CHAPTER: V
USE OF SCRIPT AND PROCESS OF SCRIPT GRAMMAR IN BODO LANGUAGE

5.1 Uses and applications of Bodo script

To write down the phonemes used by a particular language some letters are used which is called script and this may be of different types. Devanāgarī script is continuing to use to write Bodo language from 1975 to present days. So, this script is represented as Bodo script. In this chapter analysis is made from Structural perspectives of scripts in synchronic manner with the basic rules of Script grammar.

5.1.1 Bodo phonemes and its scripts

In Bodo there are six vowel phonemes i.e. / i, *ɯ*, u, e, o, a / and Sixteen consonant phonemes i.e. / p^h, b, t^h, d, k^h, g, m, n, ŋ, s, z, h, r, l, w, y / of Segmental features. Devanāgarī script is being used to write these 22 phonemes.

5.1.1.1 Vowel phonemes and its scripts

Representation of / i, *ɯ*, u, e, o, a / vowel phonemes in Devanāgarī script is presented in tabular form as follows:

Vowel Phonemes in IPA	Devanāgarī script of Vowel
/i/	इ
/*ɯ*/	ओ
/u/	उ
/e/	ए
/o/	अ
/a/	आ

Figure: 5.1

Except of these six pure vowel phonemes another two vowel phonemes ऐ /ɯi/ and औ /ɯu/ the combinations of two syllabic phonemes in a single syllable i.e. form of diphthongs are used. ऐ phoneme is articulated with the combination of ओ + इ two syllabic phonemes in a single impulse. औ phoneme is also articulated with the combination of ओ + उ two syllabic phonemes in a single impulse. It is observed that in Bodo language primary form of ऐ phoneme is not used in a word but its mātrā ै is used in the medial and final position of a word. On the other hand, primary form of औ phoneme is used only in the initial position of a word and its mātrā ौ is used in the medial and final position of a word.

5.1.1.2 Consonant phonemes and its scripts

Representation of / pʰ, b, tʰ, d, kʰ, g, m, n, ŋ, s, z, h, r, l, w, y / consonant phonemes in Devanāgarī script is presented in tabular form as follows:

Consonant Phonemes in IPA	Devanāgarī script of Consonant
/pʰ/	फ
/b/	ब
/tʰ/	थ
/d/	द
/kʰ/	ख
/g/	ग
/m/	म
/n/	न
/ŋ/	ङ
/s/	स
/z/	ज
/h/	ह
/r/	र
/l/	ल

/w/	व
/y/	य

Figure: 5.2

5.1.1.3 Uses of Semi-vowels

व /w/ and य /y/ are designate of Semi vowels of Segmental features and using its script has some specific manner in Bodo language. Except initial position both the consonants are used middle and final position of a word. If a word is open syllable, that means end with the vowel phonemes i.e. **इ, ए, आ, ऐ** and added '**–आ**' suffix with them then due to gliding condition **य** consonant phoneme is occur as semi-vowel and mātrā ○ा of **आ** vowel is used. For example:

इ : अन्थाइ + आ = अन्थाया /ontʰai + a = ontʰaya/ 'rock is'

खन्थाइ + आ = खन्थाया /kʰontʰai + a = kʰontʰaya/ 'poem is'

माइ + आ = माया /mai + a = maya/ 'paddy is'

थुनलाइ + आ = थुनलाया /tʰunlai + a = tʰunlaya/ 'literature is'

ए : बबे + आ = बबेया /bobe + a = bobeya/ 'which one'

बेजे + आ = बेजेया /beze + a = bezeya/ 'knotty is'

बेरे + आ = बेरेया /bere + a = bereya/ 'bee is'

नाब्ले + आ = नाब्लेया /nable + a nableya/ 'a woman with flat nose is'

आ : आदा + आ = आदाया /ada + a = adaya/ 'elder brother is'

खुगा + आ = खुगाया /kʰuga+ a = kʰugaya/ 'mouth is'

गुमा + आ = गुमाया /guma + a = gumaya/ 'grasshopper is'

दाउखा + आ = दाउखाया / daukʰa + a = daukʰaya/ 'crow is'

ऐ : दाउदै + आ = दाउदैया /daudɰi + a = daudɰiya/ 'egg is'

फाथै + आ = फाथैया /pʰatʰɰi + a = pʰatʰɰiya/ 'betel leaf is'

मै + आ = मैया /mɰi + a = mɰiya/ 'deer is'

जामफै + आ = जामफैया /zampʰ*ɯ*i + a = zampʰ*ɯ*iya/ 'canal is'

If a word is open syllable with **उ, अ, औ** and added **'−आ',** suffix with them then due to gliding condition **व** consonant phoneme is occur as semi-vowel and mātrā ○ा of **आ** vowel is used. For example:

उ : आगजु + आ = आगजुवा /agzu + a = agzuwa/ 'implement is'

एमबु + आ = एमबुवा /embu + a = embuwa/ 'frog is'

दैहु + आ = दैहुवा /d*ɯ*ihu + a = d*ɯ*ihuwa/ 'pitcher is'

बानलु + आ = बानलुवा /banlu + a = banluwa/ 'chilly is'

अ : खफ ॔ + आ = खफ ॔वा /kʰopʰo + a = kʰopʰowa/ 'vapour is'

गथ ॔ + आ = गथ ॔वा /gotʰo + a = gotʰowa/ 'child is'

न ॔ + आ = न ॔वा /no + a = nowa/ 'house is'

बनथ ॔ + आ = बनथ ॔वा /bontʰo + a = bontʰowa/ 'a log is'

औ : आबौ + आ = आबौवा /ab*ɯ*u + a = ab*ɯ*uwa/ 'grandfather is'

एमफौ + आ = एमफौवा /empʰ*ɯ*u + a = empʰ*ɯ*uwa/ 'insect is'

थाइजौ + आ = थाइजौवा /tʰaiz*ɯ*u + a = tʰaiz*ɯ*uwa/ 'mango is'

सिजौ + आ= सिजौवा /siz*ɯ*u + a = siz*ɯ*uwa/ 'cactus is'

5.1.1.4 Changes of the script due to glide

Due to glide **इ, ए, आ** and **ऐ** vowels are replace with **य** Semi vowel in some conditions i.e. if **'−आ'** suffix is added after a open syllable word, that means a word end with the **इ, ए, आ, ऐ** vowels then due to gliding condition **य** consonant is occur as semi-vowel and mātrā ○ा of **आ** vowel is used. Examples are same as presented above in the **Uses of Semi-vowels**.

In the same manner, **उ, अ** and **औ** vowels are replace with **व** Semi vowel in some conditions i.e. if **'−आ'** suffix is added after a open syllable word, that means a word

end with the **उ, अ, औ** vowels then due to gliding condition **व** consonant is occur as semi-vowel and mātrā ○ा of **आ** vowel is used. Examples are the same as presented above in the **Uses of Semi-vowels**.

