle of the tongue. The air escapes through the sides of the tongue.

[w] bilabial semi-vowel.

In the production of this sound, the lips are rounded. The velum is raised to block air escaping from the nasal cavity. The lips are rounded and the air escapes through the narrow passage of the oral cavity.

[y] palatal semi-vowel.

This sound is produced when the tongue is raised towards the hard palate and the lips are spread. The velum is raised to block air passage from nasal cavity and air passes through the opening of the oral cavity.

5.7.3 Phonetic Description of Allophonic Consonant:

[L] velar lateral.

This sound is produced when the back of the tongue is raised towards the soft palate but it does not touch the soft palate and the lips are spread. The soft palate is raised to block the nasal cavity. The air passes through the sides and middle of the tongue.
The chart given below shows the distribution of phonemic consonants:

**5.7.4 Distribution of phonemic consonants:**

<table>
<thead>
<tr>
<th>Sounds</th>
<th>Initial</th>
<th>Medial</th>
<th>final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>p</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>pʰ</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>t</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>tʰ</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>k</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>kʰ</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>c</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>ɾ</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>m</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>ŋ</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>v</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>š</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>h</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>r</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>l</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>w</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>y</td>
<td></td>
<td>+</td>
</tr>
</tbody>
</table>

Table (xvii)
Observations:

(1) Aspirated sounds never occur at word final positions.

(2) Glottal stops never occur at word initial position.

(3) Voiceless palatal stop, palatal nasal, velar fricative, post-alveolar fricative, voiceless glottal fricative, alveolar trill, alveolar lateral, bilabial semi-vowels and palatal semi-vowel never occur at word final positions.

5.7.4.1 Examples:

<table>
<thead>
<tr>
<th>Sounds</th>
<th>Initial</th>
<th>Medial</th>
<th>final</th>
</tr>
</thead>
<tbody>
<tr>
<td>[p]</td>
<td>[pei] 'spleen'</td>
<td>[\Saŋpa] 'temple'</td>
<td>[yoɔp] 'spit'</td>
</tr>
<tr>
<td></td>
<td>[pi m] 'body'</td>
<td>[copɔ] 'hide'</td>
<td>[ŋap] 'buttock'</td>
</tr>
<tr>
<td></td>
<td>[pAkpa] 'perch'</td>
<td>[\Saŋp\Saŋ] 'snail'</td>
<td>[cAŋ] 'nest'</td>
</tr>
<tr>
<td></td>
<td>[pan] 'panchayat'</td>
<td>[maipa] 'good'</td>
<td>[mop] 'wealth'</td>
</tr>
<tr>
<td>[pʰ]</td>
<td>[pʰɔL] 'fever'</td>
<td>[upʰai] 'chicken'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[pʰɔŋ] 'dinner'</td>
<td>[pʰiŋpʰa] 'cotton'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[pʰai] 'meat'</td>
<td>[cUpʰɔŋ] 'they'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[pʰɔL] 'forest'</td>
<td>[cInpʰɔŋ] 'we'</td>
<td></td>
</tr>
<tr>
<td>[t]</td>
<td>[tat] 'louse'</td>
<td>[pati] 'cup'</td>
<td>[lat] 'fee'</td>
</tr>
<tr>
<td></td>
<td>[uŋpɔa] 'pain'</td>
<td>[moitɔ] 'altar'</td>
<td>[\Saŋt] 'eight'</td>
</tr>
<tr>
<td></td>
<td>[taupɔ] 'poor'</td>
<td>[atι] 'egg'</td>
<td>[hAt] 'animal food'</td>
</tr>
<tr>
<td></td>
<td>[tok] 'weight'</td>
<td>[lAktAm] 'fist'</td>
<td>[tAt] 'louse'</td>
</tr>
<tr>
<td>[tʰ]</td>
<td>[tʰɔŋ] 'liver'</td>
<td>[maatʰɔŋ] 'termites'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[tʰu] 'lung'</td>
<td>[lItʰa] 'star'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[tʰɔŋ] 'lime'</td>
<td>[lAtʰu] 'shoe'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[tʰɔk] 'sour'</td>
<td>[\Amaatʰi] 'curd'</td>
<td></td>
</tr>
<tr>
<td>[k]</td>
<td>kaʔSi] 'devil'</td>
<td>[\Saκyaŋ] 'tortoise'</td>
<td>[tɔk] 'weight'</td>
</tr>
</tbody>
</table>

144
| [kaplak] | ‘cover’ | [wokpu] | ‘mixer’ | [yik] | ‘bride’ |
| [kanu] | ‘opium’ | [šakkei] | ‘out’ | [šok] | ‘grasshopper’ |

| [kʰ] | [kʰok] | ‘shed’ | [lɔŋkʰoe] | ‘knife’ | — |
| [kʰɔŋkʰai] | ‘guava’ | [lɔŋkʰiŋp] | ‘oak’ | — |
| [kʰokl] | ‘jail’ | [mikʰakp] | ‘jealously’ | — |
| [kʰola] | ‘lame’ | [kʰɔŋkʰai] | ‘guava’ | — |

| [c] | [cu] | ‘mouth’ | [pik] | ‘fruit’ | — |
| [cə] | ‘vein’ | [šuc] | ‘tweezer’ | — |
| [ca] | ‘fat’ | [mɔcaŋ] | ‘moth’ | — |
| [cupa] | ‘lip’ | [acap] | ‘scissor’ | — |

