

Comments on Revised proposal to encode the Lampung script in Unicode

(revision 1)

Aditya Bayu Perdana	Ilham Nurwansah	M. Mahali Syarifuddin
jimeildotkomm@gmail	ilhamnurwansah@gmail	mahalisyarifuddin@gmail

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We were recently made aware of a revised proposal to encode Lampung script ([L2/22-044](#)). After reviewing said document, we have comments and suggestions regarding some of the proposed aspects.

1. Name for LAMPUNG VOWEL SIGN EA

This issue was brought up briefly in the proposal of Kawi ([L2/20-284R](#), p. 3). We noted that in Indonesian script blocks that do not use proper names for the mid central vowel /ə/ (otherwise known as "e pepet" in Indonesian) the name of this vowel has been rendered inconsistently with no apparent justification. Part of this confusion probably arose from the fact that common contemporary Indonesian orthography uses the letter [e] for /e/ and /ə/, even though both sounds are not interchangeable in most Indonesian languages (including Indonesian itself). They are often differentiated in more careful orthographies with diacritics, which can't be used as names of Unicode characters.

	KAWI	BATAK	BUGIS	SUNDANESE	
/e/					
	VOWEL SIGN E	VOWEL SIGN <u>EE</u> U+1BE9	VOWEL SIGN <u>E</u> U+1A19	VOWEL SIGN PAN <u>A</u> EL <u>A</u> ENG U+1BA6	LETTER <u>AE</u> U+1B86
/ə/					
	VOWEL SIGN EU	VOWEL SIGN <u>E</u> U+1BE7	VOWEL SIGN <u>AE</u> U+1A1B	VOWEL SIGN PAM <u>E</u> P <u>E</u> T U+1BA8	LETTER <u>E</u> U+1B88

Figure 1. Names for vowel sign /e/ and /ə/ in several Indonesian script blocks.

While we cannot change the name of the already encoded characters, **we ask for the justification of using [EA]** in Lampung as the diagraph is not intuitively recognized as /ə/ in standard Indonesian context, or in Lampung context as far as we know. Rather than resorting to a digraph that is unfamiliar to Indonesian users, we have several possible suggestions:

- i) **Change the name** to LAMPUNG VOWEL SIGN EU. This is following the justification used in the Kawi proposal that [EU] is often used to represent the similar sounding /i/ vowel in the Sundanese language, which is known in contemporary Indonesian through several loanwords. However, this sequence may be misinterpreted as diphthong /eu/ shown in examples from page 5-6 of the proposal.
- ii) **Append proper names to VOWEL SIGN E.** To reduce ambiguity, LAMPUNG VOWEL SIGN E ULAN can be used for /e/ while LAMPUNG VOWEL SIGN E BICEK

for /ə/. An alternative is to treat /e/ as the default with the plain name VOWEL SIGN E, and use VOWEL SIGN E BICEK for /ə/.

- iii) **Use proper names for all vowel and consonant signs.** Unlike Batak or Kawi which have multiple names for the same signs, the proposal shows that each Lampung sign has its own unambiguous indigenous name which may be used instead of assigning arbitrary Latin sequence. This has precedent in the encoding of Balinese, Javanese, and Sundanese script.

2. Minimal attestations to primary sources

We feel that the proposal would benefit more with the inclusion of historic materials and long running texts, as the current attestations seem to heavily rely upon secondary modern sources such as teaching materials, brief texts use as decorative parallel to Latin, mockups, or artificial test data (p. 40-41). Only one primary source Lampung text is shown, British Library Mss Malay 4 (p. 39). Sole reliance on secondary sources, created at a time when traditional scripts are no longer commonly used, had created problematic and wrong information for Indonesian scripts encoding which have only recently been corrected.¹ In the Lampung proposal, this reliance on secondary materials perhaps led to other problems discussed in the following.

Some background on why modern sources of Indonesian scripts might not be an ideal source of information is perhaps warranted. Many Indonesian traditional scripts have been subjected to several “modernization,” “revitalization,” or “standardization” schemes since the 1980s, considering that Latin has supplanted traditional scripts for most everyday texts. But it is unfortunate that many schemes tend to include redundant or prematurely conceived characters. Such artificial characters are prone to be reproduced uncritically on teaching materials and the internet, where they are perpetuated as part of the “traditional” repertoire, even though they lack attestation from primary historical sources as well as stable adoption within the user community.