5.1.1.5 Script used for loan words

As men are a social animal borrowing is a natural practice among them. Lone word is nothing but a word which is used through borrowing from some other languages. Through the acceptability of its speakers loan words assimilated into one language to another language. Following are the list of some borrowing loan words from other neighboring languages in Bodo language and literature. These are occurs conveniently in day-to-day oral communication as well as written communication.

i.   **Lone words from Sanskrit language**

Sanskrit origin	**Bodo**	**Glosses**
आसन /āsana/	आसन /ason/	'seat'
आश्रम /āśrama/	आश्रम /asrom/	'hermitage or monastery'
माया /māyā/	माया /maya/	'maya'
लक्ष्मी /lakṣmī/	लक्षी /lokk^{h}i/	'goddess of wealth'
वुद्धि: /buddhih/	बुद्दि /buddi/	'knowledge'
जाति: /jātih/	जाति /zati/	'caste'

From the above examples of borrowing words from Sanskrit language, it is observed that ○ी mātrā of **ई** vowel and **श्र**, **क्ष**, **त** consonants are not available as well as not articulated in Bodo language but these are used in writing the loan words. It is also observed and to be stated that during the time of articulation, ○ी mātrā of long **ई** is articulated as ○ि mātrā of short **इ**, **श्र** as **स**, **क्ष** as **ख** and **त** as **थ** correspondingly in Bodo language.

ii.   **Lone words from Assamese language**

Assamese origin	Bodo	Glosses
বেমাৰ /bemar/	बेराम /beram/	'disease'
জন্ম /zonmo/	जोनोम /zu*n*u*m/	'birth'
বছৰ /bosor/	बोसोर /b*us*u*r/	'year'
ধাৰ /dʰar/	दाहार /dahar/	'loan'
সত্য /sotyo/	सैथो /s*u*itʰ*u*/	'true'
ভুত /bʰut/	बुहुत /buhut/	'ghost'

From the above examples of borrowing words from Assamese, it is observed that त consonant is not occur and not articulated in Bodo language but it is used in writing the loan words. Coveniently त is articulated as थ in this language.

iii.   **Lone words from Bengali language**

Bengali origin	Bodo	Glosses
পায়েল /payel/	पायेल /payel/	'toe ring'
নিমকী /nimki/	निमकी /nimki/	'sweet meat'
রসোগোল্লা /rosogolla/	रस ̇ग ̇ल्ला /rosogolla/	'sweet meat'
বোবা /boba/	ब ̇बा /boba/	'dumb'
মুড়ি /muri/	मुरि /muri/	'puffed rice'
বানান /banan/	बानान /banan/	'spelling'

From the above examples of borrowing words from Bengali language, it is observed that ◌ী mātrā of ई vowel as well as प, क consonants are not available as well as not articulated in Bodo language but these are used in writing the loan words. These are articulated conveniently for mode of articulation ◌ী mātrā of long ई is articulated as ि◌ mātrā of short इ, प as फ and क as ख in Bodo language.

iv.   **Lone words from English language**

English origin	Bodo	Glosses
Office /office/	अपिस /opis/	'office'
Cup /cup/	काप /kap/	'cup'
School /school/	इसकुल /iskul/	'school'
Glass /glass/	ग्लास /glass/	'glass'
Plastic /plastic/	प्लासतिक /plastik/	'plastic'
Police /police/	पुलिस /pulis/	'police'

Here, in these examples of borrowing words from English language, it is observed that प, क, त consonants are not occurs or not articulated in Bodo language but these are used in writing the loan words. For mode of articulation these are articulated as their articulated consonants, like प as फ, क as ख and त as थ.

v.   **Lone words from Japanese language**

Japanese origin	Bodo	Glosses
C^{h}a /c^{h}a/	चा /sa/	'tea'
Tsunami /tsunami/	चुनामि /sunami/	'tsunami'
Rikisha /rikisha/	रिकसा /riksa/	'Rickshaw'

Here, in these examples of borrowing words from Japanese language, it is observed that च, क are the consonants which are not articulated or not occurs in Bodo language but these are used in writing the loan words. च is articulated as स and क is articulated as ख coveniently for manner of articulation.

vi. **Lone words from Chinese language**

Chinese origin	Bodo	Glosses
C^{h}ao.mein /C^{h}ao.mein/	चाउमिन /C^{h}aumin/	'Chaomienn'
Litchi /litc^{h}i/	लिसु~लेसु /Lisu~lesu/	'Litchi'

Here, in these examples of borrowing words from Chinese language, it is observed that च consonant is not occur as well as not articulated in Bodo language but it is used in writing the loan words. Coveniently च is articulated as स in Bodo language.

vii. **Lone words from Arabic language**

Arabic origin	Bodo	Glosses
khabar /k^{h}abar/	खबर /k^{h}obor/	'news'
khālī /k^{h}ālī/	खालि /k^{h}ali/	'empty'
tārīkh /tārīk^h/	तारिख /tarik^h/	'date'
naql /naql/	नकल /nokol/	'fake'
baqīy /baqīy/	बाकी /baki/	'remaining'
ilākah /ilākah/	एलेका /eleka/	'area'

From the examples of borrowing Arabic words from Arabic language, it is observed that ी mātrā of ई vowel and त, क consonants are not articulated in Bodo language but these are used in writing the loan words. It is also observed and to be stated that during the time of articulation, due to mode of articulation ी mātrā of long ई is articulated as ि mātrā of short इ, त as थ and क is articulated as ख correspondingly in Bodo language.

viii. **Lone words from Portuguese language**

Portuguese origin	Bodo	Glosses
chave /c^{h}ave/	चाबि /c^{h}abi/	'key'
fita /fita/	फिता /p^{h}ita/	'lace or ribbon'
varanda /varanda/	बारेनदा /barenda/	'verandah'

salada /salada/	सालाद /salad/	'salad'
couve /couve/	कपि /kopi/	'cabbage or cauliflower'
ananás /ananás/	आनारस /anaros/	'pineapple'

From the above examples of borrowing words from Portuguese language, it is observed that च, त, क, प consonants are not articulated in Bodo language but these are used in writing the loan words. Conveniently for the mode of articulation, च is articulated as स, त is articulated as थ, क is articulated as ख and प is articulated as फ.

ix. **Lone words from Persian language**

Persian origin	**Bodo**	**Glosses**
āynah /āynah/	आयना /ayna/	'mirror'
ārām /ārām/	आराम /aram/	'comfort'
garm /garm/	गरम /gorom/	'hot'
jāegāh /jāegāh/	जायगा /jayga/	'place'
pardah /pardah/	पर्दा /porda/	'curtain'
hindū /hindū/	हिन्दु /hindu/	'hindu'

Here, in these examples of borrowing words from Persian language, it is observed that प consonant is not available as well as not articulated in Bodo language but it is used during the time of writing loan words. For mode of articulation, प is articulated as फ in Bodo language.

From the overall examples of loanwords, it is clearly observed that scripts of vowels and consonants which are not articulated and used by this language are also used infrequently during the time of writing loanwords.

5.2 Systematic study of Bodo script with Script grammar

Script Grammar is the grammar about script. "*It refers to the behavior pattern of the writing system of a given language.*"[1] Swarna Prabha Chainary linguist of Bodo language has mentioned that "*Script grammar is a unique characteristic of Indian languages directly based on phonetics*."[2] Script grammar deals with the history of the script and language. It also deals with the rules ordering of the characters within the syllable, Description of the syllabic clusters, Collation order of the characters like lexical, dictionary sorting order, syllabic structure, statistical frequencies of vowels, consonants, clusters of a language.