| [ʔ] | — | [pʰɪl] | ‘dust’ | [la] | ‘shoe’ |
| — | — | [kaʔšaŋ] | ‘mountain’ | [maŋši] | ‘anger’ |
| — | — | [toʔpə] | ‘end’ | [naʔ] | ‘edge’ |
| — | — | [kaʔši] | ‘devil’ | [jaʔ] | ‘fish’ |

| [m] | [meiši] | ‘dear’ | [cumom] | ‘beard’ | [am] | ‘mat’ |
| [maŋ] | ‘corpse’ | [amaŋ] | ‘curd’ | [laktə] | ‘fist’ |
| [mop] | ‘wealth’ | [amama] | ‘breast’ | [cam] | ‘three’ |

| [n] | [netʰe] | ‘bachelor’ | [caŋtə] | ‘turtle’ | [yan] | ‘dry’ |
| [napnunəŋ] | ‘morning’ | [cenpʰəŋ] | ‘us’ | [hon] | ‘gold’ |
| [naLca] | ‘infant’ | [Iln舒] | ‘staff’ | [jin] | ‘silver’ |

<p>| [ŋ] | [ŋakla] | ‘black’ | [ŋəŋ] | ‘mother’ | — |
| [ŋuˈpu] | ‘teacher’ | [tɔŋpu] | ‘blanket’ | — |
| [ŋaˈpa] | ‘heat’ | [yikpu] | ‘pearl’ | — |</p>
<table>
<thead>
<tr>
<th>[ الجن] ‘dew’</th>
<th>[شناك] ‘person’</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ئ] ‘sound’</td>
<td>[ونلا] ‘yellow’</td>
</tr>
<tr>
<td>[ئإ] ‘I’</td>
<td>[إينلا] ‘blue’</td>
</tr>
<tr>
<td>[ئن] ‘silver’</td>
<td>[هنپا] ‘to touch’</td>
</tr>
<tr>
<td>[ئنپ] ‘to play’</td>
<td>[كُننها] ‘lizard’</td>
</tr>
<tr>
<td>[نو] ‘dry’</td>
<td>[نلا] ‘not’</td>
</tr>
<tr>
<td>[هوك] ‘war’</td>
<td>[نرضا] ‘victory’</td>
</tr>
<tr>
<td>[مان] ‘sky’</td>
<td>[مانني] ‘grateful’</td>
</tr>
<tr>
<td>[مان] ‘cane’</td>
<td></td>
</tr>
<tr>
<td>[سي] ‘dog’</td>
<td>[أسي] ‘mango’</td>
</tr>
<tr>
<td>[س] ‘hair’</td>
<td>[مسي] ‘anger’</td>
</tr>
<tr>
<td>[سئ] ‘wet’</td>
<td>[آس] ‘south’</td>
</tr>
<tr>
<td>[سناو] ‘kidney’</td>
<td>[ماسي] ‘cat’</td>
</tr>
<tr>
<td>[هاشي] ‘child’</td>
<td>[وانه] ‘sun’</td>
</tr>
<tr>
<td>[هان] ‘fine’</td>
<td>[نها] ‘old’</td>
</tr>
<tr>
<td>[هومي] ‘across’</td>
<td>[لَانها] ‘mirror’</td>
</tr>
<tr>
<td>[هات] ‘animal food’</td>
<td>[مهكئي] ‘why’</td>
</tr>
<tr>
<td>[ر]</td>
<td>[كُناري] ‘car’</td>
</tr>
<tr>
<td></td>
<td>[كُناريلا] ‘wheel’</td>
</tr>
<tr>
<td>[و]</td>
<td>[ 운영ان] ‘cricket’</td>
</tr>
<tr>
<td>1</td>
<td>[أني] ‘four’</td>
</tr>
<tr>
<td></td>
<td>[أني] ‘colour’</td>
</tr>
<tr>
<td></td>
<td>[سيل] ‘pillow’</td>
</tr>
<tr>
<td></td>
<td>[مالي] ‘medicine’</td>
</tr>
<tr>
<td></td>
<td>[وان] ‘hornbill’</td>
</tr>
</tbody>
</table>
### Table (xviii)

<table>
<thead>
<tr>
<th>y</th>
<th>yɔŋ</th>
<th>‘stone’</th>
<th>oyɔŋ</th>
<th>‘fuel’</th>
</tr>
</thead>
<tbody>
<tr>
<td>yɔŋ</td>
<td>‘water’</td>
<td>Siyɔŋ</td>
<td>‘marble’</td>
<td></td>
</tr>
<tr>
<td>yik’a</td>
<td>‘daughter’</td>
<td>Sukyan</td>
<td>‘tortoise’</td>
<td></td>
</tr>
<tr>
<td>yaŋ</td>
<td>‘length’</td>
<td>ha’yɔŋ</td>
<td>‘edible’</td>
<td></td>
</tr>
</tbody>
</table>

#### 5.7.5 Minimal pairs showing contrastive distribution:

- **p, pʰ**
  - [pei] ‘spleen’
  - [pʰei] ‘cost / price’
  - [poŋ] ‘male’
  - [pʰoŋ] ‘spear’
  - [pu] ‘all’
  - [pʰu] ‘fever’

