# Akṣobhyavyūha an Early Mahāyāna Sūtra in Kharoṣṭhī (Manuscript) from Gandhāra: A Palaeographic Study

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Abstract: Akṣobhyavyūha is a lengthy known Kharoṣṭhī manuscript consisted of approximately 638 lines written on both sides of the birch bark. The manuscript is currently owned by Muhammad Nasim Khan, former Professor and Chairman of the Department of Archaeology, University of Peshawar, who collected it from Mian Kalay, a village located in Dir District. In this collection of manuscripts, it is marked as Fragment no. 7. The manuscript is based on religious instructions given by Buddha to his favourite disciple Śariputra, who later on became Buddha Akṣobhya. Thus, the whole manuscript narrates the conversation occurred between the Buddha and Śariputra. The main objective of the present research is to highlight the palaeography of the Kharoṣṭhī script used in the manuscript under-discussion because this script is commonly found in Gandhāra and other parts of the sub-Continent. It is consisted of nineteen fragments of an early Mahāyāna sūtra and it deals with Akṣobhya, one of the five wisdom Buddhas. The palaeographic study of this manuscript is presented here with addition of the description of sentences which obviously provides a comprehensive knowledge about the letter variations found in Kharoṣṭhī script. Moreover, this manuscript also yields important information about Buddhism and its promulgation in Gandhāra and surrounding regions.

Keywords: Aksobhyavyūha, Buddhism, Gandhāra, Kharosthī, manuscript

#### Introduction

The present paper is derived from an unpublished thesis (MPhil) of the scholar, titled 'Aṣobhyavyūha an Early Mahāyāna Sūtra in Kharoṣṭhī (manuscript) from Gandhāra: A Palaeographic Study'. This paper generally presents the introductory part of his thesis, whereas, detailed analysis of subject thesis will be published in a series of articles.

Akṣobhyavyūha¹ is one of the ancient Mahāyāna Buddhist scriptures, attributed to the Buddha Akṣobhya's careers and the supremacies of his Buddha discipline Abhirati (Nattier 2000: 73). Within Buddhism there are five wisdoms of Buddhas and Akṣobhya is one among them (Bhattacharya 1989: 350). The cult of Akṣobhya is attributed to Adi-Buddha². According to the Buddhist mythology, he was the master of the pure land Abhirati (the joyous).

Akṣobhya and Abhirati are referred to in many other Mahāyāna scriptures, especially in the early Prajñāpāramita<sup>3</sup>-sūtra<sup>4</sup> and Saddharmapuṇḍrīka<sup>5</sup>-sūtra (Sato 2002: 469).

According to Buddhist traditions, a monk was interested in the Dharma training, therefore, he showed a promised attitude that he would remained calm and cool until he doesn't receive enlightenment. For achieving this goal, he didn't move from his place and finally received an enlightenment to be called as Buddha Akṣobhya (Dalal 2010: 14).

As for the sacred scriptures of the Buddhism is concerned, several Kharoṣṭhī manuscripts have been discovered in Gandhāra region of which majority are now preserved in different public and private collections. These manuscripts are of paramount historical and religious importance and have added something new to our knowledge about the different ancient scripts. Of these, some manuscripts were documented by Prof. Nasim Khan in 1999 who later published them in 2008-09. The Akṣobhyavyūha manuscript composed in Kharoṣṭhī script is one of them earlier documented by Nasim Khan. It is the longest manuscript in the entire collection and it belongs to the early Mahāyāna sūtra. The manuscript narrates the

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conversation held between the historic Buddha and his devoted disciple Śariputra. The Buddha delivered the dharma instruction of the Tathagata Akṣobhya to his disciple and also described the qualities of his Buddhakṣetra in the presence of 84000 devaputras. On hearing that, Śariputra took an oath that he would be remained calm and cool and would refrain from harsh behaviour, fury or malice towards any being until he doesn't get an enlightenment. Accordingly, he patiently proved himself steadfast and successfully accomplished the task. Finally, he received enlightenment and thus became Buddha Akṣobhya.

The present manuscript, measuring about 19 x 225 cm, is written on both sides of a birchbark scroll. This piece of manuscript comprises about 638 lines. The front side (recto) contains 371 horizontal lines and the back side (verso) 267 lines (Nasim khan 2009: 47). An outlook of notable Buddhist manuscripts discovered from different areas are briefly discussed below.

#### The British Library Collection

In 1994, the British Library (London) acquired 29 fragments of Gandhāran Buddhist manuscripts written on birch bark for its collection. These manuscript produced in Kharoṣṭhī script, dated from 1st century CE and onwards, were found in a terracotta jar near Haḍḍa in eastern Afghanistan. This collection contains yield various written by different writers. This collection is preserved in fragmentary form (Salomon 1999: 141-55).

#### The Senior Collection

The birch bark Kharoṣṭhī manuscripts lying in the custody Robert Senior (UK) to be known as 'Senior Collection'. This collection is also said to have reported from Haḍḍa in eastern Afghanistan. This collection was also found preserved in a terracotta jar like that of British Library collection. The Senior Collection comprises canonical *sūtras* and the entire text is known in good state of preservation. These manuscripts are said to have written by a single scriber.

#### The Schøyen Collection

Martin Schøyen, a Norwegian collector, obtained a remarkable collection of Buddhist manuscripts and hence to be known as 'Schøyen Collection'. The material used for these manuscript are: palm leaves, birch bark and Veilum. These manuscript were unearthed from a cave at Bamiyan. These manuscripts are written in Brāhmī and Kharoṣṭhī scripts dated from 2nd to 8th century CE.

#### The Split Collection

The split collection was a set of Buddhist manuscripts was brought by an antiquity collector from Gandhāra. Later on it was split into pieces whereas some fragments of the manuscripts reached to United Kingdom and remaining pieces went to private collectors in Europe and elsewhere. Due to its nature of distribution, it is known as the 'split collection of the Buddhist Kharosthī manuscript'.

#### Muhammad Nasim Khan Collection

A handsome collection of 19 fragments of the Kharosthī manuscript is preserved by Muhammad Professor of Archaeology, Nasim Khan. University of Peshawar. These manuscripts were found by the owner himself during his Dir Survey in late 1990s. This collection was discovered in depilated condition at 'Mian Kaly' in Lower Dir. It comprises different types of manuscripts written on birch bark both in Recto (obverse) and Verso (reverse) style. These variations indicate that the script was written by different scribers. These documents consist of canonical, noncanonical and private records. A brief outline of these fragments is as follow:

Fragment-1 contains a non-canonical text.

Fragment-2 is related to the private document.

Fragment-3 is based on Arapacana Syllabary which means the 1<sup>st</sup> verse of the manuscript starts with 'a' second with 'ra', third with 'pa', fourth with 'ca', and fifth with 'na'.

Fragment-4 is consisted of just four lines of the bottom of document in which the Buddha Śākyamuni is praised.

Fragment-5 reveals the praise of Buddha in conventional phrases.

Fragment-6 contains canonical text.

Fragment-7 comprises 638 lines is one of the important component of this manuscript written on both sides of the birch bark.

Fragment-8 is partially a fragmentary document but some of its verses are clearly readable.

Fragment-9 is consisted of Karmavacana text.

Fragment-10 narrates about king 'Naga Manasvin' and has some information of spell.

Fragment-11 is also non-canonical scripture which might be a part of Prajñāpāramita sūtra related to Mahāyāna.

Fragments 12-14 represent a non-canonical text and their attribution association is also unclear.

Fragments 15-17 are small bits broken into different pieces and hence it is difficult to conceive any concrete message from them.

Fragment-18 deals with the matters of purification

Fragment-19 consists of Buddhist verses.

The fragment-7, the largest section of this manuscript, is the subject matter of this paper. During his MPhil research, the present author documented 16,183 aksaras of this manuscript and traced them with the help of 'CorelDraw', a computer software. This study discovers that numerous differences and variations happened in these aksaras were due to the use of different hands (scribes) in the composition of this manuscript. In some verses, changes in pen style were also noticed especially on verso side of the manuscript. Accordingly, the shape and size of such letters on verso are found bit bigger than those inscribed on recto. Such a statistical data is arranged in attached tables and hence the letter styles are elaborately described in six tables and charts.