India is a diverse country with four major language families i.e. Indo-Aryan, Tibeto-Burman, Dravidian and Munda. As stated by Census of India 2001, there are more than 6616 language in India and more than 20,000 dialects having been identified by SIL report. Among this languages and dialects a set of 22 scheduled languages have been identified as officially, educationally, as well as government levels. These languages are progressing in designing Script grammar. Bodo language is also one of them. As per as writing system of India is concerned, it is identified in two major families i.e. Brahmi based writing system, and Perso-Arabic based writing system.

Devanāgarī script is belongs to the Brahmi family. A large number of Indian languages used Devanāgarī script. Bodo language has suitably emended the Devanāgarī alphabet for their needs and requirements by adding or deleting characters. As for example ˒ mark is used to represent the Mātrā of short mid back rounded vowel अ /o/ in Bodo.

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[1] © GIST GROUP. C-DAC: Script Grammar: A Manual, p. 3.
[2] Chainary, Swarna Prabha: Language technology and Boro language (research paper), Research Journal of the Department of Bodo, 2016, p. 8.

The classification of Brahmi family in '*Nagari Sangam*' (92 issue, 2001), mouthpiece of *Nagari Lipi Parishadas* relevant to the Devanāgarī script is presented in chart as follows:
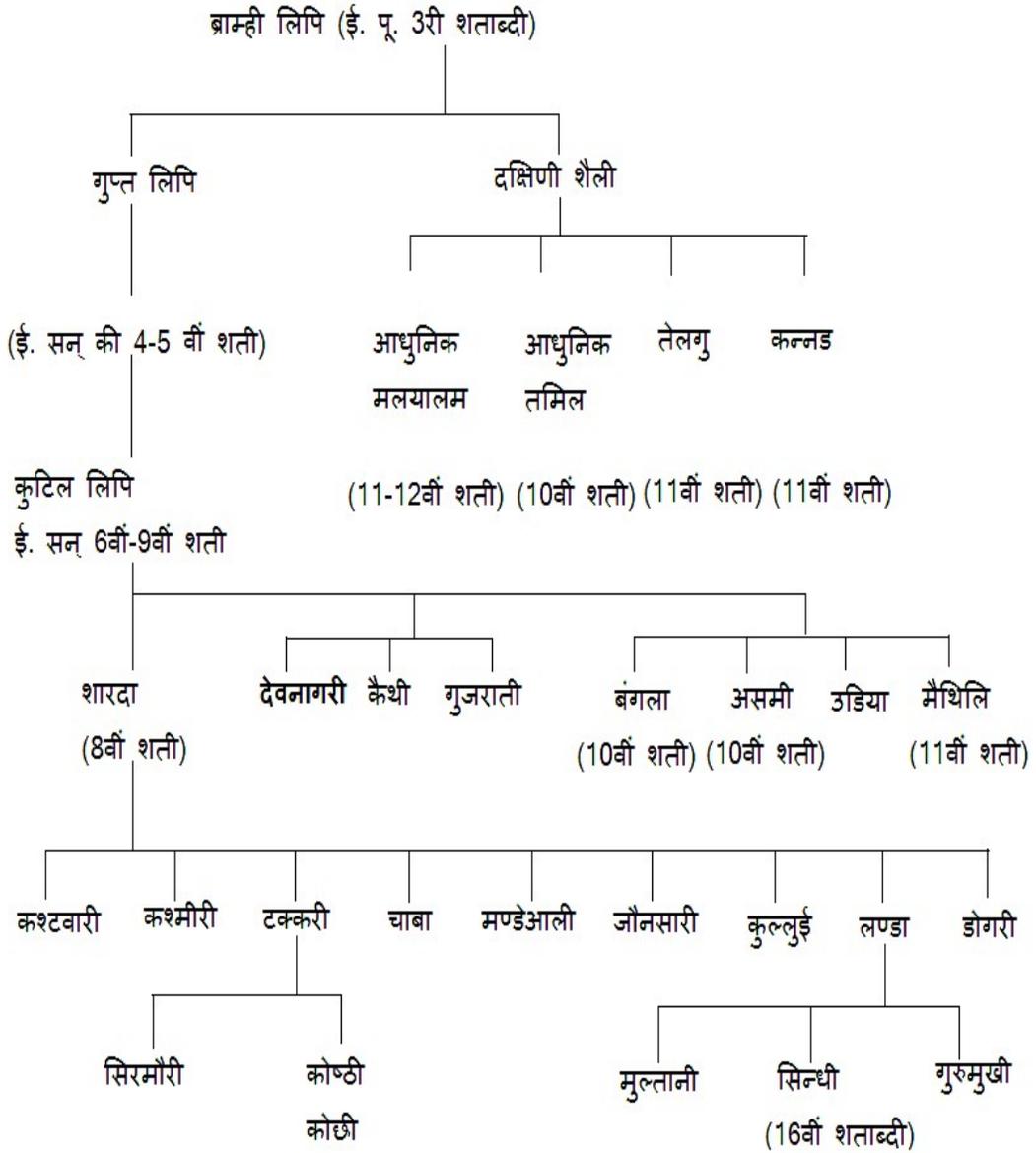
Figure: 5.3

(Extracted from '*Nagari Sangam*', Page No. 29)

5.2.1 Syllable structure in Script grammar

In Script grammar syllable structure means uses of vowels and consonants as vowel syllables and consonant syllables.

Vowel syllable is of two types:

  i.   Pure vowels.

        Examples of Pure vowels: **अ, आ, इ, ई** etc.

  ii.   A vowel followed by a modifier. Modifier may be Chandrabindu/ Anunasika ◌ँ, Anuswar ◌ं or a Visarga ◌ः

        Examples of vowel followed by modifiers: **अँ,आं , इः** etc.

Consonant syllable is of five types:

  i.   A full consonant having an inherent vowel.

        As for examples: in Devanāgarī **ग**/ga/, **द**/da/, **न**/na/, **ब**/ba/ etc.

                          : in Bodo **ग**/go/, **द**/do/, **न**/no/, **ब**/bo/ etc.

  ii.   A consonant followed by a mātrā i.e. the inherent vowel substituted by another vowel.

        As for examples: **का**/ka/, **गि**/gi/, **जो**/z*ɯ*/, **जौ**/z*ɯ*u/ etc.

  iii. A consonant followed by a modifier

        As for examples: **कः**/kaH/ etc.

  iv.   A consonant followed by a mātrā and a modifier

        As for examples: **गुं**/gũ/, **हुः**/huH/ etc.

  v.   A consonant cluster

        As for examples: **क्क**/kka/, **क्खा**/kkʰā/, **त्दं**/tdã/ etc.

5.2.2 Main domains in Script Grammar

There are some main domains which are discussed in Script Grammar of a language.

Bodo Script Grammar is also consists following three main domains:

  i.   Basic symbols

  ii. Mātrā combination and

  iii. Cluster

5.2.2.1 Basic symbols

Basic symbol contains

1. Consonant set

2. Vowel set

3. Mātrā

4. Diacritics

5. Allographs

6. Punctuation markers

7. Numerals/ Digits

5.2.2.1.1 Consonant set

In Script Grammar, consonant set included both valid and invalid all types of consonants. Valid consonant means consonants which are articulated as well as occur in original Bodo words and invalid consonant means consonants which are occurs during the time of writing loan words.

