

Preliminary proposal to encode Vatteluttu in Unicode

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1 Introduction

This is a preliminary proposal to encode the Vatteluttu script in Unicode. Its purpose is to present a tentative encoding model for the script. Research is ongoing and a formal proposal is forthcoming, which will contain background information and additional details on the script. Feedback is sought from experts. The code points used here are arbitrary and will likely change once the script is allocated to the Unicode Roadmap.

2 Script Details

2.1 Structure

The general structure of Vatteluttu is similar to that of Tamil. Each consonant letter possesses an inherent vowel. Independent vowels are written using letters. Non-initial forms of vowels are expressed using combining signs. Vowel signs attach to the left, right, or below the base. Some signs consist of two parts, which are written to the left and right of the base. Historically, the script did not possess a *virāma* or *pulli* for silencing the inherent vowel, but such a sign was introduced at a later time. Consonant clusters are represented linearly. In later sources, each bare consonant in a cluster is marked by placing the *virāma* above the letter.

2.2 Character repertoire and representative glyphs

The proposed repertoire is based upon characters that occur in inscriptions and character inventories published in secondary sources. The representative glyphs are normalizations of forms given in these sources and have been designed by the proposal author. The glyphs are intended to be illustrative, not typographically aesthetic. Glyphs may change based upon feedback from the user community.

2.3 Vowels

There are 11 vowel letters:

𑌀 VATELUTTU VOWEL LETTER A

𑌁 VATELUTTU VOWEL LETTER AA

ච	VATTELUTTU VOWEL LETTER I
ච්	VATTELUTTU VOWEL LETTER II
චු	VATTELUTTU VOWEL LETTER U
චුචු	VATTELUTTU VOWEL LETTER UU
චෙ	VATTELUTTU VOWEL LETTER E
චෙචෙ	VATTELUTTU VOWEL LETTER EE
චා	VATTELUTTU VOWEL LETTER AI
චො	VATTELUTTU VOWEL LETTER O
චොචො	VATTELUTTU VOWEL LETTER OO

The චෙ VOWEL LETTER E and චො VOWEL LETTER O are not attested in early sources. They occur in a later source and are produced by adding the sign ට් VIRAMA to චෙ VOWEL LETTER EE and චො VOWEL LETTER OO, respectively (see figure 20). The vowel letter *AU is not attested in the sources examined thus far.

2.4 Vowel Signs

There are 10 dependent vowel signs:

ට්	VATTELUTTU VOWEL SIGN AA
ටච	VATTELUTTU VOWEL SIGN I
ටච්	VATTELUTTU VOWEL SIGN II
ටචු	VATTELUTTU VOWEL SIGN U
ටචුචු	VATTELUTTU VOWEL SIGN UU
ටචෙ	VATTELUTTU VOWEL SIGN E
ටචෙචෙ	VATTELUTTU VOWEL SIGN EE
ටචා	VATTELUTTU VOWEL SIGN AI
ටචො	VATTELUTTU VOWEL SIGN O
ටචොචො	VATTELUTTU VOWEL SIGN OO

There is no dependent form for ච VOWEL LETTER A. The vowel represented by this letter is inherent in each consonant. The dependent forms ටචෙ VOWEL SIGN E and ටචො VOWEL SIGN O are later additions, as are the corresponding independent letters, and are produced by placing the sign ට් VIRAMA above the base along with ටචෙ VOWEL SIGN EE and ටචො VOWEL SIGN OO, respectively (see figure 20). A vowel sign for *AU is not attested. Several combinations of a base letter and a vowel sign are rendered as ligatures.

2.5 Consonants

There are 18 consonant letters:

𑌀	VATTELUTTU LETTER KA
𑌁	VATTELUTTU LETTER NGA
𑌂	VATTELUTTU LETTER CA
𑌃	VATTELUTTU LETTER NYA
𑌄	VATTELUTTU LETTER TTA
𑌅	VATTELUTTU LETTER NNA
𑌆	VATTELUTTU LETTER TA
𑌇	VATTELUTTU LETTER NA
𑌈	VATTELUTTU LETTER PA
𑌉	VATTELUTTU LETTER MA
𑌊	VATTELUTTU LETTER YA
𑌋	VATTELUTTU LETTER RA
𑌌	VATTELUTTU LETTER LA
𑌍	VATTELUTTU LETTER VA
𑌎	VATTELUTTU LETTER LLA
𑌏	VATTELUTTU LETTER LLLA
𑌐	VATTELUTTU LETTER RRA
𑌑	VATTELUTTU LETTER NNNA

Each consonant letter bears the inherent vowel /a/. In several sources the left terminals of 𑌆 TA, 𑌐 RRA, and 𑌑 NNNA are connected, such that the letters are rendered in as a closed loop. This is a stylistic matter and can be viewed as glyphic variation.

2.6 Aytam

The 𑌒 VATTELUTTU SIGN AY TAM is used for indicating aspiration (see figure 16). It corresponds to 𑌒 U+0B83 TAMIL SIGN VISARGA.

2.7 Virama

The 𑌓 VATTELUTTU SIGN VIRAMA is used for silencing the inherent vowel of a consonant letter. It has no control function and has the same behavior as 𑌓 U+0BCD TAMIL SIGN VIRAMA.

2.8 Punctuation

Script-specific punctuation marks do not occur in the sources examined thus far. Some manuscripts show usage of dashes for separating sections of text. Word boundaries are not distinguished using spaces.

