

Universal Multiple-Octet Coded Character Set  
International Organization for Standardization  
Organisation Internationale de Normalisation  
Международная организация по стандартизации

**Doc Type: Working Group Document****Title: Proposal for encoding additional Sundanese characters for Old Sundanese in the UCS****Source: UC Berkeley Script Encoding Initiative (Universal Scripts Project)****Author: Michael Everson****Status: Liaison Contribution****Action: For consideration by JTC1/SC2/WG2 and UTC****Replaces: N3648****Date: 2009-08-04**

Sundanese has been written in a number of scripts. *Pallawa* or *Pra-Nagari* was first used in West Java to write Sanskrit from the fifth to eighth centuries CE, and from Pallawa was derived *Sunda Kuna* or *Old Sundanese* which was used in the Sunda Kingdom from the 14th to 18th centuries. Both Javanese and Arabic script were used from the 17th to 19th centuries and the 17th to the mid-20th centuries respectively. Latin script has had currency since the 20th century. The modern Sundanese script, called *Sunda Baku* or *Official Sundanese*, was made official in 1996. The modern script itself was derived from Old Sundanese, the earliest example of which is the Prasasti Kawali stone (see Figure 1).

The Sundanese script was originally more similar to other scripts of the Brahmic type, in that it made use of conjunct characters. Consonant conjuncts are not formed productively in the modern script, which uses the explicit SUNDANESE SIGN PAMAAEH character to show indicate the absence of the inherent vowel; PAMAAEH does not cause Brahmic conjunct formation. (Some consonant clusters are represented in the modern script with the encoded medial signs *-ya*, *-ra*, and *-la*, but these are not *conjuncts*.) In order to support older orthography, the “Myanmar model” as opposed to the “Devanagari model” is used. An explicit SUNDANESE SIGN VIRAMA is proposed here to cause true Brahmic consonant clustering. Since PAMAAEH does not cause conjunct formation, and is always visible, and since modern users do not want conjuncts to be formed, the Myanmar model, which has an explicit ASAT alongside a conjunct-forming VIRAMA, is the model used here. Analogous is the modern Meetei Mayek script, which has its explicit KILLER, alongside the older Meetei Mayek orthography, which uses a conjunct-forming VIRAMA.

This proposal also supports some additional characters used in Sanskrit.

1BAB SUNDANESE SIGN VIRAMA

This character forms conjuncts in older orthography. This causes no interference with the modern orthography, though care should be taken because three explicitly encoded consonant signs, *-ya*, *-ra*, and *-la* have been encoded for modern orthography. If virama were to precede *ya*, *ra*, or *la*, a conjunct is formed, but it would look different from the modern subjoined consonants. This is a matter of orthography. Note that in modern orthography, the explicit killer U+1BAA ☉ SUNDANESE SIGN PAMAAEH is regularly used; it does not cause conjunct formation. Some conjuncts have an archaic glyph style and a modern glyph style but *neither the VIRAMA nor any of the conjuncts are used in modern standard orthography*.

<p>ꦗꦪ    <i>jya</i> (ja ꦗ + -ya ☉)</p> <p>ꦲꦫ    <i>hra</i> (ha ꦲ + -ra ☉)</p> <p>ꦏꦭ    <i>kla</i> (ka ꦏ + -la ☉)</p>	<p>ꦗꦪꦠ    <i>jya</i> (ja ꦗ + virama ☐ + ya ꦠ)</p> <p>ꦲꦫꦠ    <i>hra</i> (ha ꦲ + virama ☐ + ra ꦠ)</p> <p>ꦏꦭꦠ    <i>kla</i> (ka ꦏ + virama ☐ + la ꦠ)</p>
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The following conjuncts (all formed with VIRAMA) are known to occur:

ᮊᮊ	<i>ska</i>	ᮊᮊ	<i>lka</i>	ᮊᮊ	<i>lga</i>	ᮊᮊ	<i>kña</i>	ᮊᮊ	<i>nca</i>
ᮊᮊ	<i>ñja</i>	ᮊᮊ	<i>nja</i>	ᮊᮊ	<i>kta</i>	ᮊᮊ	<i>pta</i>	ᮊᮊ	<i>nta</i>
ᮊᮊ	<i>nda</i>	ᮊᮊ	<i>hda</i>	ᮊᮊ	<i>tna</i>	ᮊᮊ	<i>sna</i>	ᮊᮊ	<i>mpa</i>
ᮊᮊ	<i>mba</i>	ᮊᮊ	<i>dma</i>	ᮊᮊ	<i>jya</i>	ᮊᮊ	<i>hra</i>	ᮊᮊ	<i>dwa</i>
ᮊᮊ	<i>ksa</i>	ᮊᮊ	<i>lsa</i>	ᮊᮊ	<i>tha</i>	ᮊᮊ	<i>mha</i>		