An example in this regard is a standardized Batak scheme produced by a governmental workshop held in Medan, 1988.² Although the workshop had some official backing, it lacked any experts on Batak script and only included bureaucrats.³ The result was a haphazard scheme released on 17th June 1988 with generally unappealing letterforms and many artificial additions such as digits. Official dissemination of the scheme was slow and uncoordinated; many of the target audience were either unaware of such scheme or disinterested. While ultimately failed, portion of the scheme can still be found repeated on the internet today, muddling public information regarding Batak script.

Another example in Bugis script is additional diacritics, digits, Bugis-fied Latin punctuations.⁴ These additions were made by individual authors who each sought to “complete” Bugis by making it closer to Latin. Bugis-fied Latin punctuations is even recorded in the early Bugis script proposal ([L2/03-254](#)), but ultimately not encoded. Beside the fact that these characters

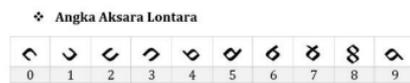
¹ See [L2/19-003](#) and [L2/21-221](#) for example.

² See Malau (1994:90-95).

³ Malau (1994: 87), Kozok (2009:92).

⁴ Ahmad (2019, 2019a).

lacked any sort of consensus among Bugis users, writers like Rahman (2012:124) have pointed out that such “forced” additions show an inferiority complex with the dominant Latin that risks further alienation and discontinuity from actual tradition. In short, modern additions that lack substantive use in Indonesian scripts are common and should be scrutinized more closely.



Gambar 4: Angka Aksara Lontara rekaan Yusring Sanusi Sumber: <https://writingtradition.blogspot.com/p/artikel.html>

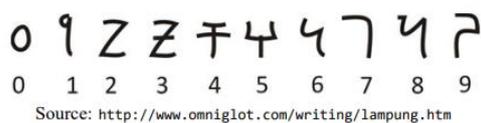
Although there are no additional punctuation marks included in the current proposal, there are several other unique symbols that warrant discussion. A Bugis grammar book shows several sample sentences to illustrate the use of the Bugis question mark (↵), exclamation point (↵), comma (,), colon (:), and semi-colon (;).



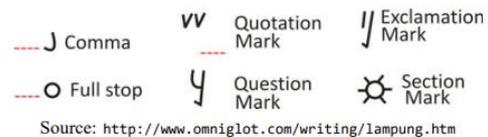
Figure 2. Supposed Bugis digits (from Ahmad, 2019a: 222) and punctuation marks (from L2/03-254). Both are artificial modern additions proposed by individual authors.

3. Inclusion of invented Lampung digits and punctuations

We see that the current Lampung proposal has included several questionable characters particularly from the “standard” of 1985. As with other standards of Indonesian scripts created at that time frame, it does not enjoy stable adoption and some part of it are contentious.⁵ We fear that basing some characters on this outdated standard might not be desirable, particularly digits and some punctuation marks.



Source: <http://www.omniglot.com/writing/lampung.htm>



Source: <http://www.omniglot.com/writing/lampung.htm>

Figure 3. Questionable digits and punctuation marks in the proposal (p. 47)

First, we suggest **not to encode Lampung digits** (p. 4 of the proposal) for the time being. The digits are exclusively shown on tables and more evidence of their use (beside one museum display) is not provided. It is likely that this digit is part of modern addition which lack stable adoption (see Bugis’ case) and should not be treated as essential part of the Lampung script. It should be noted that in historic context Lampung users had no problem mixing Lampung script with Arabic numeral as can be seen in several seals from the region (fig. 10). The proposal’s own evidence (p. 50, 56) also show that this seems to be case for contemporary users as well.

Second, we also suggest **not to encode some Lampung punctuations** (p. 4 of the proposal) for the time being, including LAMPUNG FULL STOP, FULL COMMA, QUOTATION, EXCLAMATION SIGN, and LAMPUNG QUESTION SIGN. While the proposal demonstrates some contrastive use between regular and Lampung-fied Latin punctuations, the examples are limited to mockups and artificial test data. It is likely that this is part of modern addition which lack stable adoption (see Bugis’ case) and should not be treated as essential part of the Lampung script.

⁵ We have confirmed this with Lisa Misliani, one of the experts mentioned in the proposal.