Consonant set is presented in tabular chart as follows:

क	ख	ग	घ	ङ
च	छ	ज	झ	ञ
ट	ठ	ड	ढ	ण
त	थ	द	ध	न
प	फ	ब	भ	म
य	र	ल	व	
श	ष	स	ह	

Figure: 5.4

From the tabular chart of Consonant set it is observed that sixteen consonant, i.e. **ख, ग, ङ, ज, थ, द, न, फ, ब, म, य, र, ल, व, स, ह** are valid consonants and seventeen consonant, i.e. **क, घ, च, छ, झ, ञ, ट, ठ, ड, ढ, ण, त, ध, प, भ, श, ष** are invalid consonants in Bodo language. Invalid consonants are used to write loan words.

5.2.2.1.2 Vowel set

There are total 11 vowels in Devanāgarī script. In Script Grammar, vowel set means both valid and invalid all types of vowels. This means vowels used to write original Bodo words as well as loan words.

Vowel set is presented in tabular chart as follows:

अ	आ	इ	ई
उ	ऊ	ऋ	
ए	ऐ	ओ	औ

Figure: 5.5

From the above tabular chart it is observed that **अ, आ, इ, उ, ए, ओ** six pure vowels and the form of diphthong vowels **ऐ, औ** are valid and **ई, ऊ, ऋ** three vowels are invalid vowels in Bodo language. Invalid vowels are used to write loan words.

5.2.2.1.3 Mātrā

Each vowel has its secondary form which is used with combining consonant. This secondary form is known as mātrā. The articulation of vowel and its mātrā are same but shapes are different. In Bodo valid vowel mātrās are always occurs in medial and final position of a word in cluster form. Invalid vowel mātrās are used to write loan words. Examples are presented in tabular chart as follows:

i. **Valid vowel Mātrās**

Vowels in IPA	Vowels in Devanāgarī script	Mātrā
/i/	इ	ि
/ɯ/	ओ	ो
/u/	उ	ु
/e/	ए	े
/o/	अ	'
/a/	आ	ा

Figure: 5.6

ii. Valid Diphthong Mātrās

Diphthong Vowels in IPA	Vowels in Devanāgarī script	Matra
/ɯi/	ऐ	◌ৈ
/ɯu/	औ	◌ौ

Figure: 5.7

iii. Invalid vowel Mātrās

Vowels in IPA	Vowels in Devanāgarī script	Matra
/i/	ई	◌ी
/u/	ऊ	◌ূ
/ri/	ऋ	◌ृ

Figure: 5.8

5.2.2.1.3.1 Description and distribution of Valid Vowel Mātrās

Valid Vowel mātrās of Bodo language is occur only in the medial and final position of a word. They never occur in the initial position of a word.

◌ि /i/ : Mātrā of short high front un-rounded vowel, occur in the medial and final position of a word. For example:

Initial	Medial	Final
__	गिलिर /gilir/ 'heavy'	आइनासि /ainasi/ 'offensive smelling'
__	खुन्थिया /kʰuntʰia/ 'post'	जानजि /zanzi/ 'waist'
__	दिङा /diŋa/ 'boat'	दावबायारि /dawbayari/ 'traveller'
__	बिजाब /bizab/ 'book'	फालांगि / pʰalaŋgi/ 'business'

◌ी /ɯ/ : Mātrā of short high back un-rounded vowel, occur in the medial and final position of a word. For example:

Initial	Medial	Final
__	जोमै /zumɯi/ 'cloud'	सोमोन्दो /sumɯndɯ/ 'relation'
__	फोलेर /pʰɯler/ 'descendent'	हांखो /haŋkʰɯ/ 'script'

—	आगोमा /aguma/ 'one's own'	गांसो /gaŋsɯ/ 'grass'
—	मोसा /mɯsa/ 'to dance'	मैसो /mɯisɯ/ 'buffalo'

ॖ **/u/** : Mātrā of short high back rounded vowel , occur in the medial and final position of a word. For example:

Initial	Medial	Final
—	सुजुगिरि /suzugiri/ 'editor'	हारिमु /harimu/ 'culture'
—	उखुम /uk^hum/ 'roof of a house'	एमबु /embu/ 'frog'
—	इयुन /iyun/ 'future'	खाबु /k^habu/ 'chance, trick'
—	गुमा /guma/ 'grasshopper'	हान्थु /hant^hu/ 'knee'

ॕ **/e/** : Mātrā of short mid front un-rounded vowel, occur in the medial and final position of a word. For example:

Initial	Medial	Final
—	मेजेम /mezem/ 'fat'	लेफे /lep^he/ 'flabby, soft'
—	हायेन /hayen/ 'plain area'	थुंगे /t^huŋge/ 'to end'
—	हेफाजाब /hep^hazab/ 'co-operation'	थौले /t^hɯule/ 'shallow'
—	जोबथेसालि /zɯbt^hesali/ 'prison'	खौसे /k^hɯuse/ 'unity'

' **/o/** : In Bodo language **'** mark is used to represent the mātrā of short mid back rounded vowel. It is occur in the medial and final position of a word. For example:

Initial	Medial	Final
—	सलʼबाथा /solobat^ha/ 'fable'	एरखʼ /erk^ho/ 'to pick out'
—	आरʼज /aroz/ 'prayer'	बरʼ /boro/ 'the Boros'
—	खरʼसा /k^horosa/ 'head of bed'	खफʼ /k^hop^ho/ 'vapour'
—	आसʼखान्दा /asok^handa/ 'incomplete'	सामʼ /samo/ 'snail'

○ा /a/ : Mātrā of short low central un-rounded vowel, used in the medial and final position of a word. For example:

Initial	Medial	Final
__	खान्थि /kʰantʰi/ 'rule, custom'	जिउमा /ziuma/ 'soul'
__	सालाइ /salai/ 'tongue'	अमा /oma/ 'pig'
__	थांखि /tʰaŋkʰi/ 'aim'	सिख्ला /sikʰla/ 'young girl'
__	गामि /gami/ 'village'	फिरफिला /pʰirpʰila/ 'flag'

5.2.2.1.3.2 Description and distribution of Valid Diphthong Mātrās

There are two diphthongs used in Bodo language and its Mātrās always occur only the position of medial and final of the word.

○ॅ /ɯi/: long, used in the medial and final position of a word. For example:

Initial	Medial	Final
__	गैया /gɯiya/ 'nil, absent'	आबै /abɯi/ 'grandmother'
__	दैहु /dɯihu/ 'pitcher'	बेरेमोदै /beremɯdɯi/ 'honey'
__	सैमा /sɯima/ 'dog'	मोदै /mɯdɯi/ 'tears'
__	मैया /mɯiya/ 'yesterday'	जोमै /zɯmɯi/ 'cloud'

○ौ /ɯu/: long, used in the medial and final position of a word. For example:

Initial	Medial	Final
__	खौरां /kʰɯuraŋ/ 'news'	सानथौ /santʰɯu/ 'philosophy'
__	गौथुम /gɯutʰum/ 'public gathering'	बाथौ /batʰɯu/ 'traditional religion of Bodos'
__	खौमोन /kʰɯumɯn/ 'oral arithmetic'	एमफौ /empʰɯu/ 'worm, insect'
__	सानजौफु /sanzɯupʰu/ 'noon, midday'	आबौ /abɯu/ 'grandfather'

5.2.2.1.3.3 Active or Displaced Catenator

The mātrā which is placed to the left of the consonant with which it concatenates is Active or Displaced Catenator. Generally in Brahmi based scripts Vowel mātrās also known as catenators are written in linear order from left to right. It is observed that in

Bodo script grammar one mātrā is placed to the left of the consonant i.e. िं mātrā of इ vowel. Including Bodo language िं Active or Displaced Catenator is found in all Devanāgarī script driven languages. Occurrences of िं Active or Displaced Catenator is presented in the following tabular chart:

Catenator	Position	Example
िं	left of the consonant	फि बि थि खि गि मिetc.