Note the difference between ᮊᮊ SUNDANESE LETTER KHA and ᮊᮊ the conjunct of *ka* and *ha*, as well as ᮊᮊ SUNDANESE LETTER SYA and ᮊᮊ the conjunct of *sa* and *ya*. The archaic shapes in ᮊᮊ *kta* (modern style ᮊᮊ) and ᮊᮊ *mpa* (modern style ᮊᮊ) are a matter of font choice. (Such a choice would be made only for “historical” fonts; modern readers do not know or expect the archaic shapes.)

### ᮊ SUNDANESE CONSONANT SIGN PASANGAN MA

Like the explicitly encoded consonant signs, *-ya*, *-ra*, and *-la*, a subjoined spiral-shaped *ma* is found in historical texts. This contrasts with the conjunct form of *ma* as formed regularly by VIRAMA: compare ᮊᮊ *padma* and ᮊᮊ *padma*. A similar explicit subjoined *ma* is found in Burmese (U+105F ᮊ MYANMAR CONSONANT SIGN MON MEDIAL MA). In the modern script the shape of the explicit consonant sign ᮊ is unknown.

### ᮊ SUNDANESE CONSONANT SIGN PASANGAN WA

This contrasts with the conjunct form of *wa* as formed regularly by VIRAMA: compare ᮊᮊ *bwana* and ᮊᮊ *bwana*. In the modern script the shape of the explicit consonant sign ᮊ is unknown.

### ᮊ SUNDANESE AVAGRAHA

Historically the avagraha deleted an initial vowel, but in older Sundanese orthography it came to have a different function: it kills the vowel of a preceding consonant but introduces a hiatus before an initial *a*-. An example is the word ᮊᮊᮊᮊ *alun-agung* ‘tidal wave’; this could also be written as two words ᮊᮊᮊ ᮊᮊ *alun agung*; ᮊᮊᮊᮊ reads *alungung*.

### ᮊ SUNDANESE LETTER REU

The letter ᮊ is the historic descendent of the Brahmi letter ᮊ (Devanagari ᮊ) and is found on ancient inscriptions. Although the modern orthography writes this syllable ᮊ *ra* + ᮊ *eu*, the modern spelling is historically a character sequence which differs from the Brahmic antecedent. For its form, compare the related U+1B0B ᮊ BALINESE LETTER RA REPA with U+1B27 ᮊ BALINESE LETTER PA, as well as U+1B95 ᮊ SUNDANESE LETTER PA.

### ᮊ SUNDANESE LETTER LEU

The letter ᮊ is the historic descendent of the Brahmi letter ᮊ (Devanagari ᮊ) and is found on ancient inscriptions. Although the modern orthography writes this syllable ᮊ *la* + ᮊ *eu*, the modern spelling is historically a character sequence which differs from the Brahmic antecedent.

### ᮊ SUNDANESE LETTER BHA

Found on the Prasasta Kawali.

### ᮊ SUNDANESE LETTER FINAL K

Now written with the sequence ᮊ SUNDANESE LETTER FINAL K is found in palm leaf manuscripts. Note that the explicit killer U+1BAA ᮊ, can be used to produce a phonetic final *-k*, as in ᮊ. The letter ᮊ, however, is not a presentation form of ᮊ KA + ᮊ PAMAAEH. Although the archaic glyph

shape of conjunct *-ka* (modern  $\text{ᮊᮧ} kta$ , archaic  $\text{ᮊᮧ} kta$ ) is similar to this, there is no corresponding modern form of the character FINAL K.

$\text{ᮊᮧ}$  1BBF SUNDANESE LETTER FINAL M

The letter  $\text{ᮊᮧ}$  is found in palm leaf manuscripts. Note that the explicit killer U+1BAA  $\text{ᮊᮧ}$  SUNDANESE SIGN PAMAAEH, can be used to produce a phonetic final *-m*, as in  $\text{ᮊᮧ}$ . The letter  $\text{ᮊᮧ}$ , however, is not a presentation form of  $\text{ᮊ}$  MA +  $\text{ᮊᮧ}$  PAMAAEH. Although the archaic glyph shape of conjunct *-ma* (modern  $\text{ᮊᮧ} mpa$ , archaic  $\text{ᮊᮧ} mpa$ ) is similar to this, there is no corresponding modern form of the character FINAL M.