4. Sound value and romanization of Lampung letter RA, HA, and GHA

The information of this topic is provided to us by Febri Muhammad Nasrullah.

The relationship between three letters [RA], [HA], and [GHA] and four sound values /r/, /h/, /kh/, /gr/ (shown below enclosed within red box) may need clarification.

	LAMPUNG LETTER RA	/r/
	LAMPUNG LETTER SA	/s/, /z/
	LAMPUNG LETTER WA	/w/
	LAMPUNG LETTER HA	/h/, /kh/
	LAMPUNG LETTER GHA	/gr/

Figure 4. RA, HA, GHA and their sound value in the proposal (p. 9).

LETTER RA

LAMPUNG LETTER RA indeed represents a proto-Lampung *r sound. But there are various phonetic realizations of /r/ within the dialects of Lampung up to the present time, usually velar or uvular fricative (/x/, /χ/, /χ/, or /ʁ/).⁶ This diverse sound realization is reflected on some of the modern provincial heraldries provided in the proposal (p. 42, 43).



Figure 5. Differing romanization of the same LAMPUNG LETTER RA in the provincial heraldries of Lampung, [KHA] in the emblem of South Lampung (left), [RA] in the emblem of Lampung city (right).

The sound /x/ and /χ/ are often romanized in Indonesian orthography as [KH], while /γ/ and /ʁ/ as [GH]. In Indonesian language materials, [KH] and [GH] are often treated as “non-native” sound borrowed from Arabic, [KH] from *خ* and [GH] from *غ* respectively. But in the context of Lampung, these sounds are not strictly thought to be foreign. Considering this, the **sound value of LAMPUNG LETTER RA should be written as /r/, /x/, /χ/, /γ/, /ʁ/.**

4.1. LETTER HA

Considering the realization of letter RA explained above, **the sound value of LAMPUNG LETTER HA should simply be /h/. /kh/ should be changed to /x/ and moved to LAMPUNG LETTER RA.** We don't recommend using /kh/ (presumably derived from Indonesian romanization of /x/) as they might be confused with consonant clusters when it is not.

⁶ As noted by various scholars such as Udin (1992), Anderbeck (2007:14–15), and Septianingtiyas (2012).

4.2. LETTER GHA (or GRA?)

The proposal states that the table of letters were “based on traditional names and sound values” (p. 8) but LETTER GHA seems to be one character with properties that is not exactly traditional nor straightforward. A noteworthy point to consider about GHA is that it does not seem to be part of the basic Lampung repertoire, and it is often found in modern tables with minimal yet conflicting properties. Consider the following attestations from the proposal, which inconsistently refer to the letter as either [GHA] or [GRA]:

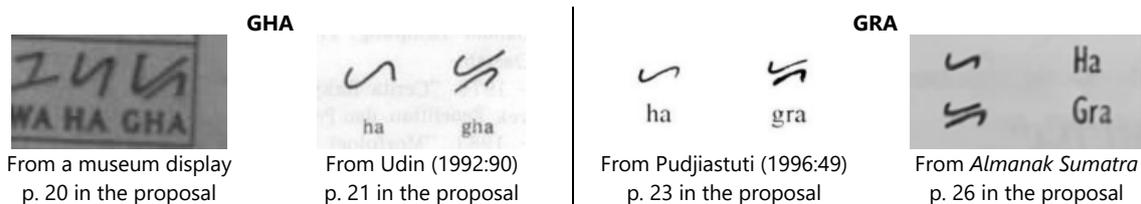


Figure 6. Inconsistent name of LAMPUNG LETTER GHA in several attestations.

The revised proposal gives GHA the sound value /gr/ but gave no explanation to this value, it was only mentioned in the preliminary proposal of Lampung (L2/16-073) (fig. 6). The publication *Kamus Lampung-Indonesia* (1985) gave a laconic description that it is used for a sound like Arabic ġ, presumably this means a fricative like /ɣ/ (fig 7). However, none of the sources seems to cite an example word to demonstrate either sound values, so we are left to wonder in what context this letter ever saw usage. In *Kamus Lampung-Indonesia*, an example word of *ghedak* was provided, written in the Latin alphabet. But since [GH] or /ɣ/ is already accommodated when we consider the dialectal realization of LAMPUNG LETTER RA, we cannot be certain whether *ghedak* is spelled with LAMPUNG LETTER GHA or RA. There are attestations of Lampung dialects with contrasting use of trill /r/ and fricative /ɣ/,⁷ but whether this specific kind of dialectal contrast is the one that GHA tries to accommodate is not clarified in any of the provided materials.⁸

The letter 𐌒 is given the value ‘GHA’ in modern charts. However, it represents the sound /gr/, not the aspirated /g^h/. A more appropriate name may be ‘GRA’.

