

Preliminary Proposal to Encode Siddham in ISO/IEC 10646

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1 Introduction

This is a preliminary proposal to encode the Siddham script in the Universal Character Set (ISO/IEC 10646). It is a collaborative effort between the Script Encoding Initiative (SEI) at the University of California, Berkeley and the Shingon Buddhist International Institute, Fresno, California. Feedback is requested from experts and users of the script. Comments may be submitted to the author at the email address given above.

Siddham is a Brahmi-based writing system that originated in India, but which is used primarily in East Asia. At present it is associated with esoteric Buddhist traditions in Japan. Nevertheless, Siddham is structurally an Indic script and its proposed encoding adheres to the UCS model for Brahmi-based writing systems, such as Devanagari and similar scripts. The technical description for Siddham given here may differ from the traditional analysis and philosophical interpretations of the script and its constituent characters and glyphs. An attempt has been made to encode all distinct characters attested in Siddham records, although more characters may be uncovered through additional research. The characters that are proposed for encoding have been analyzed in accordance with the character-glyph model of the UCS. As a result, the proposed encoding may contain characters that are not part of traditional character repertoires. It may also exclude characters that are traditionally regarded as independent letters, such as conjuncts, which are to be represented in the manner specified by the UCS encoding model.

A total of 84 characters is proposed for Siddham: 14 vowel letters, 14 dependent vowel and related signs, 33 consonant letters, 1 VIRAMA, 1 invocation sign, 4 punctuation marks, 3 repetition marks, 1 NUKTA, and 14 section marks. Other characters have been identified, but are not yet proposed for encoding because additional information regarding their usage is required (see Section 6).

Siddham is allocated to the Supplementary Multilingual Plane (SMP) at the range U+11580..U+115FF. Character names follow the UCS convention for Brahmi-based scripts. The proposed code chart and names list are shown in figures 1 and 2. The code chart draws upon a document prepared by Michael Everson (1999), but offers some revisions and new additions. Representative glyphs are based upon the ‘Tenchiji’ font designed by the Shingon Buddhist International Institute with assistance from Lee Collins and Peter Lofting. The present author has added new glyphs and made some modifications to existing glyphs.

2 Background

The Siddham script ((𑖀𑖃𑖦𑖫 *siddham*, (𑖀𑖃𑖦𑖫 *siddhām*; Sans. सिद्धं *siddham*; Chi. 悉曇文字 *xītán wénzì*; Jap. 悉曇 *shittan*; Kor. 실담 *siltam*) is a Brahmi-based script historically used for writing Sanskrit in China, Japan, and Korea. It is also known in Japan as *bonji* (梵字; Chi. *fànzi*; “Brahmā letters” < Sans. ब्रह्मा *brahmā*). At present, Siddham is used predominantly in Japan, where it is associated with the Shingon (真言) and Tendai (天台) schools of Japanese esoteric Buddhism (密教 *mikkyō*). Siddham was used for writing Buddhist manuscripts, but it is now mainly used for ceremonial and ritualistic purposes, such as the copying of *sūtra*-s and the writing of *mantra*-s and *bījākṣara*-s “seed syllables” associated with esoteric Buddhist practices. It was also used for inscriptions on statuary, amulets, and other artefacts.

Tradition states that the esoteric philosophy for Siddham was introduced in Japan in 806 by the Buddhist monk Kūkai (空海) (774–835), who learned the script in China from Prajñā (Sans. प्रज्ञा; Chi. 般若三藏 Bōrě Sāncáng) (734–c.810), a monk from Kashmir who served the Buddhist community of Chang’an (modern 西安 Xi’an) as an expert of Sanskrit and translator of Buddhist texts (van Gulik 1980: 114; Abe 1999: 117–119). Known better by his posthumous title Kōbō-Daishi (弘法大師), Kūkai was the founder of the Shingon (“True Word”) school. Another proponent of Siddham in Japan was Saichō (最澄) (767–822), also called Dengyō-Daishi (伝教大師), who was the founder of the Tendai school.

There are several regional forms of Siddham. The Japanese form is described here and it is presented as the normative form for the encoding. In Japan, Siddham calligraphy is classified as ‘formal’ or ‘informal’ based upon the implement used for writing. The ‘formal’ script is written using a wooden stylus called *bokuhitsu* (木筆; Chi. *mù-bǐ*), while the ‘informal’ or ‘brush’ style is written using the common hair-tipped *fude* (筆; Chi. 毛筆 *máo-bǐ*). The ‘formal’ and ‘informal’ styles of letters are shown in figures 12–17. The forms of Siddham letters used in Korea (see figures 21–26) differ significantly from those of Japanese and Chinese Siddham. However, given the close relationships between the regional forms and their identities as ‘Siddham’, it is practical to unify these variants with the proposed script block.

Siddham is most closely related to Sharada (see tables 1 and 2), a Brahmi-based script that originated in Kashmir and that was used throughout northwestern India for producing manuscripts and inscriptions (see Pandey 2009). The use of Sharada spread from India into Central Asia and travelled from there to China with Buddhist monks. Although there are not many records in Central Asian Siddham, an example of it is found on the palm-leaf manuscripts of the Hōryū-ji (法隆寺) temple in Nara, Japan (see figure 6), which were brought there from China in 609. Unlike Siddham written with the *bokuhitsu* or *fude*, the Siddham letters on the Hōryū-ji manuscripts were written with the typical Indian reed-pen. A detailed palaeographical description of the Siddham of these manuscripts was presented by Georg Bühler (1884).

Additional background information will be provided in the formal proposal.

3 Writing System


3.1 Structure

The general structure (phonetic order, *mātrā* reordering, use of *virāma*, etc.) of Siddham is similar to that of Devanagari. Consonant clusters are represented as conjuncts. Some consonants and vowel signs have different shapes when they occur in certain environments.

3.2 Directionality










Siddham is written horizontally left-to-right, but it is also written vertically top-to-bottom with lines proceeding from right-to-left. See figure 4 for an example of Siddham written left-to-right and figure 5 for text written top-to-bottom.

3.3 Virāma



The Siddham  VIRAMA is identical to the corresponding character in Devanagari. It is used for silencing the inherent vowel of a consonant and for producing consonant conjuncts. The default rendering of VIRAMA is as a visible sign. The VIRAMA is known in Sanskrit as हलन्त *halanta* and in Japanese as 恒達点 *tatatsu-ten*.

3.4 Vowel Letters

There are 14 vowel letters proposed for encoding:















 A	 U	 O	 VOCALIC L
 AA	 UU	 AU	 VOCALIC LL
 I	 E	 VOCALIC R	
 II	 AI	 VOCALIC RR	



Encoding Order The vocalic letters appear at the end of the vowel order in the traditional Siddham arrangement. This practice is retained in the encoding order.

Graphical variants Variant forms of vowel letters are attested, eg.  AA is also written as  (see figure 12). These are glyphic variants that are to be managed through fonts. Different forms of vowel letters are used in Korean Siddham (see figure 21).

3.5 Vowel and Related Signs

There are 14 dependent vowel and related signs (Jap. 摩多 *mata* < Sans. मात्रा *mātrā*) proposed for encoding:

 VOWEL SIGN AA	 VOWEL SIGN E	 VOWEL SIGN VOCALIC RR
 VOWEL SIGN I	 VOWEL SIGN AI	 SIGN ANUSVARA
 VOWEL SIGN II	 VOWEL SIGN O	 SIGN CANDRABINDU
 VOWEL SIGN U	 VOWEL SIGN AU	 SIGN VISARGA
 VOWEL SIGN UU	 VOWEL SIGN VOCALIC R	

Unattested vowel signs Dependent forms of  VOWEL LETTER VOCALIC L and  VOWEL LETTER VOCALIC LL are as of yet unattested. Space has been reserved in the code chart in the event that additional research uncovers such characters.

Encoding Order The signs for the vocalic letters appear at the end of the vowel-sign order in the traditional Siddham arrangement. This practice is retained in the encoding order.

Graphical variants There are glyphic variants of vowel signs (see figures 12 and 19), which are to be managed through fonts. One of the most common variants is the use of ീ for ീ VOWEL SIGN AI.

Alternate forms There is an alternate form for VOWEL SIGN VOCALIC RR. Normally, this sign is written as ീ. The two-part form ീ is also attested; it is a combination of ീ VOWEL SIGN VOCALIC R and ീ VOWEL SIGN AA, in which the latter sign acts as a vowel-length mark.

Nasalization The signs ീ ANUSVARA and ീ CANDRABINDU are used for indicating nasalization.

Visarga The sign ീ VISARGA represents post-vocalic aspiration (/h/). In Sanskrit phonology, it indicates an allophone of ീ SA or ീ RA in word-final position.

Ordering of multiple signs In certain cases, such as when writing ‘seed syllables’, a base letter that is combined with the signs ANUSVARA OR CANDRABINDU may also be combined with the sign VISARGA, eg. ീ or ീ. In such cases the VISARGA is written last: <൬ AA, ീ CANDRABINDU, ീ VISARGA> → ീ. Rendering engines should recognize such sequences of combining marks as valid.

3.6 Consonants

There are 33 consonant letters proposed for encoding:

൬	KA	൬	NYA	൬	DHA	൬	LA
൬	KHA	൬	TTA	൬	NA	൬	VA
൬	GA	൬	TTHA	൬	PA	൬	SHA
൬	GHA	൬	DDA	൬	PHA	൬	SSA
൬	NGA	൬	DDHA	൬	BA	൬	SA
൬	CA	൬	NNA	൬	BHA	൬	HA
൬	CHA	൬	TA	൬	MA		
൬	JA	൬	THA	൬	YA		
൬	JHA	൬	DA	൬	RA		

Each consonant bears the inherent vowel /a/, represented by ീ A, which is silenced using ീ VIRAMA. Variant forms of consonants are attested (see figures 13–17); these are to be managed at the font level.

3.7 NUKTA

The sign ീ NUKTA is used for transcribing sounds for which distinct characters do not natively exist in the writing system (see figure 42). The NUKTA is not a traditional Siddham character, but it is part of 現代悉曇 *gendai shittan* “modern Siddham”, which is an extension of Siddham that accommodates the writing of Japanese and English. The name of the character is derived from the Arabic word نكتة *nuqtah* = *nukta* “dot” and corresponds to characters such as ീ U+093C DEVANAGARI SIGN NUKTA.

The NUKTA is generally written with a letter that has the closest phonetic proximity to the target sound. For example, in figure 43 it is shown combined with ീ JA for representing /z/. The NUKTA is always combined

with the letter that it modifies. If written with a consonant that is also combined with a vowel sign, then it is ordered immediately after the consonant, eg. <𑖦 JA, 𑖧 SIGN NUKTA, 𑖨 VOWEL SIGN U> → 𑖦𑖨 zu.

3.8 Consonant Conjuncts

Consonant clusters are written as conjuncts. They are not encoded as independent characters. Conjuncts are represented using VIRAMA, which is written after each consonant in a cluster. Siddham conjuncts are written vertically, horizontally, and as independent ligatures. Additional details will be provided in the formal proposal.

There are traditional Chinese and Japanese tabulations for Siddham conjuncts. One such classification system was described in the manual *Xīnán Zìjì* (悉曇字記) by the Chinese monk Zhì-guǎng (智廣) (d. 806), who organized the various possible cluster combinations of Siddham consonants into eighteen categories (see figure 44). Examples of several conjuncts are shown in figures 45–60.

Shaping The shape of some consonants change when they occur in conjunct-initial position (eg. 𑖦 KA → 𑖦; 𑖦 RA → 𑖦 *repha*), some are written using post-base forms when they are non-initial (eg. 𑖦 YA → 𑖦). These ligating forms are illustrated in figures 13–17 (column labeled “in combination”) and figures 19–20.

Depth Siddham conjuncts may represent clusters with large numbers of consonants. For example, a conjunct of six consonants is 𑖦 *rkṣvrya*, which is produced using the sequence <𑖦 RA, 𑖧 VIRAMA, 𑖦 KA, 𑖧 VIRAMA, 𑖦 SSA, 𑖧 VIRAMA, 𑖦 VA, 𑖧 VIRAMA, 𑖦 RA, 𑖧 VIRAMA, 𑖦 YA>.

Special Conjuncts The glyphs 𑖦 *kṣa* and 𑖦 *llaṃ* are often shown as independent letters in Siddham charts. The *kṣa* represents conjuncts of different consonant letters and *llaṃ* represents conjuncts of geminate consonants. Based upon the UCS encoding model, they are not independent letters, but conjuncts. They are to be represented using the following sequences: 𑖦 = <𑖦 KA, 𑖧 VIRAMA, 𑖦 SSA> (compare Devanagari क्ष *kṣa* = <𑖦 KA, 𑖧 VIRAMA, 𑖦 SSA>); 𑖦 = <𑖦 LA, 𑖧 VIRAMA, 𑖦 LA, 𑖧 ANUSVARA>. It may be practical to define these conjuncts as named character sequences (see Section 6).










Default Representation It is expected that a basic Siddham font will contain the necessary glyphs for properly representing conjuncts. A consonant cluster is depicted with the appropriate conjunct glyph only if such a glyph is available in the font. If the conjunct glyph is unavailable, the bare consonants in the cluster are depicted using their full forms combined with a visible VIRAMA. While these depictions of conjuncts may not be used in Siddham orthography, they are necessary for the representation of the script in plain text. In order to render Siddham text appropriately in the absence of distinct glyphs for any possible conjunct, it is recommended that a set of condensed forms of letters in conjunct-initial and non-initial positions be available so that arbitrary conjuncts may be rendered in the vertical orientation used in Siddham orthography.

3.9 Consonant-Vowel Combinations

Vowel signs combine with consonant letters and conjuncts as in Devanagari. Some consonant shapes are modified when they are written with vowels (eg. 𑖦 KA → 𑖦 when combining with 𑖨 VOWEL SIGN U: 𑖦 *ku*). Some vowel signs are written as contextual forms when they occur with certain consonants. For example, 𑖨 VOWEL SIGN U → 𑖨 and 𑖨 VOWEL SIGN UU → 𑖨 when combining with 𑖦 NGA, 𑖦 JA, 𑖦 TTA, 𑖦 TTHA, 𑖦 DDHA, 𑖦 NA, 𑖦 PA, 𑖦 VA. When written with 𑖦 RA, these signs have an additional contextual form: 𑖦 *ru* and 𑖦 *rū*. Additional details will be provided in the formal proposal.













3.10 Invocations

The following characters are used as invocations:





1.  SIDDHAM This sign is written at the beginning of a text (see figures 6 and 37). It has a vertically-oriented glyphic variant  (see figure 32). The sign is traditionally analyzed as being formed from the lower portion of  I. Palaeographically,  corresponds to characters used in other Indic scripts, where it represents the Sanskrit word  *siddham* “accomplished” and the phrase  *siddhirastu* “may there be success”.
2. *om* The sacred syllable *om* is represented using the sequence  O,  CANDRABINDU \rightarrow . A distinct *om* character is not attested for Siddham.

3.11 Punctuation

The following punctuation characters are proposed for encoding:








1.  DANDA This mark is used for marking the end of sentences and other short text sections (see figures 31, 39, 40). It has a graphical variant  that is used in ‘informal’ Japanese Siddham. The DANDA corresponds to, but is graphically distinct from,  U+0964 DEVANAGARI DANDA.
2.  DOUBLE DANDA This mark is used at the end of paragraphs and larger text blocks (see figures 31, 39, 40). It is also written with an underdot . The graphical variant  is used in ‘informal’ Japanese writing. The DOUBLE DANDA corresponds to, but is graphically distinct from,  U+0965 DEVANAGARI DOUBLE DANDA.
3.  WORD SEPARATOR ONE This sign is used for marking boundaries between words. It is written at the head-height and is distinct from the  middle dot. Usage of WORD SEPARATOR ONE is shown in figure 37.
4.  WORD SEPARATOR TWO This sign is used for marking boundaries between words and phrases. Its usage is shown in figures 39, 40, 41, where it appears alongside  DANDA and  DOUBLE DANDA.


The following punctuation mark is not proposed for separate encoding:

1.  Word and phrase separation is also indicated using a  middle dot (see figure 38). This mark differs from  WORD SEPARATOR ONE in terms of its vertical placement. It is to be written using the already encoded  U+00B7 MIDDLE DOT.

Other similar characters are identified in see Section 6.

3.12 Section Marks

The following 14 characters are used for marking the end of sections:  SECTION MARK ONE,  SECTION MARK TWO,  SECTION MARK THREE,  SECTION MARK FOUR,  SECTION MARK FIVE,  SECTION MARK SIX,  SECTION MARK SEVEN, SECTION MARK EIGHT, SECTION MARK NINE, SECTION MARK TEN, SECTION MARK ELEVEN, SECTION MARK TWELVE, SECTION MARK THIRTEEN, SECTION MARK FOURTEEN.

The first twelve marks are attested in various Siddham manuals (see figures 31, 32, 34). The last two are attested in a manuscript (see figure 38). The  SECTION MARK TWELVE is graphically distinct from other

section marks, perhaps also functionally, and could be encoded as a completion-of-text mark (see Section 6).

3.13 Repetition Marks

The 𑖦 REPETITION MARK ONE, 𑖧 REPETITION MARK TWO, and 𑖨 REPETITION MARK THREE are used for indicating the repetition of text. They are written after the text that is to be repeated. Questions regarding the usage of repetition marks are stated in Section 6.

The 𑖦 REPETITION MARK ONE has the glyphic variants 𑖦 and 𑖧 (see figures 31, 32, 34). Based upon its graphical shape and function, it is likely that REPETITION MARK ONE is derived from an Indic digit ‘2’ (compare Devanagari २). A common practice in manuscript traditions of northern India is to indicate the repetition of words using digits. The digit used indicates the number of repetitions, eg. ‘2’ for twice, ‘3’ for thrice. As there are no attested digits for Siddham, it appears that the original link between REPETITION MARK ONE and a numeric value was forgotten and the original digit for ‘2’ was preserved as a symbol. This explains the serialized usage of REPETITION MARK ONE in the text excerpt in figure 35 for indicating a triple reading, ie. Devanagari “ॐ २ २” instead of “ॐ ३” for *hūṃ hūṃ hūṃ*).

The 𑖧 REPETITION MARK TWO is used in the vertical version of the *Uṣṇīṣa Vijaya Dhāraṇī Sūtra* shown in figure 5. An excerpt of the *Sūtra* with the repetition marks highlighted is shown in figure 36. Here, the mark appears after 𑖦 *ya* (3rd character), another *ya* (7th character), and 𑖦 *ra* (10th character). The mark prompts the reader to parse the text as “*jaya jaya, vijaya vijaya, smara smara*”. It is possible that REPETITION MARK TWO is used only in a vertical environment. This is supported by the accompanying Japanese annotation, which glosses 𑖧 using 𑖧 U+3031 VERTICAL KANA REPEAT MARK.

The 𑖨 REPETITION MARK THREE is shown in several Siddham manuals. It is proposed for encoding because it is a graphically-distinct character.

4 Characters Not Proposed

Characters attested in Siddham sources, but that are not yet proposed for encoding are described below.