- **t, tʰ**
  - [tai] ‘trap’
  - [tʰai] ‘bridge / ladder’
  - [tɔŋ] ‘century’
  - [tʰɔŋ] ‘liver’

- **k, kʰ**
  - [kon] ‘empty’
  - [kʰon] ‘bag’
[kɔk] ‘fin’

[kʰɔk] ‘shed’

[kɔ] ‘remark’

[kʰɔ] ‘spade’

c, ŝ

[ca] ‘new’

[ŝa] ‘hole’

[ca] ‘mouth’

[šu] ‘hair’

[ca] ‘nerve’

[ša] ‘word’

c, k

[ca] ‘new / fresh’

[ka] ‘scale’

[ca] ‘nerve’

[ka] ‘field’

[ca] ‘flower’

[ku] ‘with’
m, n

[ʌm] ‘mat’

[ʌn] ‘ten’

[tam] ‘tin’

[tan] ‘century’

[mɪk] ‘eye’

[nɪk] ‘cooked food’

m, ə

[mu] ‘with /all’

[əu] ‘breath’

[wom] ‘stomach’

[won] ‘strength’

[mɪˈjɪ] ‘yesterday’

[ŋiˈjɪ] ‘tomorrow’

m, ɬ

[miɬ] ‘other’

[ɲiɬ] ‘day’

[mu] ‘with /all’

[ɲu] ‘mother’s sister’
[mi] ‘sheep’
[ni] ‘two’

n , ŋ

[van] ‘dry’
[van] ‘sky’
[tʰon] ‘lime’
[tʰɔŋ] ‘ear /slope’
[hon] ‘touch’
[hon] ‘gold’

ŋ , ɲ

[ŋu] ‘breath’
[ɲu] ‘mother’s sister’
[ŋaL] ‘accent’
[ŋaL] ‘fog’
[ŋu] ‘banana’
[ɲu] ‘rest’

n , ɲ

[naL] ‘infant’
[naL] ‘fog’
[naŋ] ‘sharp’
[naʔ] ‘fish’

[naʔpə] ‘heat’

[naʔpə] ‘intelligent’

υ, η

[ŋai] ‘I’

[vai] ‘cane’

[ŋai] ‘to write’

[vaipə] ‘effect’

[ŋw] ‘wheep’

[ŋw] ‘breath’

The contrast could be found only at the word initial positions as most of the words are mono-syllabic and there is no contrast between aspirated and unaspirated stops at the word final positions as aspirated stops are not present at the word final positions. They are neutralized at word medial positions. Though no contrasts are found for glottal stops with other sounds, but they are phonemic in the language as their absence or presence change the meanings of the words in the language. No contrast could be found for alveolar trill as it could be found only in borrowed words and it varies with alveolar lateral among the speakers of the language.
5.7.6 Glottal stops as phonemes:

[i'] ‘excrement’

[i] ‘blood’

[a'] ‘the bamboo which is used for making wall’

[a] ‘slave / servant’

[mi'] ‘other’

[mi] ‘sheep’

[ca'] ‘nerve’

[ca] ‘new / fresh’

[Ša'] ‘word’

[Ša] ‘hollow / hole’

[ha'] ‘grain / paddy’

[ha] ‘this’

[la'] ‘cannon’

[la] ‘female’

[ka'] ‘field’

[ka] ‘scale’
5.7.7 Distribution of the allophonic consonant:

<table>
<thead>
<tr>
<th>Sound</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>[L]</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Table (xix)

/1/ \ [l] \ [L] \\

[L] Occur in complementary distribution with /l/. [L] occurs when a preceding vowel is a back, open, unrounded vowel (or a schwa) and /l/ occurs in all the other positions.

5.7.7.1 Examples:

<table>
<thead>
<tr>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>[haLte]</td>
<td>‘table’</td>
</tr>
<tr>
<td></td>
<td>[paLsi]</td>
<td>‘thin’</td>
</tr>
<tr>
<td></td>
<td>[naLkʰim]</td>
<td>‘order’</td>
</tr>
<tr>
<td>[tαLpa]</td>
<td>‘neat’</td>
<td>[naL]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[naL]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[laL]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[p^[əL]</td>
</tr>
</tbody>
</table>

Table (xx)
5.8 Consonant clusters:

In this section consonant clusters and geminates are discussed. A consonant cluster is the sequence of two or more phonemes occurring at three positions: (1) word initial, (2) word medial and, (3) word final positions. The geminates are those identical consonants which occur together at a position.