Figure 7. Statement regarding GHA representing consonant cluster /gr/ in L2/16-073 (p. 4)

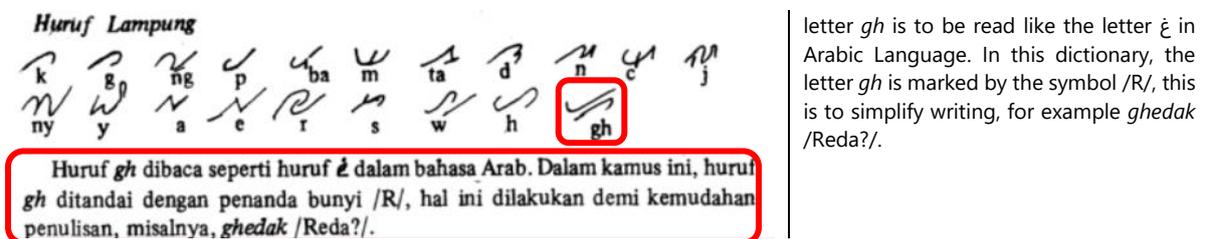


Figure 8. Statement regarding GHA representing Arabic ġ sound in *Kamus Lampung-Indonesia* (1985). Presumably due to the typographical limitation of the publishers, the dictionary chooses to mark the sound with the letter [R] (note as well how question mark [?] is used for glottal stop [ʔ]).

⁷ Septianingtiyas (2012) records some contrast between /r/ and /ɣ/ in the Nyo dialect of Lampung, but the contrast is not recorded in the Api dialect.

⁸ Since the sound /ɣ/ may be considered foreign in Indonesian language but native in Lampung, we wonder whether description such as those *Kamus Lampung-Indonesia* differentiates Arabic [gh] and native [r] purely by their Latin transliteration, even if both may be realized as /ɣ/ in Lampung speech.

Lisa Misliani (one of the experts listed in the proposal), in a [2019 youtube video](#) claims that the letter GHA is not wholly a new creation, it is used contrastively with RA in some historic Lampung materials. But this is a rare usage that she only encountered sporadically in one or two manuscripts kept in the National Library of Indonesia.⁹ During the rounds of Lampung script standardization in the 70s to 80s, it was decided that modern Lampung users may benefit from a disunified trill /r/ and fricative /y/ letters. Thus, in the standard scheme (which is distinct from traditional norms) it seems that RA was designated to only represent trill while the rare manuscriptal letter GHA was added to represent fricative.¹⁰

The impact of this disunification is difficult to gauge. On paper it has become part of the “standard” table, but as can be seen in fig. 5, even contemporary Lampung users in official capacity seems to still use RA for both trill and fricative sound, leaving the function of GHA unclear. One thing that is certain is that the letter does not seem to represent consonant cluster /gra/; it is used to indicate fricative which traditionally is merged with the letter RA. To clarify things, **we ask to better provide attestation of GHA’s actual use rather than relying only on tables.**

5. Alignment of multiple diacritics

The proposal seemingly demonstrate that multiple diacritic stacks are always aligned horizontally (p. 6, 12). We feel that the proposal **should not omit the fact that Lampung diacritic may be stacked vertically in some context.** This behaviour is already remarked in another document, [Unicode Technical Note #35](#) (p. 24). cursory survey of historic Lampung materials (fig. 9) confirms that both vertical and horizontal stack is possible and may be partly stylistic.



Figure 9. Horizontally and vertically aligned diacritics in Lampung materials, compared with example stacks provided in the proposal (p. 6).

6. Reservation againts current typographic description

While we have no complains about the representative font used throughout the proposal, we have some reservation against the script’s typographic description. The proposal mentioned that Lampung script can only be differentiated from neighboring Rejang script by way of their

⁹ Contrastive [GHA] and [RA] seems to also appear in British Library [MSS Lampung 1](#), f.13r for example:



¹⁰ Around minute 10 of the video.

typographical quality, the former being more rounded than the latter. This is demonstrated in the statement (p. 7) "The differences in angularity vs roundedness is not simply glyphic, but these features are an integral aspect of the overall graphical identity of the scripts."