2.9 Collation

The sort order for Vatteluttu is as follows:

𑌀_A < 𑌁_{AA} < 𑌂_I < 𑌃_{II} < 𑌄_U < 𑌅_E < 𑌆_{EE} < 𑌇_{AI} < 𑌈_O <
 𑌉_{OO} < 𑌊_{KA} < 𑌋_{NGA} < 𑌌_{CA} < 𑌍_{NYA} < 𑌎_{TTA} < 𑌏_{NNA} < 𑌐_{TA} < 𑌑_{NA} <
 𑌒_{PA} < 𑌓_{MA} < 𑌔_{YA} < 𑌕_{RA} < 𑌖_{LA} < 𑌗_{VA} < 𑌘_{LLA} < 𑌙_{LLLA} < 𑌚_{RRA} <
 𑌛_{NNNA} < 𑌜_{AYTAM} < 𑌝_{VOWEL SIGN AA} < 𑌞_{VOWEL SIGN I} < 𑌟_{VOWEL SIGN II} <
 𑌠_{VOWEL SIGN U} < 𑌡_{VOWEL SIGN UU} < 𑌢_{VOWEL SIGN E} < 𑌣_{VOWEL SIGN EE} <
 𑌤_{VOWEL SIGN AI} < 𑌥_{VOWEL SIGN O} < 𑌦_{VOWEL SIGN OO} < 𑌧_{VIRAMA}

3 Character Data

3.1 Character Properties

In the format of `UnicodeData.txt`:

```

11F00;VATTELUTTU LETTER A;Lo;0;L;;;;N;;;;;
11F01;VATTELUTTU LETTER AA;Lo;0;L;;;;N;;;;;
11F02;VATTELUTTU LETTER I;Lo;0;L;;;;N;;;;;
11F03;VATTELUTTU LETTER II;Lo;0;L;;;;N;;;;;
11F04;VATTELUTTU LETTER U;Lo;0;L;;;;N;;;;;
11F05;VATTELUTTU LETTER UU;Lo;0;L;;;;N;;;;;
11F06;VATTELUTTU LETTER E;Lo;0;L;;;;N;;;;;
11F07;VATTELUTTU LETTER EE;Lo;0;L;;;;N;;;;;
11F08;VATTELUTTU LETTER AI;Lo;0;L;;;;N;;;;;
11F09;VATTELUTTU LETTER O;Lo;0;L;;;;N;;;;;
11F0A;VATTELUTTU LETTER OO;Lo;0;L;;;;N;;;;;
11F0B;<reserved>
11F0C;VATTELUTTU LETTER KA;Lo;0;L;;;;N;;;;;
11F0D;VATTELUTTU LETTER NGA;Lo;0;L;;;;N;;;;;
11F0E;VATTELUTTU LETTER CA;Lo;0;L;;;;N;;;;;
11F0F;VATTELUTTU LETTER NYA;Lo;0;L;;;;N;;;;;
11F10;VATTELUTTU LETTER TTA;Lo;0;L;;;;N;;;;;
11F11;VATTELUTTU LETTER NNA;Lo;0;L;;;;N;;;;;
11F12;VATTELUTTU LETTER TA;Lo;0;L;;;;N;;;;;
11F13;VATTELUTTU LETTER NA;Lo;0;L;;;;N;;;;;
11F14;VATTELUTTU LETTER PA;Lo;0;L;;;;N;;;;;
11F15;VATTELUTTU LETTER MA;Lo;0;L;;;;N;;;;;
11F16;VATTELUTTU LETTER YA;Lo;0;L;;;;N;;;;;
11F17;VATTELUTTU LETTER RA;Lo;0;L;;;;N;;;;;
11F18;VATTELUTTU LETTER LA;Lo;0;L;;;;N;;;;;
11F19;VATTELUTTU LETTER VA;Lo;0;L;;;;N;;;;;

```

```

11F1A;VATTELUTTU LETTER LLA;Lo;0;L;;;;N;;;;;
11F1B;VATTELUTTU LETTER LLLA;Lo;0;L;;;;N;;;;;
11F1C;VATTELUTTU LETTER RRA;Lo;0;L;;;;N;;;;;
11F1D;VATTELUTTU LETTER NNNA;Lo;0;L;;;;N;;;;;
11F1E;VATTELUTTU VOWEL SIGN AA;Mc;0;L;;;;N;;;;;
11F1F;VATTELUTTU VOWEL SIGN I;Mc;0;L;;;;N;;;;;
11F20;VATTELUTTU VOWEL SIGN II;Mc;0;L;;;;N;;;;;
11F21;VATTELUTTU VOWEL SIGN U;Mc;0;L;;;;N;;;;;
11F22;VATTELUTTU VOWEL SIGN UU;Mn;0;NSM;;;;N;;;;;
11F23;VATTELUTTU VOWEL SIGN E;Mc;0;L;11F24 11F2A;;;;N;;;;;
11F24;VATTELUTTU VOWEL SIGN EE;Mc;0;L;;;;N;;;;;
11F25;VATTELUTTU VOWEL SIGN AI;Mc;0;L;;;;N;;;;;
11F26;VATTELUTTU VOWEL SIGN O;Mc;0;L;11F3F 11F2A 11F35;;;;N;;;;;
11F27;VATTELUTTU VOWEL SIGN OO;Mc;0;L;11F3F 11F35;;;;N;;;;;
11F28;<reserved>
11F29;VATTELUTTU SIGN AYTAM;Lo;0;L;;;;N;;;;;
11F2A;VATTELUTTU SIGN VIRAMA;Mn;9;NSM;;;;N;;;;;