#### Use of Initial Vowels

The ancient Buddhist account Lalita-Vistara<sup>6</sup> narrates that about sixty-four<sup>7</sup> scripts were used in the subcontinent. Of these, four scripts are discovered in Gandhāra region such as Kharoṣṭhī, Brāhmī, Śarada and Kohi<sup>8</sup> or Puṣkarasari. In ancient times, Gandhara was remained a cultural and political hub under the rule of different dynasties and therefore, a large number of inscriptions are reported from this region. Amongst them, majority inscriptions were written in Kharoṣṭhī script as it had been the official script of this region during 3rd century BCE - 4th century CE.

The earlier Kharoṣṭhī inscriptions found at Shahbaz Gaṛhi (Mardan) and Mānsehrā belong to the reign of King Aśoka, who ruled in the mid of 3rd century BCE. These inscriptions are inscribed on rock boulders. Besides this, Kharoṣṭhī script was commonly inscribed on the coins of Indo-Greek, Indo-Scythian, Indo-Parthians and Kushan rulers, stone panels, palm leaves and most importantly on the birch bark.

The typology of *akṣaras*<sup>9</sup> applied in fragment-7 is based on the relevant strokes of initial vowels except letter 'a'. In contrast, the typology of initial vowel 'a' is based on the shape of letter.

Although the exact figure of *akṣaras* (signs) in fragment-7 is uncertain because, about 20% (more or less) portion of the said manuscript is damaged. Accordingly a number of *akṣaras* are observed in fragmentary<sup>10</sup> form and some of them are obviously lost from its actual place or context. The intact part of the manuscript bearing Kharoṣṭhī<sup>11</sup> signs is very clear and it is in good state of preservation. As described above, the recorded *akṣaras* are 16, 183.

Kharoṣṭhī script is consisted of different signs and each sign has a specific sound and application. In this regard, 1,797 initial vowels<sup>12</sup> are identified in the subject manuscript ('a<sup>13</sup>  $\Rightarrow$   $\uparrow$ ', 'i<sup>14</sup>  $\Rightarrow$   $\not$ ', 'u<sup>15</sup>  $\Rightarrow$   $\not$ ', 'e<sup>16</sup>  $\Rightarrow$   $\not$  ', and 'o<sup>17</sup>  $\Rightarrow$   $\not$ '). Of these, the best known examples of *akṣaras* are 1,598. Among the *akṣaras* found on this birch bark<sup>18</sup>, the following signs are identified as initial vowels. The statistical analysis of these *akṣaras* is as follow.

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These tables furnish information about individual letters. Table-1 consists of initial vowels which represent five letters. The initial vowel "a="7" is represented by 1,026 characters. The following initial "i="7" is shown by 126 specimens and letter "e="7" 413 examples. The initial vowel "o="9" is known by 108 letters. In addition, five symbols of  $anusv\bar{a}ra$  "am="3" are also arranged in the same table.

The table-2 comprises five groups of consonants. Of these, the first group is known as Gutturals<sup>19</sup>, second group Palatals, third group Cerebral, fourth group Dental and the fifth group Labials. The Gutturals group represents four letters i.e. "ka= $^{7}$ " is known by 156 examples, "kha= $^{9}$ " by 35 examples, "ga= $^{9}$ " by 458 specimens and "gha = "by 10 samples. There is no nasal sign in this group of consonants. In combination of with other vowels, letter "ki = ½" is observed 44 times, " $ku = \mathcal{F}$ " sign 56 times and " $ke = \frac{1}{2}$ " character 32 signs respectively. Similarly, letter "ko=3" has 44 specimens in this script. This category also includes prefix<sup>20</sup>, suffix<sup>21</sup> and compound symbols. The prefix "rka =  $\sqrt[3]{}$ " is identified by a single sign, suffix "kra= $\geq$ " by 15 examples and "kro= "by a single sign. The second sign i.e. "kha= 5" of this group comprises 35 signs whereas, after application of the medial vowel the basic "kha" is converted into "khi= $\S$ " is identified 2 times in this manuscript. Likewise, sign "khu=  $\delta$ " is observed by 16 specimens, "khe= $\frac{q}{2}$ " by 2 examples and "kho=S" by 3 symbols. The prefix "rkha =  $\frac{9}{9}$ " has only one sign. Moreover, the third symbol "ga= $\varphi$ " is noticed by 458 signs followed by "gi= $\mathcal{I}$ " by 18 examples, "gu= $\mathcal{I}$ " by 7 signs, " $ge = \mathcal{G}$ " 22 examples, and " $go = \mathcal{G}$ " by 18 signs respectively. There is a single *anusvāra* "gam = \( \frac{9}{3} \)" in this group of letters. Some letters with prefix and suffix are also noted such as basic letter "ra" is added to letter "ga" to form a prefix "rga = "6" is demonstrated by 2 specimens. While the suffix "gra= $\mathcal{C}$ " is observed by 34 examples, "gri= $\mathcal{C}$ " by one examples, "gre= $\frac{6}{6}$ " by 4 examples, and " $gro = \mathcal{H}$ " by 3 letters. The last symbol of the gutturals series is letter "gha = "f" identified by 10 examples, "ghi=\( \frac{\phi}{9} \)" by 4 specimens, "ghe=\( \frac{\phi}{9} \)" one example and "gho= $\frac{1}{7}$ " by 6 aksaras.

The palatal group comprises five letters

including a nasal<sup>22</sup> sign. In this way, the first letter of this group "ca=3" is consisted of 147 signs. Amongst the variants, "ci = 5" is shown by 69 samples, "cu = 5" by 6 specimens, "ce = 5" 25 samples and "co=3" by 3 signs. The second letter of this category "cha= $\frac{\pi}{2}$ " is identified by 18 examples. Its variants include "chi=\( \frac{1}{2} \)" by 9 sings, "che= $\sharp$ " letter by 4 specimens and "cho= $\sharp$ " by one sign. The third sign of the palatal group "ja= Y" comprises 78 symbols with number of variants like "ji =  $\frac{1}{2}$ " known by 20 samples, "ju= $\frac{1}{2}$ " by one sign, "ie = %" by 10 samples and "io = %" by 6 examples. In addition, the letter "ja" is also used as prefix such as "ria= $\frac{9}{9}$ " with 2 examples. The next letter is "jha" unfortunately, it is not observed in the manuscript because 20% or more part of the manuscript is damaged. The nasal letter i.e. "ña= "in this group is identified by 189 signs which further identified by variants such as "ñi = \( \frac{1}{2} \)" has 27 samples, " $\tilde{n}e = \sqrt[6]{9}$ " 6 examples and " $\tilde{n}o = \sqrt[6]{9}$ " 13 symbols.

The next group of consonants forms the cerebrals. The first letter of this group is " $ta = \angle$ " which is observed only once. Similarly, letter "te=  $2^{\circ}$ " one example, "tha= $3^{\circ}$ " 70 examples, "thi= $2^{\circ}$ " 57 examples, "the =  $\frac{1}{2}$ " 3 samples, and "tho =  $\frac{1}{2}$ " " one sign. The next symbol in this group "da= "' is identified by 16 examples, " $\dot{q}i =$ " by 42 samples, " $du = \frac{g}{g}$ " and " $de = \frac{u}{c}$ " each by one sample and "do=%" by one example. The "dhe=  $\int$ " sign is observed only once. The last and final character of the cerebral group is nasal "na=\( \)" marked by 1027 specimens and its variants "ni= f" by 181 signs, "nu = f" by 124 samples, "ne = "by 62 examples, "no= $\uparrow$ " by 115 signs and "nam = \( \frac{1}{2} \)" by one specimen. A single example of prefix "rna = 4" is also included in this group of letters.