The proposal's statement is misleading. cursory investigation into historic sources shows that materials unambiguously written in Lampung has both rounded and angular stylistic form, which is normal when script is written in different mediums (fig. 10). The statement is also contradictory with the evidence on the proposal itself (p. 53) where stylized angular Lampung do exist even in contemporary context. The notion that the sole appropriate form of Lampung must be "rounded" (the exact nature of which is arbitrary) seems to be a modern stereotype born out of limited exposure with varied material.¹¹ We are concerned that such a statement that confuses essential letterform with stylistic difference will lead to misunderstanding when documents are inevitably used as introductory material to the script.

Angular Lampung

852 LAMPUNG
Negara Bumi
 Negara Bumi is now in two parts, Negara Bumi Udik and Negara Bumi Ili, in Kecamatan Anak Tuha, Kabupaten Lampung Tengah; most of the inhabitants are from the Itay Anak Tuha lineage.
 Negara Bumi 1846
 Negara Bumi 1846
 NOTES: Lampung script; no-go-ra bu-mi (read by Anon. A2 and Aya Paribaya)
 DATE: AH – (AD 1846)
 SHAPE & SIZE: circle; 7 mm
 NO. OF IMPRESSIONS & MEDIUM: 1; lamphlack

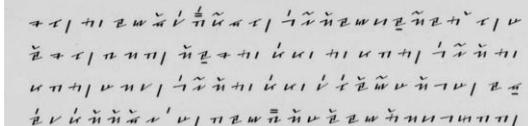


846 LAMPUNG
Kepala marga negara Tulang Bawang
 Tulang Bawang is located in Kecamatan Banga Mayang, Kabupaten Lampung Utara. The Batin occupies the third most senior position in the hierarchy of the marga, after the Raju and Dalon (pers. comm., Dido Zulkarasin, 21 Mar 2005).
 Batin (yang marga 1864 // Kepala marga negara Tulang Bawang Sangkat
 The Batin is the pillar of the clan 1864 // head of the clan in the state of Tulang Bawang in Sangkat
 NOTES: Lampung script; ho-tin ti-sung mar-ga // ke-pala mar-ga ne-ga-ra tu-lang ho-wang sangkat (read by Aya Paribaya)
 DATE: AH – (AD 1864)
 SHAPE & SIZE: circle with single-lined outline; 7 mm
 NO. OF IMPRESSIONS & MEDIUM: 1; lamphlack
 IMPRESSION: LUB Cod. Or. 1387.aa.4; letter in Lampung script, 1812 (1869); annotated by Van der Tuuk; Nanggri Boveni (Afdeling) Soepoeri
 BIBLIOGRAPHY: Wieringa 2007: 376
 DATA: F2107; LA

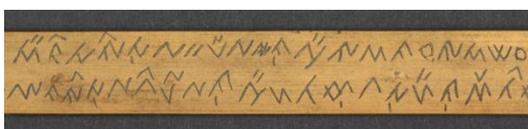


Seal impressions, documented by Gallop (2019:296, 298)

LAMPONGSCH
 UIT DE
 Lettergieterij van Joh. Enschedé & Zonen te Haarlem



Printed text using metaltype, [Joh. Enschedé en Zonen, 1907:43](#)

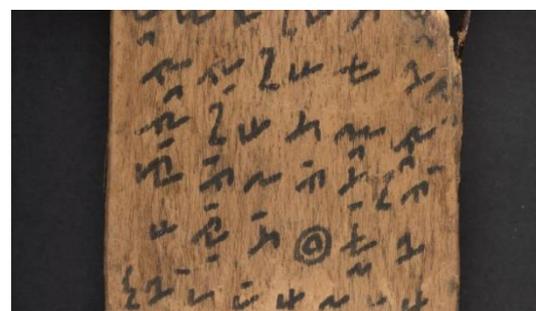


Incised text on bamboo, British Library [Or 12986](#)

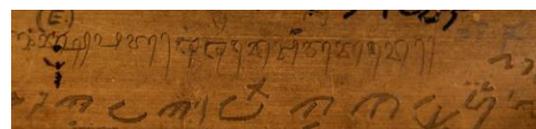
Rounded Lampung



Inked text on paper, British Library [Mss Malay 4](#)