Figure: 5.9

5.2.2.1.4 Diacritics

In Script grammar diacritic is also one of the most inseparable parts of discussion. In Oxford Advanced Learner's Dictionary diacritic is put in plain words as"*a mark such as an accent, placed over, under or through a letter in some languages, to show that the letter should be pronounced in a different way from the same letter without a mark.*"[3] Diacritic is of four type's i.e.

   i.   Anuswar ं

   ii. Chandrabindu/Anunasika ँ

   iii. Visarga ः

   iv. Halanta ्

In Bodo Script grammar these four types of diacritics are used in basic or loan words. But Anuswar ं and Halanta ् are commonly used in this language as a valid diacritic. Chandrabindu/Anunasika ँ and Visarga ः invalid diacritic are used to write loan words in Bodo language.

5.2.2.1.4.1 Description and distribution of Diacritics Anuswar ं

Anuswar ं is a Diacritic mark of consonant ङ /ŋ/. Primary form of consonant ङ occurs independently in the word when it is cluster with िं mātrā. For example:

ङ + िं = बिङि (one-stringed musical instrument)

ङ + िं = राङि (the fourth string of the Serja, musical instrument).

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[3] © Oxford University Press: Oxford Advanced Learner's Dictionary (New 8th Edition), 2010, p. 417.

On the other hand, if ङ is occur with other clusters of the word then in place of ङ its ◌̇ Diacritic mark is occur and if the −आ suffix is added with ◌̇ Diacritic mark then its primary form ङ is occur. Such as:

◌̇ + आ : गन्थं+आ= गन्थङा (nose is)

◌̇ + आ : मोखां+आ= मोखाङा (face is) etc.

Primary form ङ is occurring only in the medial position of the word. It has no occurrences in initial and final position of the word. On the other hand, Diacritic mark ◌̇ occur only two position of the word i.e. Medial and Final. It has no occurrences in the initial position of the word. An occurrence of Diacritic mark ◌̇ is given below with examples:

Initial	Medial	Final
__	नालेंखर /naleŋkʰor/ 'coconut'	सिफुं /sipʰuŋ/ 'a bamboo flute'
__	फालांगि /pʰalaŋgi/ 'business'	हायजें /hayzeŋ/ 'ginger'
__	बारहुंखा /barhuŋkʰa/ 'storm'	मोजां /muzaŋ/ 'good'
__	थुलुंगा /tʰuluŋga/ 'inspiration'	बिफां /bipʰaŋ/ 'tree'

5.2.2.1.5 Allograph

The variant form or shape of a letter used in the writing system is Allograph in script grammar. Generally Devanāgarī script has only one allograph found in consonant र. There are three different shapes of Allograph used for consonant र, i.e.

i.   **Top rafar**, used on top of a letter in ॔ form.

Examples of Top rafar: फे, बे, थे, दे, खे, गे, से, जे, हे etc.

ii.   **Side rakar**, used on left side of a letter in ⁄ form.

Examples of Side rakar: फ्र, ब्र, थ्र, द्र, ख्र, ग्र, स्र, ज्र, ह etc.

iii.   **Bottom rakar**, used on below of a letter in ˄ hanging or stacked form.

Examples of Bottom rakar: छ्र, ट्र, ठ्र, ड्र, द्र etc.

An occurrence of **Top rafar** Allograph is presented below in tabular chart with examples:

Consonants + consonant र = **Top rafar** Allograph	Medial position of the word	Word in IPA	Glosses
फ + र = फ़	दोफ़ो-दोफ़ो	/dɯrpʰɯ-dɯrpʰɯ/	'pulspitation'
ख + र= ख़	थख़ा	/tʰorkʰa/	'one kind of Bodo musical instrument made by bamboo'
ग + र = ग़	बेग़	/bergo/	'having large prominent eyes'
स + र = स़	दोस़ोन	/dɯrsɯn/	'having pimples on lips after sick'
ज + र = ज़	गाज़ा	/garza/	'a community worship of the Bodos'
	नाज़िर	/narzari/	'a title of Bodo people'
	नाज़ि	/narzi/	'the preserved dried leaves of jute'
ल + र = ल़	गाल़ा	/garla/	'cane'

Figure: 5.10

An occurrence of **Side rakar** Allograph is presented below in tabular chart with examples:

Consonants + consonant र = **Side rakar** Allograph	Medial position of the word	Word in IPA	Glosses
फ + र = फ्र	अफ्रि	/opʰri/	'rice malt'
	खफ्रि	/kʰopʰri/	'Bodo bamboo-made hat used as umbrella'
	साफ्रे	/sapʰre/	'to twist'
	निफ्राय	/nipʰray/	'from'
ब + र = ब्र	एमब्रा	/embra/	'to persist'
	खुमब्रा	/khumbra/	'pumpkin'
	हाब्रु	/habru/	'mud'
	लेब्रा	/lebra/	'left handed'
थ + र = थ्र	थनथ्र	/tʰontʰro/	'to shrink'
	बाथ्रा	/batʰra/	'word'
	सानथ्रि	/santʰri/	'soldier'
	गुनथुथ्रि	/guntʰutʰri/	'lip of a pig'
द + र = द्र	दद्र	/dodro/	'inactive'
	हाद्रि	/hadri/	'dust'
	सोद्रोमा	/sɯdrɯma/	'member'
	गुनद्रा	/gundra/	'particles, broken pieces'
ख + र = ख्र	अख्रां	/okʰraŋ/	'sky'
	ओंख्रि	/wŋkʰri/	'curry'
	खांख्राइ	/kʰaŋkʰrai/	'crab'
	गोख्रों	/gɯkʰrɯŋ/	'strong'

ग + र = ग्र	गुग्रा	/gugra/	'asthma'
	थुंग्रि	/tʰuŋgri/	'sword'
	बांग्रि	/baŋgri/	'earthquake'
	बैग्रि	/buɯigri/	'plum'
स + र = स्र	खान्स्रि	/kʰansri/	'earthworm'
	उदांस्रि	/udaŋsri/	'independence'
	दाउस्रि	/dausri/	'martin'
	सान्स्रि	/sansri/	'to swim'
ज + र = ज्र	खुज्राब	/kʰuzrab/	'to jerk and drop'
	जिन्ज्रि	/zinzri/	'chain'
	दै-बाज्रुम	/duɯi-bazrum/	'waterfall'
	गाज्रि	/gazri/	'bad'
ह + र = ह्र	लह्रायनाय	/lohraynay/	'to get dried'
	बह्रा	/bohra/	'fruit juice in maximum'
	बायह्रा	/bayhra/	'of the outside'
	दाह्रा	/dahra/	'mat'

Figure: 5.11

It is observed that **Top rafar** and **Side rakar** shape i.e. ॑ and ⟋ of **र** Allograph are occurs only by consonants. Both are not occurs by vowels and semi-vowels. In Bodo language, occurrences of Top rafar and Side rakar shape of **र** Allograph is in medial position of the word only. Both have no occurrences in initial and final position of the word.