$\text{ᮊᮧ}$  1C80 SUNDANESE SYMBOL BINDU SURYA

‘Sun dot’; when used in the sequence  $\text{ᮊᮧ} \text{ᮊᮧ} \text{ᮊᮧ}$ , this punctuation character helps to indicate that the content of a manuscript is religious. When 1C80  $\text{ᮊᮧ}$  BINDU SURYA is used as a closing bindu (final punctuation), 1C82  $\text{ᮊᮧ}$  BINDU PURNAMA is used as a comma.

$\text{ᮊᮧ}$  1C81 SUNDANESE SYMBOL BINDU PANGLONG

‘Half moon dot’; when used in the sequence  $\text{ᮊᮧ} \text{ᮊᮧ}$  this punctuation character helps to indicate that the content of a manuscript is religious. See Figure 7.

$\text{ᮊᮧ}$  1C82 SUNDANESE SYMBOL BINDU PURNAMA

‘Full moon dot’; when used in the sequence  $\text{ᮊᮧ} \text{ᮊᮧ}$ , this punctuation character helps to indicate that the content of a manuscript is historical. When 1C80  $\text{ᮊᮧ}$  BINDU SURYA is used as a closing bindu (final punctuation), 1C82  $\text{ᮊᮧ}$  BINDU PURNAMA is used as a comma.

$\text{ᮊᮧ}$  1C83 SUNDANESE SYMBOL BINDU CAKRA

‘Wheel dot’; used generally as a punctuation comma.

$\text{ᮊᮧ}$  1C84 SUNDANESE SYMBOL BINDU LEU SATANGA

The semantic domain indicated by this punctuation character is unclear, but it occurs in manuscripts as do the following three. It is in origin a “decorated” version of U+1BBC  $\text{ᮊᮧ}$  SUNDANESE LETTER LEU but it is not a *leu*, in the same way that  $\text{ᮊᮧ}$  is not an *R* and  $\text{ᮊᮧ}$  is not a *C*.

$\text{ᮊᮧ}$  1C85 SUNDANESE SYMBOL BINDU KA SATANGA

When used in the sequence  $\text{ᮊᮧ} \text{ᮊᮧ}$ , this punctuation character helps to indicate that the content of a manuscript is historical. It is in origin a “decorated” version of “half” a U+1B8A  $\text{ᮊᮧ}$  SUNDANESE LETTER KA.

$\text{ᮊᮧ}$  1C86 SUNDANESE SYMBOL BINDU DA SATANGA

When used in the sequence  $\text{ᮊᮧ} \text{ᮊᮧ}$ , this punctuation character helps to indicate that the content of a manuscript is religious. It is in origin a “decorated” version of U+1B93  $\text{ᮊᮧ}$  SUNDANESE LETTER DA.

$\text{ᮊᮧ}$  1C87 SUNDANESE SYMBOL BINDU BA SATANGA

When used in the sequence  $\text{ᮊᮧ} \text{ᮊᮧ}$ , this punctuation character helps to indicate that the content of a manuscript is religious. It is in origin a “decorated” version of U+1B98  $\text{ᮊᮧ}$  SUNDANESE LETTER BA. See Figure 8 for an example of contrastive use.



































































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


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	1B8	1B9	1BA	1BB
0	 1B80	 1B90	 1BA0	 1BB0
1	 1B81	 1B91	 1BA1	 1BB1
2	 1B82	 1B92	 1BA2	 1BB2
3	 1B83	 1B93	 1BA3	 1BB3
4	 1B84	 1B94	 1BA4	 1BB4
5	 1B85	 1B95	 1BA5	 1BB5
6	 1B86	 1B96	 1BA6	 1BB6
7	 1B87	 1B97	 1BA7	 1BB7
8	 1B88	 1B98	 1BA8	 1BB8
9	 1B89	 1B99	 1BA9	 1BB9
A	 1B8A	 1B9A	 1BA A	 1BB A
B	 1B8B	 1B9B	 1BA B	 1BB B
C	 1B8C	 1B9C	 1BA C	 1BB C
D	 1B8D	 1B9D	 1BA D	 1BB D
E	 1B8E	 1B9E	 1BA E	 1BB E
F	 1B8F	 1B9F	 1BA F	 1BB F



