Proposal to Encode Syriac Letters for Garshuni Malayalam

Anshuman Pandey
Department of Linguistics
University of California, Berkeley
Berkeley, California, U.S.A.
anshuman.pandey@berkeley.edu

June 2, 2015

1 Introduction

This is a proposal to encode the following eleven Syriac letters used for writing Suriyani Malayalam, which is also known as Garshuni (Karshoni) and Syriac Malayalam:

<table>
<thead>
<tr>
<th>Glyph</th>
<th>Code point</th>
<th>Character name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ң</td>
<td>U+0860</td>
<td>SYRIAC LETTER MALAYALAM NGA</td>
</tr>
<tr>
<td>ง</td>
<td>U+0861</td>
<td>SYRIAC LETTER MALAYALAM JA</td>
</tr>
<tr>
<td>ੳ</td>
<td>U+0862</td>
<td>SYRIAC LETTER MALAYALAM NYA</td>
</tr>
<tr>
<td>੪</td>
<td>U+0863</td>
<td>SYRIAC LETTER MALAYALAM TTA</td>
</tr>
<tr>
<td>੫</td>
<td>U+0864</td>
<td>SYRIAC LETTER MALAYALAM NNA</td>
</tr>
<tr>
<td>੬</td>
<td>U+0865</td>
<td>SYRIAC LETTER MALAYALAM NNNA</td>
</tr>
<tr>
<td>੭</td>
<td>U+0866</td>
<td>SYRIAC LETTER MALAYALAM BHA</td>
</tr>
<tr>
<td>੮</td>
<td>U+0867</td>
<td>SYRIAC LETTER MALAYALAM RA</td>
</tr>
<tr>
<td>੯</td>
<td>U+0868</td>
<td>SYRIAC LETTER MALAYALAM LLA</td>
</tr>
<tr>
<td>ੰ</td>
<td>U+0869</td>
<td>SYRIAC LETTER MALAYALAM LLLA</td>
</tr>
<tr>
<td>ੱ</td>
<td>U+086A</td>
<td>SYRIAC LETTER MALAYALAM SSA</td>
</tr>
</tbody>
</table>
This document provides a brief description of the characters and examples of usage, as well as a code chart, names list, and character properties. It replaces “Preliminary Proposal to Encode Syriac Letters for Garshuni Malayalam” (L2/15-088). This new version specifies the code points to which the characters have been assigned.

The characters are proposed for inclusion in the ‘Syriac Supplement’ (U+0860..U+0867) block of the Basic Multilingual Plane (BMP). The names of characters are based upon Unicode names assigned to the corresponding letters in the Malayalam script block. These names differ from the transliteration of Garshuni Malayalam letters given in Perczel (2014), but they facilitate identification of the correspondences between the Syriac and Malayalam blocks. The encoded order of the letters follows the pattern of letters in the Malayalam block. The representative glyphs are based upon forms attested in written and printed sources.

2 Description of Proposed Characters

The proposed characters occur in several manuscripts and are known to the scholarly community (see Perczel 2014). The characters have the following shapes when they occur in isolation and within words:

<table>
<thead>
<tr>
<th>Character</th>
<th>joining</th>
<th>final</th>
<th>medial</th>
<th>initial</th>
<th>isolated</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYRIAC LETTER MALAYALAM NGA</td>
<td>dual</td>
<td>☲</td>
<td>☲</td>
<td>☲</td>
<td>☲</td>
</tr>
<tr>
<td>SYRIAC LETTER MALAYALAM JA</td>
<td>non</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>☳</td>
</tr>
<tr>
<td>SYRIAC LETTER MALAYALAM NYA</td>
<td>dual</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
</tr>
<tr>
<td>SYRIAC LETTER MALAYALAM TTA</td>
<td>dual</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
</tr>
<tr>
<td>SYRIAC LETTER MALAYALAM NNA</td>
<td>dual</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
</tr>
<tr>
<td>SYRIAC LETTER MALAYALAM NNNA</td>
<td>dual</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
</tr>
<tr>
<td>SYRIAC LETTER MALAYALAM BHA</td>
<td>non</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>☳</td>
</tr>
<tr>
<td>SYRIAC LETTER MALAYALAM RA</td>
<td>right</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
</tr>
<tr>
<td>SYRIAC LETTER MALAYALAM LLA</td>
<td>dual</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
</tr>
<tr>
<td>SYRIAC LETTER MALAYALAM LLLA</td>
<td>right</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
</tr>
<tr>
<td>SYRIAC LETTER MALAYALAM SSA</td>
<td>right</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
<td>☳</td>
</tr>
</tbody>
</table>