Side rakar does not occur by this language with the valid consonants, i.e. म + र = म्र, न + र = न्र, ङ + र= ङ्र, र + र = र्र, ल + र = ल्र, व + र = व्र, य + र = य्र.

Bottom rakar is invalid allograph in Bodo Script grammar. It has no occurrences in Bodo basic words but during the time of using loan words ˄ this shape of ₹ Allograph is used by this language.

5.2.2.1.6 Punctuation markers

The symbols which are indicate the structure and organization of written language is punctuation marker. Intonation and pauses are observed by punctuation markers while reading aloud. Punctuation markers used in Bodo language are almost same to Latin sets i.e.   , ; : ? ! " " ' ' - / ( ) [ ] { }. But it is observed that in case of full-stop, it has some variation. In Bodo, instead of full-stop symbol small dot ' **.** ' they used the danda represented by one small straight vertical line equal to ' l ' .

5.2.2.1.7 Numerals/ Digits

Numeral is that symbol which is stands for a number. Numerals or Digits used in Bodo language are similar to Latino-Arabic set i.e.   0 1 2 3 4 5 6 7 8 9.

5.2.2.2 Mātrā combination

In Script grammar Matra combination is of three type's i.e.
   i.   CM : Consonant + Mātrā
   ii. CMD : Consonant + Mātrā + Diacritic (Anuswar)
   iii. CMD : Consonant + Mātrā + Diacritic (Chandrabindu)

In Bodo Script grammar CM: Consonant + Mātrā and CMD: Consonant + Mātrā + Diacritic (Anuswar) is valid Mātrā combination.

It is observed that CMD: Consonant + Mātrā + Diacritic (Chandrabindu) Mātrā combination is invalid in this language. This combination occurs during the time of writing loan words only.

Examples of Valid and Invalid Mātrā combinations are presented as follows in tabular chart:

i. **CM : Consonant+Mātrā**

Mātrā (Valid/Invalid) ↓	Valid consonant ↓
	ख ग ङ ज थ द न फ ब म य र ल व स ह
◌ा	खा गा ङा जा था दा ना फा बा मा या रा ला वा सा हा
ि◌	खि गि ङि जि थि दि नि फि बि मि यि रि लि वि सि हि
◌ी	खी गी ङी जी थी दी नी फी बी मी यी री ली वी सी ही
◌ु	खु गु ङु जु थु दु नु फु बु मु यु रु लु वु सु हु
◌ू	खू गू ङू जू थू दू नू फू बू मू यू रू लू वू सू हू
◌ृ	खृ गृ ङृ जृ थृ दृ नृ फृ बृ मृ यृ रृ लृ वृ सृ हृ
◌े	खे गे ङे जे थे दे ने फे बे मे ये रे ले वे से हे
◌ै	खै गै ङै जै थै दै नै फै बै मै यै रै लै वै सै है
◌ो	खो गो ङो जो थो दो नो फो बो मो यो रो लो वो सो हो
◌ौ	खौ गौ ङौ जौ थौ दौ नौ फौ बौ मौ यौ रौ लौ वौ सौ हौ

Figure: 5.12

ii. **CMD : Consonant+Mātrā+Diacritic (Anuswar)**

Mātrā+ Anuswar (Valid/Invalid) ↓	Valid consonant ↓
	ख ग ङ ज थ द न फ ब म य र ल व स ह
◌ं	खं गं ङं जं थं दं नं फं बं मं यं रं लं वं सं हं
◌ा+◌ं	खां गां ङां जां थां दां नां फां बां मां यां रां लां वां सां हां
ि◌+◌ं	खिं गिं ङिं जिं थिं दिं निं फिं बिं मिं यिं रिं लिं विं सिं हिं
◌ी+◌ं	खीं गीं ङीं जीं थीं दीं नीं फीं बीं मीं यीं रीं लीं वीं सीं हीं
◌ु+◌ं	खुं गुं ङुं जुं थुं दुं नुं फुं बुं मुं युं रुं लुं वुं सुं हुं
◌ू+◌ं	खूं गूं ङूं जूं थूं दूं नूं फूं बूं मूं यूं रूं लूं वूं सूं हूं
◌ृ+◌ं	खृं गृं ङृं जृं थृं दृं नृं फृं बृं मृं यृं रृं लृं वृं सृं हृं
◌े+◌ं	खें गें ङें जें थें दें नें फें बें में यें रें लें वें सें हें
◌ै+◌ं	खैं गैं ङैं जैं थैं दैं नैं फैं बैं मैं यैं रैं लैं वैं सैं हैं
◌ो+◌ं	खों गों ङों जों थों दों नों फों बों मों यों रों लों वों सों हों
◌ौ+◌ं	खौं गौं ङौं जौं थौं दौं नौं फौं बौं मौं यौं रौं लौं वौं सौं हौं

Figure: 5.13

iii. **CMD : Consonant+Mātrā+Diacritic (Chandrabindu)**

Mātrā+ Chandrabindu (Valid/Invalid) ↓	Valid consonant ↓
	ख ग ङ ज थ द न फ ब म य र ल व स ह
ँ	खँ गँ ङँ जँ थँ दँ नँ फँ बँ मँ यँ रँ लँ वँ सँ हँ
ा+ँ	खाँ गाँ ङाँ जाँ थाँ दाँ नाँ फाँ बाँ माँ याँ राँ लाँ वाँ साँ हाँ
ि+ँ	खिँ गिँ ङिँ जिँ थिँ दिँ निँ फिँ बिँ मिँ यिँ रिँ लिँ विँ सिँ हिँ
ी+ँ	खीँ गीँ ङीँ जीँ थीँ दीँ नीँ फीँ बीँ मीँ यीँ रीँ लीँ वीँ सीँ हीँ
ु+ँ	खुँ गुँ ङुँ जुँ थुँ दुँ नुँ फुँ बुँ मुँ युँ रुँ लुँ वुँ सुँ हुँ
ू+ँ	खूँ गूँ ङूँ जूँ थूँ दूँ नूँ फूँ बूँ मूँ यूँ रूँ लूँ वूँ सूँ हूँ
ृ+ँ	खृँ गृँ ङृँ जृँ थृँ दृँ नृँ फृँ बृँ मृँ यृँ रृँ लृँ वृँ सृँ हृँ
े+ँ	खेँ गेँ ङेँ जेँ थेँ देँ नेँ फेँ बेँ मेँ येँ रेँ लेँ वेँ सेँ हेँ
ै+ँ	खैँ गैँ ङैँ जैँ थैँ दैँ नैँ फैँ बैँ मैँ यैँ रैँ लैँ वैँ सैँ हैँ
ो+ँ	खोँ गोँ ङोँ जोँ थोँ दोँ नोँ फोँ बोँ मोँ योँ रोँ लोँ वोँ सोँ होँ
ौ+ँ	खौँ गौँ ङौँ जौँ थौँ दौँ नौँ फौँ बौँ मौँ यौँ रौँ लौँ वौँ सौँ हौँ

Figure: 5.14

5.2.2.3 Cluster

Cluster is also one of the most important parts of Script grammar. It is a group of two or more consonants that appear together in a word without intervening vowel between them. Two types of clusters are found in the Script grammar of Bodo language i.e.

  i.   CHC (Consonant + Halanta + Consonant)
  ii. CHCHC (Consonant + Halanta + Consonant + Halanta + Consonant)

Examples of Valid and Invalid Cluster combinations are presented in the following tabular chart:

  i. CHC (Consonant + Halanta + Consonant)