```

3.2 Linebreaking

In the format of LineBreak.txt:

```

11F00..11F0A; AL # VATTELUTTU LETTER A .. VATTELUTTU LETTER OO
11F0C..11F1D; AL # VATTELUTTU LETTER KA .. VATTELUTTU LETTER NNNA
11F1E..11F27; CM # VATTELUTTU VOWEL SIGN AA .. VATTELUTTU VOWEL SIGN OO
11F29; CM # VATTELUTTU SIGN AYTAM
11F2A; CM # VATTELUTTU SIGN VIRAMA

```

3.3 Syllabic Categories

In the format of IndicSyllabicCategory.txt:

```

# Indic_Syllabic_Category=Vowel_Independent
11F00..11F0A ; Vowel_Independent # Lo [6] VATTELUTTU LETTER A ..
VATTELUTTU LETTER OO

# Indic_Syllabic_Category=Vowel_Dependent
11F1E..11F27 ; Vowel_Dependent # Mc [3] VATTELUTTU VOWEL SIGN AA ..
VATTELUTTU VOWEL SIGN OO

# Indic_Syllabic_Category=Consonant
11F0C..11F1D ; Consonant # Lo VATTELUTTU LETTER KA ..
VATTELUTTU LETTER NNNA

# Indic_Syllabic_Category=Modifying_Letter
11F29 ; Modifying_Letter # Lo VATTELUTTU SIGN AYTAM

```

3.4 Positional Categories

In the format of IndicPositionalCategory.txt:

```

# Indic_Positional_Category=Right
11F35..11F37 ; Right # Mc [3] VATTELUTTU VOWEL SIGN AA ..
VATTELUTTU VOWEL SIGN U

# Indic_Positional_Category=Left
11F3F..11F40 ; Left # Mc [2] VATTELUTTU VOWEL SIGN EE ..

```

```

VATTELUTTU VOWEL SIGN AI
# Indic_Positional_Category=Left_And_Right
11F42 ; Left_and_Right # Mc VATTELUTTU VOWEL SIGN OO
# Indic_Positional_Category=Top
11F2A ; Top # Mn VATTELUTTU SIGN VIRAMA
# Indic_Positional_Category=Bottom
11F22 ; Bottom # Mn VATTELUTTU VOWEL SIGN UU
# Indic_Positional_Category=Top_And_Left
11F23 ; Top_And_Left # Mc VATTELUTTU VOWEL SIGN E
# Indic_Positional_Category=Top_And_Left_And_Right
11F26 ; Top_And_Left_And_Right # Mc VATTELUTTU VOWEL SIGN O

```

4 References

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5 Acknowledgments

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	11F0	11F1	11F2	11F3
0	𑌀 11F00	𑌁 11F10	𑌂 11F20	
1	𑌃 11F01	𑌄 11F11	𑌅 11F21	
2	𑌆 11F02	𑌇 11F12	𑌈 11F22	
3	𑌉 11F03	𑌊 11F13	𑌋 11F23	
4	𑌌 11F04	𑌍 11F14	𑌎 11F24	
5	𑌏 11F05	𑌐 11F15	𑌑 11F25	
6	𑌒 11F06	𑌓 11F16	𑌔 11F26	
7	𑌕 11F07	𑌖 11F17	𑌗 11F27	
8	𑌘 11F08	𑌙 11F18		
9	𑌚 11F09	𑌛 11F19	𑌜 11F29	
A	𑌞 11F0A	𑌟 11F1A	𑌠 11F2A	
B		𑌡 11F1B		
C	𑌣 11F0C	𑌤 11F1C		
D	𑌦 11F0D	𑌧 11F1D		
E	𑌩 11F0E	𑌪 11F1E		
F	𑌬 11F0F	𑌭 11F1F		

Independent vowels

11F00	𑌀	VATTELUTTU LETTER A
11F01	𑌁	VATTELUTTU LETTER AA
11F02	𑌆	VATTELUTTU LETTER I
11F03	𑌉	VATTELUTTU LETTER II
11F04	𑌌	VATTELUTTU LETTER U
11F05	𑌏	VATTELUTTU LETTER UU
11F06	𑌒	VATTELUTTU LETTER E
11F07	𑌕	VATTELUTTU LETTER EE
11F08	𑌘	VATTELUTTU LETTER AI
11F09	𑌚	VATTELUTTU LETTER O
11F0A	𑌞	VATTELUTTU LETTER OO
11F0B	𑌡	<reserved>

Consonants

11F0C	𑌣	VATTELUTTU LETTER KA
11F0D	𑌦	VATTELUTTU LETTER NGA
11F0E	𑌩	VATTELUTTU LETTER CA
11F0F	𑌬	VATTELUTTU LETTER NYA
11F10	𑌭	VATTELUTTU LETTER TTA
11F11	𑌮	VATTELUTTU LETTER NNA
11F12	𑌯	VATTELUTTU LETTER TA
11F13	𑌰	VATTELUTTU LETTER NA
11F14	𑌱	VATTELUTTU LETTER PA
11F15	𑌲	VATTELUTTU LETTER MA
11F16	𑌳	VATTELUTTU LETTER YA
11F17	𑌴	VATTELUTTU LETTER RA
11F18	𑌵	VATTELUTTU LETTER LA
11F19	𑌶	VATTELUTTU LETTER VA
11F1A	𑌷	VATTELUTTU LETTER LLA
11F1B	𑌸	VATTELUTTU LETTER LLLA
11F1C	𑌹	VATTELUTTU LETTER RRA
11F1D	𑌺	VATTELUTTU LETTER NNNA