The fourth group of consonants is consisted of dentals. Like above, this group contains five symbols in which the first one "ta=" is identified by 440 samples, "ti=%" by 345 signs, "tu=%" by 17 samples, "te=%" by 163 examples and "to=%" by 69 signs. Moreover, the anusvāra is repeated twice in the form of "taṃ=%" and "tiṃ=%" by example each. This groups also included two signs of prefix such as "rta=%" identified by 2 signs and "rti=%" by 3 examples. Similarly, this

group also yields a number of suffix letters such as "tra= $\checkmark$ " known by 162 examples, "tri= $\checkmark$ " by 61 specimens, "tre= $\checkmark$ " by 6 signs and "tro= $\checkmark$ " by 21 examples. In addition, the dental group also comprises compound *akṣaras* such as "ta" and "va". In this regard, the first compound letter "tva= $\checkmark$ " is consisted of 106 examples and the sign "tvo= $\checkmark$ " of 11 signs.

In dental group, the next letter is "tha =  $\uparrow$ " represented by 2 examples. Its variant "thi= $^{1/2}$ " " is marked by 4 examples and "thu =  $\uparrow$ " by 2 specimens. Besides this, it contains a couple of prefix symbols e.g., "rtha= "" with 6 letters and "rtho= "a" with 2 letters. The following letter "da =  $\int$ " of this group is observed by 605 signs. Its variants include " $di = \xi$ " with 297 signs, " $du = \xi$ "  $\delta$ " with 94 signs, "de= $\delta$ " with 95 samples and "do = 5" 215 examples. The anusvāra of this character is appeared only once in the form of "dim= \( \frac{4}{3} \)". While the suffix signs are consisted of "dra =  $\xi$ " and "dru =  $\xi$ " one each by one example and "dro= $\frac{\xi}{2}$ " 2 by specimens. The fourth sign of this group is "dha=3" identified by 248 letters. Its variants "dhi=3" include 6 signs, "dhe=  $\frac{3}{3}$ " 10 samples and "dho=  $\frac{3}{3}$ " 10 characters. The prefix "rdha =  $\frac{3}{3}$ " and "rdhi =  $\frac{3}{3}$ " are each marked by 3 examples. The fifth symbol "na= \" occurs four times.

The fifth and final group of the consonants is called as labials. The first letter of this group is "pa = \( \bar{b} \) " marked by 332 characters. Similarly, letter "pi =  $\beta$ " is known by 25 examples, "pu =  $\beta$ " by 244 signs, "pe= $^{1/3}$ " by 3 samples and "po= $^{1/3}$ " by 9 examples. The anusvāra of letter "pa" is "pam = f" observed by only one example. Moreover, the prefix "pra= !" contains 191 examples, "pri= !" "2 signs, "pru =  $\mathcal{L}$ " 2 samples and "pro =  $\mathcal{L}$ " 2 examples. The second sign of this group is "pha=  $\uparrow$ " known by 15 examples and "phu= $\uparrow$ " be 10 samples. The third sign "ba=%" is marked by 20 examples, "bi =  $\sqrt[6]{}$ " by 2 signs, "bu =  $\sqrt[6]{}$ " by 27 examples, "be =  $\frac{7}{7}$ " by one specimen and "bo =  $\frac{7}{7}$ " "by 50 examples. The suffix of "bra =  $\frac{2}{3}$ " contains 15 signs. The fourth sign "bha= $\mathcal{F}$ " is represented by 522 examples, "bhi =  $\mathcal{F}$ " by 18 signs, "bhu =  $\overline{\mathcal{F}}$ " by 23 samples, "bhe =  $\overline{\mathcal{F}}$ " by 6 examples and "bho= $\mathcal{F}$ " by 37 specimens. The prefix "bra= $\mathcal{F}$ " " contains only one example. The last and final

symbol "ma=~" has 522 characters, "mi=~" 70 signs, "mu=~" 84 examples, "me=~" 90 samples and "mo=~" 49 examples. The anusvāra "maṃ=~" is represented by a single example. The prefix "rma=~" is known by 97 samples, "rmi=~" by one example, "rme=~" by 8 specimens and "rmo=~" by 15 signs.

Table-3 is consisted of vowels and semivowels which includes four basic symbols "ya", "ra", "la" "va". The first letter "ya=\(\sigma\)" pertains 404 examples, the next letter " $yi = \lambda$ " 36 samples, " $yu = \delta$ " 4 examples, " $ye = \lambda$ " 80 signs and " $yo = \lambda$ "  $\Lambda$ " 6 samples. The *anusvāra* of this category is identified by a single sign i.e. "yam= $\sqrt{}$ ". The prefix akṣaras "rya= $\frac{9}{}$ " has 9 examples. The second sign "ra=7" represents 260 examples, the following letter "ri= $\frac{1}{2}$ " 197 samples, "ru= $\frac{1}{2}$ " "45 signs, "re= $\frac{7}{45}$ " 45 samples and "ro= $\frac{7}{75}$ " 75 examples. The third sign "la=7" is identified by 83 examples, and its variants " $li = \frac{4}{3}$ " by 24 signs, " $lu = \tilde{l}$ " by one sample, " $le = \tilde{l}$ " by 12 examples, and "lo = %" by 65 specimens. The last character "va=7" consists of 878 signs and its variants represent "vi= $\frac{1}{2}$ " 300, "vu= $\frac{7}{2}$ " 39, "ve= 5" 71, and "vo=7" 51 examples. This letter has a single anusvāra "vam= $\Im$ ". The prefix "rva= $\Im$ " " contains 123 signs, "rvi= ? " 2 samples, "rve= 3" 8 examples and "rvo=3" one example. The cursive form of ligature<sup>23</sup> "vha=<sup>7</sup>" is observed by 13 signs, "vhi= $\sqrt[p]{}$ " by 16 examples, "vhu= $\sqrt[p]{}$ " and "vhe= $\sqrt[p]{}$ " have one sample each, and "vho= ³/" has 2 specimens.

Table-4 comprises only three symbols such as "śa", "ṣa" and "sa". Of these, the first letter " $\hat{s}a = \square$ " is identified by 411 signs. Similarly, " $\sin = f'$ " has 64, " $\sin = f'$ " 18, " $\sin = f'$ " 12 and "so= $\Omega$ " 34 examples. The prefix "rsa= $\Omega$ " has only 2 examples. The suffix characters "śra=  $\mathcal{N}$ " comprises one, "śru =  $\mathcal{N}$ " 7, and "śre= $\mathcal{N}$ " 2 examples. This group represents one example of anusvāra "sam= $\sqrt{3}$ " and similar number of ligatures "t $\hat{s}a = \hat{\beta}$ ". In addition, a cursive ligature "spa =  $\beta$ " has 12 examples and "spe =  $\gamma$ " 2 signs. The second sign "sa= $\uparrow$ " in table-4 is known by 145 specimens, "si=%" by 42 samples, "su=%" by 35 examples, "se= \(\frac{1}{1}\)" by 8 samples and "so=  $\tilde{\mathcal{I}}$ " by 24 specimens. The anusvāra "sam= $\tilde{\mathcal{I}}$ " is marked by only one variety. The prefix "rsa= 54 Jan Gul

 $\mathcal{T}$ " has one sample and "rṣi= $\mathcal{T}$ " 3 examples. Similarly, suffix "ṣra= $\mathcal{T}$ " is characterised by 5 examples and "ṣru= $\mathcal{L}$ " by one specimen.

The third and last letter sibilant "sa= $\mathcal{F}$ " is known by 1,031 signs, its variant "si= $\mathcal{F}$ " by 101 samples, "su= $\mathcal{F}$ " by 102 specimens, "se= $\mathcal{F}$ " 22 samples and "so= $\mathcal{F}$ " by 55 examples. The anusvāra of this sibilant "saṃ= $\mathcal{F}$ " is marked by 5 samples. The compound signs of this group "sva= $\mathcal{F}$ " comprises 32 signs, "svi= $\mathcal{F}$ " 17 samples and "sve= $\mathcal{F}$ " 3 examples. The cursive ligature "sta= $\mathcal{F}$ " is observed by 4 signs, remaining signs "sti= $\mathcal{F}$ ", "stu= $\mathcal{F}$ " and "sto= $\mathcal{F}$ " are identified by 3 examples each. The suffix of this character "stra= $\mathcal{F}$ " is known by one and "stri= $\mathcal{F}$ " by 2 specimens.