In Phom, there are only word medial consonant clusters. Word initial and final consonant clusters are not present in Phom language. The clusters are always of two consonants only exception is with glottal stops in some words where sequences of three phonemes are present including the glottal stops. Other than these clusters with glottal stops, a cluster of more than three phonemes are not possible in the language. The different types of clusters are as follows:

1. stop + stop
2. stop + lateral
3. stop + sibilant
4. stop + nasal
5. nasal + nasal
6. nasal + stop
7. nasal + sibilant
8. nasal + semi-vowel
9. nasal + lateral
10. stop + stop + nasal
11. lateral + stop + sibilant
5.8.1 The clusters are:

- *-pt- [Šaptɔk] ‘palate’
  - [Šaptɔu] ‘bear’

- *-pʒ- [ȘapSọŋ] ‘snail’
  - [ayupȘ ipɔ] ‘to dive’

- *-tp- [aiyetpɔ] ‘sailor’
  - [lokikatpɔ] ‘curve’

- *-kp- [wokpɔ] ‘mixer’
  - [mokpɔ] ‘race/fast’

- *-kt- [miktan] ‘cataract’
  - [ȘUKtan] ‘tortoise’

- *-ktʰ- [laktʰan] ‘nail’
  - [pʰaktʰuʔ] ‘shirt’

- *-kpʰ- [lakpʰa] ‘palm’
  - [mi kpʰi] ‘tears’

- *-kv- [Șokvaŋ] ‘prawn’
  - [tɔkvaipɔ] ‘something coming from up’
-kl-  [kʰoklʌt]  'jail'
       [hoklʌk]  'spoon'

-p-   [ya’pu]  'approve'
       [na’pə]  'heat'

-mp-  [ʃʌmpə]  'ripe'
       [tampə]  'ready'

-mpʰ- [pʰɪmpʰə]  'cotton'
       [jʌmpʰək]  'hook'

-mt-  [camtɪn]  'epidermic'
       [ŋamtok]  'camel hump'

-mn-  [manmei]  'reputation'
       [nanmə]  'quiet'

-mn-  [ʃʌm şə]  'pillar'
       [yam şə]  'widow'

-mŠ-  [hʌm Šə]  'clay pit'
       [ŋam Šəi]  'toad'
-ml- \([k^h\lambda m\lambda \eta p\eta]\) ‘occupy’

\([k^h\lambda m\lambda \eta]\) ‘flag’

-np- \([\lambda n\eta p\eta]\) ‘witness’

\(\hat{\eta}n\eta p\eta\) ‘birth’

-np^b- \([cenp^b\eta]\) ‘us’

\([cInp^b\eta]\) ‘we’

-nS- \([can\hat{S}i\eta]\) ‘assembling in one place’

\([can\hat{S}i]\) ‘placing the pot in three legged crock’

-nl- \([lenlop]\) ‘monthly wage’

\([yanlu]\) ‘sword’

-ŋp- \([maŋ\eta]\) ‘dark’

\([haŋ\eta]\) ‘orange’

-ŋp^b- \([\hat{S}Uŋp^b\eta]\) ‘hub’

\([moŋ^b\eta]\) ‘knickers’

-ŋc- \([oŋc\eta]\) ‘empire’

\([yoŋc\eta]\) ‘dam’
-ŋkʰ- [lɔŋkʰoe’] ‘knife’
[kʰŋkʰai] ‘guava’
-ŋt- [moŋtUK] ‘anxiety’
[ɭAŋta] ‘hawk’

-ŋh- [hɔnhoŋ] ‘peg’
[mUŋha] ‘lone’

-ŋŠ- [Šaŋši] ‘many’
[moŋši] ‘anger’

-ŋm- [moŋman] ‘sorrow’
[ciŋmei] ‘cease-fire’

-ŋn- [lɔŋnam] ‘silk’
[caŋnlN] ‘turtle’

-ŋp- [cɭŋpa] ‘city’
[yanŋu] ‘life’

-ŋc- [Șaŋciŋ] ‘head’
[Șiŋcoŋ] ‘thigh’
-ŋh-  [laŋha]  ‘mirror’
  [yanhe]  ‘clock’

-ŋl-  [ŋl̥ok]  ‘member’
  [oŋla]  ‘princess’

-ŋy-  [ŋˈŋyam]  ‘pumpkin’
  [cŋyo]  ‘neighbor’

Some of the cluster combinations, which are not frequent, are listed below:

-ŋmt̥-  [Umt̥ŋ]  ‘cheek’

-ŋpl-  [kəplak]  ‘lid’

-ŋny-  [mənvi]  ‘grateful’

-ŋŋ-  [Snŋiʔ]  ‘today’

-ŋl̥-  [p̥iʔa]  ‘dust’

-ŋt̥-  [kaˈt̥ok]  ‘earth’

-ŋkŋ-  [ŋaʔkŋei]  ‘tumor’

-ŋŋŋ-  [maŋŋal]  ‘death ceremony’

-ŋlk̥-  [ŋalɔŋl̥im]  ‘order’

5.8.2 Consonant Combinations: In the chart given below, the combination of first member and second member of the clusters is shown. The vertical axis shows the first member of the series and the horizontal axis shows the second member of
the series. The allophonic consonant is also listed in this chart to show its occurrence in clusters with combination of other phonemes.