Dependent vowel signs

11F1E	𑌻	VATTELUTTU VOWEL SIGN AA
11F1F	𑌼	VATTELUTTU VOWEL SIGN I
11F20	𑌽	VATTELUTTU VOWEL SIGN II
11F21	𑌾	VATTELUTTU VOWEL SIGN U
11F22	𑌿	VATTELUTTU VOWEL SIGN UU
11F23	𑍀	VATTELUTTU VOWEL SIGN E
	𑍁	≡ 11F24 𑍂 11F2A 𑍃
11F24	𑍄	VATTELUTTU VOWEL SIGN EE
11F25	𑍅	VATTELUTTU VOWEL SIGN AI
11F26	𑍆	VATTELUTTU VOWEL SIGN O
	𑍇	≡ 11F24 𑍄 11F2A 𑍃 11F1E 𑍈
11F27	𑍉	VATTELUTTU VOWEL SIGN OO
	𑍊	≡ 11F24 𑍄 11F1E 𑍈
11F28	𑍋	<reserved>

Aytam

11F29	𑍌	VATTELUTTU SIGN AY TAM
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Virama

11F2A	𑍃	VATTELUTTU SIGN VIRAMA
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	Brahmi	Vatteluttu	Grantha
KA	𑀓	𑀓	𑀓
KHA	𑀔	—	𑀔
GA	𑀕	—	𑀕
GHA	𑀖	—	𑀖
NGA	𑀗	𑀗	𑀗
CA	𑀘	𑀘	𑀘
CHA	𑀙	—	𑀙
JA	𑀚	—	𑀚
JHA	𑀛	—	𑀛
NYA	𑀜	𑀜	𑀜
TTA	𑀝	𑀝	𑀝
TTHA	𑀞	—	𑀞
DDA	𑀟	—	𑀟
DDHA	𑀠	—	𑀠
NNA	𑀡	𑀡	𑀡
TA	𑀢	𑀢	𑀢
THA	𑀣	—	𑀣
DA	𑀤	—	𑀤
DHA	𑀥	—	𑀥
NA	𑀦	𑀦	𑀦

Table 1: Comparison of the consonant letters KA .. NA of Brahmi, Vatteluttu, and Grantha.

	Brahmi	Vatteluttu	Grantha
PA	𑀧	𑀶	𑁆
PHA	𑀨	—	𑁇
BA	𑀩	—	𑁈
BHA	𑀪	—	𑁉
MA	𑀫	𑀷	𑁊
YA	𑀬	𑀸	𑁋
RA	𑀭	𑀹	𑁌
LA	𑀮	𑀺	𑁍
VA	𑀯	𑀻	𑁎
SHA	𑀰	—	𑁏
SSA	𑀱	—	𑁐
SA	𑀲	—	𑁑
HA	𑀳	—	𑁒
LLA	𑀴	𑀼	𑁓
LLLA	𑀵	𑀽	—
RRA	𑀶	𑀾	—
NNNA	𑀷	𑀿	—

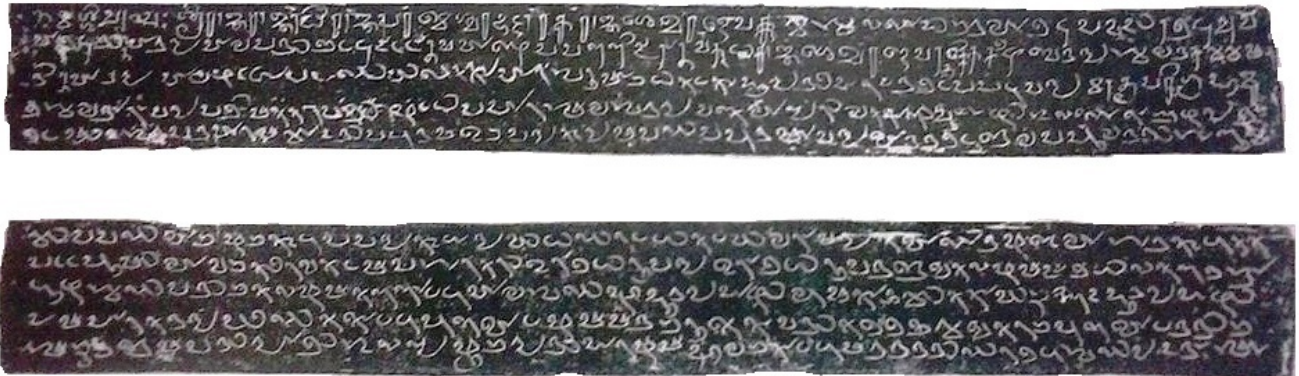
Table 2: Comparison of the consonant letters PA .. NNNA of Brahmi, Vatteluttu, and Grantha.

	Brahmi	Vatteluttu	Grantha
A	𑀀	𑀠	𑀡
AA	𑀁	𑀡	𑀢
I	𑀃	𑀣	𑀤
II	𑀄	𑀤	𑀥
U	𑀆	𑀦	𑀧
UU	𑀇	𑀧	𑀨
VOCALIC R	𑀉	—	𑀩
VOCALIC RR	𑀊	—	𑀪
VOCALIC L	𑀌	—	𑀬
VOCALIC LL	𑀍	—	𑀭
E	𑀏	𑀯	—
EE	—	𑀯	𑀮
AI	𑀑	𑀱	𑀰
O	𑀓	𑀳	—
OO	—	𑀳	𑀲
AU	𑀕	—	𑀴

Table 3: Comparison of vowel letters of Brahmi, Vatteluttu, and Grantha.