4.1 Digits

Siddham does not have a traditional set of digits. However, some digits that appear to be modern innovations and named as “Bonji numerals” are shown in figure 18.

4.2 Editorial Marks

Siddham manuscripts contain editorial marks, such as those used for indicating the insertion or deletion of text. The characters 𑖦 and 𑖦 are used for marking deletions (see figure 34). Another character is a caret-like insertion mark that is written below the baseline to indicate the insertion of text. These editorial marks are not unique to Siddham and are used in various Indic manuscript traditions. These characters should be represented using already-encoded characters with similar functions (see Section 6).

4.3 Pedagogical Characters

There are several pedagogical characters used for describing Siddham letters in script manuals. Some of these are discussed below. These characters may be candidates for encoding, but additional research is required regarding their usage and suitability for encoding, as per the UCS encoding model (see Section 6).

Character Strokes Siddham manuals describe elemental character strokes that are used for writing letters (see figure 64). Some of these are described below.

1. 丶 *myō-ten* The stroke 丶 is the initial mark made when a brush is pressed upon a surface for writing any Siddham letter (see the stroke order in figures 65 and 66). It is known in Japanese as 命点 *myō-ten* “life mark”. The *myō-ten* corresponds to the Chinese simple stroke 丶 (點 *diǎn* “dot”), which is encoded in the UCS as 丶 U+31D4 CJK STROKE D.
2. ㄣ *a-ten* The stroke ㄣ is shown in some historical and modern Siddham handbooks as a dependent vowel sign of 𑖀 A (see figures 19, 62, 63) or as a ‘variation’ of the letter (see figure 12). For this reason it is called ア点 *a-ten* “a mark” in Japanese. It is a horizontally elongated form of 丶 *myō-ten*. The *a-ten* is not a true ‘vowel sign’, but a portion of the top-stroke of each consonant letter.
3. ㇿ *gyōgatsu-ten* The stroke ㇿ is known in Japanese as 仰月点 *gyōgatsu-ten* “moon-viewing mark” and in Sanskrit as अर्धचन्द्र *ardhacandra* “half-moon”. It is the foundational stroke of the sign 𑖠 CAN-DRABINDU, which is produced by writing 𑖠 ANUSVARA with *gyōgatsu-ten*. The stroke is considered 莊嚴 *shougon* (Sans. अलंकार *alaṃkāra*) “adornment” or “decoration” in that it does not change the phonological value of ANUSVARA. The use of *gyōgatsu-ten* is shown in figure 67, where it appears as an independent graphical element.
4. ㇿ *u-ten* The stroke ㇿ is known as ウ点 *u-ten* “u mark” in Japanese. It is used for forming characters like 𑖡 I, 𑖢 U, and 𑖣 UU.
5. 〇 *en-ten* The stroke 〇 is known as 円点 *en-ten* “circle mark” in Japanese. It is used for forming characters like 𑖠 ANUSVARA and 𑖡 TTHA.

‘Headless’ Letters Some Japanese treatises on Siddham offer explanations about the phonological properties of Siddham consonants by using ‘headless’ letters, which are the regular consonants written without the top-stroke (*myō-ten*; Sans. *mātrā*). One such work, the *Shittan Bunsho* (悉曇聞書) of Jiun Sonja (慈雲尊者) (1718–1804), expounds upon the alphasyllabic and alphabetic natures of Siddham consonants by using ‘headless’ letters. Jiun explains that removing the top-stroke of 𑖀 KA produces the ‘headless’ form 𑖁 in which the inherent vowel is absent: /ka/ → /k/. According to this view, the inherent vowel /a/ is contained in the top-stroke and eliminating it produces an alphabetic form of a letter. Secondly, when this ‘headless’ *ka* is combined with a 𑖡 VIRAMA as 𑖂, the remaining consonantal value is removed: /k/ → Ø. In this case, the VIRAMA essentially eradicates the entire letter. A table of ‘headless’ letters is given by Jōgon (淨嚴) (1639–1702) in his *Shittan Sanmitsushō* (三密鈔), which is presented here in figure 61. While ‘headless’ forms of Siddham consonants are required for accurately representing Jiun’s *Shittan Bunsho*, they are to be considered as glyphic variants of regular letters and are to be managed through fonts.

4.4 Bījākṣara-s

A *bījākṣara* or *bīja* “seed syllable” may be written such that the constituent characters are joined to form a highly-stylized ligature (see figures 69, 70, 71, 72). For example, the word 𑖀𑖡𑖢 *phaṭ* (<𑖀 PHA, 𑖡 TTA, 𑖢 VIRAMA>) may be written as 𑖀𑖡𑖢 *phaṭ*. A more complex example is a *bīja* of Ācala (Sans. अचल; Chi.

不動明王 Búdòng Míngwáng; Jap. Fudō Myōō), which is a ligature formed by joining ༄ྲྀྭ *hām* and ༄ྲྀྭ *mām*, the last two syllables of his *mantra*, into a monogram written as ༄ྲྀྭ or ༄ྲྀྭ or ༄ྲྀྭ *hāmām*.

These types of ligatures cannot be represented in plain text using characters proposed for encoding. They are calligraphic innovations and are to be managed through the application of font features or text attributes.

5 Character Data

5.1 Collation

The primary collating order for Siddham is as follows:

ྲ A < ྲ AA < ཨ I < ཨ II < ཐ U < ཐ UU < ཅ E < ཅ AI < ཐ O < ཐ AU <
 ར VOCALIC R < ར VOCALIC RR < ལ VOCALIC L < ལ VOCALIC LL < ཀ KA < ཀ KHA <
 ཀ GA < ལ GHA < ར NGA < ར CA < ར CHA < ར JA < ར JHA < ར NYA <
 ཐ TTA < ཐ TTHA < ར DDA < ར DDHA < ར NNA < ར TA < ར THA < ར DA <
 ར DHA < ར NA < ར PA < ར PHA < ར BA < ར BHA < ར MA < ར YA < ར RA <
 ར LA < ར VA < ར SHA < ར SSA < ར SA < ར HA < ཐ SIGN AA < ཐ SIGN I <
 ཐ SIGN II < ཐ SIGN U < ཐ SIGN UU < ཐ SIGN E < ཐ SIGN AI < ཐ SIGN O <
 ཐ SIGN AU < ཐ SIGN VOCALIC R < ཐ SIGN VOCALIC RR < ཐ VIRAMA

The following signs have secondary weights: ཐ CANDRABINDU, ཐ ANUSVARA, ཐ VISARGA, ཐ NUKTA.

5.2 Character Properties

Character properties given in the data format of `UnicodeData.txt`:

```
11580;SIDDHAM LETTER A;Lo;0;L;;;;N;;;;;
11581;SIDDHAM LETTER AA;Lo;0;L;;;;N;;;;;
11582;SIDDHAM LETTER I;Lo;0;L;;;;N;;;;;
11583;SIDDHAM LETTER II;Lo;0;L;;;;N;;;;;
11584;SIDDHAM LETTER U;Lo;0;L;;;;N;;;;;
11585;SIDDHAM LETTER UU;Lo;0;L;;;;N;;;;;
11586;SIDDHAM LETTER E;Lo;0;L;;;;N;;;;;
11587;SIDDHAM LETTER AI;Lo;0;L;;;;N;;;;;
11588;SIDDHAM LETTER O;Lo;0;L;;;;N;;;;;
11589;SIDDHAM LETTER AU;Lo;0;L;;;;N;;;;;
1158A;SIDDHAM LETTER VOCALIC R;Lo;0;L;;;;N;;;;;
1158B;SIDDHAM LETTER VOCALIC RR;Lo;0;L;;;;N;;;;;
1158C;SIDDHAM LETTER VOCALIC L;Lo;0;L;;;;N;;;;;
1158D;SIDDHAM LETTER VOCALIC LL;Lo;0;L;;;;N;;;;;
1158E;SIDDHAM LETTER KA;Lo;0;L;;;;N;;;;;
1158F;SIDDHAM LETTER KHA;Lo;0;L;;;;N;;;;;
11590;SIDDHAM LETTER GA;Lo;0;L;;;;N;;;;;
11591;SIDDHAM LETTER GHA;Lo;0;L;;;;N;;;;;
11592;SIDDHAM LETTER NGA;Lo;0;L;;;;N;;;;;
11593;SIDDHAM LETTER CA;Lo;0;L;;;;N;;;;;
11594;SIDDHAM LETTER CHA;Lo;0;L;;;;N;;;;;
11595;SIDDHAM LETTER JA;Lo;0;L;;;;N;;;;;
```

```

11596;SIDDHAM LETTER JHA;Lo;0;L;;;;N;;;;;
11597;SIDDHAM LETTER NYA;Lo;0;L;;;;N;;;;;
11598;SIDDHAM LETTER TTA;Lo;0;L;;;;N;;;;;
11599;SIDDHAM LETTER TTHA;Lo;0;L;;;;N;;;;;
1159A;SIDDHAM LETTER DDA;Lo;0;L;;;;N;;;;;
1159B;SIDDHAM LETTER DDHA;Lo;0;L;;;;N;;;;;
1159C;SIDDHAM LETTER NNA;Lo;0;L;;;;N;;;;;
1159D;SIDDHAM LETTER TA;Lo;0;L;;;;N;;;;;
1159E;SIDDHAM LETTER THA;Lo;0;L;;;;N;;;;;
1159F;SIDDHAM LETTER DA;Lo;0;L;;;;N;;;;;
115A0;SIDDHAM LETTER DHA;Lo;0;L;;;;N;;;;;
115A1;SIDDHAM LETTER NA;Lo;0;L;;;;N;;;;;
115A2;SIDDHAM LETTER PA;Lo;0;L;;;;N;;;;;
115A3;SIDDHAM LETTER PHA;Lo;0;L;;;;N;;;;;
115A4;SIDDHAM LETTER BA;Lo;0;L;;;;N;;;;;
115A5;SIDDHAM LETTER BHA;Lo;0;L;;;;N;;;;;
115A6;SIDDHAM LETTER MA;Lo;0;L;;;;N;;;;;
115A7;SIDDHAM LETTER YA;Lo;0;L;;;;N;;;;;
115A8;SIDDHAM LETTER RA;Lo;0;L;;;;N;;;;;
115A9;SIDDHAM LETTER LA;Lo;0;L;;;;N;;;;;
115AA;SIDDHAM LETTER VA;Lo;0;L;;;;N;;;;;
115AB;SIDDHAM LETTER SHA;Lo;0;L;;;;N;;;;;
115AC;SIDDHAM LETTER SSA;Lo;0;L;;;;N;;;;;
115AD;SIDDHAM LETTER SA;Lo;0;L;;;;N;;;;;
115AE;SIDDHAM LETTER HA;Lo;0;L;;;;N;;;;;
115AF;SIDDHAM VOWEL SIGN AA;Mc;0;L;;;;N;;;;;
115B0;SIDDHAM VOWEL SIGN I;Mc;0;L;;;;N;;;;;
115B1;SIDDHAM VOWEL SIGN II;Mc;0;L;;;;N;;;;;
115B2;SIDDHAM VOWEL SIGN U;Mn;0;NSM;;;;N;;;;;
115B3;SIDDHAM VOWEL SIGN UU;Mn;0;NSM;;;;N;;;;;
115B4;SIDDHAM VOWEL SIGN E;Mc;0;L;;;;N;;;;;
115B5;SIDDHAM VOWEL SIGN AI;Mn;0;NSM;;;;N;;;;;
115B6;SIDDHAM VOWEL SIGN O;Mc;0;L;115B4 115AF;;;;N;;;;;
115B7;SIDDHAM VOWEL SIGN AU;Mc;0;L;115B5 115AF;;;;N;;;;;
115B8;SIDDHAM VOWEL SIGN VOCALIC R;Mn;0;NSM;;;;N;;;;;
115B9;SIDDHAM VOWEL SIGN VOCALIC RR;Mn;0;NSM;;;;N;;;;;
115BA;<reserved>
115BB;<reserved>
115BC;SIDDHAM SIGN VIRAMA;Mn;9;NSM;;;;N;;;;;
115BD;SIDDHAM SIGN CANDRABINDU;Mn;0;NSM;;;;N;;;;;
115BE;SIDDHAM SIGN ANUSVARA;Mn;0;NSM;;;;N;;;;;
115BF;SIDDHAM SIGN VISARGA;Mc;0;L;;;;N;;;;;
115C0;SIDDHAM SIGN NUKTA;Mn;7;NSM;;;;N;;;;;
115C1;SIDDHAM SIGN SIDDHAM;So;0;L;;;;N;;;;;
115C2;SIDDHAM DANDA;Po;0;L;;;;N;;;;;
115C3;SIDDHAM DOUBLE DANDA;Po;0;L;;;;N;;;;;
115C4;SIDDHAM WORD SEPARATOR ONE;Po;0;L;;;;N;;;;;
115C5;SIDDHAM WORD SEPARATOR TWO;Po;0;L;;;;N;;;;;
115C6;SIDDHAM REPETITION MARK ONE;Po;0;L;;;;N;;;;;
115C7;SIDDHAM REPETITION MARK TWO;Po;0;L;;;;N;;;;;
115C8;SIDDHAM REPETITION MARK THREE;Po;0;L;;;;N;;;;;
115C9;SIDDHAM SECTION MARK ONE;Po;0;L;;;;N;;;;;
115CA;SIDDHAM SECTION MARK TWO;Po;0;L;;;;N;;;;;
115CB;SIDDHAM SECTION MARK THREE;Po;0;L;;;;N;;;;;
115CC;SIDDHAM SECTION MARK FOUR;Po;0;L;;;;N;;;;;
115CD;SIDDHAM SECTION MARK FIVE;Po;0;L;;;;N;;;;;
115CE;SIDDHAM SECTION MARK SIX;Po;0;L;;;;N;;;;;
115CF;SIDDHAM SECTION MARK SEVEN;Po;0;L;;;;N;;;;;
115D0;SIDDHAM SECTION MARK EIGHT;Po;0;L;;;;N;;;;;
115D1;SIDDHAM SECTION MARK NINE;Po;0;L;;;;N;;;;;
115D2;SIDDHAM SECTION MARK TEN;Po;0;L;;;;N;;;;;

```

```

115D3;SIDDHAM SECTION MARK ELEVEN;Po;0;L;;;;N;;;;
115D4;SIDDHAM SECTION MARK TWELVE;Po;0;L;;;;N;;;;
115D5;SIDDHAM SECTION MARK THIRTEEN;Po;0;L;;;;N;;;;
115D6;SIDDHAM SECTION MARK FOURTEEN;Po;0;L;;;;N;;;;

```

5.3 Linebreaking

Linebreaking properties given in the format of LineBreak.txt:

```

11580..115AE; AL # LETTER A .. LETTER HA
115AF..115BF; CM # SIGN AA .. SIGN VISARGA
115C0; BB # SIGN SIDDHAM
115C1..115C4; BA # DANDA .. WORD SEPARATOR TWO
115C5..115C7; AL # REPETITION MARK ONE .. REPETITION MARK THREE
115C8..115D5; BA # SECTION MARK ONE .. SECTION MARK FOURTEEN

```

5.4 Syllabic Categories

Syllabic categories given in the format of IndicSyllabicCategory.txt:

```

# Indic_Syllabic_Category=Bindu
115BD..115BE ; Bindu # Mn [2] SIGN CANDRABINDU .. SIGN ANUSVARA

# Indic_Syllabic_Category=Visarga
115BF ; Visarga # Mc SIGN VISARGA

# Indic_Syllabic_Category=Virama
115BC ; Virama # Mn SIGN VIRAMA

# Indic_Syllabic_Category=Nukta
115C0 ; Nukta # Mn SIGN NUKTA

# Indic_Syllabic_Category=Vowel_Independent
11580..1158D ; Vowel_Independent # Lo [14] LETTER A .. LETTER VOCALIC LL

# Indic_Syllabic_Category=Vowel_Dependent
115AF..115B1 ; Vowel_Dependent # Mc [3] VOWEL SIGN AA .. VOWEL SIGN II
115B2..115B3 ; Vowel_Dependent # Mn [2] VOWEL SIGN U .. VOWEL SIGN UU
115B4 ; Vowel_Dependent # Mc VOWEL SIGN E
115B5 ; Vowel_Dependent # Mn VOWEL SIGN AI
115B6..115B8 ; Vowel_Dependent # Mc [2] VOWEL SIGN O .. VOWEL SIGN AU
115B7..115B9 ; Vowel_Dependent # Mn [2] VOWEL SIGN VOCALIC R .. VOWEL SIGN VOCALIC RR

# Indic_Syllabic_Category=Consonant
1158E..115AE ; Consonant # Lo [33] LETTER KA .. LETTER HA

```

5.5 Matra Categories

Matra categories given in the format of IndicMatraCategory.txt:

```

# Indic_Matra_Category=Right
115AF ; Right # Mc VOWEL SIGN AA
115B1 ; Right # Mc VOWEL SIGN II

# Indic_Matra_Category=Left
115B0 ; Left # Mc VOWEL SIGN I
115B4 ; Left # Mc VOWEL SIGN E

```

```
# Indic_Matra_Category=Left_And_Right
115B6          ; Left_And_Right # Mc  VOWEL SIGN O



# Indic_Matra_Category=Top
115B5          ; Top          # Mn          VOWEL SIGN AI

# Indic_Matra_Category=Top_And_Left_And_Right
115B7          ; Top_And_Left_And_Right # Mc  VOWEL SIGN AU

# Indic_Matra_Category=Bottom
115B2..115B3   ; Bottom # Mn  [2] VOWEL SIGN U .. VOWEL SIGN UU
115B8..115B9   ; Bottom # Mn  [2] VOWEL SIGN VOCALIC R .. VOWEL SIGN VOCALIC RR
115BC          ; Bottom # Mn          SIGN VIRAMA
```

6 Questions

Below are some questions regarding the encoding of additional Siddham characters:

1. *Named character sequences* The glyphs  *kṣa* and  *llaṃ* are conjuncts that have symbolic significance in various Siddham traditions. Should named character sequences be defined for these glyphs, as was done for BENGALI LETTER KHINYA, which corresponds to *kṣa* in Siddham and other Indic scripts? The sequences may be defined as follows:

```
SIDDHAM LETTER KSHA;1158E 115BC 115AB
SIDDHAM LETTER LLAM;115A9 115BC 115A9 115BC
```

2. *Digits* There is no traditional set of Siddham digits. However, figure 18 shows “Bonji numerals” that are similar to Devanagari digits. Are these “numerals” modern innovations? Should they be encoded?
3. *। and ।ः।* These punctuation marks are used in the palm-leaf manuscript of the *Prajñāpāramitā Hrdaya Sūtra* from the Hōryū-ji temple. Are they distinct characters? The glyph । appears to be a glyphic variant of ॥ DOUBLE DANDA; is it? The glyph ।ः। may be analyzed as two DOUBLE DANDA characters surrounding a ॐ VISARGA; is it?
4. *Avagraha* Devanagari versions of the *Prajñāpāramitā Hrdaya Sūtra* and other texts show the use of ॐ DEVANAGARI SIGN AVAGRAHA. The *avagraha* is used for marking the elision of word-initial अ *a* in Sanskrit as a result of sandhi when the preceding word ends with the vowels ए *e* or ओ *o*, eg. *śuddho 'ham* is written in Devanagari as शुद्धोऽहम् (from शुद्धः *śuddhaḥ* + अहम् *aham*). Is this character attested in any Siddham manuscripts of these texts?
5. *Repetition marks* Additional research is required in order to determine if the three repetition marks have distinctive functions or if their usage is specific to certain environments or certain regional Siddham traditions. For instance, 𑖦 REPETITION MARK ONE appears in Chinese sources, which are presented as left-to-right text, while 𑖧 REPETITION MARK TWO appears in Japanese sources and in vertical text. Is usage of these repetition marks restricted to certain regional traditions? Also, are there texts that show the use of 𑖨 REPETITION MARK THREE? Is there any information about this character?
6. *Section marks* In addition to the section marks that are proposed for encoding, there may be other similar characters attested in Siddham records. If such characters are found, should they be encoded separately or unified with proposed section marks that are graphically similar? Also, there are different forms of 𑖩 SECTION MARK EIGHT with varying numbers of arcs, eg. the three-arc 𑖩 and the seven-arc 𑖪

forms in figure 33; the four-arc form 𑖦 in figure 34. These are all encoded as separate characters. Should additional forms with variation of ± 1 arcs be treated as distinct characters, if attested?