2 SYRIAC LETTER MALAYALAM NGA This letter represents 旄 ɳa, the velar nasal /ɲ/. It is a dual-joining character. It corresponds to U+0D19 MALAYALAM LETTER NGA.
This letter represents \( \text{Ja} \), the palatal unaspirated stop /\d̜/\. It is a non-joining character. Its shape is derived directly from \( \text{U+0D1C MALAYALAM LETTER JA} \). Although it may be possible to use U+0D1C within a Syriac environment, a separate encoding is needed for \( \text{Ja} \) so that Syriac vowel marks can be combined with the letter. Furthermore the differing directionalities of the Malayalam and Syriac scripts may cause problems for introducing a Malayalam character directly in Syriac sequences.

This letter represents \( \text{Na} \), the palatal nasal /n/\. It is a dual-joining character. It corresponds to \( \text{U+0D1E MALAYALAM LETTER NNA} \).

This letter represents \( \text{Ta} \), the unvoiced retroflex stop /ʈ/, and \( \text{Da} \), the voiced retroflex stop /ɖ/. It is a dual-joining character. It corresponds to \( \text{U+0D1F MALAYALAM LETTER TTA and U+0D21 MALAYALAM LETTER DDA} \).

This letter represents \( \text{Nna} \), the retroflex nasal /ɳ/. It is a dual-joining character. It corresponds to \( \text{U+0D23 MALAYALAM LETTER NNA} \).

This letter represents \( \text{Nnna} \), the alveolar nasal /n/. It is a dual-joining character. It corresponds to \( \text{U+0D29 MALAYALAM LETTER NNNNA} \).

This letter represents \( \text{Bha} \), the labial aspirated stop /bʱ/\. It is a non-joining character. Its shape is derived directly from \( \text{U+0D2D MALAYALAM LETTER BHA} \). Although it may be possible to use U+0D2D within a Syriac environment, a separate encoding is needed for \( \text{Bha} \) so that Syriac vowel marks can be combined with the letter. Furthermore the differing directionalities of the Malayalam and Syriac scripts may cause problems for introducing a Malayalam character directly in Syriac sequences.

This letter represents \( \text{Ra} \), the alveolar trill /r/\. It is a right-joining character. It corresponds to \( \text{U+0D30 MALAYALAM LETTER RA} \).

This letter represents \( \text{Lla} \), the retroflex lateral approximant /ɭ/\. It is a dual-joining character. It corresponds to \( \text{U+0D33 MALAYALAM LETTER LLA} \).

This letter represents \( \text{Llla} \), the retroflex central approximant /ɭ/\. It is a right-joining character. It corresponds to \( \text{U+0D34 MALAYALAM LETTER LLLA} \).

This letter represents \( \text{Sa} \), the retroflex sibilant /ʂ/. It is a right-joining character. It corresponds to \( \text{U+0D37 MALAYALAM LETTER SSA} \).