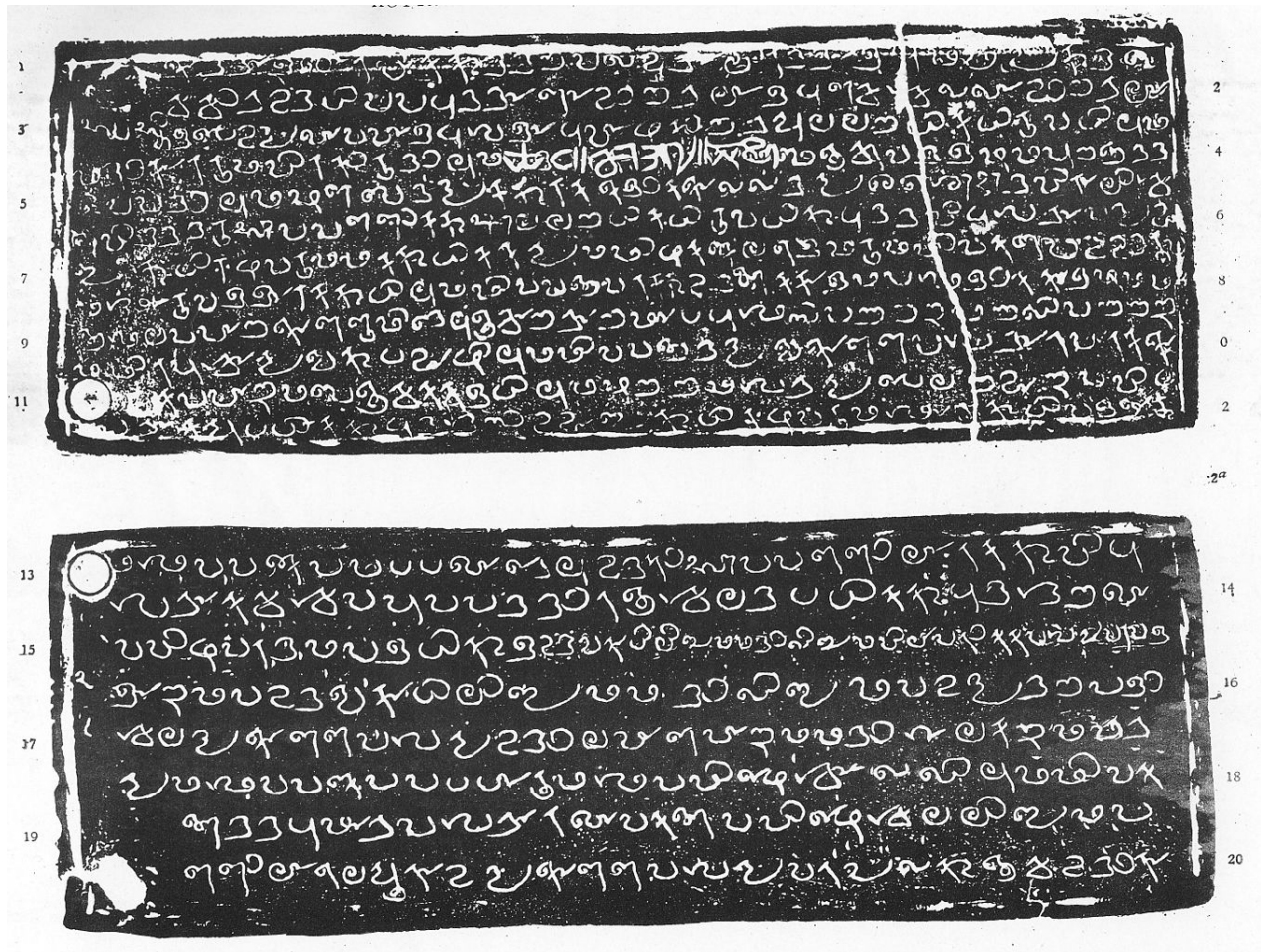
	Brahmi	Vatteluttu	Grantha
VOWEL SIGN AA	◌̣	◌̣'	◌̣ᳵ
VOWEL SIGN I	◌̣᳚	◌̣᳚	◌̣᳚
VOWEL SIGN II	◌̣᳚᳚	◌̣᳚᳚	◌̣᳚᳚
VOWEL SIGN U	◌̣᳚᳚	◌̣᳚᳚	◌̣᳚᳚
VOWEL SIGN UU	◌̣᳚᳚᳚	◌̣᳚᳚᳚	◌̣᳚᳚᳚
VOWEL SIGN VOCALIC R	◌̣᳚᳚᳚	—	◌̣᳚᳚᳚
VOWEL SIGN VOCALIC RR	◌̣᳚᳚᳚᳚	—	◌̣᳚᳚᳚᳚
VOWEL SIGN VOCALIC L	◌̣᳚᳚᳚᳚	—	◌̣᳚᳚᳚᳚
VOWEL SIGN VOCALIC LL	◌̣᳚᳚᳚᳚᳚	—	◌̣᳚᳚᳚᳚᳚
VOWEL SIGN E	◌̣᳚᳚᳚᳚᳚	◌̣᳚᳚᳚᳚᳚	—
VOWEL SIGN EE	—	◌̣᳚᳚᳚᳚᳚᳚	◌̣᳚᳚᳚᳚᳚᳚
VOWEL SIGN AI	◌̣᳚᳚᳚᳚᳚᳚	◌̣᳚᳚᳚᳚᳚᳚	◌̣᳚᳚᳚᳚᳚᳚᳚
VOWEL SIGN O	◌̣᳚᳚᳚᳚᳚᳚᳚	◌̣᳚᳚᳚᳚᳚᳚᳚	—
VOWEL SIGN OO	—	◌̣᳚᳚᳚᳚᳚᳚᳚᳚	◌̣᳚᳚᳚᳚᳚᳚᳚᳚
VOWEL SIGN AU	◌̣᳚᳚᳚᳚᳚᳚᳚᳚᳚	—	◌̣᳚᳚᳚᳚᳚᳚᳚᳚᳚

Table 4: Comparison of dependent vowel signs of Brahmi, Vatteluttu, and Grantha.