7. 𑖦: SECTION MARK TWELVE This mark is presently classified as a ‘section mark’. However, it is less ‘ornamental’ in its graphical structure than other section marks. Is it functionally distinct from the ‘ornamental’ section marks? Should it be classified as a punctuation mark instead of as a section mark? Is it related to the 𑖦 character described in item #3 above?
8. *Pedagogical characters* The pedagogical characters described in Section 4.3 are used in Siddham manuals and are required by users who produce such materials. There is a precedent in the UCS for encoding character strokes and other such pedagogical characters, eg. the CJK radicals and the characters of the ‘CJK Strokes’ block (U+31C0..U+31EF).
9. 𑖦 Figure 13 (row 11) shows the below-base character 𑖦 listed along with 𑖦 CANDRABINDU and 𑖦 ANUSVARA. What is this character? Is this the *gyōgatsu-ten*?
10. 𑖦 Michael Everson’s chart for Siddham shows a character 𑖦 named “SIDDHAM VOWEL SIGN CANDRA”. It is not a vowel sign, but the pedagogical character *gyōgatsu-ten* described in Section 4.3. If the *gyōgatsu-ten* is to be encoded, should it be defined as a combining sign?

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

















































































	1158	1159	115A	115B	115C	115D	115E
0	 11580	 11590	 115A0	 115B0	 115C0	 115D0	
1	 11581	 11591	 115A1	 115B1	 115C1	 115D1	
2	 11582	 11592	 115A2	 115B2	 115C2	 115D2	
3	 11583	 11593	 115A3	 115B3	 115C3	 115D3	
4	 11584	 11594	 115A4	 115B4	 115C4	 115D4	
5	 11585	 11595	 115A5	 115B5	 115C5	 115D5	
6	 11586	 11596	 115A6	 115B6	 115C6	 115D6	
7	 11587	 11597	 115A7	 115B7	 115C7		
8	 11588	 11598	 115A8	 115B8	 115C8		
9	 11589	 11599	 115A9	 115B9	 115C9		
A	 1158A	 1159A	 115AA		 115CA		
B	 1158B	 1159B	 115AB		 115CB		
C	 1158C	 1159C	 115AC	 115BC	 115CC		
D	 1158D	 1159D	 115AD	 115BD	 115CD		
E	 1158E	 1159E	 115AE	 115BE	 115CE		
F	 1158F	 1159F	 115AF	 115BF	 115CF		

Figure 1: Proposed code chart for Siddham.

Independent vowels

11580	𑖀	SIDDHAM LETTER A
11581	𑖁	SIDDHAM LETTER AA
11582	𑖂	SIDDHAM LETTER I
11583	𑖃	SIDDHAM LETTER II
11584	𑖄	SIDDHAM LETTER U
11585	𑖅	SIDDHAM LETTER UU
11586	𑖆	SIDDHAM LETTER E
11587	𑖇	SIDDHAM LETTER AI
11588	𑖈	SIDDHAM LETTER O
11589	𑖉	SIDDHAM LETTER AU

Additional independent vowels

1158A	𑖊	SIDDHAM LETTER VOCALIC R
1158B	𑖋	SIDDHAM LETTER VOCALIC RR
1158C	𑖌	SIDDHAM LETTER VOCALIC L
1158D	𑖍	SIDDHAM LETTER VOCALIC LL

Consonants

1158E	𑖎	SIDDHAM LETTER KA
1158F	𑖏	SIDDHAM LETTER KHA
11590	𑖐	SIDDHAM LETTER GA
11591	𑖑	SIDDHAM LETTER GHA
11592	𑖒	SIDDHAM LETTER NGA
11593	𑖓	SIDDHAM LETTER CA
11594	𑖔	SIDDHAM LETTER CHA
11595	𑖕	SIDDHAM LETTER JA
11596	𑖖	SIDDHAM LETTER JHA
11597	𑖗	SIDDHAM LETTER NYA
11598	𑖘	SIDDHAM LETTER TTA
11599	𑖙	SIDDHAM LETTER TTHA
1159A	𑖚	SIDDHAM LETTER DDA
1159B	𑖛	SIDDHAM LETTER DDHA
1159C	𑖜	SIDDHAM LETTER NNA
1159D	𑖝	SIDDHAM LETTER TA
1159E	𑖞	SIDDHAM LETTER THA
1159F	𑖟	SIDDHAM LETTER DA
115A0	𑖠	SIDDHAM LETTER DHA
115A1	𑖡	SIDDHAM LETTER NA
115A2	𑖢	SIDDHAM LETTER PA
115A3	𑖣	SIDDHAM LETTER PHA
115A4	𑖤	SIDDHAM LETTER BA
115A5	𑖥	SIDDHAM LETTER BHA
115A6	𑖦	SIDDHAM LETTER MA
115A7	𑖧	SIDDHAM LETTER YA
115A8	𑖨	SIDDHAM LETTER RA
115A9	𑖩	SIDDHAM LETTER LA
115AA	𑖪	SIDDHAM LETTER VA
115AB	𑖫	SIDDHAM LETTER SHA
115AC	𑖬	SIDDHAM LETTER SSA
115AD	𑖭	SIDDHAM LETTER SA
115AE	𑖮	SIDDHAM LETTER HA

Dependent vowel signs

115AF	𑖯	SIDDHAM VOWEL SIGN AA
115B0	𑖰	SIDDHAM VOWEL SIGN I
115B1	𑖱	SIDDHAM VOWEL SIGN II
115B2	𑖲	SIDDHAM VOWEL SIGN U
115B3	𑖳	SIDDHAM VOWEL SIGN UU
115B4	𑖴	SIDDHAM VOWEL SIGN E
115B5	𑖵	SIDDHAM VOWEL SIGN AI
115B6	𑖶	SIDDHAM VOWEL SIGN O
115B7	𑖷	SIDDHAM VOWEL SIGN AU

Additional vowel signs

115B8	𑖸	SIDDHAM VOWEL SIGN VOCALIC R
115B9	𑖹	SIDDHAM VOWEL SIGN VOCALIC RR

115BA	𑖺	<reserved>
115BB	𑖻	<reserved>

Virama

115BC	𑖼	SIDDHAM SIGN VIRAMA
-------	---	---------------------

Various signs

115BD	𑖽	SIDDHAM SIGN CANDRABINDU
115BE	𑖾	SIDDHAM SIGN ANUSVARA
115BF	𑖿	SIDDHAM SIGN VISARGA
115C0	𑖿	SIDDHAM SIGN NUKTA

Invocation

115C1	𑖿	SIDDHAM SIGN SIDDHAM = siddhirastu • used at the beginning of texts
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Punctuation

115C2	𑖿	SIDDHAM DANDA
115C3	𑖿	SIDDHAM DOUBLE DANDA
115C4	𑖿	SIDDHAM WORD SEPARATOR ONE
115C5	𑖿	SIDDHAM WORD SEPARATOR TWO

Repetition signs

115C6	𑖿	SIDDHAM REPETITION MARK ONE
115C7	𑖿	SIDDHAM REPETITION MARK TWO
115C8	𑖿	SIDDHAM REPETITION MARK THREE

Section marks

These characters are used for indicating the end of text

115C9	𑖿	SIDDHAM SECTION MARK ONE
115CA	𑖿	SIDDHAM SECTION MARK TWO
115CB	𑖿	SIDDHAM SECTION MARK THREE
115CC	𑖿	SIDDHAM SECTION MARK FOUR
115CD	𑖿	SIDDHAM SECTION MARK FIVE
115CE	𑖿	SIDDHAM SECTION MARK SIX
115CF	𑖿	SIDDHAM SECTION MARK SEVEN
115D0	𑖿	SIDDHAM SECTION MARK EIGHT
115D1	𑖿	SIDDHAM SECTION MARK NINE
115D2	𑖿	SIDDHAM SECTION MARK TEN
115D3	𑖿	SIDDHAM SECTION MARK ELEVEN
115D4	𑖿	SIDDHAM SECTION MARK TWELVE
115D5	𑖿	SIDDHAM SECTION MARK THIRTEEN
115D6	𑖿	SIDDHAM SECTION MARK FOURTEEN

Figure 2: Proposed names list for Siddham.

	Siddham	Sharada	Nagari		Siddham	Sharada	Nagari
A	𑖀	𑖡	अ	-A	—	—	—
AA	𑖁	𑖢	आ	-AA	𑖅	𑖆	ा
I	𑖄	𑖇	इ	-I	𑖈	𑖉	ि
II	𑖅	𑖈	ई	-II	𑖊	𑖋	ी
U	𑖈	𑖊	उ	-U	𑖋	𑖌	ु
UU	𑖉	𑖋	ऊ	-UU	𑖌	𑖍	ू
E	𑖊	𑖍	ए	-E	𑖍	𑖎	े
AI	𑖋	𑖎	ऐ	-AI	𑖎	𑖏	ै
O	𑖊	𑖍	ओ	-O	𑖍	𑖎	ो
AU	𑖉	𑖋	औ	-AU	𑖎	𑖏	ौ
R	𑖅	𑖆	ऋ	-R	𑖅	𑖆	ृ
RR	𑖅	𑖆	ॠ	-RR	𑖅	𑖆	ॠ
L	𑖅	𑖆	ऌ	-L	—	𑖅	ॡ
LL	𑖅	𑖆	ॡ	-LL	—	𑖅	ॢ

Table 1: Comparison of vowel letters and signs of Siddham, Sharada, and Devanagari.

	Siddham	Sharada	Nagari		Siddham	Sharada	Nagari
KA	𑀕	क	क	DA	𑀢	द	द
KHA	𑀕𑀲	ख	ख	DHA	𑀢𑀲	ध	ध
GA	𑀕𑀸	ग	ग	NA	𑀢𑀶	न	न
GHA	𑀕𑀸𑀲	घ	घ	PA	𑀢𑀶𑀲	प	प
NGA	𑀕𑀸𑀶	ङ	ङ	PHA	𑀢𑀶𑀶𑀲	फ	फ
CA	𑀕𑀶	च	च	BA	𑀢𑀶𑀴	ब	ब
CHA	𑀕𑀶𑀲	छ	छ	BHA	𑀢𑀶𑀴𑀲	भ	भ
JA	𑀕𑀶𑀶	ज	ज	MA	𑀢𑀶𑀴𑀶	म	म
JHA	𑀕𑀶𑀶𑀲	झ	झ	YA	𑀢𑀶𑀴𑀶𑀲	य	य
NYA	𑀕𑀶𑀶𑀶	ञ	ञ	RA	𑀢𑀶𑀴𑀶𑀴	र	र
TTA	𑀕𑀶𑀶𑀶𑀲	ट	ट	LA	𑀢𑀶𑀴𑀶𑀶𑀲	ल	ल
TTHA	𑀕𑀶𑀶𑀶𑀶𑀲	ठ	ठ	VA	𑀢𑀶𑀴𑀶𑀶𑀴𑀲	व	व
DDA	𑀕𑀶𑀶𑀶𑀶𑀶	ड	ड	SHA	𑀢𑀶𑀴𑀶𑀶𑀶𑀲	श	श
DDHA	𑀕𑀶𑀶𑀶𑀶𑀶𑀲	ढ	ढ	SSA	𑀢𑀶𑀴𑀶𑀶𑀶𑀶𑀲	ष	ष
NNA	𑀕𑀶𑀶𑀶𑀶𑀶𑀶	ण	ण	SA	𑀢𑀶𑀴𑀶𑀶𑀶𑀶𑀶𑀲	स	स
TA	𑀕𑀶𑀶𑀶𑀶𑀶𑀶𑀲	त	त	HA	𑀢𑀶𑀴𑀶𑀶𑀶𑀶𑀶𑀶𑀲	ह	ह
THA	𑀕𑀶𑀶𑀶𑀶𑀶𑀶𑀶𑀲	थ	थ				

Table 2: Comparison of consonant letters of Siddham, Sharada, and Devanagari.



Figure 3: Seed-syllables for the thirteen Buddhas (from Tokuzan 1974: 27).

[illegible]

[illegible]

Figure 5: The *Uṣṇīṣa Vijaya Dhāraṇī Sūtra* written top-to-bottom, right-to-left (from Kodama 2005: 122–124).

[illegible]

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SEE CATAL. OF JAPANESE BOOKS & MSS. IN THE BODLEIAN LIBRARY; NO. 46.

Figure 6: A manuscript containing the *Prajñāpāramitā Hrdaya Sūtra* (from Müller and Nanjio 1884: Plate II). This manuscript was brought from China to Japan in 609 and was stored at the Hōryū-ji (法隆寺) temple in Ikaruga, Nara Prefecture.

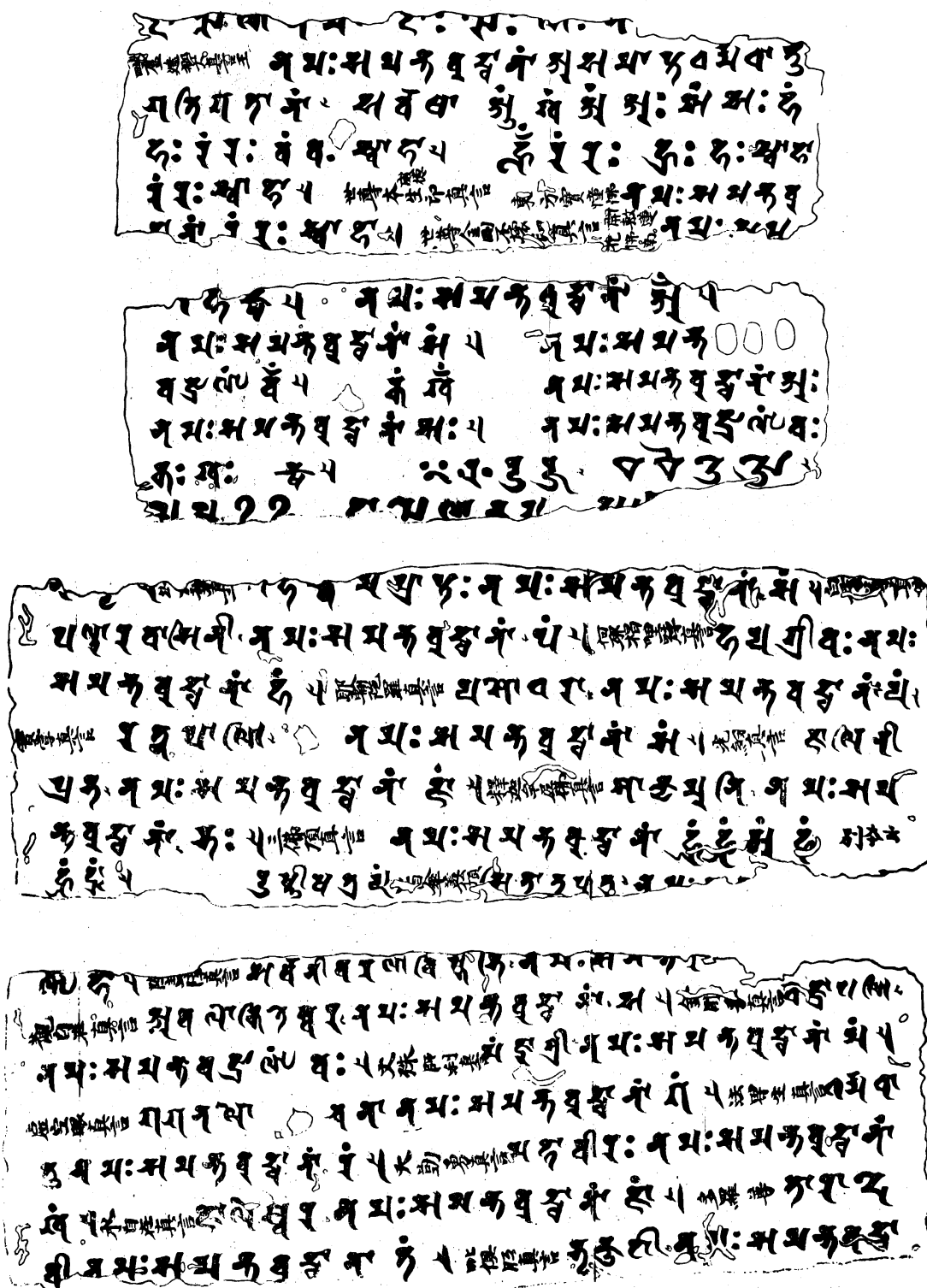


Figure 7: Folio fragments from a Siddham manuscript written by Prajñātāra (Sans. प्रज्ञातार; Chi. 般若多羅 Bōrě Duōluó) in the 9th century (from Lokesh Chandra 1965: fascicle 1, section 7). The folios are facsimiles traced by the Japanese monk Sōgen (宗源) and published using wooden-block printing in his *Ashara-jō* (1837).