5.8.2.1 Chart showing Consonant Combinations:

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Table (xxi)
5.8.3 Geminates:

The geminates are those identical consonants that occur adjacent to each other at a position. The different types of geminates can be found in Phom language:

- **voiceless unaspirated bilabial stop**: -pp-
  - bilabial nasal: -mm-
  - voiceless unaspirated velar stop: -kk-
  - velar nasal: -ŋŋ-
  - alveolar lateral: -ll-

5.8.3.1 Examples:

- **-pp-**
  - [appə] ‘open’
  - [cappə] ‘taste’
  - [SoSeppə] ‘narrow’
  - [tʰappə] ‘weeping’
  - [peppə] ‘flash’

- **-mm-**
  - [Šemmoŋ] ‘family’
  - [amma] ‘breast’
  - [ŠlImmei] ‘rich’
  - [cImma] ‘if’
  - [hammo] ‘here’
-kk-  [tokku\textsuperscript{2}pa] 'hunch backed'

[Šokkei]  'corner of'

[makko\textsuperscript{2}pu] 'dirty'

[Šakkei]  'out'

[tokkə]  'above'

-ηη-  [m\=n\=ŋ\=ŋ\=ŋ] 'skeleton'

[Š\=n\=ŋ\=ŋ\=ŋ] 'skull'

[yoŋŋak] 'cliff'

[yang\=ŋ\=ŋ\=ai\=ŋ\=ə] 'light'

[yang\=ŋ\=au] 'buzz'

-tt-  [ət\=t\=a\=i\=ŋ\=ə] 'to rush'

[Še\=t\=t\=a\=i\=ŋ\=ə] 'rotten'

[lit\=tei] 'away'

[p\=t\=\=ta] 'wick'

[\=n\=a\=t\=t\=a\=i\=ŋ\=ə] 'mixture'

-ll-  [m\=l\=\=li] 'medicine'

[m\=l\=\=lok] 'jug'

[tell\=am] 'badness'

[all\=oŋ] 'a kind of bird'
5.9 Distinctive Features:

The distinctive features are analyzed according to the frame of Chomsky and Halle, (1968). However, the features, mentioned in this section, are only those features which are relevant for the analysis of sound elements of Phom language.

The distinctive features could be divided into five groups. They are:

(1) Major class features
(2) Cavity features
(3) Prosodic features
(4) Manner of articulation features
(5) Source features

5.9.1
(1) Major class features

The major class features are divided into four features. They are:

a) Sonorant
b) Vocalic
c) Consonantal
d) Syllabic

5.9.2
(2) Cavity features

The cavity features are divided into five features. They are:

a) Primary features
b) Features relating to the body of the tongue
c) Features relating to the position of the lips

d) Distributed Feature

e) Secondary features

5.9.2.1

The primary features are divided into:

(a) Coronal

(b) Anterior

5.9.2.2

The features relating to the body of the tongue are divided into:

(a) High feature

(b) Low feature

(c) Back feature

(d) Central feature

5.9.2.3

The features relating to the position of the lips are divided into:

(a) Feature rounded

(b) Feature unrounded

5.9.2.4

The distributed features are divided into:

(a) Distributed

(b) Non-distributed
5.9.2.5

The secondary features are divided into:

(a) Nasal

(b) Lateral

5.9.3

(3) **Prosodic features**

The prosodic features are divided into:

(a) Stress

(b) Length

5.9.4

(4) **Manner of articulation features**

The manner of articulation features are divided into:

(a) Continuant

(b) Delayed-Release

(c) Supplementary movement

Supplementary movement is sub-divided into:

(a) Tense

5.9.5

(5) **Source features**

The source features are divided into:

(a) Tenseness

(b) Voiced
The features of sound elements are analyzed in the terms of binary features. The binary features are analyzed in terms of binary (+) / (-) value. In distinctive features, all the phonemic vowels, phonemic consonants, allophonic vowels and consonant and diphthongs are listed for their features.

5.9.6 Vowels: Distinctive features of Vowels:

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Table (xxii)
5.9.7

Consonants: Distinctive features of Consonants

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<td>Nasals</td>
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</table>

Table (xxiii)
5.10 **Tones:**

Tones are different pitch levels of a syllable. Tones can be register tones and contour tones. Tones can be phonetic or phonemic in a language. If the meaning of the word changes due to the different pitch levels then it is called phonemic and when the meanings of the words do not change because of different pitch levels then the tone is phonetic in the language. A pitch level of a syllable, if remains constant, is said to be a level tone and when the pitch level rises or falls compared to a level tone is said to be a high or low tone respectively. In Phom language, tones are phonemic, as different tones change the meanings of the words. There are three register tones in Phom. They are:

1. High tone
2. Low tone
3. Medial or level tone

5.10.1 **High Tones:**

In bi-syllabic and tri-syllabic words, the high tones are usually marked on the second syllable, but if the second syllable is followed by a glottal stop, the tone is marked on the first syllables of the words.

[o´n] ‘king’

[Ｓo´] ‘skin’

[ŋanaro´] ‘comet’

[amma] ‘breast’
5.10.2 **Low Tones:**

In bi-syllabic and tri-syllabic words, the low tones are marked on the highest vowel of the word according to the height of the tongue.

- [ɔˈlum] ‘flame’
- [uwaŋ] ‘horn bill’
- [haˈʃiˈha] ‘orphan’
- [kaˈʃɔŋla] ‘foothills’
- [meiŠaŋ] ‘monkey’

5.10.3 **Level Tones:**

The level tones are usually unmarked for tones.