	1CC
0	 1CC0
1	 1CC1
2	 1CC2
3	 1CC3
4	 1CC4
5	 1CC5
6	 1CC6
7	 1CC7
8	
9	
A	
B	
C	
D	
E	
F	

**Punctuation**

- 1CC0  SUNDANESE PUNCTUATION BINDU SURYA  
• sun
- 1CC1  SUNDANESE PUNCTUATION BINDU PANGLONG  
• half moon
- 1CC2  SUNDANESE PUNCTUATION BINDU PURNAMA  
• full moon
- 1CC3  SUNDANESE PUNCTUATION BINDU CAKRA  
• wheel
- 1CC4  SUNDANESE PUNCTUATION KA SATANGA
- 1CC5  SUNDANESE PUNCTUATION BA SATANGA
- 1CC6  SUNDANESE PUNCTUATION DA SATANGA
- 1CC7  SUNDANESE PUNCTUATION LEU SATANGA



Figures



Figure 1. The Prasasti Kawali 1 stone.

2.2.1.1 AKSARA SWARA ‘Vokal Mandiri’

a	i	u	é	o	e	eu
☉	∟	⊥	☿	☼	☽	☾

2.2.1.2 Aksara *Ngalagena* ‘Konsonan’

ka	ga	nga	ca	ja	nya	ta	da	na	pa
77	⊥	⊥	∩	⊥	∩	∩	⊥	∩	∩
ba	ma	ya	ra	la	wa	sa	ha		
∩	∩	∩	∩	∩	∩	77	∩		
fa	kha	qa	sya	va	xa	za			
∩	∩	∩	∩	∩	∩	∩			

Figure 2a. The alphabet in a modern font from Suryani 2008.

Lambang angka-angka yang dimaksud adalah:

○	⊥	∩	⊥	∩
0	1	2	3	4
∩	⊥	∩	∩	∩
5	6	7	8	9

Figure 2b. The digits in a modern font from Suryani 2008.



Figure 3a. Black and white photo of the Prasasti Kawali 1 stone.

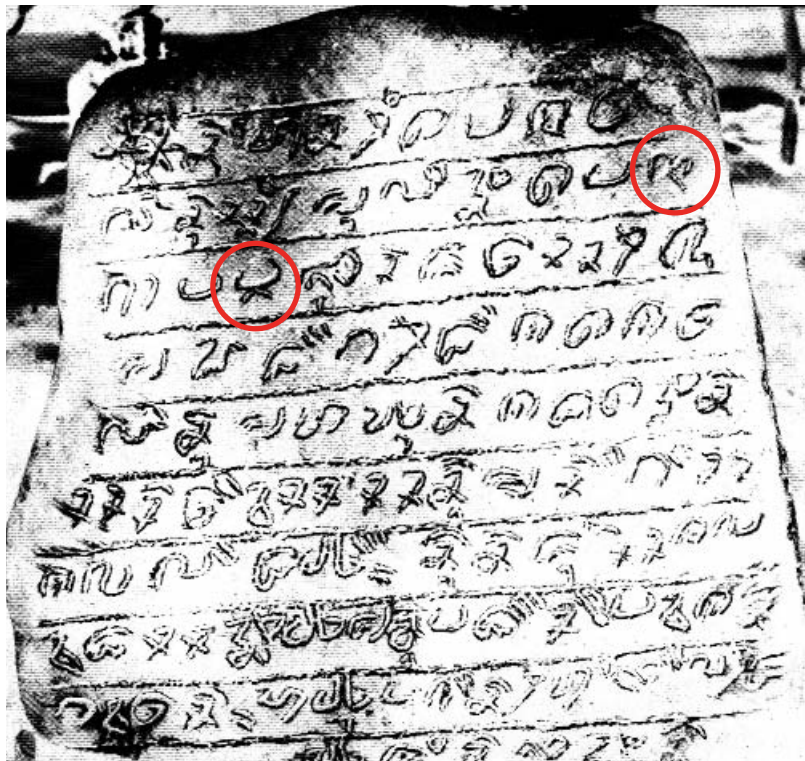
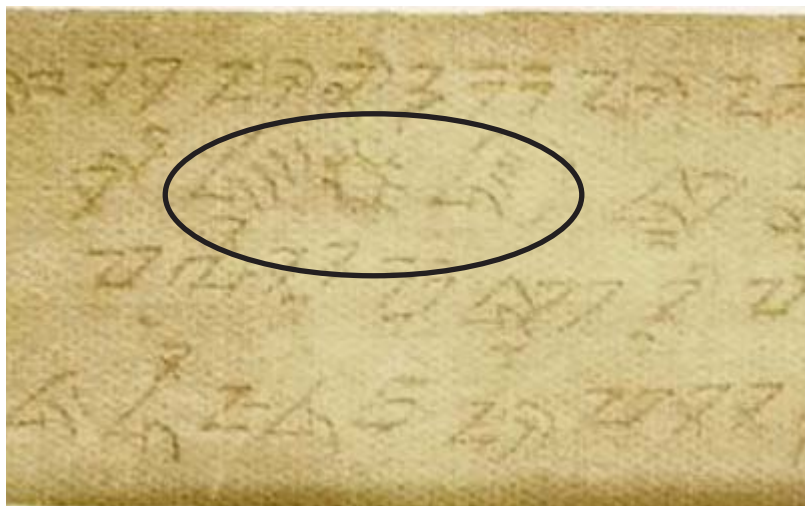