Table-5 illustrates number of sonant aspirates such as "ha=2" is known by 143 examples, "hi=2" by 187 samples, "hu=2" by 2 specimens, "he=2" by 3 samples and "ho=2" by 139 signs.

Table-6 comprises special letters like "kṣa= $^{\circ}$ " is identified by 35 examples, "kṣi= $^{\circ}$ " by 27 samples, "kṣu= $^{\circ}$ " by 3 sings, "kṣe= $^{\circ}$ " by 23 samples and "kṣo= $^{\circ}$ " by 9 specimens.

In the light of above statistical analysis of this manuscript, each individual letter is specifically treated for its palaeographic style. As a result a plausible number of sign variations is keenly observed amongst all groups of letters.

The birch bark on which the subject manuscript is inscribed was obtained from different trees grown along the ranges of Hindu Kush Mountains such as Resham Gole, Bashter Gole, Golian Gole, and upper ridges of Broghul (Chitral). Hence, it is the local species and still being germinated in hilly area of Chitral. The production of this plant is now greatly diminished due to its extensive use by the local people for their daily essentials such as (fuel, agricultural equipment, construction of houses, etc.). Having medicinal characteristics, this plant is widely brought into medical practices. Apart from this, the bark of this plant is significantly utilised for making amulets.

#### Conclusions

The Akṣobhyavyūha manuscript contributes a significant part in the study of early Mahāyāna Buddhist texts and palaeography. It provides

valuable insights into the socio-religious and cultural history of Gandhāra. This manuscript, written in Kharoṣṭhī script, is not only important for its long text and detailed narrative structure but it critically signifies palaeographic complexity, diverse writing practices and stylistic variations that practiced in ancient times in Gandhāra.

It is a primary source of literature and hence sheds imperative light on the veneration of Akṣobhya Buddha and his pure land. Similarly, it highlights the way of Abhirati and the devotional and philosophical dimensions of early Mahāyāna Buddhism prevailed in Gandhāra region. A careful study of this manuscript, consisting of 16,183 akṣaras, reveals interesting evidences about the art of scribers' hands, writing style and letter forms, and particularly the combination of recto and verso sides. These outcomes contribute to a deeper understanding of the development of Kharoṣṭhī script and the socio-cultural context in which the subject manuscripts was composed.

The rich legacy of Gandhāran manuscripts in the context of Buddhist literature is well highlighted in previous works based on different collections e.g. the British Library, Senior and Schøyen Collections, including Nasim Khan's Collection. In this connection the fresh statistical data (16,183 akṣaras) obtained from Akṣobhyavyūha manuscript further enriches our understanding about the Kharoṣṭhī akṣaras and their typology which obviously offers a broad spectrum for future research in palaeography and linguistics.

The present research suggest that the Akṣobhyavyūha manuscript was compiled by different hands through different stages. The stylistic forms of Kharoṣṭhī script greatly help to determine the date and chronology of the subject manuscript and hence this analysis articulates that it was composed between the time of Mauryan and Indo-Scythian periods. Accordingly, the dates of Akṣobhyavyūha manuscript would be ranged from 3rd century BCE to 1st century C.E.

#### Notes

1. Akṣobhya, Sanskrit: अक्षोभ्य, literally means the 'Immovable One' while vyūha

indicate 'pure land' see Nattier, Jan. *The realm of Akṣobhya: a missing piece in the history of pure land Buddhism.* Journal of the international Association of Buddhist studies. 2000: 1.

- 2. Adi-Buddha is self-emanating self-originating Buddha.
- Prajňâ pāramitā (transcendental knowledge) is one of early Mahayanist scripture which probably dated to 1st century A.D. of our era. This particular term Prajňâ narrates knowledge of the absolute truth.
- 4. Sutra was a general term in which all the Buddhist teachings are preserved in textual form.
- The Saddharma Puṇḍarīka sūtra (Lotus of the Good law) is one among the Mahayanist scriptures which is highly respected in China and Japan.
- 6. It is a Sanskritic work, which gives us basic information about Buddha's life. It is quite impossible to assign it with a proper date. But scholarly approach is based on its Chinese translation which is dated from 308 CE, the original word would be one or two centuries earlier than that.
- 7. See R. B. Pandey (1952). Indian palaeography, pp. 23-24.
- 8. See M. Nasim Khan (2007). Gandhāran Studies. Vol. 1, pp. 89-118.
- 9. Akṣaras means something nonperishable.
- 10. Fragmentary signs are mostly consisted of incomplete signs or akṣaras.
- Kharoṣṭhī is the name of the script in which Buddhist teachings are preserved in textual form.
- 12. Initial vowels are basically five in number which mostly appear in the beginning of words that is why these letters are called as initial vowels.
- 13. The mentioned sign of initial vowel 'a' is taken from a list of types of initial vowels, table 1.1-1.ii 'L32'.
- 14. Ibid 1.1-2.xi, L 605.

- 15. Ibid 1.1-3.i, L 3.
- 16. Ibid 1.1-4.i, L 15.
- 17. Ibid 1.1-5.i, L 14.
- 18. Birch bark is basically obtained from 'Betula'. It is the scientific name of a tree, actually belongs to Betulaceae family in plants kingdom. Thus the skin of the birch tree was used for writing in ancient times.
- 19. Gutturals are consisted of those letters which produced sound in throat.
- 20. The prefix letter is mostly added before the second letter due to which. The second word give us a complete change meaning in roman characters. In this regard within kharoṣṭhī script. There is a special letter "ra" for it.
- 21. The suffix is totally opposite of prefix. Because in prefix we add "ra" before the second word but here in suffix it is adding after the symbol in kharoṣṭhī letters.
- 22. The nasal letter sound is related to the nose. For these kinds of signs, the voice/sound is pronounced through the nose.
- 23. Ligature stands for the combination of two or more than two letters.

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# Table 1. Types of Initial Vowels

#### 1.1 Initial "a"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L2 ?	L6 <b>3</b>	2	L26 7	L28 J	L32 7	J	L166 9	L216 J	L348 $\nearrow$	L398 2	()	L616 3

#### 1.1.2 Initial "i"

Type 1	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L15 2	L35 3	<sub>L38</sub> 3	L49 <b>,2</b>	L122 3	L189		L272 <b>2</b>	L280 7	L385 2	L413 }	L428 <b>3</b>	L623 7

### 1.1.3 Initial "u"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L3 J	L6 3	L12 2	L48 2	L141 J	L213 }	L501 9	L506 J	L626 <b>3</b>				

#### 1.1.4 Initial "e"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	L7 <b>2</b>	L13 2	L15 2	L28 2	L47 <b>2</b>	L127 A	L176 <b>3</b>	L254 <b>2</b>	L315 A	کے <sub>L468</sub>	L485 🦻	<sub>L566</sub> ク	L626 2

#### 1.1.5 Initial "o"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L5 }	L14 2	L37 3	L83 <b>3</b>	L162 <b>3</b>	L181 3	L216 -3	L388 <b>3</b>	L417 <b>J</b>	L421 B	L472 <b>9</b>	L598 7	L627 P

### 1.6 Types of Anusvāra "am"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L30 3	ح 1272	1.381 /	L397 3	L512 3								

#### Table 2. Groups of Consonants

### 2.1 Types of Gutturals "ka"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L7 <i>}</i>	<sub>L49</sub> 3	L108 >	<sub>L168</sub> }	L170 3	L176 }	L192 3	L219 7	L265 3	L347	L484 3	L584 J	L628 3

#### 2.1.2 "ki"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L14 \$	L56 3	L128 \$	L176 X	L168 A	<sub>L207</sub> 力	L264 \$	L347 \$	L447 \$	L493 J	L520 カ	ىگىر L524	L618 1

#### 2.1.3 "ku"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L3 B	1.21	L113 2	L123 (2	L196 3	L214 A	1.292 7	L303 2	L425 🎝	L430 2	L467	1.446	1.600 3