Figure 8: Siddham inscriptions (from Nakamura 1977: Plate 21)



Figure 9: Siddham inscriptions (from Nakamura 1977: Plate 30)

Figure 10: The Siddham *varṇapāṭha* written by Kūkai (from van Gulik 1980: Plate XI)

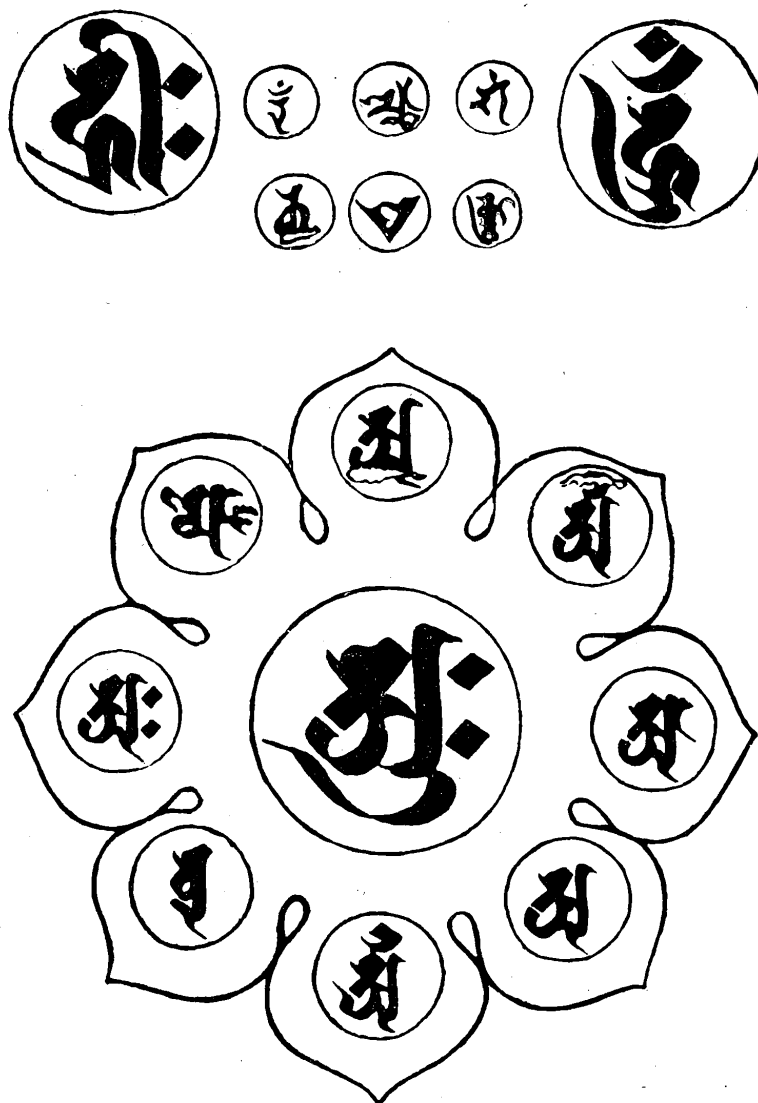


Figure 11: A *maṇḍala* inscribed by Saichō (from van Gulik 1980: Plate X)

VOWELS (MĀTĀ)

	formal	brush	stroke order	variations	in combination	Devanāgarī	roman letter	esoteric meaning
1						अ	a	anurpāda unborn
2						आ	ā	ākāśa space
3						इ	i	indriya sense organ
4						ई	ī	iti calamity
5						उ	u	upamā simile
6						ऊ	ū	ūna incomplete
7						ए	e	eṣāṇa seeking
8						ऐ	ai	aiśvarya sovereignty
9						ओ	o	ogha flood
10						औ	au	aupapāduka self-produced

Figure 12: Description of Siddham letters and dependent signs for the vowels A .. AU (from Stevens 1981: 34).

	formal	brush	stroke order	variations	in combination	Devanāgarī	roman letter	esoteric meaning
11						अं	a ṃ	anta limit
12						अः	a ḥ	astamgama setting

EXTRA VOWELS

13						ॠ	ṛ	ṛddhi supernatural power
14						ॡ	ṝ	analogy
15						ॢ	ṝ	dye
16						ॣ	ṝ̄	submerge

CONSONANTS (VYAÑJANA)

17						क	ka	karma action
18						ख	kha	kha sky

Figure 13: Description of Siddham signs ANUSVARA and VISARGA, the vocalic letters, and the consonants KA, KHA (from Stevens 1981: 35).

	formal	brush	stroke order	variations	in combination	Devanāgarī	roman letter	esoteric meaning
19						ग	ga	gati going
20						घ	gha	ghana dense
21						ङ	ṇa	aṅga part
22						च	ca	cyuti transition
23						छ	cha	chāya shadow
24						ज	ja	jāti birth
25						झ	jha	jhaṣabala warring enemies
26						ञ	ṇa	jñāna knowledge
27						ट	ṭa	ṭaṅka pride
28						ठ	ṭha	viṭhavana flourish

Figure 14: Description of Siddham consonants GA .. TTHA (from Stevens 1981: 36).

	formal	brush	stroke order	variations	in combination	Devanāgarī	roman letter	esoteric meaning
29						ड	ḍa	ḍamara tumult
30						ढ	ḍha	mīḍha disappear
31						ण	ṇa	raṇa battle
32						त	ta	tathātā suchness
33						थ	tha	sthāna dwelling
34						द	da	dāna generosity
35						ध	dha	dharmadhātu dharma realm
36						न	na	nāman name
37						प	pa	paramārtha ultimate meaning
38						फ	pha	phena foam

Figure 15: Description of Siddham consonants DDA .. PHA (from Stevens 1981: 37).

	formal	brush	stroke order	variations	in combination	Devanāgarī	roman letter	esoteric meaning
39						ब	ba	bandhana binding
40						भ	bha	bhava existence
41						म	ma	mama my
42						य	ya	yāna vehicle
43						र	ra	rajas passion
44						ल	la	lakṣaṇa mark
45						व	va	vāc speech
46						श	śa	śānti peace
47						ष	ṣa	ṣaḍāyatana six senses
48						स	sa	satya truth

Figure 16: Description of Siddham consonants BA .. SA (from Stevens 1981: 38).

	formal	brush	stroke order	variations	in combination	Devanāgarī	roman letter	esoteric meaning
49						ह	ha	hetu cause

SPECIAL COMBINATIONS

50						लं	llaṃ	
51						क्ष	kṣa	kṣaya destruction

Figure 17: Description of Siddham consonant letter HA and the conjuncts *kṣa* and *llaṃ* (from Stevens 1981: 39).

Numeral		English sound							
Sanskrit–Bonji									
0	shuunya	1	eeka	2	dvi	3	tri	4	chatur
									
s' u : + n y a	e + k a	d v i	t r i	c ' a + t u + r					
									
5	pancha	6	shash	7	sapta	8	ashta	9	nava
									
p a m , + c ' a	s , a + <u>s</u>	s a + p t a	a + s , t , a	n a + v a					
									
Bonji–Character Pronunciation Diagram									

Figure 18: A set of ‘Bonji’ digits (Source: http://www.mandalar.com/DisplayJ/Bonji/index6_E.html). These closely resemble Devanagari forms.

梵字悉曇字母表

一、摩多十二字・別摩多四字												
通摩多												
番号	悉曇文字	異体字 (別体)	摩多点画				漢字音訳	ローマ字表記	中天音	南天音	発音種別	字義
1	𑖀	𑖀	𑖀	𑖀	𑖀	𑖀	阿	a	ア	ア	以下六字母 母音 喉音	本不生
2	𑖁	𑖁	𑖁	𑖁	𑖁	𑖁	阿 _リ	ā	アー	アー	同	寂靜 (虚空)
3	𑖂	𑖂	𑖂	𑖂	𑖂	𑖂	伊	i	イ	イ	顎音	根
4	𑖃	𑖃	𑖃	𑖃	𑖃	𑖃	伊 _リ	ī	イー	イー	同	災禍
5	𑖄	𑖄	𑖄	𑖄	𑖄	𑖄	塢	u	ウ	ウ	唇音	譬喩
6	𑖅	𑖅	𑖅	𑖅	𑖅	𑖅	汚 _リ	ū	ウー	ウー	同	損減
7	𑖆	𑖆	𑖆	𑖆	𑖆	𑖆	噲	e	エ	エ	以下四字 母音 喉音 顎音	求
8	𑖇	𑖇	𑖇	𑖇	𑖇	𑖇	愛	ai	アイ	エー	同	自在 (自相)
9	𑖈	𑖈	𑖈	𑖈	𑖈	𑖈	汚	o	オ	オ	喉・唇	瀑流 (執瀑流)
10	𑖉	𑖉	𑖉	𑖉	𑖉	𑖉	奧	au	アウ	オー	同	化生 (変化)
11	𑖊	𑖊	𑖊	𑖊	𑖊	𑖊	闇	am	アン	アン	隨韻	辺際
12	𑖋	𑖋	𑖋	𑖋	𑖋	𑖋	惡	ah	アク	アク	止声	遠離

二、体文 三十三字												
別摩多												
番号	悉曇文字	異体字 (別体)	摩多点画				漢字音訳	ローマ字表記	中天音	南天音	発音種別	字義
13	𑖌	𑖌	𑖌	𑖌	𑖌	𑖌	哩	r	リ	キリ		神通
14	𑖍	𑖍	𑖍	𑖍	𑖍	𑖍	哩 _リ	ī	リー	キリ		類例
15	𑖎	𑖎	𑖎	𑖎	𑖎	𑖎	𑖎	!	リヨ	リ		染
16	𑖏	𑖏	𑖏	𑖏	𑖏	𑖏	𑖏	!	リヨ	リ		沈没

五類声一句											
番号	悉曇文字	異体字 (別体)	切繼半体		漢字音訳	ローマ字表記	中天音	南天音	発音種別		字義
17	𑖐	𑖐	𑖐	𑖐	迦	ka	キヤ	カ	以下五字 音 清・無	離作業 (作業)	
18	𑖑	𑖑	𑖑	𑖑	佉	kha	キヤ	カ	同・有	等虚空 (等空)	
19	𑖒	𑖒	𑖒	𑖒	𑖒	ga	ギヤ	ガ	濁・無	行	
20	𑖓	𑖓	𑖓	𑖓	伽	gha	ギヤ	ガ	同・有	一合 (二合相)	
21	𑖔	𑖔	𑖔	𑖔	仰	na	ギヤウ	ガ	鼻音	支分	
22	𑖕	𑖕	𑖕	𑖕	遮	ca	シヤ	サ	以下五字 音 清・無	離一辺 (遷變)	
23	𑖖	𑖖	𑖖	𑖖	𑖖	cha	シヤ	サ	同・有	影像	
24	𑖗	𑖗	𑖗	𑖗	惹	ja	ジヤ	ザ	濁・無	生	

Figure 19: Chart of Siddham (from Kodama 1991: 65–66). Note the variant form 𑖕 of 𑖕 VOWEL SIGN VOCALIC RR.

遍口声		遍口声								同五句				
		50	51	49	48	47	46	45	44	43	42	41	40	39
三、重字		𑖀	𑖁	𑖂	𑖃	𑖄	𑖅	𑖆	𑖇	𑖈	𑖉	𑖊	𑖋	𑖌
二字		𑖍	𑖎	𑖏	𑖐	𑖑	𑖒	𑖓	𑖔	𑖕	𑖖	𑖗	𑖘	𑖙
遍	口	𑖚	𑖛	𑖜	𑖝	𑖞	𑖟	𑖠	𑖡	𑖢	𑖣	𑖤	𑖥	𑖦
𑖧	𑖨	𑖩	𑖪	𑖫	𑖬	𑖭	𑖮	𑖯	𑖰	𑖱	𑖲	𑖳	𑖴	𑖵
𑖶	𑖷	𑖸	𑖹	𑖺	𑖻	𑖼	𑖽	𑖾	𑖿	𑗀	𑗁	𑗂	𑗃	𑗄
𑗅	𑗆	𑗇	𑗈	𑗉	𑗊	𑗋	𑗌	𑗍	𑗎	𑗏	𑗐	𑗑	𑗒	𑗓
𑗔	𑗕	𑗖	𑗗	𑗘	𑗙	𑗚	𑗛	𑗜	𑗝	𑗞	𑗟	𑗠	𑗡	𑗢
𑗣	𑗤	𑗥	𑗦	𑗧	𑗨	𑗩	𑗪	𑗫	𑗬	𑗭	𑗮	𑗯	𑗰	𑗱
𑗲	𑗳	𑗴	𑗵	𑗶	𑗷	𑗸	𑗹	𑗺	𑗻	𑗼	𑗽	𑗾	𑗿	𑘀
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𑘟	𑘠	𑘡	𑘢	𑘣	𑘤	𑘥	𑘦	𑘧	𑘨	𑘩	𑘪	𑘫	𑘬	𑘭
𑘮	𑘯	𑘰	𑘱	𑘲	𑘳	𑘴	𑘵	𑘶	𑘷	𑘸	𑘹	𑘺	𑘻	𑘼
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𑡪	𑡫	𑡬	𑡭	𑡮	𑡯	𑡰	𑡱	𑡲	𑡳	𑡴	𑡵	𑡶	𑡷	𑡸
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𑣱	𑣲	𑣳	𑣴	𑣵	𑣶	𑣷	𑣸	𑣹	𑣺	𑣻	𑣼	𑣽	𑣾	𑣿
𑤀	𑤁	𑤂	𑤃	𑤄	𑤅	𑤆	𑤇	𑤈	𑤉	𑤊	𑤋	𑤌	𑤍	𑤎
𑤏	𑤐	𑤑	𑤒	𑤓	𑤔	𑤕	𑤖	𑤗	𑤘	𑤙	𑤚	𑤛	𑤜	𑤝
𑤞	𑤟	𑤠	𑤡	𑤢	𑤣	𑤤	𑤥	𑤦	𑤧	𑤨	𑤩	𑤪	𑤫	𑤬
𑤮	𑤯	𑤰	𑤱	𑤲	𑤳	𑤴	𑤵	𑤶	𑤷	𑤸	𑤹	𑤺	𑤻	𑤼
𑤽	𑤾	𑤿	𑥀	𑥁	𑥂	𑥃	𑥄	𑥅	𑥆	𑥇	𑥈	𑥉	𑥊	𑥋
𑥌	𑥍	𑥎	𑥏	𑥐	𑥑	𑥒	𑥓	𑥔	𑥕	𑥖	𑥗	𑥘	𑥙	𑥚
𑥛	𑥜	𑥝	𑥞	𑥟	𑥠	𑥡	𑥢	𑥣	𑥤	𑥥	𑥦	𑥧	𑥨	𑥩
𑥪	𑥫	𑥬	𑥭	𑥮	𑥯	𑥰	𑥱	𑥲	𑥳	𑥴	𑥵	𑥶	𑥷	𑥸
𑥹	𑥺	𑥻	𑥼	𑥽	𑥾	𑥿	𑦀	𑦁	𑦂	𑦃	𑦄	𑦅	𑦆	𑦇
𑦈	𑦉	𑦊	𑦋	𑦌	𑦍	𑦎	𑦏	𑦐	𑦑	𑦒	𑦓	𑦔	𑦕	𑦖
𑦗	𑦘	𑦙	𑦚	𑦛	𑦜	𑦝	𑦞	𑦟	𑦠	𑦡	𑦢	𑦣	𑦤	𑦥
𑦦	𑦧	𑦨	𑦩	𑦪	𑦫	𑦬	𑦭	𑦮	𑦯	𑦰	𑦱	𑦲	𑦳	𑦴
𑦵	𑦶	𑦷	𑦸	𑦹	𑦺	𑦻	𑦼	𑦽	𑦾	𑦿	𑧀	𑧁	𑧂	𑧃
𑧄	𑧅	𑧆	𑧇	𑧈	𑧉	𑧊	𑧋	𑧌	𑧍	𑧎	𑧏	𑧐	𑧑	𑧒
𑧓	𑧔	𑧕	𑧖	𑧗	𑧘	𑧙	𑧚	𑧛	𑧜	𑧝	𑧞	𑧟	𑧠	𑧡
𑧢	𑧣	𑧤	𑧥	𑧦	𑧧	𑧨	𑧩	𑧪	𑧫	𑧬	𑧭	𑧮	𑧯	𑧰
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𑨻														



Figure 21: Siddham letters used in Korea (from Lim 2005). Courtesy of Lee Collins.

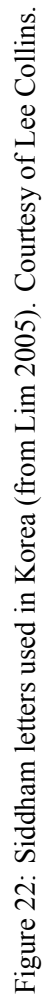


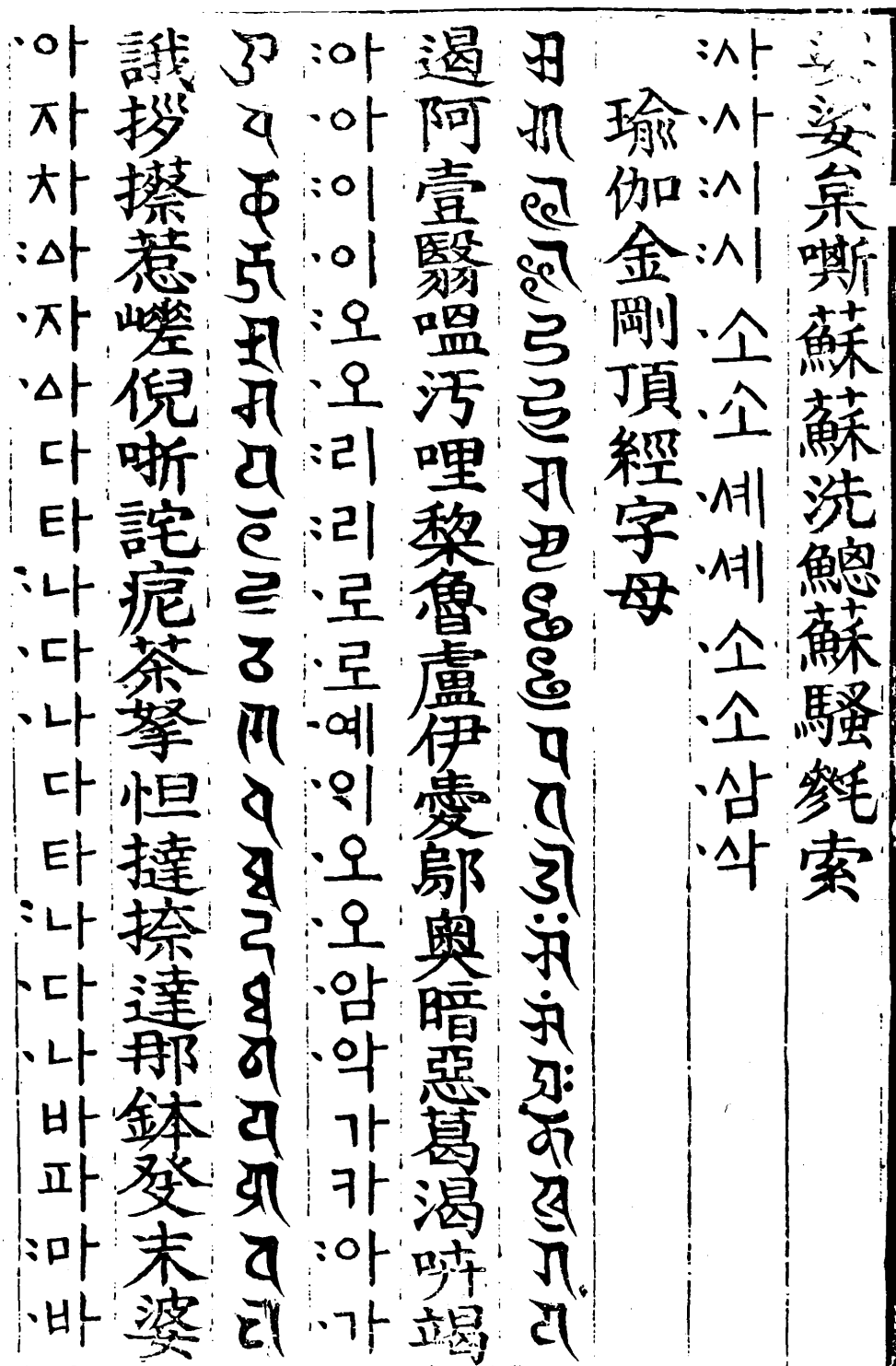


Figure 23: Siddham letters used in Korea (from Lim 2005). Courtesy of Lee Collins.