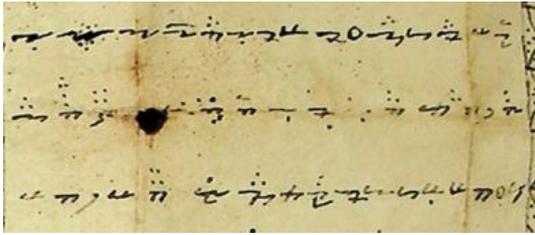


Inked text on bark paper, British Library [MSS Lampung 1](#)



Incised text on bamboo, British Library [Sloane MS 1403E](#)

¹¹ Similar unfounded notion is unfortunately present in many modern sources of other Indonesian scripts.

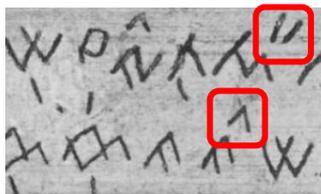


Inked text on paper, National Library of Indonesia [98 E 35](#)

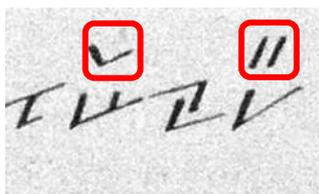
Figure 10. Angular and rounded forms of Lampung in historic materials.

We suggest to **better explain stylistic variants within Lampung itself and not to provide qualifications for the script's typographic form that is too restricting.** If "roundness" needs to be discussed at all, we suggest using better wording to reflect the varied form of Lampung in attested sources. For example, "while modern sources tend to espouse the "roundness" of Lampung script compared to neighboring Rejang script, historical Lampung materials attest to several stylistic forms ranging from angular to rounded."

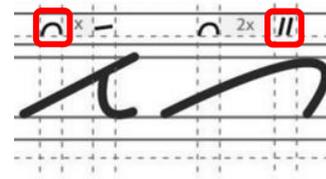
Pertinent to this issue, we have also some reservations against using Indrayati and Migotuwio's 2020 study to explain the script's typographic qualities. The study only used a single secondary source to describe the script's letterforms and so its description does not reflect natural variants attested in authentic materials.¹² It also shows hallmarks of a modern observer with minimal typographic exposure to an abugida script, as it minimized the diacritics to such a degree that it is closer to Latin diacritics rather than an Indic abugida like Lampung, with adverse effect in terms of legibility. From comparison between historic handwritten and printed materials (fig. 11), it is immediately perceivable that Indrayati and Migotuwio's far reduced proportion of Lampung diacritic is a misleading representation of the script's aesthetic. We suggest **removing Figure 19 and 20** from the proposal due to their misleading representation and **not to defer to the study in section 5.**



British Library [Or 12986](#)



Joh. Enschedé en Zonen, 1907:43



Indrayati & Migotuwio, 2020:550

Figure 11. Comparison of Lampung diacritics between historic materials with Indrayati & Migotuwio's assessment.

¹² To put it bluntly, it is like describing the natural physiology of animals from malnourished zoo specimen.

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Unicode Documents

- [L2/03-254](#) Daniel Kai (2003-08-13) *Introduction to the Bugis Script*
- [L2/16-073](#) Anshuman Pandey (2016-03-31) *Preliminary proposal to encode the Lampung script in Unicode*
- [L2/19-003](#) Liang Hai and Aditya Bayu Perdana (2019-01-04) *Suspicious identity of U+A9B5 JAVANESE VOWEL SIGN TOLONG*
- [L2/20-284R](#) Aditya Bayu Perdana and Ilham Nurwansah (2020-12) *Proposal to Encode Kawi*
- [L2/21-221](#) Ilham Nurwansah (2021-09-28) *Wrong Identities of Three Historical Sundanese Character*
- [L2/22-044](#) Anshuman Pandey (2022-02-18) *Revised proposal to encode the Lampung script in Unicode*
- [Unicode Technical Note #35](#) Christopher Miller (2011-03-14) *Indonesian and Philippine Scripts and Extensions*

Manuscripts

- [MSS Lampung 1](#) British Library
- [Mss Malay 4](#) British Library
- [Or 12986](#) British Library
- [Sloane MS 1403E](#) British Library
- [98 E 35](#) National Library of Indonesia