Source: https://commons.wikimedia.org/wiki/File:Vazhappally_Plates.JPG

Figure 1: Vatteluttu inscription on a copper plate issued by the Chera king Rajashekhara Varman (r. 820–844). The opening text is inscribed in Grantha. These are known as the Vazhapalli plates. An inventory of letterforms occurring in the plates is given in figure 2 below.



Source: https://commons.wikimedia.org/wiki/File:Tharisappalli_copper_plates.jpg

Figure 3: Vatteluttu inscription on a copper plate issued by the Venad ruler Ayyanadikal Thiruvadikal to the Syrian Christian leader Maruvan Sapir Iso during the reign of the Chera ruler Sthanu Ravi Varma (c. 849 CE). It records the grant of land for a church near Kollam and several rights. Shown here are the verso and recto of the first of five plates. The other plates contain inscriptions in Arabic, Hebrew, and Pahlavi. The set is known as the Tharisapalli or Kollam plates.

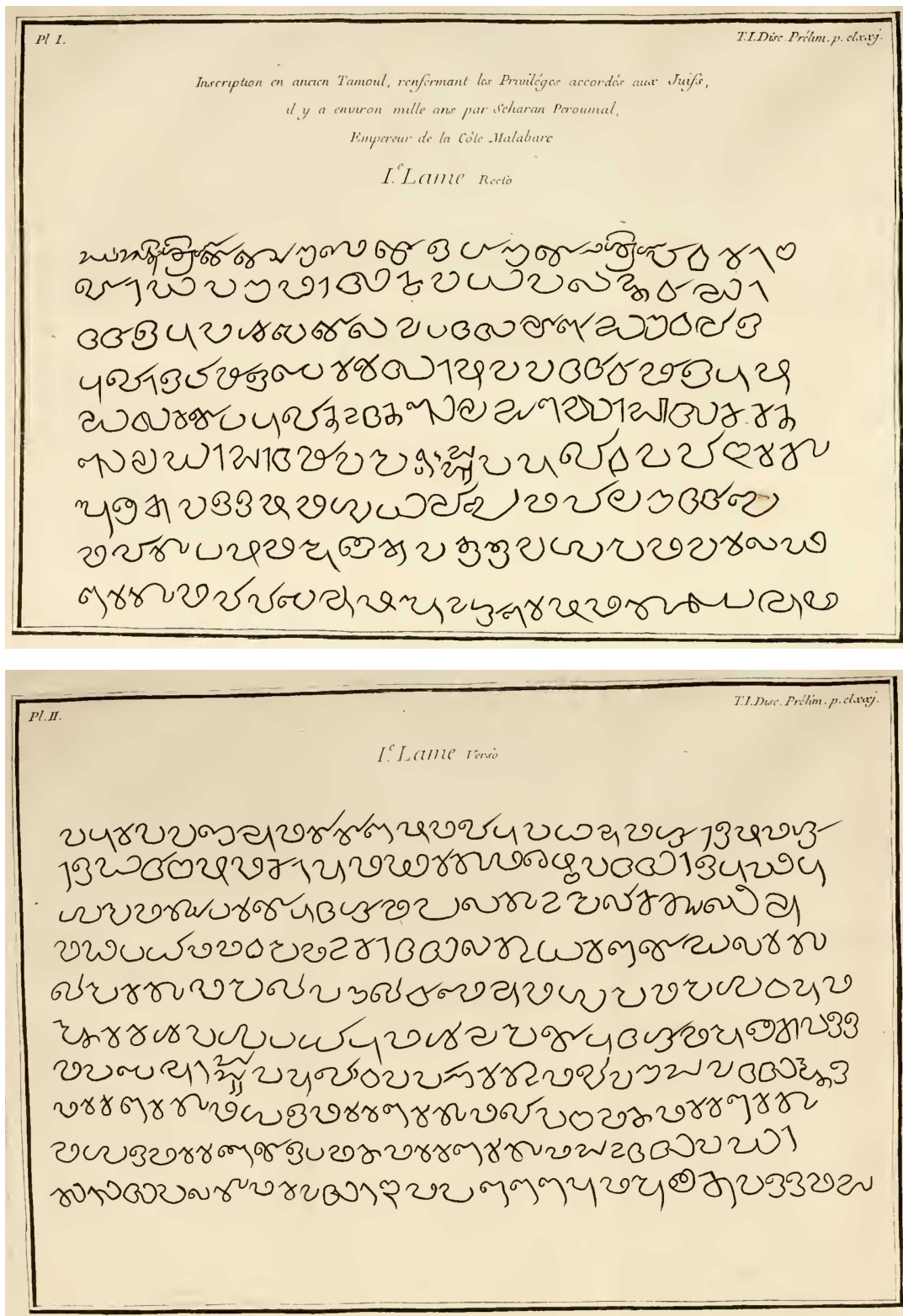


Figure 4: Reproduction of the Vatteluttu inscription on the copper plates issued by the Chera ruler Bhaskara Ravi Varma (11th c. CE) to the Jewish merchant Issuppu Irappan (= Joseph Rabban) of Cochin, granting land and proprietary rights (from Anquetil-Duperron 1781: plates 1, 2). The verso and recto of the first plate is shown here. The second plate is shown in figure 5.