#### 2.1.4 "ke"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L60 Á	L133 \$	L165 3	الحر <sub>L178</sub>	L236 }	<sub>L299</sub>	L470 🏂						

#### 2.1.5 "ko"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L4 7	L71 🏂	L158 3	L182 3	L489 3	L514 B	L517 3	L639 3					

	2.1.6 ka	with	prefix	ra:	"rka"
--	----------	------	--------	-----	-------

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xi	xiii
	L522 7												

### 2.1.7 ka with suffix ra: "kra"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L80 2	L133 2	L182 <b>3</b>	L184 Z	L184 Z	L184 み	L194 &	L202 Z	L202 Q	L204 &	L204 &	L205 B	L205 3

#### 2.1.8 "kro"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L117 💍												

### 2.2.1 Types of gutturals "kha"

Type	i i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L30	SL113 5	L170 5		L331 5	L393 S	L469 <b>S</b>	L507 S	L557 S	L609 F	L639 く		

#### 2.2.2 "khi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L247 8	L557 B											

#### 2.2.3 "khu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L208	S L250	S L261 S	L332 S	L485 🕏	L437 S	L516 S		L520 S		L543 S		

### 2.2.4 "khe"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L191 S	L205 9											

#### 2.2.5 "kho"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L20 S	L186 &	L209 S										

### 2.2.6 kha with prefix ra: "rkha"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L13 §												

### 2.3.1 Types of Gutturals: "ga"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L1 S	IT 20 /	1.48 9	1.90	L174 🕏	L200 &	L202 S		L396 &	L404 <b>L</b>	1.419 <b>\$</b>	L590 S	L607 \$

# 2.3.2 "gi"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	135 12	L151 9	L260 X	1.455	1.457 <b>/</b>	1.493 🕊							

### 2.3.3 "gu"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L148 9	L199 F	L485	· ~	L489 <b>&gt;</b>	L561 9							

2	2	1	66	ge"
Z,	. J	,4		26

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L29 4	L151 🕏	L265 S		L573 <b>4</b>		L639 9						

### 2.3.5 "go"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L10 92		L70 <b>7</b>	L119 P	L323 4	1.432 Y	1.451 9	<sub>1.511</sub> $\varphi$	L589 ×	L626 X			

### 2.3.6 ga with Anusvāra am: "gam"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	169 5												

### 2.3.7 ga with prefix ra: "rga"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L218 6	L462 3											

### 2.3.8 ga with suffix ra: "gra"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L5 G	L114 &	L166 &	L187 &	L253 6	L376 6	L526 &	L567 &	L602 E	L635 C			

# 2.3.9 "gri"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L68 %												

### 2.3.10 "gre"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	1.602	1603 6	1603 4										

### 2.3.11 "gro"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L148 X	11 157 /L	1234										

### 2.4.1 Types of Gutturals: "gha"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L5 F	L70 %	L109 <b>%</b>	L168 %	L233 🛠	L269 4	L318 3		L451 F	L487 F			

### 2.4.2 "ghi"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L398 %												

### 2.4.4 "ghe"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L398 %												

### 2.4.5 "gho"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L19 8	L78 7	L103 F	L274 %	1.390 <b>F</b>								

2.5.1	Types	of Pal	atals:	"ca"
-------	-------	--------	--------	------

Types	i	ii	i	iii	iv	V	v	i	vii		viii	ix	X		xi	xii		xiii
	L7	L15	3	L111	3 L150	L184	E L208	3	L294	3 L	.318 Y	L435 <b>3</b>	L460	ઉા	L505 3	L635	3	

### 2.5.2 "ci"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	1.50 \$	L81 🗲	1.180 5	1.230 8	1.294 5	L318 5	1427 3	L490 3	L512	1597 3	1.609	1.620 X	

#### 2.5.3 "cu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	1212 8	1319 8	L388	1.409	1.483 \$	1.485 8							

### 2.5.4 "ce"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
J1	L127	L162 Š	L175 4	L274 <b>*</b>	L322 💃	1.405	1.499 \$	L501 5	L524 <b>3</b>				

#### 2.5.5 "co"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L377	L565 3	L595 3										

### 2.6.1 Types of Palatals: "cha"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
		<sub>L43</sub> ガ	L109 岁	L436	L479 }	L520 为	L519 ¥	L569 X					

#### 2.6.2 "chi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L43 55	L46 *	L45 🗲	L47 🗡	<sub>L77</sub> 劣	L77 <b>斧</b>	L335 🏂	<sub>L639</sub>					

### 2.6.4 "che"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L275	K L277 K		L337 🕇									

### 2.6.5 "cho"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L74 考												

### 2.7.1 Types of Palatals: "ja"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
		<sub>L16</sub> Y	L22 9		L257 <b>9</b>	L306 Z	L316 Y	L330 <b>9</b>	<sub>L438</sub> Y	L468 Y	L470 J	L525 <b>Y</b>	L533 7

### 2.7.2 "ji"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L59 >	L123 #	L209 4	L326 🗲	L469 🏅	L495 🎢	L513 7	L538	L590 7	L604 ¥			

### 2.7.3 "ju"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L504 7												

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
		L53 /	L79 <b>7</b>	L210 Y	L273 Š	L328 Ý	L387 9	L456 Y	L591 \$				

### 2.7.5 "jo"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	Х	xi	xii	xiii
	IT O	L21 Y	L174 Y	L239 Y	L258 🌂								

# 2.7.6 ja with prefix ra: "rja"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L566 3	L566 3											

### 2.9.1 Types of Palatals: "ña"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	کگر <sub>L90</sub>	L194 3	L304 5	L335 %	کځ <sub>L399</sub>	عى 1408	L459 <b>/</b> S	L475 <b>S≤</b>	L384 &	L603 55			

#### 2.9.2 "ñi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
		L224 5	L297 (5	L299 5	گڑ L328	L431 🕺			L553 🕉	L632 🏂			

#### 2.9.4 "ñe"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	L7 55	L97 St	L175 5		L556 &	L558 5							

#### 2.9.5 "ño"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	х	xi	xii	xiii
	L140 55	L165 \S	L169 🕉	L196	L229 🕉	L236 F	L322 🏂	L452 🟂	L453 &	L475 4	L509 35	L597 JS	

### 2.10.1 Types of Cerebrals: "ṭa"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L319 Z												

### 2.10.4 "te"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L151 Z												

### 2.11.1 Types of Cerebrals: "tha"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L3 4	L45 >	L109 J	L177 <b>3</b>	L238 3	L247 <b>7</b>	L312 >	L484 >	L491 3	L563 5	L584 7		

#### 2.11.2 "ṭhi"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L3 #	L36 4	L62 🖇	L298 🕏	L303 \$	L436 3	L466 \$	L511	L630 %				

### 2.11.4 "the"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L65 5		L319 3										

$\sim$	4	4	_				••
7.	П	П	`	"t	h	O	ľ

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	L32 7												

### 2.12.1 Types of Cerebrals: "ḍa"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L45 <b>4</b>	L110 Y	L122 Y	L158 4		L257 Y	L564 4	L589 4					

### 2.12.2 "di"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L16 96	L106 H	<sub>L207</sub> %	L247 <b>%</b>	L260 H	L328 <b>%</b>	L455 4	L531 H	<sub>L605</sub> 4				

### 2.12.3 "ḍu"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xii
	L199 J												

### 2.12.4 "de"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L574 4												

### 2.12.5 "do"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L69 <b>%</b>												

### 2.13.4 Types of Cerebrals: "dhe"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	1571 7												

# 2.14.1Types of Cerebrals: "ṇa"

7	Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
		L1 S	ک <sub> L14</sub>	L60 /	L122	L149 ]	L230 <b></b>	L296 J	L301 ^	L473 <b></b>	L483	L500	L552 C	L635

### 2.14.2 "ṇi"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L20 J	L99 🔨	L151 J	L170 <b>J</b>	L199 <b></b>	L218 1	L397 <b>1</b>	L463 K	L484 <b>1</b>	L504 <b>f</b>	L635 J		