Figure 24: Siddham letters used in Korea (from Lim 2005). Courtesy of Lee Collins.



Figure 25: Siddham used in a Korean version of the *Nīlakaṇṭha Dhāraṇī* (नीलकण्ठ धारणी; Chi. 大悲咒 *Dàbēi Zhòu*) of Avalokiteśvara (from Lokesh Chandra 1988: 164).



42

梵文體系字對照表

摩多 (韻母) 四種										體文 (聲母) 三種									
平韻十字										發聲二十字									
序號	悉曇梵字	蘭札體	羅馬拼音	漢文音	譯音	序號	悉曇梵字	蘭札體	羅馬拼音	漢文意	譯音	序號	悉曇梵字	蘭札體	羅馬拼音	漢文意	譯音	序號	悉曇梵字
1	अ	𑖀	a	阿(上聲)	阿(上聲)	1	क	𑖅	ka	迦(上聲)	迦(上聲)	20	य	𑖩	na	鼻	鼻	20	य
2	आ	𑖡	ā	阿(引去)	阿(去聲長引呼)	2	ख	𑖆	kha	佉(上聲)	佉(上聲)	21	प	𑖫	pa	跛	跛	21	प
3	इ	𑖄	i	伊(上聲)	伊(上聲)	3	ग	𑖇	ga	誼(上聲)	誼(上聲)	22	र	𑖬	pha	頗	頗	22	र
4	ई	𑖆	ī	伊(引去)	伊(去聲引呼)	4	घ	𑖈	gha	伽(去聲引)	伽(去聲引)	23	व	𑖭	ba	麼	麼	23	व
5	उ	𑖈	u	塢	塢	5	ङ	𑖉	ṅa	仰(鼻聲呼)	仰(鼻聲呼)	24	भ	𑖮	bha	婆(去聲)	婆(去聲)	24	भ
6	ऊ	𑖊	ū	污(引)	污(長聲)	6	च	𑖊	ca	左	左	25	म	𑖯	ma	莽	莽	25	म
7	ऋ	𑖌	ṛ	哩	哩(彈舌呼)	7	छ	𑖋	cha	磋(上聲)	磋(上聲)	半聲四字							
8	ॠ	𑖍	ṝ	哩(引)	哩(彈舌去聲引呼)	8	ज	𑖌	ja	惹	惹	26	य	𑖩	ya	野	野	26	य
9	ॡ	𑖎	ṝ̄	呂	魯(彈舌上聲)	9	झ	𑖍	jha	鄭(去聲)	鄭(去聲)	27	र	𑖬	ra	囉	囉	27	र
10	ॢ	𑖏	ṝ̄̄	噓	噓(彈舌長聲)	10	ण	𑖎	ṇa	穰(上聲)	穰(上聲)	28	ल	𑖰	la	邏	邏(上)	28	ल
重韻四字										11	ट	𑖑	त	𑖱	ta	吒(上聲)	吒(上聲)	29	त
11	ॣ	𑖐	e	噎	噎	12	ठ	𑖒	ṭha	咤(上聲)	咤(上聲)	氣聲四字							
12	।	𑖑	ai	愛	愛	13	ड	𑖓	ḍa	拏(上聲)	拏(上聲)	30	श	𑖳	śa	捨	捨	30	श
13	॥	𑖒	o	汚	汚	14	ढ	𑖔	ḍha	茶(去聲)	茶(去聲)	31	ष	𑖴	ṣa	灑	灑	31	ष
14	०	𑖓	au	奧	奧(去聲引)	15	ण	𑖕	ṇa	拏(反鼻聲呼)	拏(反鼻聲呼)	32	स	𑖵	sa	娑(上)	娑(上)	32	स
隨韻										16	र	𑖖	ta	𑖶	ta	多(上)	多(上)	33	र
15	ॡ	𑖔	am	暗	闇	17	य	𑖗	tha	他(上聲)	他(上聲)	重字							
止韻										18	र	𑖘	da	𑖷	da	娜	娜	34	र
16	ॢ	𑖕	ah	惡	惡	19	ॠ	𑖙	dha	駄(去聲)	駄(去聲)	35	ल	𑖰	llaṃ	乞灑(三合)	乞灑(三合)	35	ल

制作: 陶明

發音·藏字·蘭札體顧問: 高波

漢字對譯顧問: 蔡文端

悉曇梵字顧問: 彭偉洋

Figure 28: Comparison of Siddham, Tibetan, Ranjana, and Chinese scripts (Source: <http://www.siddham-sanskrit.com/s-sanskrit2/learn-siddham/sid-ran-tib-han.GIF>).

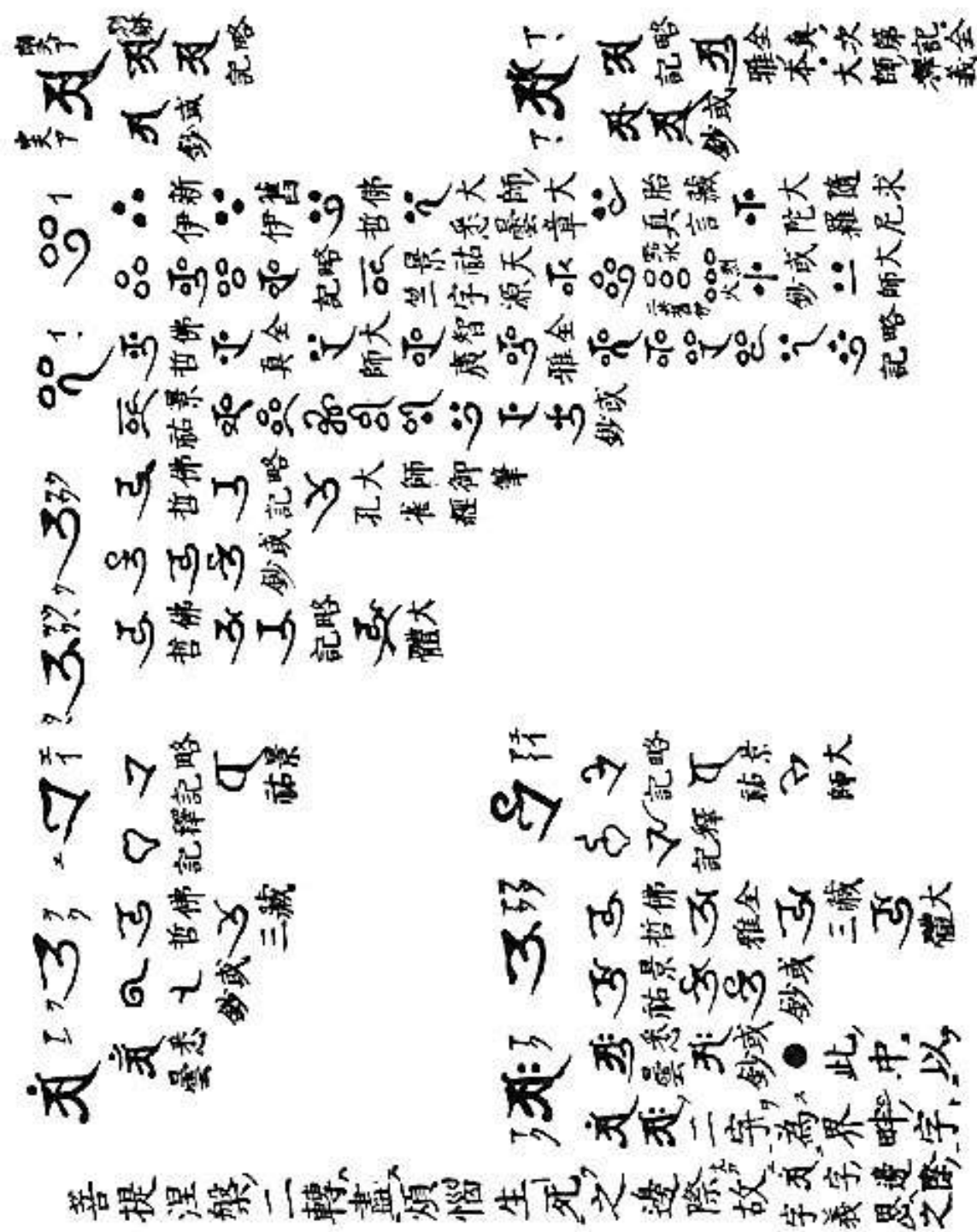


Figure 29: Description of the basic vowels, ANUSVARA, and VISARGA in the *Shittan Sammitsushō* (from Jōgon 1682: 722). Note the several glyphic variants given for each vowel.

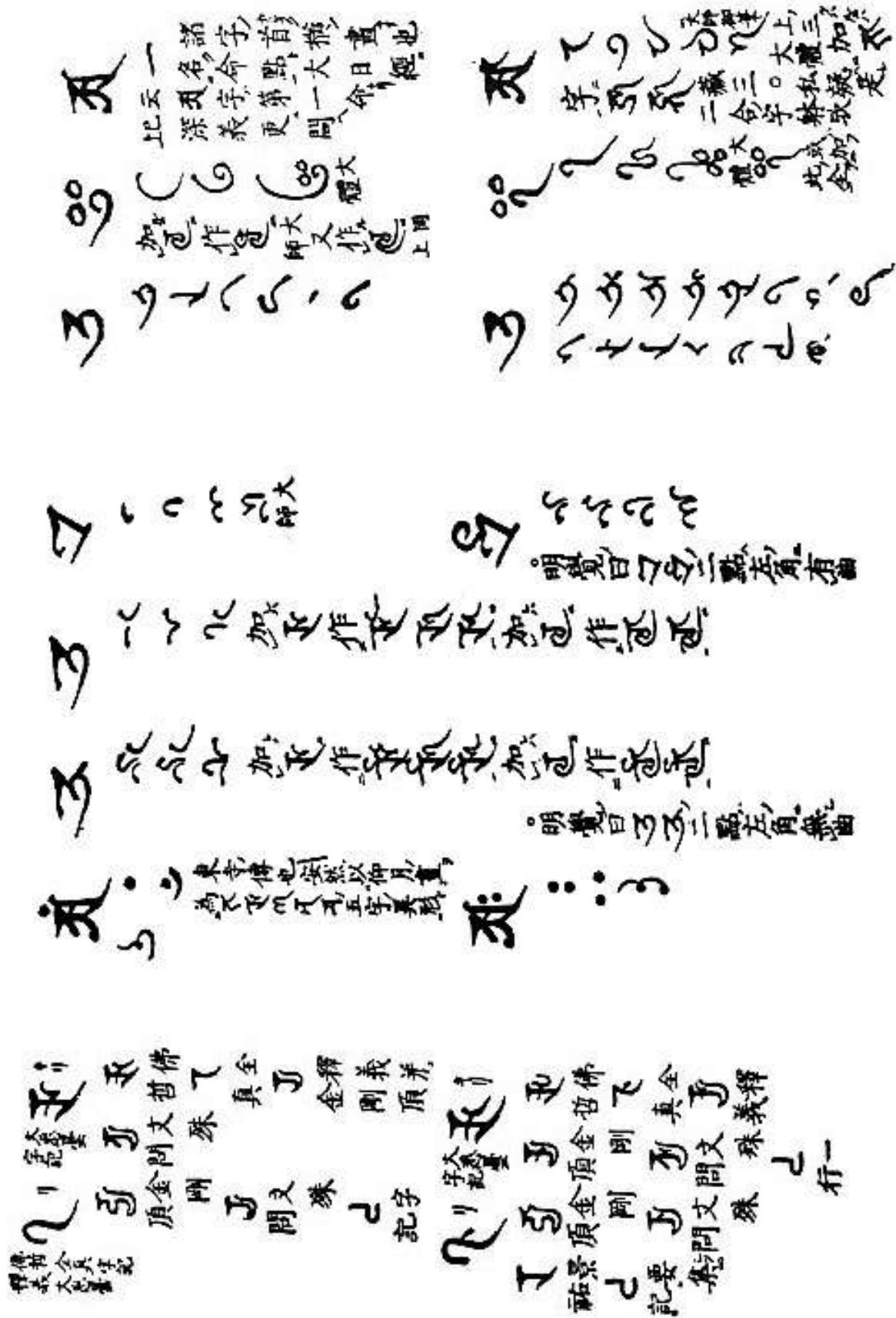


Figure 30: Description of vowel signs and the vocalic letters in the Shittan Sanmitsushō (from Jōgon 1682: 722).

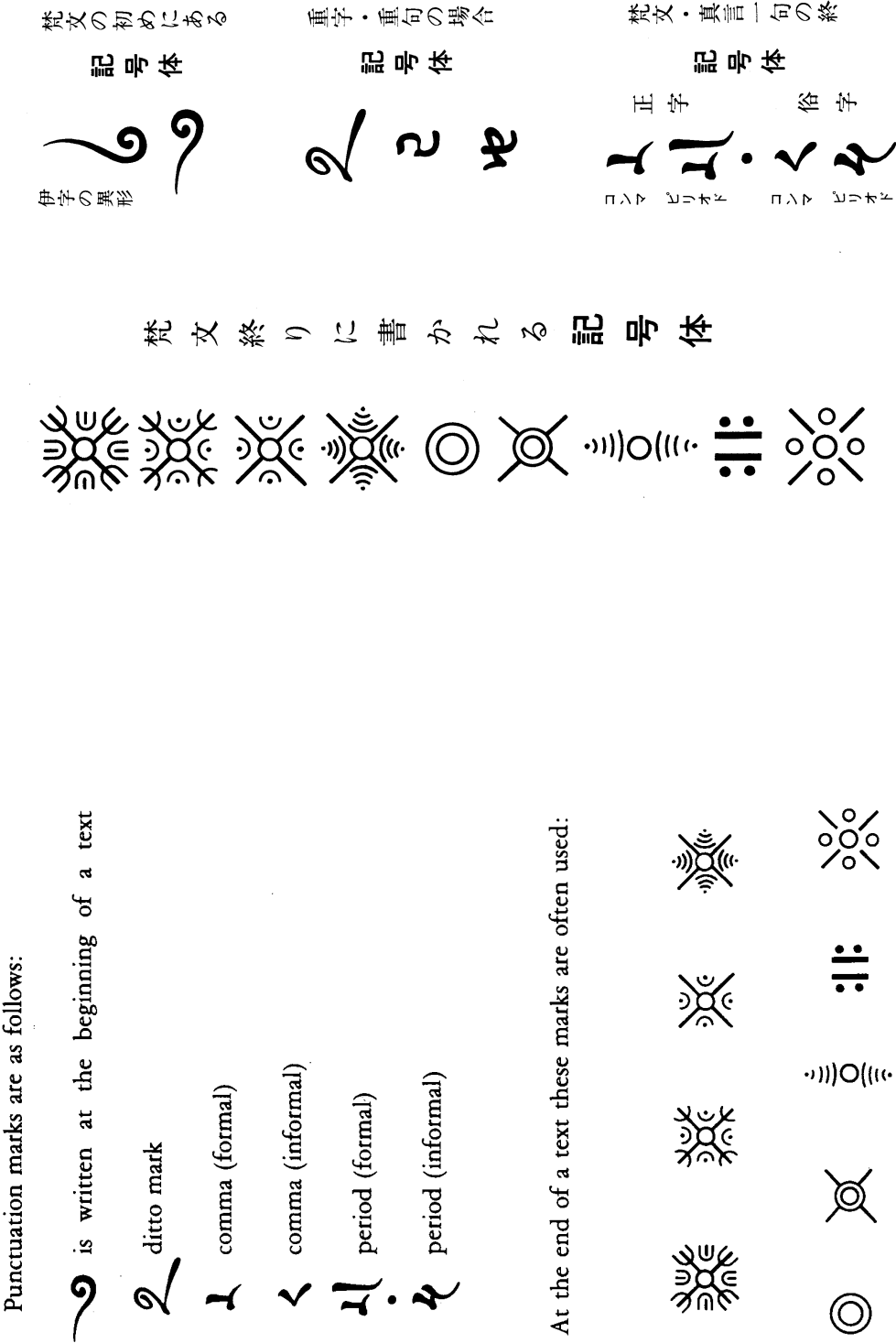


Figure 31: Punctuation and ornaments used in Siddham (from Stevens 1981: 41).



Figure 32: Punctuation and ornaments used in Siddham (from Tokuzan 1974: 227). Many of these are identical to those shown by Stevens (figure 31) and Kodama (figure 34). However, note here the vertical variant 𑖦 of 𑖧 SIDDHAM.

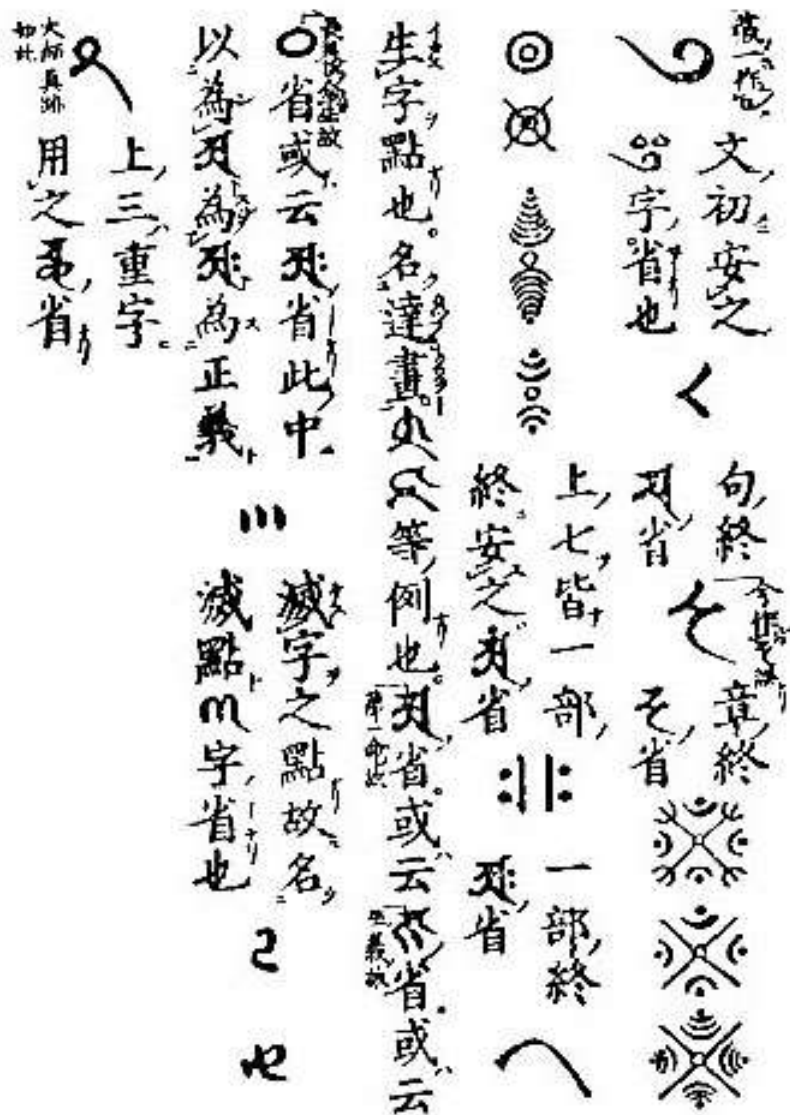


Figure 33: Description of an invocation sign, punctuation marks, section marks, a variant form of VIRAMA, a deletion mark, and repetition marks in the *Shittan Sanmitsushō* (from Jōgon 1682: 724). Note the separate listings for SECTION MARK EIGHT and SECTION MARK ELEVEN.