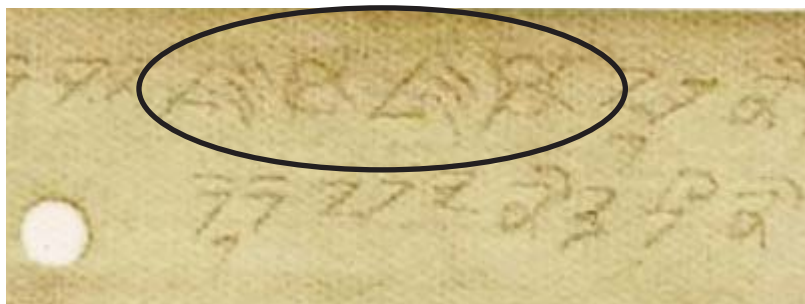
Figure 3b. Inverse black and white photo of the Prasasti Kawali 1 stone.  
Circled are  LETTER BHA and  LETTER REU.



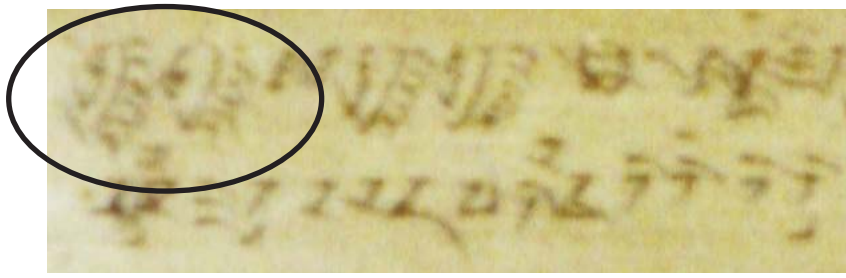
**Figure 4.** The Old Sundanese Prasasti Kawali 3 inscription showing ☉ SYMBOL BINDU SURYA



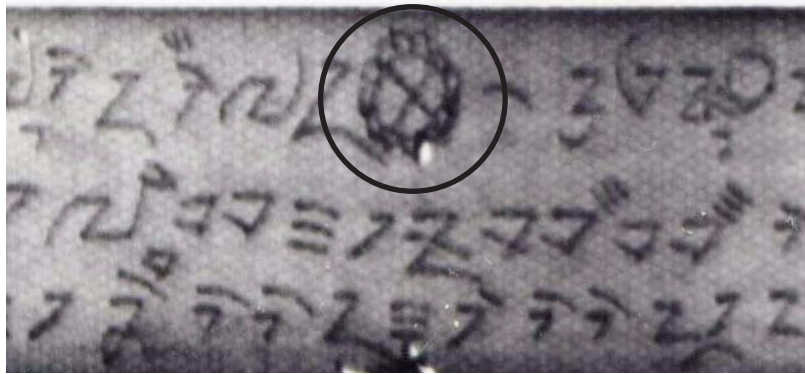
**Figure 5.** Old Sundanese manuscript showing ☿ SYMBOL DA SATANGA and ☉ SYMBOL BINDU SURYA