### 2.14.3 "ṇu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L2 d	L43 S	L119 &	L182 S	L194 🗸	L212 S	L253 <b>\</b>	L308 J	L494 🖍	L504 S	L638 J		

### 2.14.4 "ne"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	1.7	L69	L115 K		1.274	L310 (	L375 6	1414	1489	L597 <b></b>	1.507 <b>戊</b>	1.606	

### 2.14.5 "no"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	148 1	L176 \$	L185 J	L215	L308 {	L407 <b>5</b>	L500 🔾	L538	L604 J				

2.14.6	na	with	anusvāra	am:	"nam"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L108 1												

### 2.14.7 na with prefix ra: "rna"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L270 d												

### 2.15.1 Types of Dentals: "ta"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	LI 5	L54 5	L89 <b>\$</b>	L215 <b>\</b>	L264 <b>5</b>	L296 <b>5</b>	L500 5	L537 <b>5</b>	L620 5	L628 <b>5</b>			

#### 2.15.2 "ti"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	L1 5%	L63 🛠	L170 🖔	L208 5	L241 <b>%</b>	L307 ¥	L468 \$	L484 5	L574 岁	L590 /S	L618 8		

#### 2.15.3 "tu"

Ту	ypes	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
		L8	L56 δ	L82 5	L108 5	<sub>L110</sub>	L191 5	L288 9	L502 <b>S</b>					

#### 2.15.4 "te"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L14 5	L50 \	L102 S	L167 9	L246 S	L294 5	L304 4	L390 <b>5</b>	L451 5	L555 <b>Y</b>	L606 <b>4</b>		

#### 2.15.5 "to"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L2 5	L105 <b>\$</b>	L185 %	L187 カ	L210 🔊	L483 ろ	L595 🔿	جر <sub>L607</sub>					

### 2.15.6 ta with anusvāra am: "tam"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L501 }												

### 2.15.7 "tim"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L494 3												

### 2.15.8 ta with prefix ra: "rta"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L11 -	L493 💆											

#### 2.15.9 "rti"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L56 🗳	L60 5	L167 🗳										

### 2.15.10 ta with suffix ra: "tra"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L7 2	L19 2	L110 2		L275 <b>\</b>	L332 X	L430 Z	L488 2	L530 \	L567 2	L618 2		

#### 2.15.11 "tri"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L47 2	L176 %	L182 2	L200 Z	L298 H	L345 🛠	L494 <b>%</b>	L497 2	L532 Z	L597 4	L630 2		

#### 2.15.12 "tre"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	127 %	L108 &	1418 4	1419 🕊	1.635 4	1.639 \$							

#### 2.15.13 "tro"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	1.4 Z	L53 &	L72 %	L140 3	L182 ×			الم 1,273	L470 を	L487 な	L598 Z		1

#### 2.15.14 ta with semivowel va: "tva"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L15 <b>V</b>	L97 V	L109 V	L152 V	L183 V	L202	L306 V	L385 ¥	L472 <b>4</b>	L483 Y	L510 🖞	L588 <b>%</b>	L601 V

#### 2.15.15 "tvo"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L21 2	L112 V	L137 別	L167 カ	L232 1	L321 划	L547 カ	L552 か					

### 2.16.1 Types of Dentals: "tha"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L376 ナ	L627 7											

#### 2.16.2 "thi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L29	L273 #	L293 #	L296 ⊬									

#### 2.16.3 "thu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L150 J	L162 +											

### 2.16.6 tha with prefix ra: "rtha"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	L110 \$	L154 6	L277 5	L450 \$	L507 t	L508 J							

#### 2.16.7 "rtho"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L32 2	L320 ま											

### 2.17.1 Types of Dentals: "da"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	1.1 5	L5 <b>5</b>	<b>د</b> 1.11	1.97 <b></b>	1.104 }	L162 <b>\</b>	1287	L398 <b>S</b>	1416	<sub>L528</sub> ,	د لک L535	L630 <b>S</b>	

#### 2.17.2 "di"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L13 &	L99 <b>S</b>	L184 🙎	L297 🖇	L302 \$	L441 <b>F</b>	L459 <b>5</b> 5	L472 为	L512 F	L598 🔏	<sub>L637</sub> f		

2.17.3	"du"
--------	------

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L28 S	L72 S	L247 S	L276 <b>ઇ</b>	<sub>L296</sub> 8	L383 <b>S</b>	L449 J	L456 \$	L499 S	L588 of	L609 S		

#### 2.17.4 "de"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	ر 1 <sub>L7</sub>	L99 5	L174 S	L178 F	L183 <b>5</b>		L351 <b>5</b>	11/1/12 1	L493 J	عم <sub>L540</sub>	عر <sub>L625</sub>		1

#### 2.17.5 "do"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L1 S	L44 /		L119 🔏	L200 S	L449 5	L498	L509 \$	L545 -	L595 🔏	L616 ろ		

### 2.17.6 di with anusvāra am: "dim"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L500 \$												

#### 2.17.7 da with suffix ra: "dra"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L15 &												

#### 2.17.8 "dru"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L625 \$												

#### 2.17.9 "dro"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L601 E	L626 パ											

# 2.18.1 Types of Dentals: "dha"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L1 3	L14 3	L31 _3	L101 3	L185 <b>3</b>	L222 3	L422 }	L447 <i>3</i>	L469 3		L555 3	L632 3	

#### 2.18.2 "dhi"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	х	xi	xii	xiii
	L4 <i>⋚</i>	L4 3	L166 3	L448 3	L449 S								

#### 2.18.4 "dhe"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L147	5 L157 3	L166 3	L185 3	L205 3	L241 3	ر 1264 ع	L469 3	L569 3				

#### 2.18.5 "dho"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L7 3	L78 J	L136 3	L144 3	L239 3	L455 3	L552 <b>3</b>						

### 2.18.6 dha with prefix ra: "rdha"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L15 3		L425 3										

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L250 \$	L278 🕏	L479 3										

### 2.19.1 Types of Dentals: "na"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L45	L129 5	L321	L609									

### 2.20.1 Types of Labials: "pa"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L2 h	L86 🏂	L149 5	L193 <b>^</b>	<sub>1,200</sub> Þ		L378 F	1.493	L495 5	L529 /	<sub>L603</sub> (5		

### 2.20.2 "pi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L48 /	L63 B	L182 B	<sub>L184</sub>	L272 /7	11:290 1	L317 #	L386 H	L442 Jh	L596 /	L605 )	L639 #	

#### 2.20.3 "pu"

Typ	i	ii	i	iii	iv	v		vi	v	i	viii		ix		X	xi	xii		xiii	
	L13	L92	Þ	L108 d	5 L168	& L175	S	L184	J3 <sub>L265</sub>	þ	L274	ሉ	L279	$\mathcal{F}_{L3}$	02 J	L442	L512	S	L631	ſ

### 2.20.4 "pe"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
		<sub>L217</sub> A	<sub>L442</sub> 35										

#### 2.20.5 "po"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
			L212 Jr	L235 か	L440 5	L505							

### 2.20.6 pa with anusvāra aṃ: "paṃ"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L199 5												

### 2.20.7 pa with suffix ra: "pra"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L2 C	L34 6	L155 B	L208 Z	L209 6	L303 C	L463 <b>b</b>	L449 C	L483 (		L597 6	<sub>L627</sub> 6	

### 2.20.8 "pri"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L628 (*	L637											

### 2.20. 9 "pru"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L32 &	1.395											

### 2.20.10 "pro"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L403 K	L569 C											

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L76 🏃	L86 カ	L103 T	L133 /	L171 >	L200 †	L227 🅇	L247 カ	L271 5	L449 7	ł		İ

### 2.21.3 "phu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	169	11.70 7	L133 <i>}</i>	L135 P	L143	L143 \$	L157 🎝						

### 2.22.1 Types of Labials "ba"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L154 9	L171 9	L172 }		L228 9	L240 9	L275 ½	L322 7	L436 J	L515 9	L627 5		