- [əti] ‘egg’
- [Še̱mɔŋ] ‘family’
- [yUŋwi] ‘forest’
- [lɪpaL] ‘niece / nephew’
- [maiŋa] ‘mustard oil’
- [vamŋai] ‘widow’
- [ətipaŋ] ‘egg yolk’
- [tʰehila] ‘youth’

- [jien] ‘dew’
- [koŋpə] ‘cold’
5.10.4 Tonemes:

Tones are phonemic in Phom. The three tones change the meanings of the words. The examples given below show that meaning changes for different tones:

<table>
<thead>
<tr>
<th>High Tone</th>
<th>Level Tone</th>
<th>Low Tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ɨ] ‘shield’</td>
<td>[ɨ] ‘blood’</td>
<td>[ɪ] ‘to speak again’</td>
</tr>
<tr>
<td>[e] ‘see’</td>
<td>[e] ‘to count’</td>
<td>[e] ‘read’</td>
</tr>
<tr>
<td>[ši] ‘pull’</td>
<td>[ši] ‘nine’</td>
<td>[ši] ‘saline spring’</td>
</tr>
<tr>
<td>[kɔŋhaŋ] ‘to vacate or empty’</td>
<td>[kɔŋhaŋ] ‘to peel off skin of the tree’</td>
<td>[kɔŋhaŋ] ‘boundary or demarcation’</td>
</tr>
<tr>
<td>[kάηhάη] 'asking someone to arrange job'</td>
<td>[kάηhάη] 'to act of heating'</td>
<td>[kάηhάη] 'to put the rope straight'</td>
</tr>
<tr>
<td>[pόηpα] 'mistake/error'</td>
<td>[pόηpα] 'commotion of things or words'</td>
<td>[pόηpα] 'to do things haphazardly'</td>
</tr>
<tr>
<td>[άηhάη] 'ransom'</td>
<td>[άηhάη] 'the act of giving birth'</td>
<td>[άηhάη] 'smashing or cracking things'</td>
</tr>
<tr>
<td>[νάη] 'rain'</td>
<td>[νάη] 'bone'</td>
<td>[νάη] 'cultivation'</td>
</tr>
<tr>
<td>[cάηpα] 'tip of bamboo / tree or last one'</td>
<td>[cάηpα] 'to fill the stomach'</td>
<td>[cάηpα] 'to respond'</td>
</tr>
<tr>
<td>[pάη] 'to clean dust'</td>
<td>[pάη] 'dormitory or listening'</td>
<td>[pάη] 'winter'</td>
</tr>
<tr>
<td>[tάη] 'walk on water'</td>
<td>[tάη] 'to cut something into pieces'</td>
<td>[tάη] 'century / age'</td>
</tr>
</tbody>
</table>

Table (xxiv)
5.11 Canonical Structure of Words:

There are twenty one canonical structures of words in Phom language.

[ə]  ‘dress’  v
[ɔŋ]  ‘king’  vc
[Sɔ]  ‘skin’  cv
[ɔt̚i]  ‘egg’  vcv
[p̚iŋ]  ‘flood’  ece
[γan̚o]  ‘comet’  cvcv
[ɔlUm]  ‘flame’  vce
[am̚ama]  ‘breast’  vcev
[kn̚apa]  ‘cold’  cvcev
[Šiyog̚]  ‘hail’  cvcev
[khaip̚u]  ‘embrace’  cvcev
[lip̚al]  ‘niece / nephew’  cvcev
[meiŠan̚]  ‘monkey’  cvcevce
[ɔtip̚aŋ]  ‘egg yolk’  vcevce
[Šlmmei]  ‘rich’  cvcev
[haší’ha]  ‘orphan’  cvcevcev
<table>
<thead>
<tr>
<th>Syllabification</th>
<th>Description</th>
<th>Example 1</th>
<th>Example 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>[tʰihila]</td>
<td>youth</td>
<td></td>
<td>evveev</td>
</tr>
<tr>
<td>[nəmtok]</td>
<td>camel hump</td>
<td></td>
<td>evveve</td>
</tr>
<tr>
<td>[kaʔʃaŋla]</td>
<td>foot hills</td>
<td></td>
<td>ecevee</td>
</tr>
<tr>
<td>[ȘavanŞon]</td>
<td>jaw</td>
<td></td>
<td>ecevee</td>
</tr>
<tr>
<td>[hampatvan]</td>
<td>rib</td>
<td></td>
<td>eceveve</td>
</tr>
</tbody>
</table>
5.12 Syllabic Structure in Phom:

Syllables are those segments of speech that contain peak of sonority. In Phom, syllables consist of a nucleus with or without an onset and with or without a coda. In the structure of CVC, the first consonant is called an onset and the second consonant after the vowel is called a coda. The nucleus or peak is always a vowel. The vowel ending syllables are open syllables and consonant ending syllables are closed syllables. In Phom, the words are mostly mono-syllabic, but bi-syllabic and tri-syllabic words are also present. Tetra syllabic words are present but are very few in numbers. The syllable boundary is shown by the symbol ‘&’.