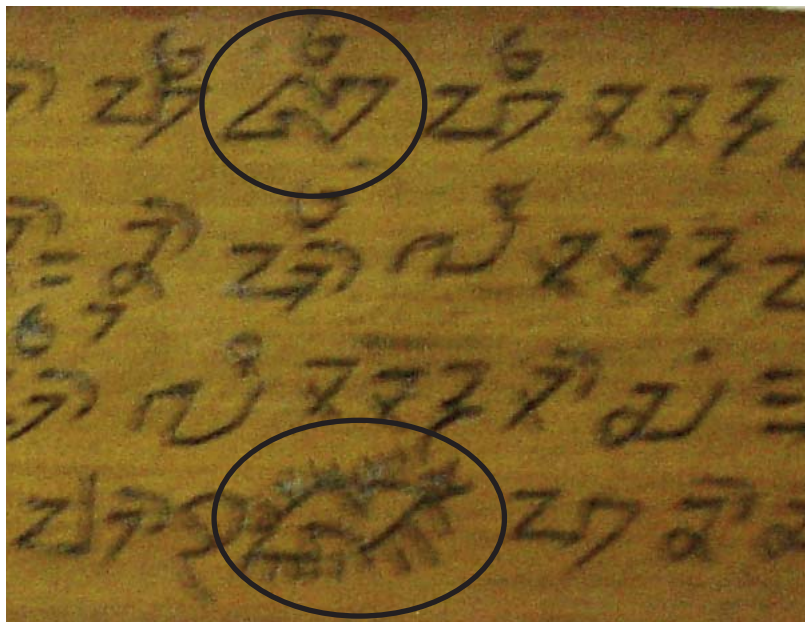
**Figure 6.** The same Old Sundanese manuscript showing ☿ SYMBOL DA SATANGA and ☉ SYMBOL BINDU PURNAMA



**Figure 7.** Old Sundanese manuscript showing  SYMBOL LEU SATANGA

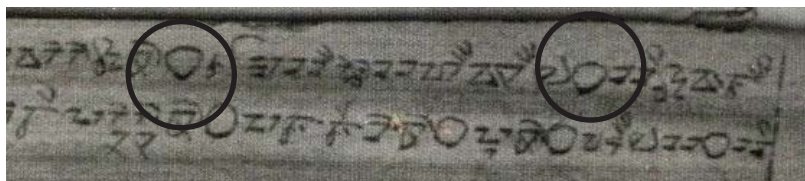



**Figure 8.** Old Sundanese manuscript showing  SYMBOL BINDU PANGLONG




**Figure 9.** Old Sundanese manuscript showing  SYMBOL BA SATANGA looking like a furry caterpillar.

 LETTER BA is seen in the top line.





**Figure 10.** Old Sundanese manuscript showing a number of examples of  SYMBOL BINDU CAKRA


5)  = *patén (pamaéh)* berfungsi menghilangkan bunyi vokal pada aksara dasar yang mendahuluinya.

$\overline{ka} \rightarrow \overline{k}$

Contoh:  $\overline{awak}$  = awak 'badan'.

Disamping itu, ada 2 cara penanda *patén* khusus, yaitu

(a)  berfungsi untuk menambah bunyi konsonan /k/ pada akhir aksara yang didahuluinya, contoh:  $\overline{anak}$  = anak 'anak'; dan (b)  berfungsi untuk menambah bunyi konsonan /m/ pada akhir aksara yang didahuluinya, contoh:  $\overline{banem}$  = banem 'hutan'.

6)  = pemisah bunyi konsonan dan vokal dalam satu silabis.

Contoh:  $\overline{alun-agung}$  = alun-agung 'gelombang pasang'.

Figure 11. Discussion of FINAL K, FINAL M, and AVAGRAHA.















No	Pasangan Khusus				Pasangan Umum	
	Bentuk Horizontal	Nilai	Bentuk Vertikal	Nilai	Bentuk	Nilai
1.		- kta -		- hda -		- ma -
2.		- nca -		- hra -		- ra -
3.		- nda -		- jna -		- wa -
4.		- nta -		- mpa -		- ya -
5.		- nyja -				
6.		- tna -				

Figure 12. Discussion of archaic horizontal and vertical conjuncts, and of CONSONANT SIGN PASANGAN MA and CONSONANT SIGN PASANGAN WA, alongside the already-encoded CONSONANT SIGN PASANGAN RA and CONSONANT SIGN PASANGAN YA.






sa =  raksa =   
  
 palsu =   


Figure 13. Examples of two words written with a conjunct and written with the explicit killer.