3 Characters Not Proposed

The consonant ligature \( \text{Eta} \) represents the Malayalam conjunct \( \text{U+0D23 MALAYALAM LETTER NNA and U+0D1F MALAYALAM LETTER TTA}. \) The Syriac representation of \( \text{Eta} \) is a combination of the proposed \( \text{U+0D23 MALAYALAM LETTER NNA and U+0D1F MALAYALAM LETTER TTA}. \) with the \( \text{U+0748 SYRIAC OBLIQUE LINE BELOW} \) rendered as a horizontal stroke. The presence of the horizontal stroke, or mbatlana, beneath the Syriac combination suggests that the ligature is not considered an independent letter. It is recommended that the Syriac sequence mentioned above be used for representing \( \text{Eta} \) in encoded text. If additional research indicates that \( \text{Eta} \) should be encoded as an atomic character, then it may be added later.
The syllable ḟī Figure 13 shows the syllable folio/jī/. This letter is the Malayalam syllable folio/jī/ adapted directly into Syriac. It is a conjunct ligature formed from folio U+0D1E MALAYALAM LETTER NYA and folio U+0D1E MALAYALAM LETTER NYA, and the folio U+0D40 MALAYALAM VOWEL SIGN II. The form folio occurs in two instances in a single manuscript. Additional research is required for determining the actual extent of its usage.

4 Character Data

Character Properties Properties in the format of UnicodeData.txt:

0860;SYRIAC LETTER MALAYALAM NGA;Lo;0;AL;;;;;N;;;;;
0861;SYRIAC LETTER MALAYALAM JA;Lo;0;AL;;;;;N;;;;;
0862;SYRIAC LETTER MALAYALAM NYA;Lo;0;AL;;;;;N;;;;;
0863;SYRIAC LETTER MALAYALAM TTA;Lo;0;AL;;;;;N;;;;;
0864;SYRIAC LETTER MALAYALAM NNA;Lo;0;AL;;;;;N;;;;;
0865;SYRIAC LETTER MALAYALAM NNNA;Lo;0;AL;;;;;N;;;;;
0866;SYRIAC LETTER MALAYALAM BHA;Lo;0;AL;;;;;N;;;;;
0867;SYRIAC LETTER MALAYALAM RA;Lo;0;AL;;;;;N;;;;;
0868;SYRIAC LETTER MALAYALAM LLA;Lo;0;AL;;;;;N;;;;;
0869;SYRIAC LETTER MALAYALAM LLLA;Lo;0;AL;;;;;N;;;;;
086A;SYRIAC LETTER MALAYALAM SSA;Lo;0;AL;;;;;N;;;;;

Linebreaking Linebreaking properties in the format of LineBreak.txt:

0860..086A;AL

Arabic Shaping Joining properties in the format of ArabicShaping.txt:

# Syriac Characters

0860; MALAYALAM NGA; D; MALAYALAM NGA
0861; MALAYALAM JA; U; MALAYALAM JA
0862; MALAYALAM NYA; D; MALAYALAM NYA
0863; MALAYALAM TTA; D; MALAYALAM TTA
0864; MALAYALAM NNA; D; MALAYALAM NNA
0865; MALAYALAM NNNA; D; MALAYALAM NNNA
0866; MALAYALAM BHA; U; MALAYALAM BHA
0867; MALAYALAM RA; R; MALAYALAM RRA
0868; MALAYALAM LLA; D; MALAYALAM LLA
0869; MALAYALAM LLLA; R; MALAYALAM LLLA
086A; MALAYALAM SSA; R; MALAYALAM SSA

5 References


6 Acknowledgments

I would like to express my gratitude to István Perczel for his valuable comments on an earlier version of this proposal. I would also like to thank Shiju Alex and Cibu Johnny for providing me with materials in Garshuni Malayalam. Thank you also to George Kiraz for motivating me to delve further into the representations of the Malayalam language in the Syriac script.