### 2.22.2 "bi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L199 4	L252 J											

#### 2.22.3 "bu"

Types	i	ii		iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L7	9 <sub>L152</sub>	g Li	189 9	L203 9	L192 9	L201	L336 6	L396 J	L405 Y	L465 1	L489 J	L506 g	L638 9

### 2.22.4 "be"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L252 5												

#### 2.22.5 "bo"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L2 :	L137	7 <sub>L192</sub> 7		L280 9	L293 J	L296 h	L320 9	L472 岁	L505 9	L638 4		

### 2.22.6 ba with suffix ra: "bra"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L71 9	L129 &	L182 2	L260 9	L414 Z	L465 Z	L493 £	L572 2	L628 2	L635 &			

### 2.23.1 Types of Labials: "bha"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L13 F	190 7	L180	L197 7	L220 7	L289 F	L322 7	L391 5	L432 🎉	L482 F	L498 75	L599 5	L605 $\mathcal{F}$

### 2.23.2 "bhi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii
	L8 🏂	L16 5	L45 🏂	L184 🏂	L208 🏂	L222 🏂	L261 🏂						

#### 2.23.3 "bhu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L54 5	L207 3	L260 3	L263 F	L290 F	L311 7	L397 F	L460 F	L595 J	L603 F			

#### 2.23.4 "bhe"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L54 F	L55 F	L64 🏂	L79 🏂	L127 5	L418 5							

2	22	5	"hho"	
,	/ 3	٦.	nno	

Types	i	ii	ii	1	iv	v		vi	vii	.	viii		ix	X	X	i	xii		iii
	L8 2	5 <sub>L21</sub>	万 <sub>L60</sub>	严	L128	L215	Ŋ	L224 1	L289	グ	L344	<i>≯</i> L:	376 万	L495	F <sub>L562</sub>	S	L587	J L632	罗

#### 2.23.6 bha with suffix ra: "bhra"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L274 Z												

### 2.24.1 Types of Labials: "ma"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	L1 O	L3 U	L78 V	L127 )	L183 J	L231 J	L292 <i>U</i>	L386 V	L442 J	L523	L574 U	L600 <i>O</i>	L635 J

#### 2.24.2 "mi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L2 4	$ _{140}$ $\varphi$	L113 W	L116 4		L332 Y	L459 <b></b>	L514 <b>4</b>	<sub>L628</sub> $\varphi$	L630 Y			

#### 2.24.3 "mu"

Т	Гуреѕ	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
		ر <sub> 116</sub>	L22 $\nearrow$	L89 ~	ر <sub>م L108</sub>	L298 )	کم <sub>L322</sub>	L446 ~	کہ <sub>L484</sub>	<b>ل</b> ہ L553	L554 ノ	ر <sub> L605</sub>	ر <sub>L619</sub>	

#### 2.24.4 "me"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L8 U	لك L67	L49 💪	ال L58	L215 U	L263 U	L300 Ψ	L450 🔟	L590 W				

#### 2.24.5 "mo"

Types	i	ii	iii	iv	vi	vii	viii	ix	X	xi	X	xii	xiii
	L5 )	L37 /C	L132 /	L142 🗸	L221 V	L274 Y	L377 N	L388 )	L403 ノ	L456	L593 N	L612 /	L620

# 2.24.6 ma with anusvāra: "mam"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L250 Y												

### 2.24.7 ma with prefix ra: "rma"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L1 J	ر 136 ک	L60 9	L144 +	L226 C4	L241 F	اللى L272	L315 V	L398 处	L461 J	ىيى L555	L605 J	

#### 2.24.8 "rmi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L225 ->-												

#### 2.24.9 "rme"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
		L28 J	L436 &	L606 J	L618 🔊								

#### 2.24.10 "rmo"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
		L20 J	L36	سر L63	لار L211	L382 &	L395 / Y						

### Table 3. Types of Vowels and Semivowels

### 3.1 Types of semivowel: "ya"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L7 /	L79 /	L105 /)	L129 /	L151 /	L205 \( \mathcal{S} \)	L291 <b>)</b>	L304 ∫	L304 /)	L520 ^	L531 /	L608 \( \int \)	<sub>L628</sub> 2

# 3.1.2 "yi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	<sub>L16</sub> X)	L89 1	L172 X	L183 水	L232 🖍	L239 X	L326 刈	L333 X	L471 \( \hat{\hat{\hat{\hat{\hat{\hat{\hat{	L571 X)	L638 🐴		

#### 3.1.3 "yu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L10	L71 🔥	1.568 f										

### 3.1.4 "ye"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	L19 1	L27 7	L98 J	L168 🖔	L212 と	لام L256	<sub>L290</sub> \( \emptyream{\gamma}{1} \)	<sub>L331</sub> V)	L349 /	L474 り	L590 N	L626 M	

### 3.1.5 "yo"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
		L47 19	L127 /	L291 /	L455 /	L459 A							

### 3.1.6 ya with anusvāra am: "yam"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L193 🏂	1.273	L331 B	1409									

### 3.1.7 ya with prefix ra: "rya"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii
	1.37	1.129 3	1.209	1395 A	1471 3	L628 🔏							

### 3.2.1 types of semivowel "ra"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L1 7	L2 7	L29 3	1.58		L203 Y	L220 5	L306	L412 为	L414 5	L498	L491 5	L599 }

#### 3.2.2 "ri"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	L7 9	1.21 7	L108 7	L188 7	L208 <b>4</b>	L249 >	L327 为	L381 7	1.465 %	L480 <b>T</b>	L520 7	L598 7	1.635

### 3.2.3 "ru"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L11 7	L60 5	L163 7	حر L204	L344 &	L625 S							

#### 3.2.4 "re"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	1.28	L81 5	L148 J	L159 7	L182		L233 Z	L291 4	L374 5	L505 4	L508 3	L594 7	1.610 4

2	1	5	"""	
7	1 /.	,	ro	

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L23 7	L57 🏲		L75 5	L103 7	L198 う	L205 为	L310 カ	<sub>L490</sub>	L512 7	L585	L633	

### 3.3.1 types of semivowel: "la"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	14 7	L60 7	L136 7	L140 J	1.245	L266 1		L374 7	1.467 9		L538 J		L627 1

#### 3.3.2 "li"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	1.53	L70 1	1147	L161 7	1.281 <b>4</b>	1282 4	1422 7	L500 H	L591 #				

#### 3.3.3 "lu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L108 I												

# 3.3.4 "le"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	1.17 4	1.54 J	L151 4		L228 9	1.447 7	1603 4	1.619					

### 3.3.5 "lo"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L2 A	L23 7	L24 A	L25 Z	L78 7	L172 1	L219 7	L276 <b>A</b>	L302 1	L497 J	L526 🕏	L606 1	

### 3.4.1 types of semivowel: "va"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L1 3	1.97	L111 3	L115 7	1302 2	L316 )	L390 7	1402 7	1490 7	L502 J	11541 /	1.621 7	

#### 3.4.2 "vi"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L1 J	L36 5	L197 7	L144 <b>1</b>	L452 🇷	L488 7	L590 1	L617 🗡					

#### 3.4.3 "vu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L38 0	L128 3	L179 <b>7</b>	1288 2	L432 >	1.590	1.609						

#### 3.4.4 "ve"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L12 5	L165 3	L140 3		L243 Ż	L308 }	L401 7	L405 ク	L432 Ĵ	L483 7	L527 5	L569 3	L568 Ź

#### 3.4.5 "vo"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L19 7	L80 >	L112 7	L116 📝	L123 17	L164 🛭	L187 3	L283 -7	L302 3	L476 7	L495 🛭	L597 3	1.608 7

### 3.4.6 va with anusvāra am: "vam"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	1421 3												

2 4 7		:41-	C:		66 ??
3.4./	va	with	prefix	ra:	rva

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L1 3	L69 3	L109 3		L221 3	L225 2	L261 9	L330 Ђ	L439 <i>}</i>	L455 3	L613 J	L638 3	