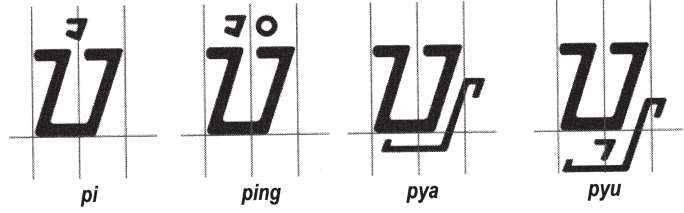
ḠḶḶ ḶḶḶḶḶ, ḶḶḶḶḶ ḶḶ ḶḶḶḶḶḶ  
 ḶḶḶḶḶḶ. ḶḶḶ ḶḶḶḶḶ, ḶḶḶḶḶḶ  
 ḶḶḶḶḶḶ ḶḶḶḶḶ ḶḶ ḶḶḶḶḶ.

ḶḶḶ ḶḶḶḶḶ ḶḶḶḶ ḶḶḶḶ ḶḶḶ  
 ḶḶḶḶ ḶḶḶḶḶ, ḶḶ ḶḶḶ ḶḶḶḶḶḶḶ, ḶḶḶḶḶḶ  
 ḶḶḶḶḶḶ ḶḶ ḶḶḶ ḶḶ ḶḶḶ. ḶḶḶḶḶḶḶḶ  
 ḶḶḶ ḶḶḶḶḶḶḶ ḶḶ ḶḶḶḶḶḶ ḶḶ ḶḶḶ ḶḶḶḶḶḶ  
 ḶḶḶḶḶḶḶ, ḶḶḶ.

ḶḶ ḶḶḶḶḶ-ḶḶḶḶḶ ḶḶḶḶ ḶḶḶ ḶḶ  
 ḶḶḶḶḶ ḶḶ ḶḶḶḶḶḶ ḶḶḶ ḶḶḶḶḶḶ. ḶḶḶḶḶ,  
 ḶḶ ḶḶḶḶḶḶ ḶḶḶ ḶḶḶḶḶḶḶ. ḶḶ  
 ḶḶḶḶḶḶḶḶ, ḶḶḶḶ ḶḶḶḶ ḶḶḶḶḶḶ ḶḶ ḶḶḶḶḶḶ.  
 ḶḶḶḶḶḶḶ, ḶḶḶḶḶḶ ḶḶ ḶḶḶḶḶḶ, ḶḶḶḶḶḶ.  
 ḶḶḶ ḶḶḶḶḶ ḶḶḶḶḶ, ḶḶḶḶ ḶḶ ḶḶḶḶḶḶḶ  
 ḶḶḶḶḶḶ, ḶḶḶḶ ḶḶḶḶ ḶḶḶḶḶḶḶ, ḶḶḶḶḶḶḶḶḶ  
 ḶḶḶ. ḶḶḶ ḶḶḶḶḶḶ ḶḶ ḶḶḶḶḶḶ ḶḶḶḶḶḶḶ, ḶḶḶ

Figure 14. Sample text from Suryani 2008.

3. Perpindahan posisi.  
 Sebuah *rarangkén* harus dapat berpindah posisinya ketika diikuti oleh *rarangkén* lainnya. Misalnya, posisi *panghulu* harus simetris terhadap aksara *ngalagena*, tetapi ketika datang *panyecek* posisinya harus bergeser ke sebelah kiri.



Gambar 4.8. Perpindahan posisi rangkén ketika diikuti rangkén lainnya

Figure 15. Discussion of diacritic placement in Baidillah et al. 2008

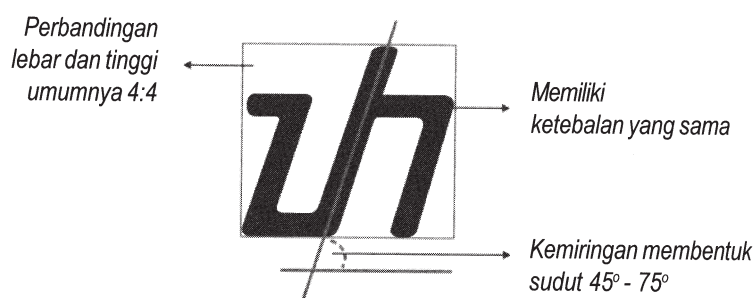
## B. Desain Font Aksara Sunda

Font adalah bagian yang penting dalam dunia tipografi. Bentuk font bukan hanya menjadi *wakil sora* aksara Sunda, tetapi juga sebaiknya memiliki nilai artistik yang menawan. Oleh karena itu, diharapkan para desainer dari Tatar Sunda menyumbangkan karyanya untuk membuat bentuk aksara Sunda yang lebih variatif.