This project was made possible in part through a Google Research Award, granted to Deborah Anderson for the Script Encoding Initiative, and a grant from the United States National Endowment for the Humanities (PR-50205-15), which funds the Universal Scripts Project (part of the Script Encoding Initiative at the University of California, Berkeley). Any views, findings, conclusions or recommendations expressed in this publication do not necessarily reflect those of Google or the National Endowment for the Humanities.
Figure 1: A hand-written chart of Syriac letters used for transcribing Malayalam (from Āṭṭel 2010: 35). Rows 1–9 show Garshuni Syriac letters that correspond to the Malayalam letters: 𐎀 = ೌ; 𐎁 = ್; 𐎂 = ೎; 𐎆 = ೑; 𐎇 = ೒; 𐎈 = ೓; 𐎉 = ೔; 𐎊 = ೕ and уницип. Glyphic variants shown in the left column are unified with the representative glyph for each proposed letter. The letters in rows 10–13 are variant forms of existing Syriac letters. Row 10 = ೖ Row 11 = ೌ_row 12 = ೑ and ೕ. Row 13 = ೓. Row 14 is 𐎈 = ೒ (see section 3).

**MALABARISCH-SYRISCH.**

<table>
<thead>
<tr>
<th>Zeichen</th>
<th>Wert</th>
<th>Zeichen</th>
<th>Wert</th>
<th>Zeichen</th>
<th>Wert</th>
<th>Zeichen</th>
<th>Wert</th>
<th>Zeichen</th>
<th>Wert</th>
</tr>
</thead>
<tbody>
<tr>
<td>הזאת</td>
<td>a</td>
<td>แพง</td>
<td>w</td>
<td>ฤๅ</td>
<td>k</td>
<td>ฤๅ</td>
<td>s</td>
<td>ฤๅ</td>
<td>t</td>
</tr>
<tr>
<td>ฤๅ</td>
<td>b</td>
<td>ฤๅ</td>
<td>z</td>
<td>ฤๅ</td>
<td>m</td>
<td>ฤๅ</td>
<td>n</td>
<td>ฤๅ</td>
<td>r</td>
</tr>
<tr>
<td>ฤๅ</td>
<td>g</td>
<td>ฤๅ</td>
<td>l</td>
<td>ฤๅ</td>
<td>s</td>
<td>ฤๅ</td>
<td>q</td>
<td>ฤๅ</td>
<td>r</td>
</tr>
<tr>
<td>ฤๅ</td>
<td>d</td>
<td>ฤๅ</td>
<td>l</td>
<td>ฤๅ</td>
<td>ฤๅ</td>
<td>ฤๅ</td>
<td>n</td>
<td>ฤๅ</td>
<td>r</td>
</tr>
<tr>
<td>ฤๅ</td>
<td>h</td>
<td>ฤๅ</td>
<td>s</td>
<td>ฤๅ</td>
<td>༽</td>
<td>ฤๅ</td>
<td>r</td>
<td>ฤๅ</td>
<td>r</td>
</tr>
</tbody>
</table>

Durch diese wurde die syrische Schrift

**SYRISCH.**

<table>
<thead>
<tr>
<th>Zeichen</th>
<th>Wert</th>
<th>Zeichen</th>
<th>Wert</th>
<th>Zeichen</th>
<th>Wert</th>
<th>Zeichen</th>
<th>Wert</th>
</tr>
</thead>
<tbody>
<tr>
<td>ฤๅ</td>
<td>a</td>
<td>ฤๅ</td>
<td>b</td>
<td>ฤๅ</td>
<td>w</td>
<td>ฤๅ</td>
<td>m</td>
</tr>
<tr>
<td>ฤๅ</td>
<td>b</td>
<td>ฤๅ</td>
<td>g</td>
<td>ฤๅ</td>
<td>h</td>
<td>ฤๅ</td>
<td>n</td>
</tr>
<tr>
<td>ฤๅ</td>
<td>g</td>
<td>ฤๅ</td>
<td>l</td>
<td>ฤๅ</td>
<td>w</td>
<td>ฤๅ</td>
<td>s</td>
</tr>
<tr>
<td>ฤๅ</td>
<td>l</td>
<td>ฤๅ</td>
<td>h</td>
<td>ฤๅ</td>
<td>v</td>
<td>ฤๅ</td>
<td>q</td>
</tr>
<tr>
<td>ฤๅ</td>
<td>h</td>
<td>ฤๅ</td>
<td>v</td>
<td>ฤๅ</td>
<td>u</td>
<td>ฤๅ</td>
<td>r</td>
</tr>
</tbody>
</table>