Valid consonant ↓	Consonant + Halanta + Consonant (Valid/Invalid) ↓
	ख ग ङ ज थ द न फ ब म य र ल व स ह
C + ि + ख	ख्ख ग्ख ङ्ख ज्ख थ्ख द्ख न्ख फ्ख ब्ख म्ख य्ख र्ख ल्ख व्ख स्ख ह्ख
C + ि + ग	ख्ग ग्ग ङ्ग ज्ग थ्ग द्ग न्ग फ्ग ब्ग म्ग य्ग र्ग ल्ग व्ग स्ग ह्ग
C + ि + ङ	ख्ङ ग्ङ ङ्ङ ज्ङ थ्ङ द्ङ न्ङ फ्ङ ब्ङ म्ङ य्ङ र्ङ ल्ङ व्ङ स्ङ ह्ङ
C + ि + ज	ख्ज ग्ज ङ्ज ज्ज थ्ज द्ज न्ज फ्ज ब्ज म्ज य्ज र्ज ल्ज व्ज स्ज ह्ज
C + ि + थ	ख्थ ग्थ ङ्थ ज्थ थ्थ द्थ न्थ फ्थ ब्थ म्थ य्थ र्थ ल्थ व्थ स्थ ह्थ

C + ि + द	ख्द ग्द ङ्द ज्द थ्द ह्न्द फ्द ब्द म्द य्द र्द ल्द व्द स्द ह्द
C + ि + न	ख्न ग्न ङ्न ज्न थ्न द्र न्र फ्न ब्न म्न य्न र्न ल्न ल्न स्न ह्न
C + ि + फ	ख्फ ग्फ ङ्फ ज्फ थ्फ द्फ न्फ फ्फ ब्फ म्फ य्फ र्फ ल्फ व्फ स्फ ह्फ
C + ि + ब	ख्ब ग्ब ङ्ब ज्ब थ्ब द्ब न्ब फ्ब ब्ब म्ब य्ब र्ब ल्ब व्ब स्ब ह्ब
C + ि + म	ख्म ग्म ङ्म ज्म थ्म द्म न्म फ्म ब्म म्म य्म र्म ल्म व्म स्म ह्म
C + ि + य	ख्य ग्य ङ्य ज्य थ्य द्य न्य फ्य ब्य म्य य्य र्य ल्य व्य स्य ह्य
C + ि + र	ख्र ग्र ङ्र ज्र थ्र द्र न्र फ्र ब्र म्र य्र र्र ल्र व्र स्र ह्र
C + ि + ल	ख्ल ग्ल ङ्ल ज्ल थ्ल द्ल न्ल फ्ल ब्ल म्ल य्ल र्ल ल्ल व्ल स्ल ह्ल
C + ि + व	ख्व ग्व ङ्व ज्व थ्व द्व न्व फ्व ब्व म्व य्व र्व ल्व व्व स्व ह्व
C + ि + स	ख्स ग्स ङ्स ज्स थ्स द्स न्स फ्स ब्स म्स य्स र्स ल्स व्स स्स ह्स
C + ि + ह	ख्ह ग्ह ङ्ह ज्ह थ्ह द्ह न्ह फ्ह ब्ह म्ह य्ह र्ह ल्ह व्ह स्ह ह्ह

Figure: 5.15

ii. **CHCHC (Consonant + Halanta + Consonant + Halanta + Consonant)**

Valid consonant ↓	Consonant + Halanta + Consonant+ Halanta + Consonant (Valid/Invalid) ↓
	ख ग ङ ज थ द न फ ब म य र ल व स ह
C+ ्+ख+ ्+ह	ख्ख्ह ग्ख्ह ङ्ख्ह ज्ख्ह थ्ख्ह द्ख्ह न्ख्ह फ्ख्ह ब्ख्ह म्ख्ह य्ख्ह र्ख्ह ल्ख्ह व्ख्ह स्ख्ह ह्ख्ह
C+ ्+ग+ ्+स	ख्ग्स ग्ग्स ङ्ग्स ज्ग्स थ्ग्स द्ग्स न्ग्स फ्ग्स ब्ग्स म्ग्स य्ग्स र्ग्स ल्ग्स व्ग्स स्ग्स ह्ग्स
C+ ्+ङ+ ्+व	ख्ङ्व ग्ङ्व ङ्ङ्व ज्ङ्व थ्ङ्व द्ङ्व न्ङ्व फ्ङ्व ब्ङ्व म्ङ्व य्ङ्व र्ङ्व ल्ङ्व व्ङ्व स्ङ्व ह्ङ्व
C+ ्+ज+ ्+ल	ख्ज्ल ग्ज्ल ङ्ज्ल ज्ज्ल थ्ज्ल द्ज्ल न्ज्ल फ्ज्ल ब्ज्ल म्ज्ल य्ज्ल र्ज्ल ल्ज्ल व्ज्ल स्ज्ल ह्ज्ल
C+ ्+थ+ ्+र	ख्थ्र ग्थ्र ङ्थ्र ज्थ्र थ्थ्र द्थ्र न्थ्र फ्थ्र ब्थ्र म्थ्र य्थ्र र्थ्र ल्थ्र व्थ्र स्थ्र ह्थ्र
C+ ्+द+ ्+य	ख्द्य ग्द्य ङ्द्य ज्द्य थ्द्य द्द्य न्द्य फ्द्य ब्द्य म्द्य य्द्य र्द्य ल्द्य व्द्य स्द्य ह्द्य
C+ ्+न+ ्+म	ख्न्म ग्न्म ङ्न्म ज्न्म थ्न्म द्न्म न्न्म फ्न्म ब्न्म म्न्म य्न्म र्न्म ल्न्म व्न्म स्न्म ह्न्म

C+ॎ+फ+ॎ+ब	ख्फ्ब ग्फ्ब ङ्फ्ब ज्फ्ब थ्फ्ब द्फ्ब न्फ्ब फ्फ्ब ब्फ्ब म्फ्ब य्फ्ब र्फ्ब ल्फ्ब व्फ्ब स्फ्ब ह्फ्ब
C+ॎ+ब+ॎ+फ	ख्ब्फ ग्ब्फ ङ्ब्फ ज्ब्फ थ्ब्फ द्ब्फ न्ब्फ फ्ब्फ ब्ब्फ म्ब्फ य्ब्फ र्ब्फ ल्ब्फ व्ब्फ स्ब्फ ह्ब्फ
C+ॎ+म+ॎ+न	ख्म्न ग्म्न ङ्म्न ज्म्न थ्म्न द्म्न न्म्न फ्म्न ब्म्न म्म्न य्म्न र्म्न ल्म्न व्म्न स्म्न ह्म्न
C+ॎ+य+ॎ+द	ख्य्द ग्य्द ङ्य्द ज्य्द थ्य्द द्य्द न्य्द फ्य्द ब्य्द म्य्द य्य्द र्य्द ल्य्द व्य्द स्य्द ह्य्द
C+ॎ+र+ॎ+थ	ख्र्थ ग्र्थ ङ्र्थ ज्र्थ थ्र्थ द्र्थ न्र्थ फ्र्थ ब्र्थ म्र्थ य्र्थ र्र्थ ल्र्थ व्र्थ स्र्थ ह्र्थ
C+ॎ+ल+ॎ+ज	ख्ल्ज ग्ल्ज ङ्ल्ज ज्ल्ज थ्ल्ज द्ल्ज न्ल्ज फ्ल्ज ब्ल्ज म्ल्ज य्ल्ज र्ल्ज ल्ल्ज व्ल्ज स्ल्ज ह्ल्ज
C+ॎ+व+ॎ+ङ	ख्व्ङ ग्व्ङ ङ्व्ङ ज्व्ङ थ्व्ङ द्व्ङ न्व्ङ फ्व्ङ ब्व्ङ म्व्ङ य्व्ङ र्व्ङ ल्व्ङ व्व्ङ स्व्ङ ह्व्ङ
C+ॎ+स+ॎ+ग	ख्स्ग ग्स्ग ङ्स्ग ज्स्ग थ्स्ग द्स्ग न्स्ग फ्स्ग ब्स्ग म्स्ग य्स्ग र्स्ग ल्स्ग व्स्ग स्स्ग ह्स्ग
C+ॎ+ह+ॎ+ख	ख्ह्ख ग्ह्ख ङ्ह्ख ज्ह्ख थ्ह्ख द्ह्ख न्ह्ख फ्ह्ख ब्ह्ख म्ह्ख य्ह्ख र्ह्ख ल्ह्ख व्ह्ख स्ह्ख ह्ह्ख