記号	
①	 恒達 ^{たたら} (生の画)。母音符 (a) を除いた子音字 (半体文) を作るときに体文の下部につける。
②	 文頭に書く。i 字の省略。
③	 句末。読点にあたる。ma 字の省略。
④	 文末。句点にあたる。da 字の省略。
⑤	   疊句 ^{じょうく} (同じ言葉をくり返すときに用いる)。cāpa 字の省略。
⑥	   滅滅点(書き損じたときに、文字の上あるいは下にこの記号を符す)。na 字の省略。
⑦	   文章の終りに符す。am 字の省略。
⑧	 文章の終りに符す。ah 字の省略。

Figure 34: Punctuation and ornaments used in Siddham (from Kodama 1991: 222). Column (1) forms of VIRAMA; (2) the SIDDHAM sign; (3) the ‘informal’ DANDA; (4) the ‘informal’ DOUBLE DANDA; (5) the three repetition marks; (6) deletion marks; (7) ornaments used at the end of a text section; (8) a sign used at the end of text.

嚩拏¹⁶ 滿怛囉 麼鞞嚩多 逸史夜弭¹⁷ 薩嚩 遏嚩他 娑駄釅¹⁸ 薩嚩 尾觀曩
 𑖦 𑖦𑖥 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦
 rṇa mantra māvarṭta iṣyāmi sarva artha sādhaḥkaṃ, sarva vighna
 〕〔真言〕 〔誓願〕〔一切〕〔事〕〔完成〕〔一切〕〔魔障〕

佉多釅¹⁹ 薩嚩 尾灑 曩捨難²⁰
 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦
 ghāṭakaṃ, sarva viṣa nāśanāṃ.
 〔能破〕 〔一切〕〔毒〕〔消滅〕

唵²¹ 吽 吽 吽²² 多嚩囉²³ 尾嚩囉²⁴ 薩嚩 尾觀曩 伽多迦²⁵ 入嚩
 𑖦 𑖦 𑖦 𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦
 om, hūṃ hūṃ hūṃ, tarula virula, sarva vighna ghāṭaka, jva-
 〔一切〕〔魔障〕〔能破〕 〔火〕

理多 尾娑普陵誡 吒賀娑²⁶ 計娑囉 捺吒 娑跢跛²⁷ 嚩日囉嚩囉 捏伽多曩²⁸
 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦
 lita visphulīṅgā ṭṭahāsa kesarā chaṭa saṭopa vajrakhura nirghātana,
 焰〕〔火花〕 〔哄笑〕〔鬣毛〕〔群集〕〔剛毛〕〔金剛蹄〕〔除去〕

左里多 嚩素駄多囉²⁹ 顛濕嚩娑 麼嚩妬 得乞插多³⁰ 駄囉拏 駄囉³¹ 鼻灑拏
 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦
 calita vasudhātala niḥśvasa māruto tksipta, dharāṇi dhāra bhīṣaṇā
 〔震動〕〔地表〕〔鼻嘆息〕〔空氣〕〔吐出〕〔咒〕〔持〕〔可怖畏〕

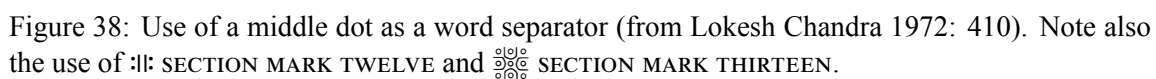
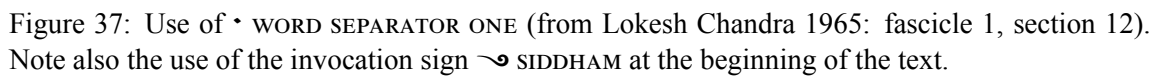
吒賀娑³² 阿跢哩弭多麼囉³³ 跛囉屹囉麼³⁴ 鼻多部多藥拏³⁵ 沒地也 沒地也
 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦
 ṭṭahāsa aparimīta bala parākrama bhītabhūtagaṇā, buddhya buddhya
 〔哄笑〕〔無量〕〔力〕 〔強鎮〕〔驚怖步多鬼眾〕

³⁶ 賀也屹里嚩³⁷ 佉娜 佉娜³⁸ 跛囉滿怛囉³⁹ 略乞叉 略乞叉⁴⁰ 遏荅麼 滿怛囉
 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦 𑖦𑖥𑖦
 hayagrīva, khāda khāda paramantra rakṣa rakṣa ātma mantram
 〔馬頭明王〕 〔噉食〕〔他真言〕〔保護〕〔〃〕〔自己〕〔真言〕

Figure 35: Chinese Siddham showing usage of 𑖦 REPETITION MARK ONE (source unknown). Note the serialized use of 𑖦 after the syllable hūṃ, which indicates that the word is to be read thrice.



Figure 36: Excerpt from the *Uṣṇīṣa Vijaya Dhāraṇī Sūtra* in figure 5 showing usage of 𑖦 REPETITION MARK TWO in vertical text (from Kodama 2005: 123)).






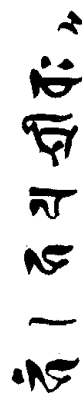




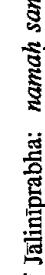





रु ह्रि वरु ॥ रु न र न वी ॥ नं ॥ सु सु रु नो ॥
 सं । स द सु स सु प्रः ॥ सं । म व र व सि नो ॥
 हं । द य शो वः ॥ हं । द य व र ॥
 सं । र व म प्रः ॥ रु । रु ह्रि वी य न ॥
 रु । ग रु स नि ॥ ह्रं ह्रं सं ह्रं । ह्रं ह्रं । उ प्रो म व
 सं

Figure 39: Text showing use of ॥ DANDA, ॥ DOUBLE DANDA, and । WORD SEPARATOR TWO (from Lokesh Chandra 1972: 15). Note the writing of DANDA and DOUBLE DANDA beneath WORD SEPARATOR TWO.

स व ग द । न मः स म न व व नं ॥ पि वि पि वि ॥ सु
 दं ॥ स व ग द । न मः स म न व व नं ॥ ग द
 वी उ प्र प्र ह्रि ग म य सु दं ॥ स व न व न । न
 मः स म न व व नं ॥ न व न म रु द नि य ॥ सु दं
 न मः स म न व व नं ॥ र व स वि प न य सु दं ॥

Figure 40: Text showing use of । WORD SEPARATOR TWO, ॥ DANDA, and ॥ DOUBLE DANDA (from Lokesh Chandra 1972: 33). Here WORD SEPARATOR TWO is written independently.

  The mantra of Paṇḍaravāsini: <i>namaḥ samanta-buddhānām paṇi.</i> 90	  The mantra of Paṇḍaravāsini: <i>namaḥ samanta-buddhānām paṇi.</i> 90
  The mantra of Hayagrīva: <i>namaḥ samanta-buddhānām haṇi.</i> 91	  The mantra of Hayagrīva: <i>namaḥ samanta-buddhānām haṇi.</i> 91
  The mantra of Yaśodharā: <i>namaḥ samanta-buddhānām yaṇi.</i> 92	  The mantra of Yaśodharā: <i>namaḥ samanta-buddhānām yaṇi.</i> 92
  The mantra of Ratnapāṇi: <i>namaḥ samanta-buddhānām saṇi.</i> 93	 The mantra of Ratnapāṇi: <i>namaḥ samanta-buddhānām saṇi.</i> 93


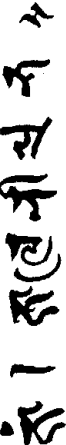

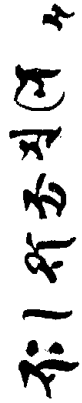





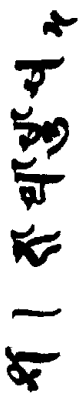
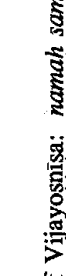
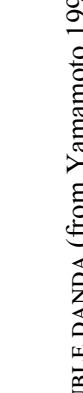
  The mantra of Śākyamuni: <i>namaḥ samanta-buddhānām bhaḥ.</i> 95	  The mantra of Śākyamuni: <i>namaḥ samanta-buddhānām hūm trīm.</i> 96
  The mantra of Sītāpatroṣṇa: <i>namaḥ samanta-buddhānām laṇi.</i> 97	  The mantra of Sītāpatroṣṇa: <i>namaḥ samanta-buddhānām śaṇi.</i> 98
  The mantra of Vijayoṣṇa: <i>namaḥ samanta-buddhānām śi.</i> 99	  The mantra of Vijayoṣṇa: <i>namaḥ samanta-buddhānām śi.</i> 99

Figure 41: Text showing use of | WORD SEPARATOR TWO and ʌ DOUBLE DANDA (from Yamamoto 1990: 61, 62).

梵字-子音表 (一部)			アルファベット			発音記号			日本語表記					
日本語表記で使用														
ba	ba	バ	bla	bla	ブラ	bra	bra	ブラ	bya	bja	ビヤ	bha	bha	バ'ア
c'a	ca	チア	c'ha	cha	チ'ア	da	da	ダ	d'a	da	ザ	d,a	da	ダ
dha	dha	ダ'ア	d,ha	dha	ダ'ア	fa	fa	ファ	ga	ga	ガ	gha	gha	ガ'ア
ha	ha	ハ	ja	ja	ジャ	jha	cha	ジ'ア	ka	ka	カ	kha	cha	カ'ア
ks,a	ka	クシャ	la	la	ラ	ma	ma	マ	na	na	ナ	n,a	na	ンガ
n~a	na	ニヤ	n'a	na	ナ	pa	pa	パ	pha	cha	バ'ア	qwa	ka	クア
ra	ra	ラ	sa	sa	サ	s'a	ja	シャ	s,a	ja	シャ	ta	ta	タ
tsa	tsa	ツア	t,a	ta	タ	tha	cha	ダ'ア	t,ha	cha	ダ'ア	th'a	ta	サ
va	va	ヴァ	wa	wa	ワ	xa	ksa	クサ	ya	ja	ヤ	za	za	ザ

梵字文字 発音 法則

梵字文字 発音 法則

Figure 42: Chart showing the use of ण NUKTA for writing sounds not natively represented by traditional Siddham letters (Source: <http://www.mandalar.com/DisplayJ/Bonji/index2.html>).

GENDAI SHITTAN
現代悉曇
MODERN SIDDHAM

Japanese 日本語	刺青
English	Tattoo
Bonji Formation	ve+dha
梵字-梵語 Bonji-Sanskrit ヴェーダ'ア ve:dha	𑖦𑖅
Bonji Formation	ta+tu:
梵字-英/印語 Bonji-Eng/Hindi タトゥー tatu:	𑖦𑖅
Bonji Formation	i+re+zu+mi
梵字-日/印語 Bonji-Jpn/Hindi irezumi	𑖦𑖅𑖩𑖪𑖫𑖬
刺青_目次	Tattoo_INDEX
目次	INDEX

BONJI WRITING SYSTEM
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Kitakura Afei Mandala
WWW.MANDALAR.COM

Figure 43: Text showing the use of ◌ NUKTA with 𑖦 JA in order to represent /z/ in the Siddham for the Japanese word 刺青 *irezumi* “tattoo” (Source: http://www.mandalar.com/BonjiDigitalDictionarySAMPLE/member/_Tattoo/00Tattoo.html).

[illegible]

Figure 44: Grid showing traditional Siddham character set (adapted from Stevens 1981: 40–41). This appears to be based upon the analysis of Siddham conjuncts by Zhì-guǎng (see Section 3.8).

[illegible]

Plate VII a. Siddham ligatures

Figure 45: Siddham ligatures (from van Gulik 1980: Plate VIIa).

一	二	三	四	五	六	七	八	九	十	十一	十二	十三	十四	十五	十六	十七	十八	十九	二十	二十一	二十二	二十三	二十四	二十五	二十六	二十七	二十八	二十九	三十	三十一	三十二	三十三	三十四	三十五	三十六	三十七	三十八	三十九	四十	四十一	四十二	四十三	四十四	四十五	四十六	四十七	四十八	四十九	五十	五十一	五十二	五十三	五十四	五十五	五十六	五十七	五十八	五十九	六十	六十一	六十二	六十三	六十四	六十五	六十六	六十七	六十八	六十九	七十	七十一	七十二	七十三	七十四	七十五	七十六	七十七	七十八	七十九	八十	八十一	八十二	八十三	八十四	八十五	八十六	八十七	八十八	八十九	九十	九十一	九十二	九十三	九十四	九十五	九十六	九十七	九十八	九十九	一百
---	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----

Plate VIIb. Siddham ligatures

Figure 46: Siddham ligatures (from van Gulik 1980: Plate VIIb).

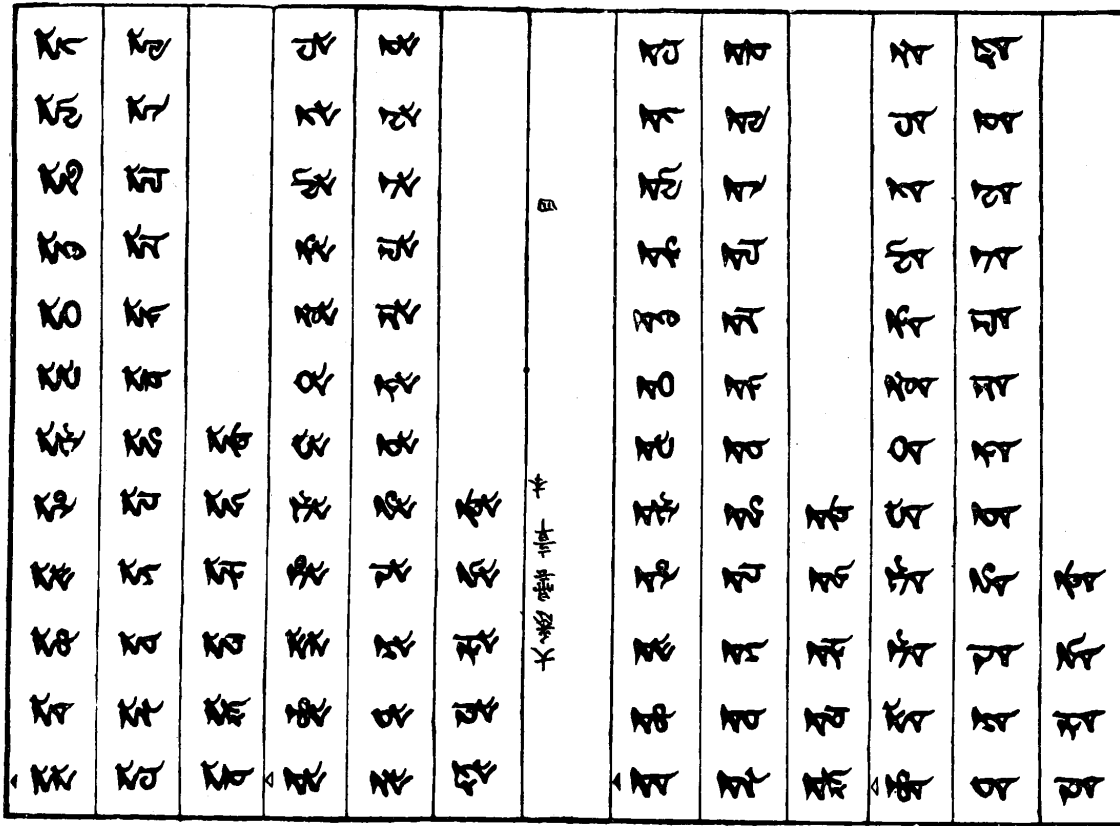


Plate VIIc. Siddham ligatures

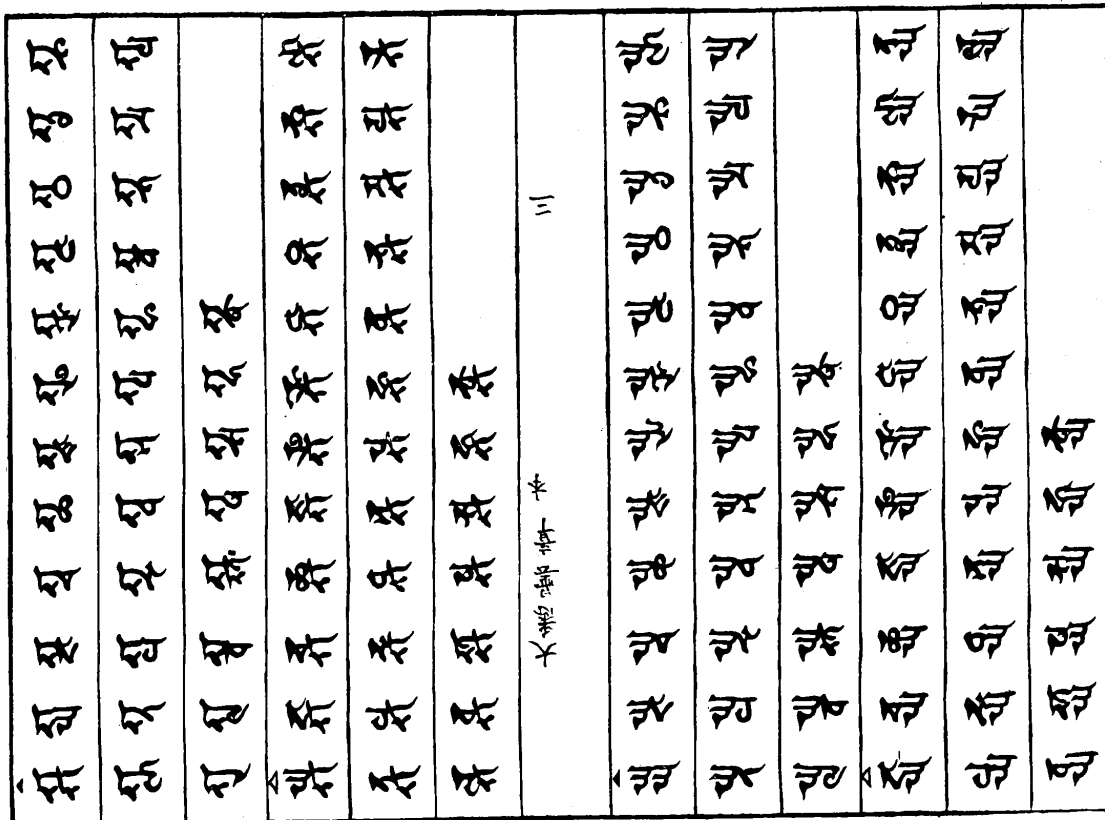


Plate VIId. Siddham ligatures

Figure 48: Siddham ligatures (from van Gulik 1980: Plate VIIId).