Vokalzeichen: 

- a, e, i, o, u

Interpunktionen:

- i, u

Die syrische Schrift, *Pehîto* genannt, ist den westlichen Syrern, den Maroniten und Jakobiten, oder vielmehr den römisch-katholischen Syrern im Gegen- satz zu den nestorianischen, eigen; sie ist eine sehr cursive Form der Estrangolo, wie dies namentlich in ק and ק hervortritt.

Figure 2: Specimen of metal type fonts for some Garshuni Malayalam letters ('Malabarisch-Syrisch') that were cut in Europe in the 19th century (from Faulmann 1880: 87).
B. The additional Malayalam consonants of the Garshuni Malayalam alphabet

1. Malayalam Na

“Malayalam Na” = Modern Malayalam ṇ, transcription, for the present purpose, Na (nun being the “Malayalam na”), pronounced like the n’s in banana, but more a kind of an alveolar nasal. It connects in both directions.

a. Medial position.

This is the word malaNaTTil, “in the mountainous region,” with a medial Na in the middle. The fourth letter is Malayalam Ts, reduplicated by the bhatlana in the medial position (see below, no. 5.a). The auxiliary signs are: pidha on the mem (Malayalam ma),

Figure 3: Description and example of NNNA (from Perczel 2014: 311).
indicating the short vowel a, zgąpā in the upper compartment of the Na, indicating the long vowel a, mḥatānā under the Ta, indicating reduplication, bvaṣā under the yod, indicating the vowel i. The lack of a vowel sign on the first lāmuṭ indicates a short a, which is the basic vocalisation.

b. **Initial position**, including the one within the word, after a letter that does not connect to the left.

This is the word aṣīrbaNNu “had been.” Na is here in the penultimate position, before the waw, connecting only to the left. The fourth letter is a Malayalam ṛha connected to the right (see below, no. 7.a.). The beginning ṛala, having no vowel sign, is bearing the basic vowel a. It is followed by two yāṣā, the first having the value of the Malayalam consonant ya and the second, with the bvaṣā underneath, indicating the vowel i. ‘Eṣāṣa allāṣa under the two waw’s indicates the vowel u, the mḥatānā line under the Na indicates reduplication.

c. **Final position, connected to the right.**

This is a final Na in the word vaNNu (“having gone”). One may see that ṛehb is used for the phoneme v, the ṛaḥāv is used for the vowel a and the underlining (mḥatānā) means the reduplication of the phoneme. The final u is, in fact, a śvā.

d. **Final, stand alone position.**

This is the grapheme for mNNu at the end of a word. This is a stand-alone Na, with an elongated tail at the end. The line under the grapheme (mḥatānā) indicates reduplication. Here is the entire word:

Figure 4: Description and example of NNNA (from Perczel 2014: 312).
This is the word *munaNNu*, “three.” Here again, the final *u* is, in fact, a shwa.

2. Malayalam *Nba*

= Modern Malayalam ഡ, േ “Malayalam *Nba,*” a retroflex nasal. It connects in both directions.

a. *Medial position:*

This is the word *malaNbhakrakka,* “to Malankara,” with a medial *Nba* at the fourth position, in the letter combination *Nbka*. The letter combination is indicated by the *mhatlan* under the *Nba*, which, here, does not indicate reduplication. Another interesting feature is that the order of the two combining phonemes is reversed: first the *ka* (Syriac *kap*) is written and second the *Nba*, while the pronunciation is *aNbka*. The letter in the penultimate position is a Malayalam *rha* connected to the right (see below, no. 7.a.) and the final *ka* (Syriac *kap*) is reduplicated by the *mhatlan*. In the same manuscript we also find the spelling *Malangkara,* see below, 3.a.2.

b. *Initial position,* including the one within the word, after a letter that does not connect to the left.