Meski kita bisa membuat bermacam-macam font, tetapi mesti ada satu font yang dianggap standar. Font standar aksara Sunda adalah font yang bentuknya mengikuti aturan penulisan aksara Sunda, seperti tinggi, lebar, dan kemiringannya. Adapun karakteristik font

standar aksara Sunda adalah sebagai berikut:

- Memiliki kemiringan antara  $45^{\circ}$  -  $75^{\circ}$
- Tipe *sans-serif*, memiliki ketebalan yang sama.
- Mudah ditiru ketika ditulis tidak menggunakan komputer.
- Perbandingan lebar dan tinggi seperti yang dibahas pada BAB III.2.
- Pungtuasi (tanda baca) mengadopsi semua tanda baca yang berlaku pada sistem tata tulis huruf Latin.



Gambar 4.8 Karakteristik aksara Sunda standar

Bentuk font aksara Sunda dapat didesain secara manual pada kertas, dan kemudian dipindai ke komputer. Bisa juga menggunakan *software* pengolah citra berbasis vektor. Alangkah baiknya jika pada tahap ini, ada kerjasama antara desainer dengan mereka yang mahir menggunakan komputer.

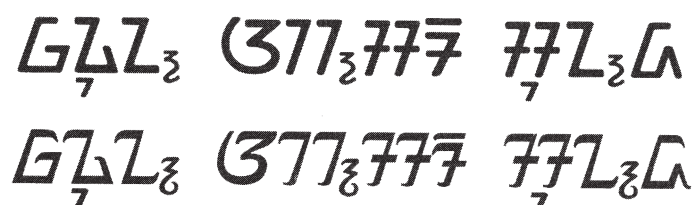


Figure 16. Discussion of font design and example of sans-serif and serif fonts in the modern style.

## A. Administrative

1. Title

**Proposal for encoding additional Sundanese characters for Old Sundanese in the UCS.**

2. Requester's name

**UC Berkeley Script Encoding Initiative (Universal Scripts Project)**

3. Requester type (Member body/Liaison/Individual contribution)

**Liaison contribution.**

4. Submission date

**2009-08-04**

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

**Yes.**

6b. More information will be provided later

**No.**

## B. Technical – General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

**No.**

Proposed name of script

1b. The proposal is for addition of character(s) to an existing block

**Yes.**

1c. Name of the existing block

**Sundanese, Sundanese Supplement.**

2. Number of characters in proposal

**17.**

3. Proposed category (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; D-Attested extinct; E-Minor extinct; F-Archaic Hieroglyphic or Ideographic; G-Obscure or questionable usage symbols)

**Category A.**

4a. Is a repertoire including character names provided?

**Yes.**

4b. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?

**Yes.**

4c. Are the character shapes attached in a legible form suitable for review?

**Yes.**

5a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?

**Michael Everson and "Tim Unicode Aksara Sunda".**

5b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

**Michael Everson, Fontographer.**

6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

**No.**

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?

**Yes.**

7. Special encoding issues: Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?

**Yes.**

8. Additional Information: Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script.

**See above.**

## C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? If YES, explain.

**No.**

2a. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?

**Yes.**

2b. If YES, with whom?

**Sai Zin Di Di Zone, Khwaan Tai, Sai Murngzuen Hengtai.**

2c. If YES, available relevant documents

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?

**People in West Java, Indonesia.**

4a. The context of use for the proposed characters (type of use; common or rare)

**Rare.**

4b. Reference



5a. Are the proposed characters in current use by the user community?

**Yes.**

5b. If YES, where?

**In Indonesia.**

6a. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?

**Yes.**

6b. If YES, is a rationale provided?

**Yes.**

6c. If YES, reference

**Keep with other Sundanese characters.**

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?

**No.**

8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?

**No.**

8b. If YES, is a rationale for its inclusion provided?

8c. If YES, reference

9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?

**No.**

9b. If YES, is a rationale for its inclusion provided?

9c. If YES, reference

10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?

**No.**

10b. If YES, is a rationale for its inclusion provided?

10c. If YES, reference

11a. Does the proposal include use of combining characters and/or use of composite sequences?

**Yes.**

11b. If YES, is a rationale for such use provided?

**Yes.**

11c. If YES, reference

**Brahmic vowel and consonant signs.**

11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

**No.**

11e. If YES, reference

12a. Does the proposal contain characters with any special properties such as control function or similar semantics?

**No.**

12b. If YES, describe in detail (include attachment if necessary)

13a. Does the proposal contain any Ideographic compatibility character(s)?

**No.**

13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?