Figure 47: Siddham ligatures (from van Gulik 1980: Plate VIIc).

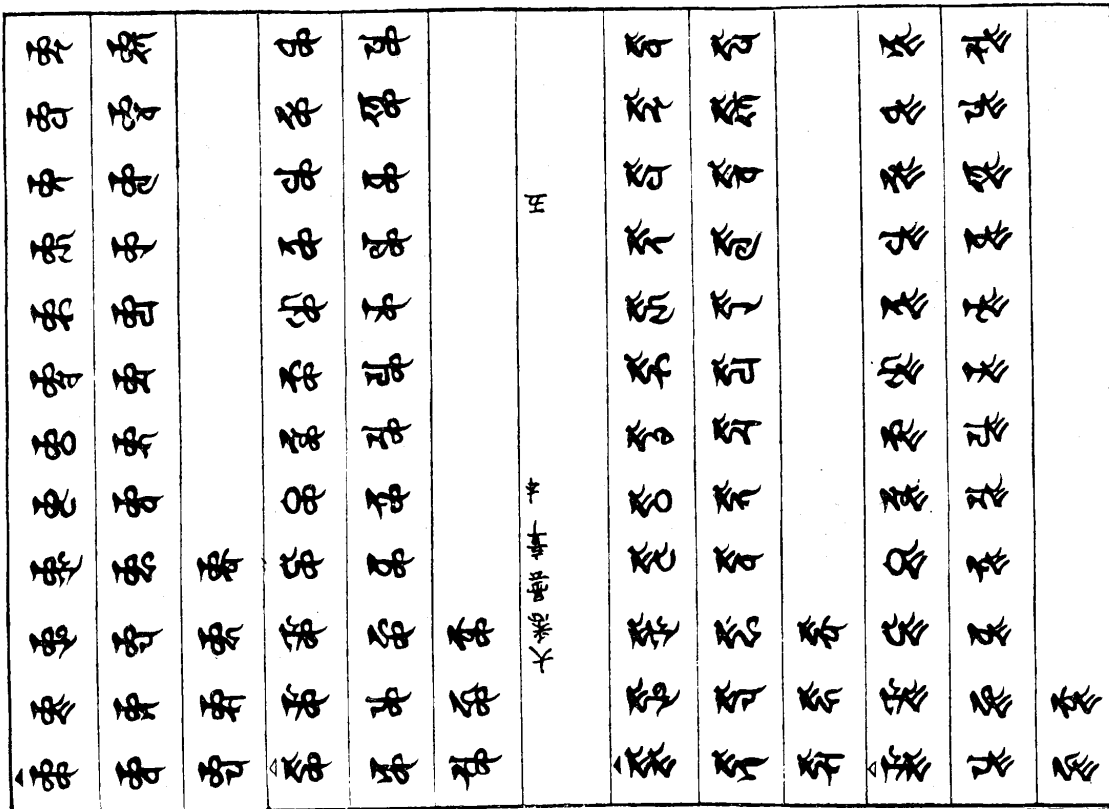


Plate VIIe. Siddham ligatures

Figure 49: Siddham ligatures (from van Gulik 1980: Plate VIIe).

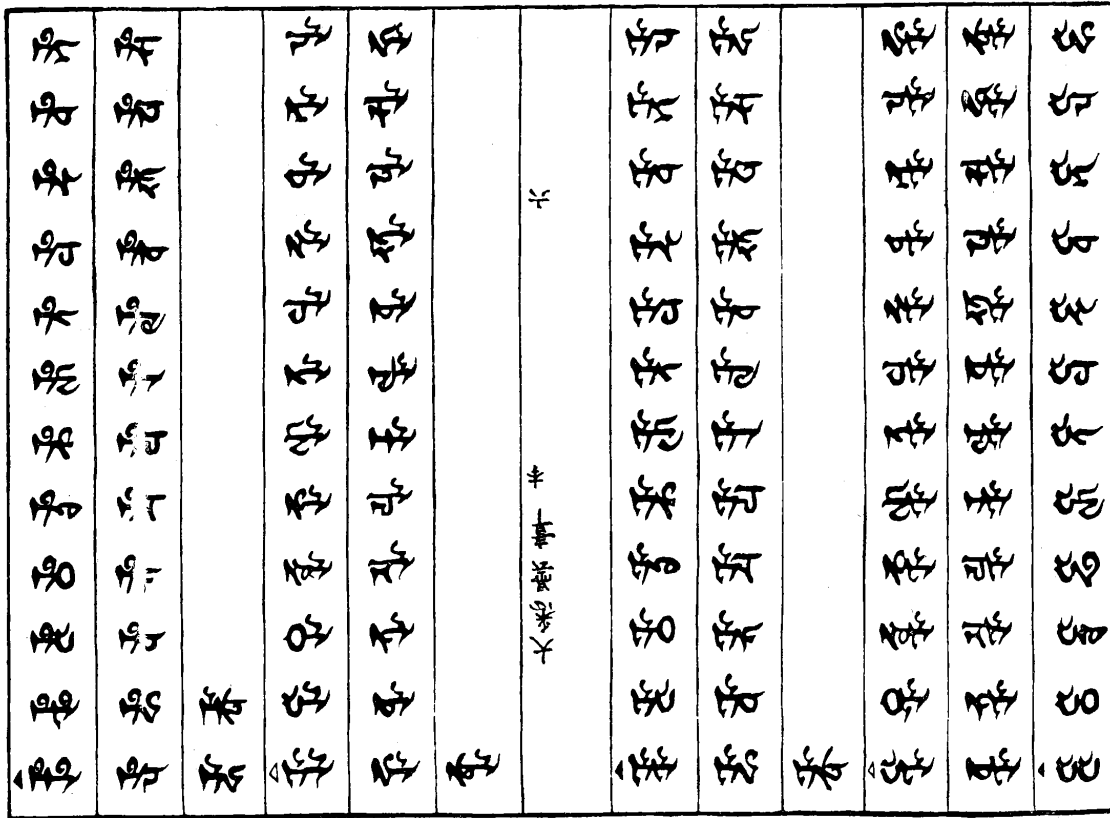


Plate VIIf. Siddham ligatures

Figure 50: Siddham ligatures (from van Gulik 1980: Plate VIIf).

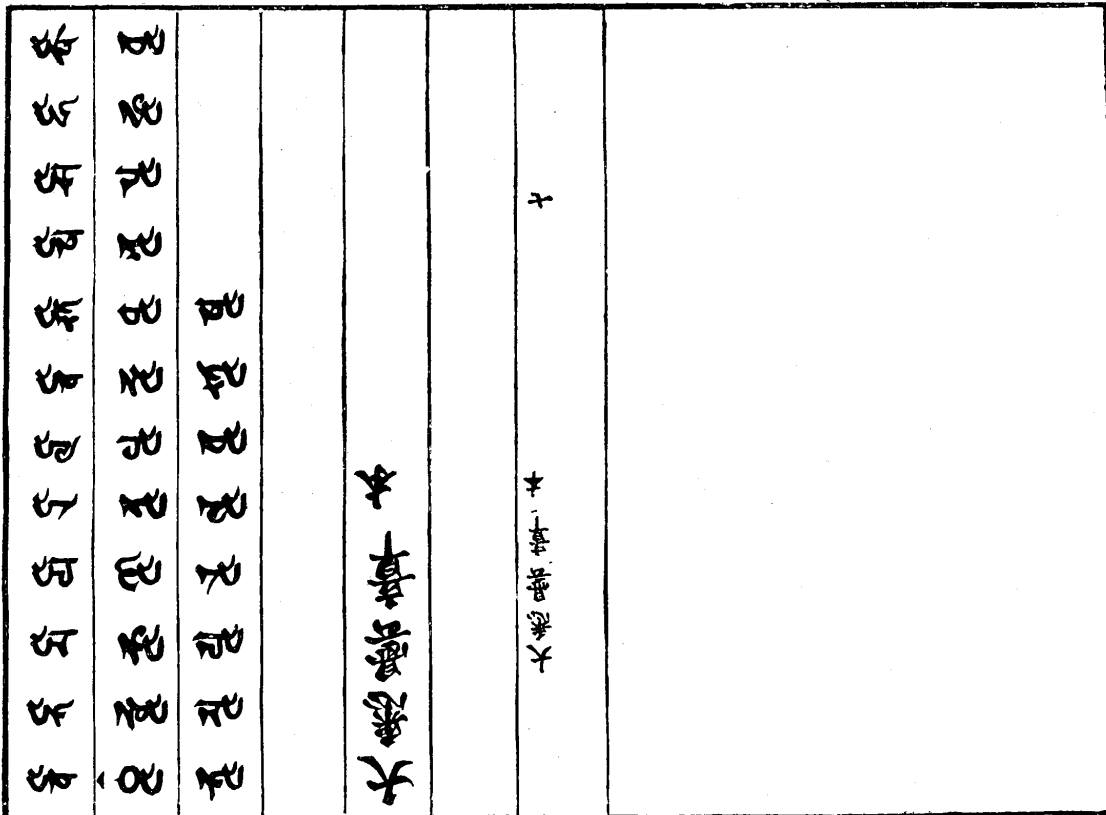


Plate VIIg. Siddham ligatures

Figure 51: Siddham ligatures (from van Gulik 1980: Plate VIIg).

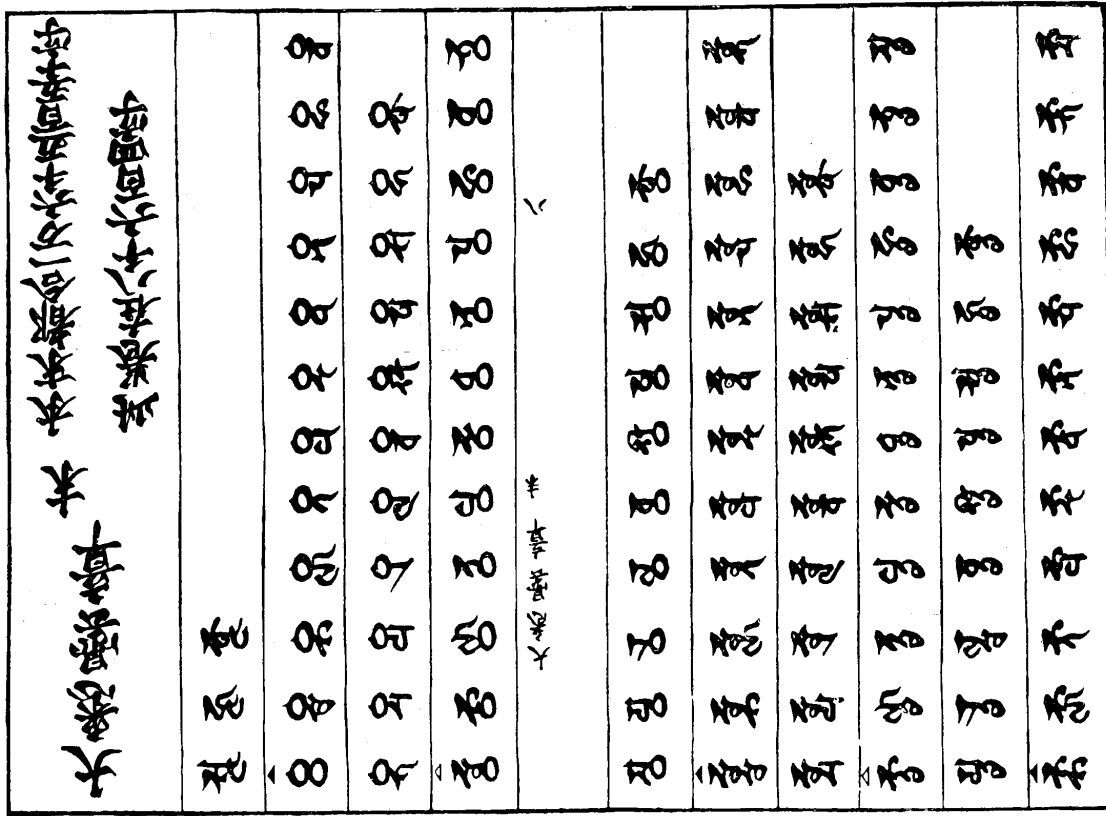


Plate VIIh. Siddham ligatures

Figure 52: Siddham ligatures (from van Gulik 1980: Plate VIIh).

[illegible]

Plate VII. Siddham ligatures

Figure 53: Siddham ligatures (from van Gulik 1980: Plate VIIi).

[illegible]

-Plate VIIj. Siddham ligatures

Figure 54: Siddham ligatures (from van Gulik 1980: Plate VIIj).

[illegible]

Plate VIIk. Siddham ligatures

Figure 55: Siddham ligatures (from van Gulik 1980: Plate VIIk).

[illegible]

Plate VII. Siddham ligatures

Figure 56: Siddham ligatures (from van Gulik 1980: Plate VIII).

𠂔	𠂕	𠂖	𠂗	𠂘	𠂙	𠂚	𠂛	𠂜	𠂝
𠂞	𠂟	𠂠	𠂡	𠂢	𠂣	𠂤	𠂥	𠂦	𠂧
𠂨	𠂩	𠂪	𠂫	𠂬	𠂭	𠂮	𠂯	𠂰	𠂱
𠂲	𠂳	𠂴	𠂵	𠂶	𠂷	𠂸	𠂹	𠂺	𠂻
𠂼	𠂽	𠂾	𠂿	𠃀	𠃁	𠃂	𠃃	𠃄	𠃅
𠃆	𠃇	𠃈	𠃉	𠃊	𠃋	𠃌	𠃍	𠃎	𠃏
𠃐	𠃑	𠃒	𠃓	𠃔	𠃕	𠃖	𠃗	𠃘	𠃙
𠃚	𠃛	𠃜	𠃝	𠃞	𠃟	𠃠	𠃡	𠃢	𠃣
𠃤	𠃥	𠃦	𠃧	𠃨	𠃩	𠃪	𠃫	𠃬	𠃭
𠃮	𠃯	𠃰	𠃱	𠃲	𠃳	𠃴	𠃵	𠃶	𠃷
𠃸	𠃹	𠃺	𠃻	𠃼	𠃽	𠃾	𠃿	𠄀	𠄁
𠄂	𠄃	𠄄	𠄅	𠄆	𠄇	𠄈	𠄉	𠄊	𠄋
𠄌	𠄍	𠄎	𠄏	𠄐	𠄑	𠄒	𠄓	𠄔	𠄕
𠄖	𠄗	𠄘	𠄙	𠄚	𠄛	𠄜	𠄝	𠄞	𠄟
𠄠	𠄡	𠄢	𠄣	𠄤	𠄥	𠄦	𠄧	𠄨	𠄩
𠄪	𠄫	𠄬	𠄭	𠄮	𠄯	𠄰	𠄱	𠄲	𠄳
𠄴	𠄵	𠄶	𠄷	𠄸	𠄹	𠄺	𠄻	𠄼	𠄽
𠄾	𠄿	𠅀	𠅁	𠅂	𠅃	𠅄	𠅅	𠅆	𠅇
𠅈	𠅉	𠅊	𠅋	𠅌	𠅍	𠅎	𠅏	𠅐	𠅑
𠅒	𠅓	𠅔	𠅕	𠅖	𠅗	𠅘	𠅙	𠅚	𠅛
𠅜	𠅝	𠅞	𠅟	𠅠	𠅡	𠅢	𠅣	𠅤	𠅥
𠅦	𠅧	𠅨	𠅩	𠅪	𠅫	𠅬	𠅭	𠅮	𠅯
𠅰	𠅱	𠅲	𠅳	𠅴	𠅵	𠅶	𠅷	𠅸	𠅹
𠅺	𠅻	𠅼	𠅽	𠅾	𠅿	𠆀	𠆁	𠆂	𠆃
𠆄	𠆅	𠆆	𠆇	𠆈	𠆉	𠆊	𠆋	𠆌	𠆍
𠆎	𠆏	𠆐	𠆑	𠆒	𠆓	𠆔	𠆕	𠆖	𠆗
𠆘	𠆙	𠆚	𠆛	𠆜	𠆝	𠆞	𠆟	𠆠	𠆡
𠆢	𠆣	𠆤	𠆥	𠆦	𠆧	𠆨	𠆩	𠆪	𠆫
𠆬	𠆭	𠆮	𠆯	𠆰	𠆱	𠆲	𠆳	𠆴	𠆵
𠆶	𠆷	𠆸	𠆹	𠆺	𠆻	𠆼	𠆽	𠆾	𠆿
𠇀	𠇁	𠇂	𠇃	𠇄	𠇅	𠇆	𠇇	𠇈	𠇉
𠇊	𠇋	𠇌	𠇍	𠇎	𠇏	𠇐	𠇑	𠇒	𠇓
𠇔	𠇕	𠇖	𠇗	𠇘	𠇙	𠇚	𠇛	𠇜	𠇝
𠇞	𠇟	𠇠	𠇡	𠇢	𠇣	𠇤	𠇥	𠇦	𠇧
𠇨	𠇩	𠇪	𠇫	𠇬	𠇭	𠇮	𠇯	𠇰	𠇱
𠇲	𠇳	𠇴	𠇵	𠇶	𠇷	𠇸	𠇹	𠇺	𠇻
𠇼	𠇽	𠇾	𠇿	𠈀	𠈁	𠈂	𠈃	𠈄	𠈅
𠈆	𠈇	𠈈	𠈉	𠈊	𠈋	𠈌	𠈍	𠈎	𠈏
𠈐	𠈑	𠈒	𠈓	𠈔	𠈕	𠈖	𠈗	𠈘	𠈙
𠈚	𠈛	𠈜	𠈝	𠈞	𠈟	𠈠	𠈡	𠈢	𠈣
𠈤	𠈥	𠈦	𠈧	𠈨	𠈩	𠈪	𠈫	𠈬	𠈭
𠈮	𠈯	𠈰	𠈱	𠈲	𠈳	𠈴	𠈵	𠈶	𠈷
𠈸	𠈹	𠈺	𠈻	𠈼	𠈽	𠈾	𠈿	𠉀	𠉁

Plate VII m. Siddham ligatures

[illegible]

Plate VII n. Siddham ligatures



草保十九甲寅春三月壽梓	浪華書肆	梅井藤五郎 中野宗左衛門 淡野彌兵衛
大正九年三月	十	
草保十九甲寅春三月壽梓	浪華書肆	梅井藤五郎 中野宗左衛門 淡野彌兵衛

Plate VII p. Siddham ligatures

[illegible]

Plate VII o. Siddham ligatures

Figure 60: Siddham ligatures (from van Gulik 1980: Plate VIIp).

Figure 59: Siddham ligatures (from van Gulik 1980: Plate VIIo).



Figure 61: Chart showing ‘headless’ consonants combined with VIRAMA (from Jōgon 1682: 779). These are pedagogical forms of regular consonant letters (see Section 4.3).