#### 3.4.8 "rvi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L506 7	L507											

### 3.4.9 "rve"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L21 \$	L28 9	L173	L201 3	L236 3	1.293	L435						

### 3.4.10 "rvo"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L210 §												

### 3.4.11 va with aspirate ha: "vha"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	<sub>1.6</sub> 2	L192 7	لح. 1.247		1283 2	L322 3)	1414 2	1416 7	1.508	ر 1585	1.625		

#### 3.4.12 "vhi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L5 3	L91 🔏	L188 J	L203 7	L206 🏂	L210 \$	L221 💅	L273	L422 J	L468 5)	L471 💅		

#### 3.4.13 "vhu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L510 7												

#### 3.4.14 "vhe"

Type s	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L321 7												

#### 3.4.15 "vho"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	х	xi	xii	xiii
	16 2	1.103											

### Table 4. Groups of Sibilants

### 4.1 Types of sibilant "śa"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L1 D	L2 <b>1</b>	L156 人	<sub>L172</sub> /3	L195 🍞	L211 D	L304 /	L371 /	L378 J	L468 🎵	L541 7	L584 🔎	L600

#### 4.1.2 "śi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L2 M	L103 1	L190 🎵	<sub>L208</sub> か	L274 1	L279 <i>JY</i>	L338 /	L382 / <b></b>	L480 J	<sub>L482</sub> か	L574 か	L633 rh	

4.1.3 "śu	,,
-----------	----

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L4 5	L84 🔊	<sub>L109</sub> ハ	L441 <i>わ</i>	L450 の	L452 d)	L453 5	L511 <b>6</b> 7					

#### 4.1.4 "śe"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L149 15	L157 1	L235 /	L404 1	L419								

#### 4.1.5 "śo"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L20 /73	L44 /グ	L45 /2	L76 M	L108 M	L135 /	L143	<sub>L180</sub> $^{\prime\prime}$	L447 ወ	L451 /D	L472 )カ		

### 4.1.6 śa with anusvāra am "śam"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L1 /3	L 22 /3											

#### 4.1.7 śa with prefix ra: "rśa"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L 39 B												

#### 4.1.8 śa with suffix ra: "śra"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L7 12												

#### 4.1.9 "śru"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L 5 02	$_{L8}$ $\kappa$	L 15 P	L 16 TZ	L 25 P	L 34 JZ							

#### 4.1.20 "śre"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	L7 ル	L 40 Ń											

### 4.1.21 ligature dental "ta" with sibilants: "śa": "tśa"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L7 B												

### 4.1.22 śa with labials pa: "śpa"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	L37 2	L44 3	L70 3	L129 }	L189 🏂	L573 2	L573 }						

### 4.1.23 "śpe"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L273 7	L274 <b>2</b>											

### 4.2.1 Types of sibilant: "ṣa"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L14 T	L64 /	L161 P	L174 🌈	L207 C	L268 P	L390 T	L396	L456 P	L462 J	L465 M	<sub>L548</sub> P	L634 T

4	1	$\mathbf{a}$	"	٠	,,
4	1.	1.		1	

pes	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L62		L293 <b>T</b>	L311 ×	L313 1	L320 X	L525 A						

### 4.2.3 "șu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii
	L107 7	L270 J	L298 P	L306 T	11 311 4	L318 P	L460 J	L470 T	L534 J	L571 P	L574 P	L635 T	

# 4.2.4 "ṣe"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L25 7	L56 27	L266 ケ										

### 4.2.5 "șo"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi
	L99 ~	$\mathcal{P} _{\text{L}108}$ 2	$\gamma_{_{ m L181}}$ ${\cal R}$	L183 P	L235 P	L328 P	L414 9	L419 <i>L</i>	L437 - 20		

# 4.2.6 Ṣa with anusvāra aṃ: "Ṣaṃ"

Typess	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L462 9												

### 4.2.7 Şa with prefix ra: "rṣa"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L70 2												

### 4.2.8 "rṣi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L495 Å	11 496	L497 \$										

### 4.2.9 Şa with suffix ra: "ṣra"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L61 3	L268 T	L385 T	1.395 P	1.405 T								

# 4.2.10 "ṣru"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	Xiii
	L398 L												

### 4.3.1Types of sibilant: "sa"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L1 >	L28 Z	ح <sub>1108</sub>	حر <sub>L175</sub>	L201	<sub>L204</sub> ア	L245 🔾	L308 🗲	کر <sub>L397</sub>	L408 >	L616 2		

### 4.3.2 "si"

Types	i	ii	iii	vi	v	vi	vii	viii	ix	X	xi	xii	xiii
	L14 🔏	L28	L43 5	L90 💈	L137 🖇	L167 5	L300 🏲	L404 🍠	L511 💈	L594 💈	L605 Z	L638 &	L640 \$

#### 4.3.3 "su"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L18 P	خ L43 ک	L56 P	L165 3	L171 7	خ  L249	L256 7	L309 >	L420 5	L486	L526 J	L625	

1	3	1	"se"
4	٦.	4	~-

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L8 3	L29 🖇	کر <sub>L60</sub>	L69 3	L71 \$	L182 💆	L217	L253	لر L399	L408 <b>3</b>	L542 😤	L605 🕇	

#### 4.3.5 "so"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L16 8	L56 5	L88 🏂	L103 🕏	L132 P	1213 /	L215 <b>§</b>	L399 🏂	L455 P	L593 冷	L615 B		

### 4.3.6 sa with anusvāra am: "sam"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L20 5	خى L140	L276 Š										

#### 4.3.7 sa with semivowel va: "sva"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L115 &	L211 <b>7</b>	L218 8	L409 &	L456 B	L597 Z	اح <sub>1601</sub>	L602 S					

#### 4.3.8 "svi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
		L129 \$	L193 2	L216 <b>E</b>	L262 <b>E</b>	L398 2	L502 Z	L592 🐉					

#### 4.3.9 "sve"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L63 Z	L191 &											

#### 4.3.10 sa with dentals ta: "sta"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L80 }	L475 3	L480 7	L492 7									

#### 4.3.11 "sti"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L45 7	L194 🕇	L198 🌶										

#### 4.3.12 "stu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L515 7	L516 3											

#### 4.3.13 "sto"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L60 7	L390 矛	L436										

#### 4.3.14 sa with dentals ta and suffix ra: "stra"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L216 <b>2</b>												

#### 4.3.15 "stri"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L198 A	L203											

### Table 5. Sonant Aspirate "ha"

### 5.1 Types of sonant aspirate: "ha"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	1.7 2	ے 191	L127 Z	L169 <b>L</b>	L193 2	L243 2,	L250 <b>2</b>	L336 Z	L606 <b>2</b>	L635 Z			

#### 5.2 "hi"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	17 2	L78 &	L147 2	L189 2	L247 Z	L316 Z	L497 <b>2</b>	L518 7					

#### 5.3 "hu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L75 2	1278 2											

#### 5.4 "he"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L106 2	L413 2-	L449 Z	L512 Y	L596 Z	L609 Z							

#### 5.5 "ho"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L4 2	L63 2		L179 <b>/</b>	L255 Z	L441 Z	L462 2	L506 -2					

# Table 6. Special letter "kṣa"a

### 6.1 Types of special letter: "kṣa"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	Х	xi	xii	xiii
	L116 P	L137 5	L185 }	L142 Y	L235 Y	L263 🍾	IT 2 2 1 J	L515 \$	L632 Y				

### 6.2 "kṣi"

Types	i	ii	iii	iv	V	vi	vii	viii	ix	X	xi	xii	xiii
	L28 4	L31 8	L135 5	L192 🔏	L248 ¥	L292 &		L421 &	L598 ¥				

### 6.3 "kṣu"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	L144 d	1.158	1294										

### 6.4 "kṣe"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	х	xi	xii	xiii
	L182 5	L197 🖇	L204 🎐	1.247 T	L332 J	L565 🕊	L598 5						

### 6.5 "kṣo"

Types	i	ii	iii	iv	v	vi	vii	viii	ix	X	xi	xii	xiii
	L68 子	L197	L213 Y	L489 Y	L494 >	L593 8							