5.12.1 Monosyllabic words:

[ə] ‘dress’
[i] ‘blood’
[ai] ‘boat’
[ɔŋ] ‘king’
[Šɔ] ‘skin’
[pⁱŋ] ‘flood’
[ŋai] ‘I’
5.12.2 Bi-syllabic words:

[əti] ‘egg’ \[c\ v\ c\]

[ŋən] ‘comet’ \[c\ v\ c\ &\ v\]

[ ámb] ‘flame’ \[v\ &\ c\ v\ c\]

[amma] ‘breast’ \[v\ c\ &\ c\ v\]

[kopə] ‘cold’ \[c\ v\ c\ &\ c\ v\]

[ mən] ‘mustard oil’ \[c\ v\ v\ &\ c\ v\]

[yəmək] ‘current’ \[c\ v\ c\ &\ c\ v\ c\]

[Šlmm] ‘rich’ \[c\ v\ c\ &\ c\ v\ v\]

5.12.3 Tri- Syllabic Words:

[haŠi'ha] ‘orphan’ \[c\ v\ &\ c\ v\ c\ &\ c\ v\]

[ŠoSeppə] ‘narrow’ \[c\ v\ &\ c\ v\ c\ &\ c\ v\]

[kaŠən] ‘foot hills’ \[c\ v\ c\ &c\ v\ c\ & c\ v\]

[ŠavanŠn] ‘jaw’ \[c\ v\ &c\ v\ c\ & c\ v\ c\]

[hampatvan] ‘rib’ \[c\ v\ c\ &c\ v\ c\ & c\ v\ c\]

[tʰ'hila] ‘youth’ \[c\ v\ &c\ v\ & c\ v\]
5.12.4 Tetra-Syllabic Words:

[ihUma^e'] ‘onion’ \[v & c v e & c v c\]
[ọnaSaŋSaŋ] ‘firefly’ \[v & c v e c v c v c\]
[ọtilolak] ‘tomato’ \[v&cv&evcevc\]
[ ساعةپار] ‘grape’ \[c v & c v c & e v & c v v\]

Penta and hexa syllabic words could be found only in numerals. In the structures of these types, consonants clusters and geminates can be found.

5.12.5 Penta Syllabic words:

[hapaAnpmhi] ‘thirty one’ \[c v & c v v & c e v & c v c\]
[hapaAnpmjii] ‘thirty two’ \[c v & c v v & c v & e v\]
[hapaAnpuirja] ‘thirty five’ \[c v & c v v & c e v & c v\]

5.12.6 Hexa Syllabic words:

[puialipuiAnpujhik] ‘ninety one’ \[c v & c v e v v c e v & c v c\]
[puialipuiAnpiuSm] ‘ninety nine’ \[c v & c v e v v c e v & c v & c v\]
[hapaAnpwa] ‘thirty four’ \[c v & c v v & c v & c v v & c v\]
5.13 Morphophonemic:

Morphophonemic changes are those changes in the shape of a morpheme which appear because of the change in the phoneme (see 6.1.3: type 2, 6.3.3, 6.6.2). There are a few morphophonemic alternations in Phom language. One can observe the process of change when the other morpheme joins and changes are also noticeable because of the replacement of the phonemes.

(i) There is a replacement of |ə| by |ai| while deriving to nouns from verbs.

<table>
<thead>
<tr>
<th>ə</th>
<th>ai</th>
</tr>
</thead>
<tbody>
<tr>
<td>ṭoŋə ‘touch’</td>
<td>ṭoŋpai ‘touching’</td>
</tr>
<tr>
<td>pʰeppə ‘to ask’</td>
<td>pʰepai ‘asking’</td>
</tr>
<tr>
<td>pampə ‘love’</td>
<td>pampai ‘loving’</td>
</tr>
<tr>
<td>cipə ‘suck’</td>
<td>cipai ‘sucking’</td>
</tr>
<tr>
<td>epə ‘count’</td>
<td>epai ‘counting’</td>
</tr>
<tr>
<td>oŋpə ‘climb’</td>
<td>oŋpai ‘climbing’</td>
</tr>
</tbody>
</table>

(ii) In forming agentive nouns from verbs, the infinitive marker |ə| is replaced by |-w| or |-Am| is added to the verbs.

<table>
<thead>
<tr>
<th>ə</th>
<th>-w</th>
<th>-Am</th>
</tr>
</thead>
<tbody>
<tr>
<td>ṭəpə ‘to play’</td>
<td>ṭəpəw / ṭəpəAm ‘player’</td>
<td></td>
</tr>
<tr>
<td>ləkə ‘to sing’</td>
<td>ləkəw / ləkəAm ‘singer’</td>
<td></td>
</tr>
<tr>
<td>oŋpə ‘to climb’</td>
<td>oŋpəw / oŋpəAm ‘climber’</td>
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</table>
(iii) In the formation of adverbs from adjectives, the last syllable is replaced by \(-\text{Si}\):

- \(\text{Inpa} \quad \text{'soft'}\) \(\rightarrow \text{InSi} \quad \text{‘softly’}\)
- \(\text{Suša} \quad \text{‘wise’}\) \(\rightarrow \text{Suši} \quad \text{‘wisely’}\)
- \(\text{kUnko'pə} \quad \text{‘clever’}\) \(\rightarrow \text{kUnko'Si} \quad \text{‘cleverly’}\)
- \(\text{Saŋk'əpə} \quad \text{‘light/not heavy’}\) \(\rightarrow \text{Saŋk'aSi} \quad \text{‘lightly’}\)

(iv) In the formation of imperatives: \(-\text{pə}\) is replaced by \(-\text{tu?}\):

- \(\text{taipə} \quad \text{‘to go’}\) \(\rightarrow \text{tai tu'?} \quad \text{‘Go’}\)
- \(\text{Su'pə} \quad \text{‘to give’}\) \(\rightarrow \text{Su'? tu'?} \quad \text{‘Give’}\)
- \(\text{ŋəpə} \quad \text{‘to play’}\) \(\rightarrow \text{ŋətu'?} \quad \text{‘Play’}\)
- \(\text{ləkə} \quad \text{‘to sing’}\) \(\rightarrow \text{ləktu'?} \quad \text{‘Sing’}\)

(v) In the formation of possessive pronouns \(-\text{lei} \quad \text{and} \quad -\text{ai}\) (genitive markers) are added to the pronouns and also to nouns to show possessiveness. \(-\text{lei}\) is added to the words that end in vowels and \(-\text{ai}\) is added to the words that end in consonants.