This is the word *rhaNbhDam,* “two,” with an initial *Nba* at the second position. The first letter is Malayalam *rha* in a stand-alone position (see below, no. 7.b.), the third letter is Malayalam *Ta* (see

Figure 5: Description and example of *NNA* (from Perczel 2014: 313).
below, no. 5.a.) in medial position. There are no vowel signs, indicating that the appropriate consonants—rba and Ta—bear the basic vowel a.

c. Final position, connected to the right.

This is a final Nba in the word vaNba (“shape”).

3. Malayalam nga

= Malayalam nga = Modern Malayalam θ, pronunciation ya (ŋa), a velar nasal. It connects in both directions.

a. Medial position.

a.1. This is the word koDhanggallur̃, standing for the town of Kodunggallur/Cranganore, followed by metr<apologia>. At the third position is a Malayalam Ta (see below, no. 5.a.), the last letter is a Malayalam rha, standing alone (see below, no. 7.b).

a.2. This is the word malangkarbi, “in Malankara,” with a medial nga at the fourth position, in the letter combination ngk. The letter combination is indicated by the mhalāna under the nga, which, here, does not indicate reduplication. Another interesting feature is that the order of the two combining phonemes is reversed: first the ka (Syriac kāp) is written and second the nga, while the pronunciation is angka. The third letter from the end is a Malayalam rha connected

Figure 6: Description and example of nga (from Perczel 2014: 314).
to the right (see below, no. 7.a.). In the same manuscript we also find the spelling MalaNākara, see above, 2.a.

b. Initial position, including the one within the word, after a letter that does not connect to the left.

This is the word vazhangakā, “being in obedience,” with an initial nga in the third position, reduplicated by the mbatlānā. The first letter is Malayalam va, indicated by a beth, the second is Malayalam ḍha in a final position (see below, no. 8.b.).

4. Malayalam nga

= Modern Malayalam ⟨ŋ⟩, pronunciation ŋa (nya), a palatal nasal. It connects in both directions.

5. Malayalam Ta, Da

a. Malayalam Ta = Modern Malayalam s, transcription Tā, pronounced as a retroflex plain stop, which is voiced if it stands single (Da) and is voiceless when it is reduplicated (TTā). The main body of the letter is situated below the bottom line. This is the version connected both ways, that is, to the right and to the left. From the right it is connected by a horizontal line, while the left branch goes up and comes down. However, it is to be distinguished from the Syriac tetb (transcription: ṯ, see below, 5.c.), which is similarly written, but with a longer left branch. In the second image, the line underneath indicates reduplication.

b. diverse connections of the letter Ta to the subsequent letter:

Figure 7: Description and example of nga and ttka (from Perczel 2014: 315).
b1. Here $Ta$ is connected to a final $ālap$ in the syllable $De$. It is to be distinguished from the way the $ṭabh$ is being connected to the following $ālap$. See below, 5.c.

b2. Here $Ta$ is connected to a $kāp$ in the syllabic combination $Daka$.

b3. Here $Ta$ is connected to a $waw$ in the syllable $TTu$.

b4. Here a reduplicated $Ta$ is connected to a $Na$ on the right and to a $yod$ on the left. The pronunciation is $NaTTu$ from the word $malaNaTTu$, “in the mountainous region,” see above, 1.a.

b5. This is the final $Ta$. The $mhatlānā$ indicates reduplication. Pronunciation: $TTu$.

b6. This is the syllabic combination $NiTTu$ from $meshibā piraNiTTu$ (“according to the year of Christ”). Here the final $Ta$ is written differently from the one shown above in b5. The $mhatlānā$ indicates reduplication.

b7. 