Figure: 5.16

5.2.2.3.1 Combination of Consonants

There are some basic rules in Script grammar regarding the combination of Consonants. As per rule in CHC combination first consonant is called dead or half consonant and second consonant is called full consonant. As for example in **ब** + ‌ि + **ल** = **ब्ल** combination **ब** is dead or half consonant and **ल** is full consonant. Accordingly in CHCHC combination first and second consonants are come in dead or half consonant and third consonant is comes under full consonant. As for example in **स**+ि+**ज**+ि+**ल** = **स्ज्ल** combination **स** and **ज** are dead or half consonant and **ल** is full consonant. In Script grammar, combination of Consonants exclusion of this rule is known as Deviants.

5.2.2.3.1.1 Deviants

The clusters which are departing from usual or accepted standards are called Deviants in Script grammar. Deviants do not follow the basic rules regarding the combination of Consonants. As for example in **ङ** + ‌ि + **ख** = **ङ्ख** and **द** + ‌ि + **ग** = **द्ग** combinations dead or half consonant **ङ, द** and full consonant **ख, ग** both are coming in full forms and it is deviants in Script grammar. Deviants are of two type's i.e.

   i. Single glyphs and

  ii. Stacked consonant

   i. **Single glyphs**

In Script grammar glyph means specific shape, design or representation of a character and Single glyphs means the combined shape of two different consonants used as single consonant. Example of single glyphs is presented in tabular chart as follows:

Composing two different consonants	Single glyphs
क + ‌ि + ष	क्ष
श + ‌ि + र	श्र
ज + ‌ि + त्र	ज्ञ
त + ‌ि + र	त्र

Figure: 5.17

ii. **Stacked consonant**

When combination of two consonant is in the shape of hanging down of one consonant below the other then this type of Deviants is called stacked consonant in Script grammar. Example is presented in tabular chart as follows:

Composing two different consonants	Stacked consonant
द + ‌ + द	द्द
ट + ‌ + ट	ट्ट
ट + ‌ + ठ	ट्ठ
ठ + ‌ + ठ	ठ्ठ

Figure: 5.18

5.3 Summing up

Since 1975 Devanāgarī script is being used to write Bodo language. Conveniant scripts used for representing the letter have different types. Such as Basic set of characters along with the matra, diacritic and allograph are also being used. From the above analysis of script used in Bodo language with Script grammar, it is observed that the Bodo language is developing not only in the field of linguistics but also progressing in the field of designing Script grammar. Findings can be summarized with the following points:

i. Script of व /w/ and य /y/ designate of Semi vowels has some specific manner in their uses. If a word is open syllable with इ, ए, आ, ऐ and added '−आ' suffix then due to gliding condition य consonant is occur as semi-vowel and mātrā ा of आ vowel is used. On the other hand, if a word is open syllable with उ, अ, औ and added '−आ', suffix then due to gliding व consonant is occur as semi-vowel and mātrā ा of आ vowel is used.

ii. Sixteen consonant scripts, i.e. ख, ग, ङ, ज, थ, द, न, फ, ब, म, य, र, ल, व, स, ह are used to write Bodo basic vocabulary and क, घ, च, छ, झ, ञ, ट, ठ, ड, ढ, ण, त, ध, प, भ, श, ष are the scripts used for loan words in Bodo language.

iii. It is observed that vowel like ई as represented by mātrā ी is not available as well as not articulated in Bodo language; but its uses is found in borrowing words. For example: लक्षी /lokkʰi/ 'goddess of wealth', निमकी /nimki/ 'sweet meat' etc.

iv. In Bodo Script Grammar there are three main domains i.e. Basic symbols, Mātrā combination and Cluster.

v. Basic symbol of Bodo script grammar has Consonant set with sixteen valid consonants, i.e. ख, ग, ङ, ज, थ, द, न, फ, ब, म, य, र, ल, व, स, ह and seventeen invalid consonants, i.e. क, घ, च, छ, झ, ञ, ट, ठ, ड, ढ, ण, त, ध, प, भ, श, ष. In Vowel set अ, आ, इ, उ, ए, ओ six pure vowels along with diphthongs ऐ, औ are valid and ई, ऊ, ऋ are invalid vowels in Bodo language.

vi.	In Bodo ि ी ু ে ' া ৈ ৌ are valid vowel mātrās, which are always occurs in medial and final position of a word in cluster form. Invalid vowel mātrās ৗ ৄ ৢ are used to write loan words.

vii.	The ঁ Active or Displaced Catenator is commonly used in Bodo script grammar.

viii.	Anuswar ং , Halanta ্ are valid and Chandrabindu/Anunasika ঁ , Visarga ঃ are invalid diacritics in Bodo Script grammar.

ix.	Top rafar and Side rakar shape i.e. and are valid allograph of র and Bottom rakar is invalid allograph in Bodo Script grammar. Both valid allograph of র are occurs only by consonants and not occurs by vowels and semi-vowels.

x.	Top rafar and Side rakar is occur in medial position of the word only. Both have no occurrences in initial and final position of the word. On the other hand, Bottom rakar has occurrences during the time of writing loan words only.

xi.	Punctuation markers used in Bodo language are almost same to Latin sets i.e. , ; : ? ! " " ' ' - / ( ) [ ] { }. But it is observed that in case of full-stop it has some variation. In Bodo instead of full-stop symbol small dot ' . ' they used the danda represented by one small straight vertical line equal to ' | ' .

xii.	Numerals or Digits used in Bodo language are similar to Latino-Arabic set i.e. 0 1 2 3 4 5 6 7 8 9.

xiii.	In Script grammar Mātrā combination is of three types. In which CM: Consonant + Mātrā and CMD: Consonant + Mātrā + Diacritic (Anuswar) is valid Mātrā combination and CMD: Consonant + Mātrā + Diacritic (Chandrabindu) Mātrā combination is invalid in Bodo Script grammar.

xiv.	In Bodo Script grammar Single glyphs i.e. ক্ষ, শ্র, ত্র etc. and Stacked consonant ঞ্জ, ঞ্চ, ঞ্ছ etc. are invalid consonant combination. These are used to write loan words only.