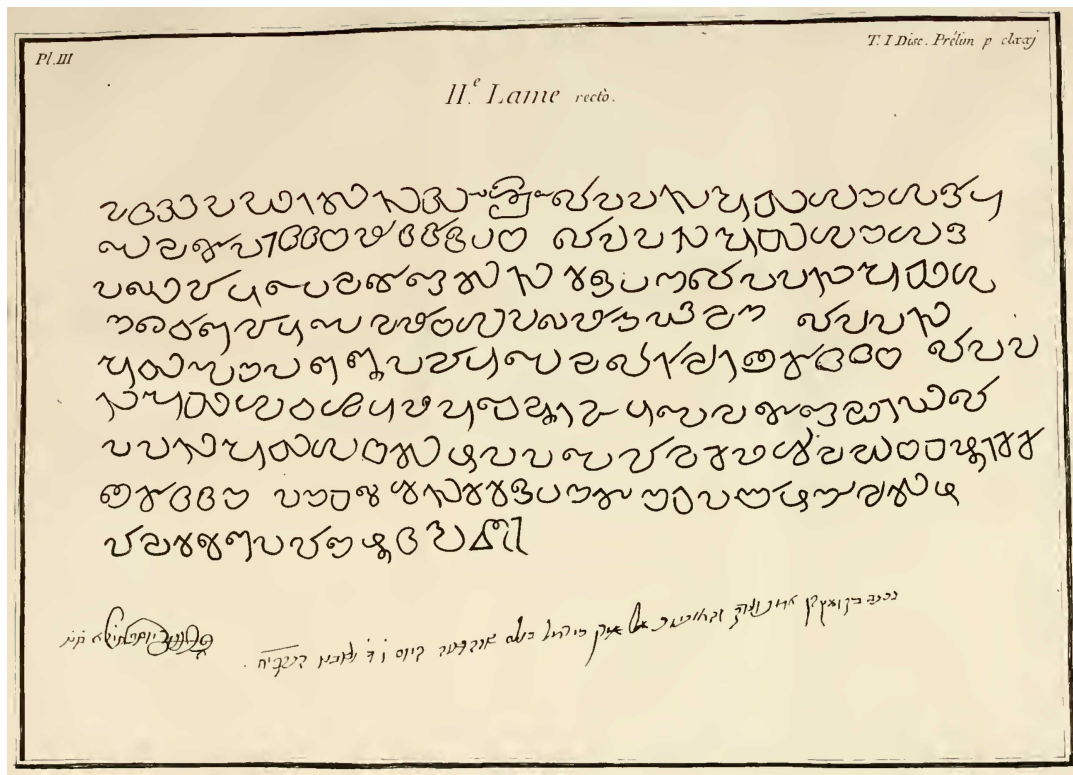


Figure 5: The verso of the second plate of the grant to Issuppu Irappan (from Anquetil-Duperron 1781: plate 3). The recto of the plate is blank.

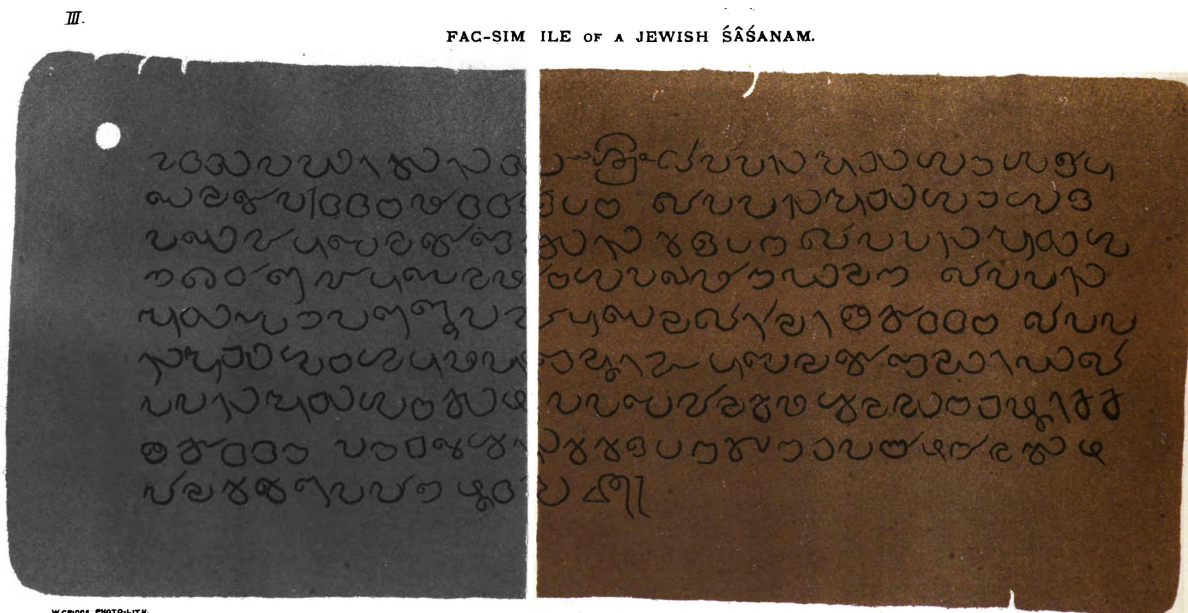


Figure 6: A mechanical reproduction of the copper plate shown in 5 above (from Burnell 1874: plate after p. 334). The image has been stitched. The color variation is present in the source from which the image has been extracted.