---

\(^{2}\) Capital letters in glossings are used for the imperative verbs.
niŋ 'you'  niŋai 'yours'  
clnpʰŋ 'we'  clnpʰŋai 'ours'  
opœ 'father'  opalei 'fathers'  
pəpœ 'he'  pəpalei 'his'  

(vi) The phoneme I's, which indicates the recent past, replaces the infinitive marker [-pə] and also glottal stops preceding it to show recent past.

\[\text{Su}'pœ \quad \text{to give} \quad \text{Šu}' \quad \text{gave} \]

epœ 'to read'  e² 'read'  

ŋəpœ 'to play'  ŋə² 'played'  

cipœ 'to suck'  ci² 'sucked'  

(vii)  
\[\text{pœ and h} \quad \rightarrow \quad \text{pʰ} \]

\[\text{- p œ} \quad \rightarrow \quad \text{- p} \]

\[\text{-p + h -} \quad \rightarrow \quad \text{pʰ} \]

hupa 'to show'  

hən 'will(FUT)' \quad \rightarrow \quad \text{hupʰən 'will show'}  

Šu'pœ 'to give'
han 'will(FUT)'
\[\rightarrow\] \ su^p_{han} 'will give'

oŋp̂̃ 'to climb'

han 'will(FUT)'
\[\rightarrow\] \ oŋp_{han} 'will climb'

ŋəp̂ 'to play'

han 'will(FUT)'
\[\rightarrow\] \ ŋəp_{han} 'will play'
5.14 **Phonological rules and processes:**

There are four phonological rules and three processes in the language. The features that are used to describe the sounds: vowels and consonants in distinctive features are used in phonological rules and processes to show the features of consonant and vowels (cf. 5.10.6, 5.10.7). They are discussed in this section. The different types of rules are:

1. Vowel lowering
2. Vowel backening
3. Vowel un-rounding
4. Apocope
5. A rule that involves the consonant

The different types of processes involved are:

1. Vowel harmony
2. Assimilation
3. Coalescence.

(i) \[ u \rightarrow U/\cancel{C} \]

\[ +\text{nasal} \]
\[ \circ \text{ant} \]
\[ \beta \text{cor} \]

A high back rounded vowel [u] changes to a lowered high back rounded vowel [U] when the following consonant is a nasal, velar or an alveolar.
tUŋ ‘room’
yanUŋ ‘night’
ɔlUm ‘flame’
ŠUkyaŋ ‘tortoise’

(ii)  
\[
\begin{array}{c}
\text{i} \\
\rightarrow \\
\text{I} / \ \ - C \\
\end{array}
\]

\[+\text{nasal}\]
\[\alpha \text{ anterior}\]
\[\beta \text{ coronal}\]

A front high unrounded vowel [i] changes to a lowered front high unrounded vowel [I] when the following consonant is a nasal, velar or an alveolar.

[ŋIn] ‘silver’
[laitIn] ‘disease’
[elŋmei] ‘peace’
[oŠIt] ‘smoke’

(iii)  
\[
\begin{array}{c}
\text{i} \\
\rightarrow \\
\text{u} / \ \n - \ \text{and} - \ # \\
\end{array}
\]

\[C\]
\[+\text{consonantal}\]
\[+ \text{nasal}\]
\[+ \text{sonorant}\]
\[+ \text{voiced}\]

A central high unrounded vowel [i] changes to a back high unrounded vowel [u] when the following consonant is a palatal nasal and at word boundary.
A high back rounded vowel [u] changes to a back lower mid rounded vowel [o] when the preceding vowel is a back lower mid rounded vowel [o].

The process involved here is assimilation, where the one vowel assimilates the other vowel. The other process is vowel harmony which is suffix-based. A high back rounded vowel /u/ changes to a lower-mid rounded vowel /o/ where /o/ is following /u/, then when /u/ changes to /o/, the preceding /u/ also changes to /o/.
A low back unrounded vowel [a] is devoiced when the preceding consonant is a voiceless palatal stop.

A velar fricative changes to velar nasal when the following consonant is a velar nasal.

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Note: The symbol for de-voicing is used after consultation with Prof. Peri Bhaskarrao.

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3 Note: The symbol for de-voicing is used after consultation with Prof. Peri Bhaskarrao.
man `corpse`

yan `bone` → manyan `skeleton`

šan `head`

yan `bone` → šanjan `skull`

(vii) pa → p^h⁻h

hupa `to show`

han `will(FUT)` → hup^han `will show`

šu'pa `to give`

han `will(FUT)` → šu'p^han `will give`

The process apocope is applied to delete final unstressed vowel schwa [ə] and then there is the process of coalescence, where two consonants merge into one i.e. p and h change into p^h. There is also the process of assimilation because of the following h, p changes to p^h.