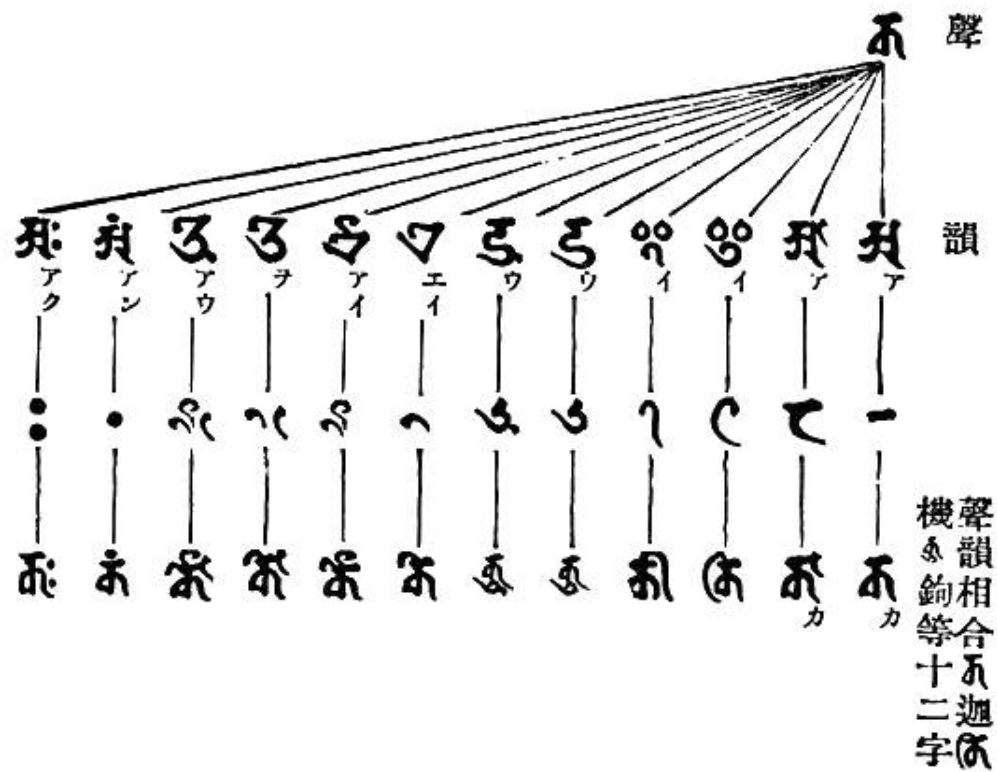


Figure 62: Chart showing Siddham dependent vowel signs and their combinations with 𑖅 KA (from Shinpan: 644). Note the presence of the vowel sign 𑖑 for 𑖅 A, which is derived from the top-stroke of the letter KA. See Section 4.3 for more details.

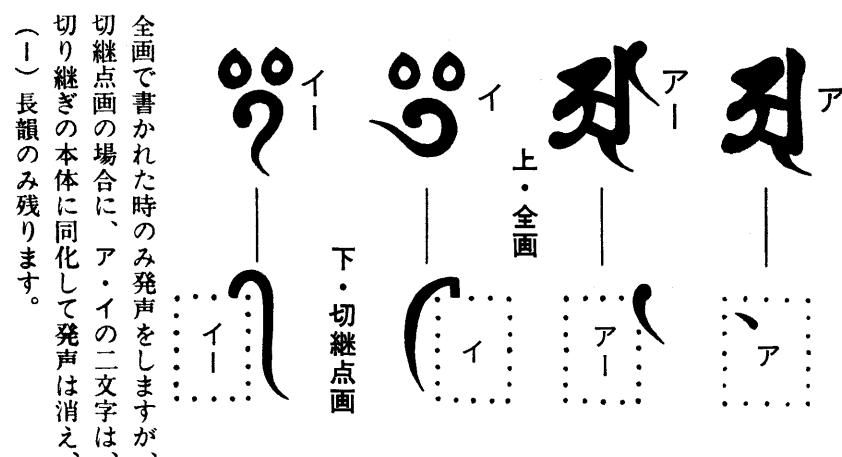



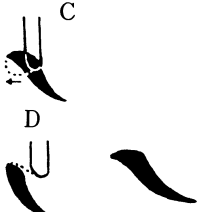




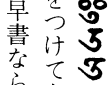








Figure 63: The 𑖅 myō-ten shown as the dependent form of 𑖅 VOWEL LETTER A (from Tokuzan 1974: 226).

7	6	5	4	3	2	1
						
<p>半月形 弧線の半月形では腹がせまく、従って字が細長くなりすぎるので、初めの三分の一は斜直線、後の三分の二はゆったり丸みをつける。終りは上げない。(39  字は終りを上げて堅画に続ける。)</p>	<p>円点 空点、涅槃点、また○字。 宝珠形と伝えているが、それにとらわれると細長い形となる。(むしろ少し平たい方がよい。) おろした筆を左へ押し上げるくらいにして大きく剣り、右へまわす。第二筆は第一筆の始点に重ねて軽く筆をおろし、左側と同形になるように右へまわして終りを合せる。(早書の場合は、第一筆を長く右向きまで引いておき、第二筆は補う程度にする。) 黒点にするには第一筆を筆を倒して肉太に書き、第二筆で補えばよい。</p>	<p>雲形点 ウ点。  の下部も同じ要領) 堅画の筆を一たん止め、左斜下へ押し出し、引き返して同じ角度で右斜下へ引き、丸みをつけて左へまわし、斜上へはねる。このとき筆が切れたら、筆の終るところまで筆を運び軽くおとして引き返す。(早書ならば切れたままでもよい。) 斜上へはねずにダラリと下へさげるのはいけない。</p>	<p>驚点  の終画、ウ点。 筆を向うへ倒して(掌が上を向く)一ぱいにおろし、そのまま右斜下から横へ引きながら筆をおさめる。(手首をつかわず肘を開きながら引く。) 筆先が下側を通る逆筆である。堅画との連続は、下を向いて堅画を引いて来た掌が上に反って、堅画の終りに重ねて筆をおろす(上図C)。掌を下に向けたままでは下図Dのように堅画と点が離れ、点の形も舟のようになる。(早書の場合でも掌は横に向くくらいに反す。) なお驚点の名は刷毛書の場合、長く引いた形が驚の谷渡りに似ているところから出たもので、毛筆書には当たらないが、昔からそのまま用いている。</p>	<p>堅画 筆をおろし(命点ではない)軽く左斜下に押し下げ、筆の終るところを見定めてから、まっすぐに引きおろす。A終りを止めるときは筆全体を内側に押しつけ、B引くときは右斜下へ引きながらゆくり筆をおさめる。(早書の場合は、左斜下へ押し下げた筆を止めずに下へ引くので、左よりとなるのを引きながら右へもどす。A  B )</p>	<p>横画(第一画) 命点に続けて書く。命点をうち、筆先を離さずに少し斜上にあげ、命点にかぶせるように筆をおろし、横に一の字を引く。(早書の場合は、命点から斜上にあげた筆をすぐにおろさず、右に引きながら下げる。 )</p>	<p>命点 梵字を書くときは先ず筆を落して一点をうつ。これを阿字命点(略して命点)という。すべての字は  字の変現であることを表わす。また  字の点画とも考えられる。命点をうたない梵字は「ただの梵字」で悉曇ではないといわれて来た。</p>

筆法基本

Figure 64: Elemental Siddham strokes (from Bonji Kichō Shiryō Kankōkai 1980: 114).

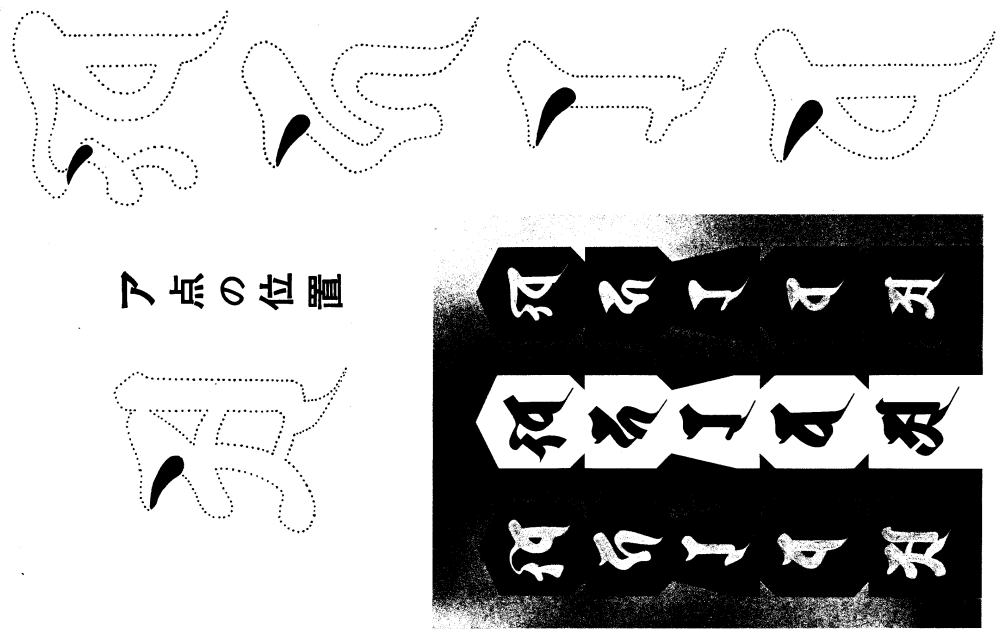
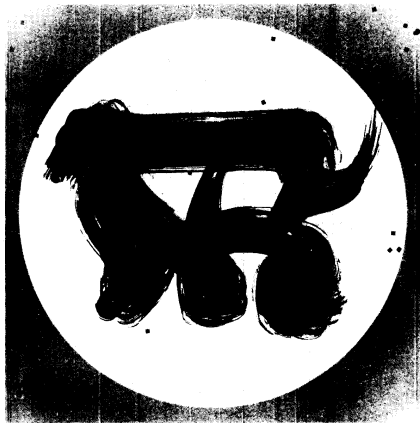


Figure 66: The position of *myō-ten* in the seed-syllables for the five elements 𑖀 A, 𑖁 VA, 𑖂 RA, 𑖃 KHA, 𑖄 HA (from Tokuzan 1974: 180).

THE LETTER A WRITTEN WITH A BRUSH



SOFT BRUSH STROKE ORDER

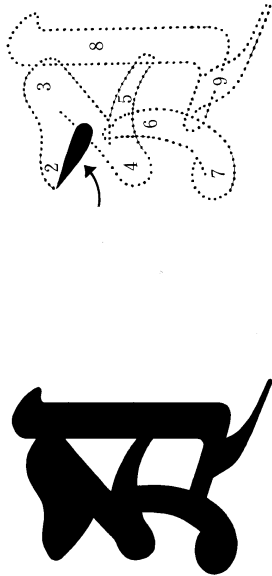


Figure 65: Stroke sequence for writing 𑖀 A using a soft brush (from Stevens 1981: 44). The initial stroke *myō-ten* is highlighted. See Section 4.3 for details on Siddham stroke characters.

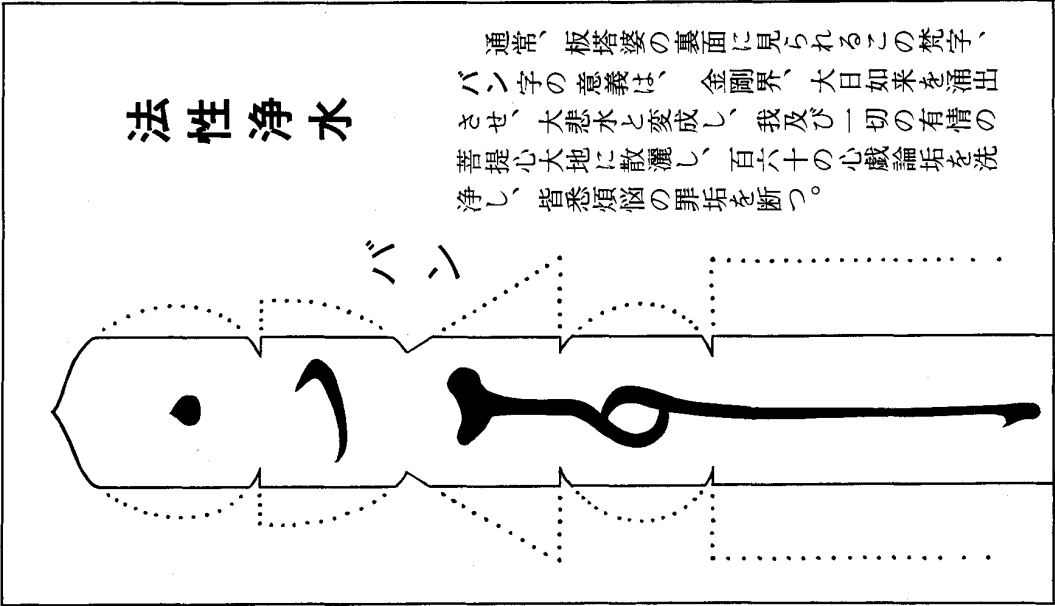


Figure 67: A conceptualization of the syllable 𑖦 *vaṃ* as a *stūpa* (from Tokuzan 1976: 43). The elements from top are 𑖦 *ANUSVARA*, the 𑖦 *gyōgatsut-ten*, and 𑖦 *va*.

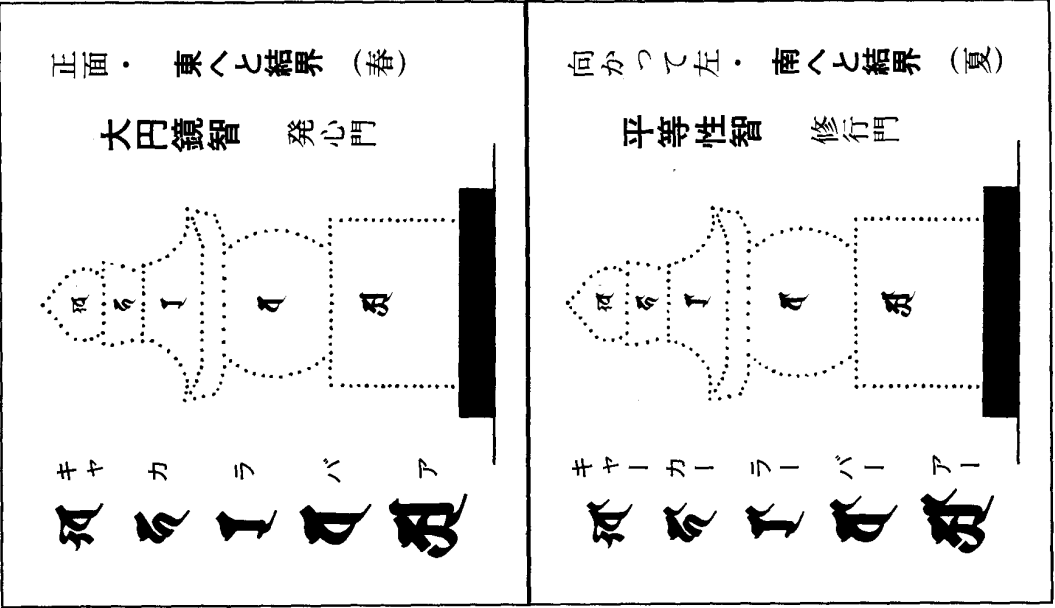


Figure 68: The seed-syllables for the five elements 𑖦 *A*, 𑖦 *VA*, 𑖦 *RA*, 𑖦 *KHA*, 𑖦 *HA* conceptualized as a *stūpa* (from Tokuzan 1976: 28).

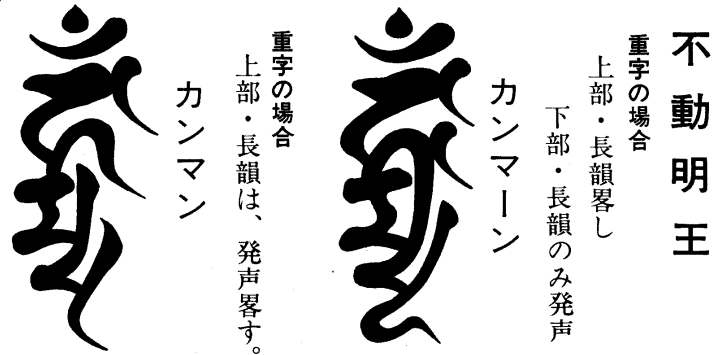


Figure 69: Different forms of *hāmām*, the *bīja* of Fudō Myōō (Acala) (from Tokuzan 1974: 227)



Figure 70: The seed syllables of 不動明王 Fudō Myōō and his attendants, 制吒迦童子 Seitaka-dōji (Ceṭaka) and 矜羯羅童子 Kongara-dōji (Kṁkara) (from Kodama 2005: 97).



Figure 72: Two variations of the seed syllable *dhiḥman* (from Kodama 2005: 101).

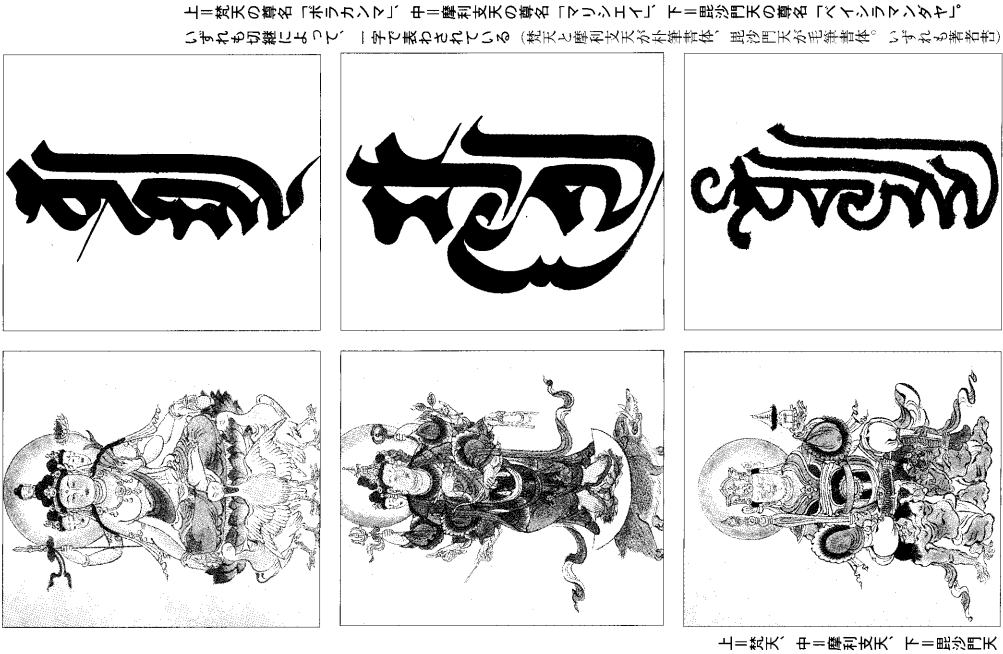


Figure 71: Seed syllables of 梵天 (Brahmā), 摩利支天 (Marishi-ten), and 毘沙門天 (Bishamon-ten) (Vaiśravaṇa) (from Kodama 2005: 99).