Figure 8: Description and example of $TTa$ (from Perczel 2014: 316).
This is the word *rbaNbdm* (second), where one can see that the *Ta* is written underneath the *Nha*. This reproduces the composite letter *NbdD* in Modern Malayalam.

c. This is how the Syriac *tēb* (†) is written in Garshuni Malayalam. This letter is only added here as a comparison to the *Ta*. Perhaps, its shape was influenced by the grapheme of the *Ta*. The *tēb* is only used in Syriac and European loanwords. On these two images it is connected to an *ālāp*. On the first image, this is the final syllable from the word *karmelița* (Carmelite), on the second, from the word *metropolița*.

6. Malayalam *lba*

Modern Malayalam Ο, or final ु, transcribed as *lha*, a retroflex lateral approximant; normally it only connects to the right and not to the left. However, in some manuscripts, represented by picture 3, *lha* is connected in both directions. On this picture it is followed by a *waw*.

7. Malayalam *rha*

a. Modern Malayalam Ω, transcribed as *rha*, an alveolar trill, while the Syriac *rēb* is used to express the consonant Ω, a retroflex trill, such as the *r* of the Italians. The letter *rha* connects only to the right, never to the left and its body is under the line; it can be written like the final *waw*, but with an additional curve at the end, or as an Arabic *r*, pointing leftward.

Figure 9: Description and example of *lla* and *ra* (from Perczel 2014: 317).
b. This is how the rba looks like when it is not connected in either direction. On the third picture one sees the place name Sampallurb (the city of Saint Paul) with a rba at the end. The lha (third letter from the left) stands alone, as it follows a waw. Noteworthy is also the diphthong au in the syllable pau, which reproduces an earlier pronunciation of a Portuguese loanword (São Paulo), close to the Portuguese pronunciation, which later changed to Sampallurb (with reduplicated lha).

8. Malayalam ṣha, Sba, ja

This letter stands for three different Modern Malayalam letters and sounds. Either for ṣ, transcription ṣha, a retroflex central approximant, pronounced as a sound between l, r, and ż; or for ḍ, transcription Sba, pronounced as a retroflex sibilant fricative (§), or for ṣ, transcription ja, a palatal voiced stop used mostly in Sanskrit loanwords, such as raja (“king”). However, in some later manuscripts ja is indicated by the Modern Malayalam letter ş (see below, §C.1.). This letter only connects to the right and never to the left.

9. Malayalam Sba, ja

= Modern Malayalam ṣṭ, Sba, pronounced as a retroflex sibilant fricative (§), or Modern Malayalam ś, ja. In some manuscripts, such as Mannanam MS Syr 74, this grapheme is used in Sanskrit loanwords, such as mambshan (man), or purašan (man, soul, god). In the same MS other occurrences of the phoneme Sba are written

Figure 10: Description and example of llla and ssa (from Perczel 2014: 318).
by 32. In Mannanam Syr 74, this letter does not connect either to the right or to the left. In this manuscript, the letter combination

$kSba$ (ܩܒ) is written as a ligature of $ka$ and $zha$ ($ܩ+؃=ܩܒ$).

Yet, in other, quite old, manuscripts, such as Bangalore Dharmaram College Syr 32, $ܩܒ$ is treated as a normal element of the Garshuni alphabet, which indicates both the $Shu$ and $ja$ sounds and connects to the right. In this MS the letter combination $kSba$ ($ܩܒ) is written as a ligature of $ka + Shu$ ($ܩ + ؃ = ؃ܩ$). This letter, which is sometimes inserted in the ductus of the script and sometimes is not, which is taken from the $Arya ezhitthu$ script and not the old Malayalam, brings the number of the originally added Malayalam characters to nine and forms a transition toward the Modern Malayalam additions to the alphabet.

a. This is how the word $manuShuDē$ “of men,” is written in in Mannanam MS Syr 74, fol. 2r.

b. This is how the word $paruShenē$, “a man” (accusative), is written in in Mannanam MS Syr 74, fol. 2v.

c. This is how the word $padhinjam$ (according to present-day pronunciation: $padhinjam$), “fifteen” is written in Bangalore Dharmaram College MS Syr 32, fol. 2r.

Figure 11: Description and example of $ssa$ (from Perczel 2014: 319).
C. Additional Modern Malayalam characters or combinations, incidentally occurring in Garshuni Malayalam

In later manuscripts, incidentally, some letters of the Modern Malayalam alphabet have also been incorporated, in order to express Malayalam sounds that were not part of the old Malayalam alphabet, nor are expressible through standard Syriac characters, that is, Sanskrit sounds. Such are the letters $\mathfrak{s}$: $ja$ and $\mathfrak{b}$: $bha$, found in a letter on fol. 515r-516r, in Emakulam Major Archbishop’s House MS Syr 7.

1. a.

= Modern Malayalam $\mathfrak{s}$, $ja$, whose form it almost perfectly reproduces. It is pronounced as a palatal plain voiced stop, corresponding to the English $j$. The first image is from the word $jenam$ (people) and the second, from the word $ejamanam\bar{ma}ru$ (“the leaders, lords: that is, pagan kings”). It is conspicuous that this letter, as a later borrowing from Modern Malayalam, stands as a foreign body in the script. It does not connect to any side either on the right, or the left.

b.

This is how the word $ejamanam\bar{ma}ru$ is written in the manuscript. Note that the $ja$ does not connect to any side and, also, the two allongated $r\bar{h}a's$ at the end of the word, interfering with the next line.

2. a.

= Modern Malayalam $\mathfrak{b}$, $bha$, whose form it reproduces. The letter indicates a labial aspirate voiced stop. This is a unique occurrence, even in the present manuscript. The right part of the letter is cut. It

Figure 12: Description and example of $ja$ and $bha$ (from Perczel 2014: 320).
stands at the beginning of the word combination *bhāgamettī kuTTī* (“with the side”).

b. Here is the expression *bhāgamettī kuTTī*. Note that the *bbha* is not connected to the left—and that, certainly, it would not be connected to the right either—and also that the *kūp* serves both for expressing the Malayalam letters *ka* (쉬: unaspirated voiceless velar stop in *kuTTī*) and *ga* (ʃ: unaspirated voiced velar stop in *bbāgam*), unless here the Garshuni text reproduces an earlier or dialectal pronunciation.

3. Mannanan Syr 49, fol. 31r-32r contains a text, where the word *rhāṇji* – ʐəːcɛnːiː: “Queen,” occurs several times. For this, the scribe has adopted Garshuni Malayalam *rha* as a stand-alone character (see above, 7.b.) with the *gqāpā* indicating the vocalisation of the first syllable with the long vowel ă, plus the single complex grapheme *kəːdəː* used in Modern Malayalam (or, rather, its predecessor, the *Arya ezhuttu*) for *jijī*.

This is *rhāṇji* (ʐəːcɛnːiː) on fol. 31r; it is noteworthy that, in the combination, the *nya* is not written in its Garshuni Malayalam form as ʐ, but the modern Malayalam form -animate is being used. Also, instead of the Garshuni way of using a *yod* with a *huvāsā* for writing the vowel ɨ, it uses the connected form of the Modern Malayalam ʐɨː (ʐɨː).

This is *VeNadu rhāṇji*, “the Queen of Vēnad” on fol. 32r.

Figure 13: Description of the Malayalam conjunct syllable *jīṅī* (from Perczel 2014: 321).
Figure 14: Excerpt from a Syriac grammar (Dharmaram Syr. Ms. 53, folio 63a). Garshuni Malayalam is written more cursively in lighter ink.
Figure 15: Excerpt from a Syriac grammar (Dharmaram Syr. Ms. 53, folio 63b). Garshuni Malayalam is written more cursively in lighter ink.
Figure 16: A specimen of Garshuni Malayalam (from Åttel 2010: 189).