TABLE of the ALPHABET used in the JEWISH and SYRIAN INSCRIPTIONS at COCHIN.

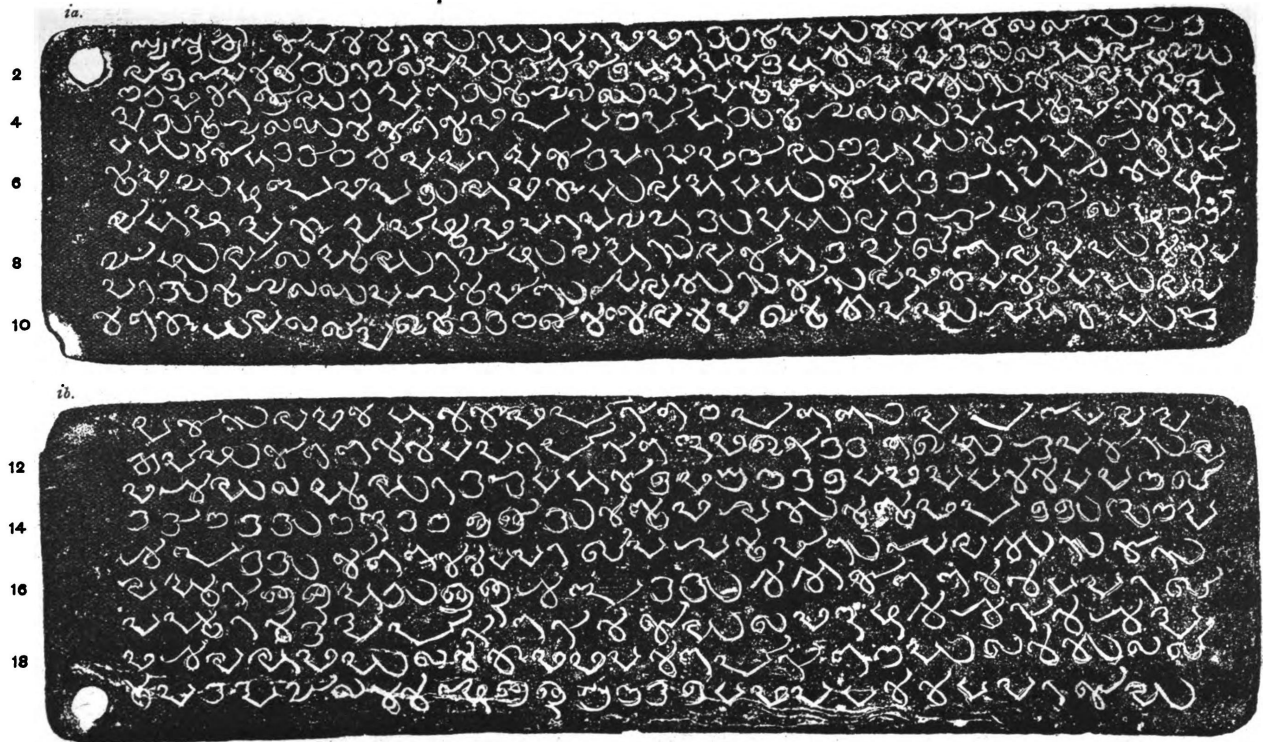
	ඃ a	ඃ ā	ඃ i	ඃ ī	ඃ u	ඃ ū	ඃ e	ඃ ai	ඃ [*] o	au
k	ඃ	ඃ	ඃ		ඃ	ඃ	ඃ	ඃ	ඃ	
ñ	ඃ									
s'	ඃ	ඃ	ඃ		ඃ		ඃ			
ñ	ඃ	ඃ [*]			ඃ [*]					
t	ඃ	ඃ	ඃ		ඃ			ඃ	ඃ	
n	ඃ		ඃ [*]					ඃ [*]		
t	ඃ	ඃ	ඃ		ඃ			ඃ	ඃ	
n	ඃ	ඃ	ඃ	ඃ [*]	ඃ	ඃ [*]				
p	ඃ	ඃ			ඃ	ඃ [*]	ඃ		ඃ	
m	ඃ	ඃ	ඃ [*]		ඃ	ඃ	ඃ	ඃ		
y	ඃ	ඃ	ඃ		ඃ			ඃ [*]		
r	ඃ	ඃ			ඃ		ඃ [*]			
l	ඃ	ඃ [*]	ඃ					ඃ [*]		
v	ඃ	ඃ	ඃ	ඃ	ඃ		ඃ			
r	ඃ	ඃ	ඃ		ඃ			ඃ		
l	ඃ	ඃ	ඃ		ඃ			ඃ [*]		
zh	ඃ		ඃ [*]		ඃ			ඃ [*]		
n	ඃ	ඃ	ඃ		ඃ			ඃ	ඃ [*]	

N.B. Consonants without any Vowel are the same as those with a. In modern Tamil the Virama is marked by a dot over the letter.

B. fecit.

*Govt. Litho. Press, Bombay.
1872.*

Figure 7: Inventory of Vatteluttu letterforms occurring in copper plate inscriptions to Jewish and Syrian Christian communities in Kerala (from Burnell 1872: plate before p. 229).

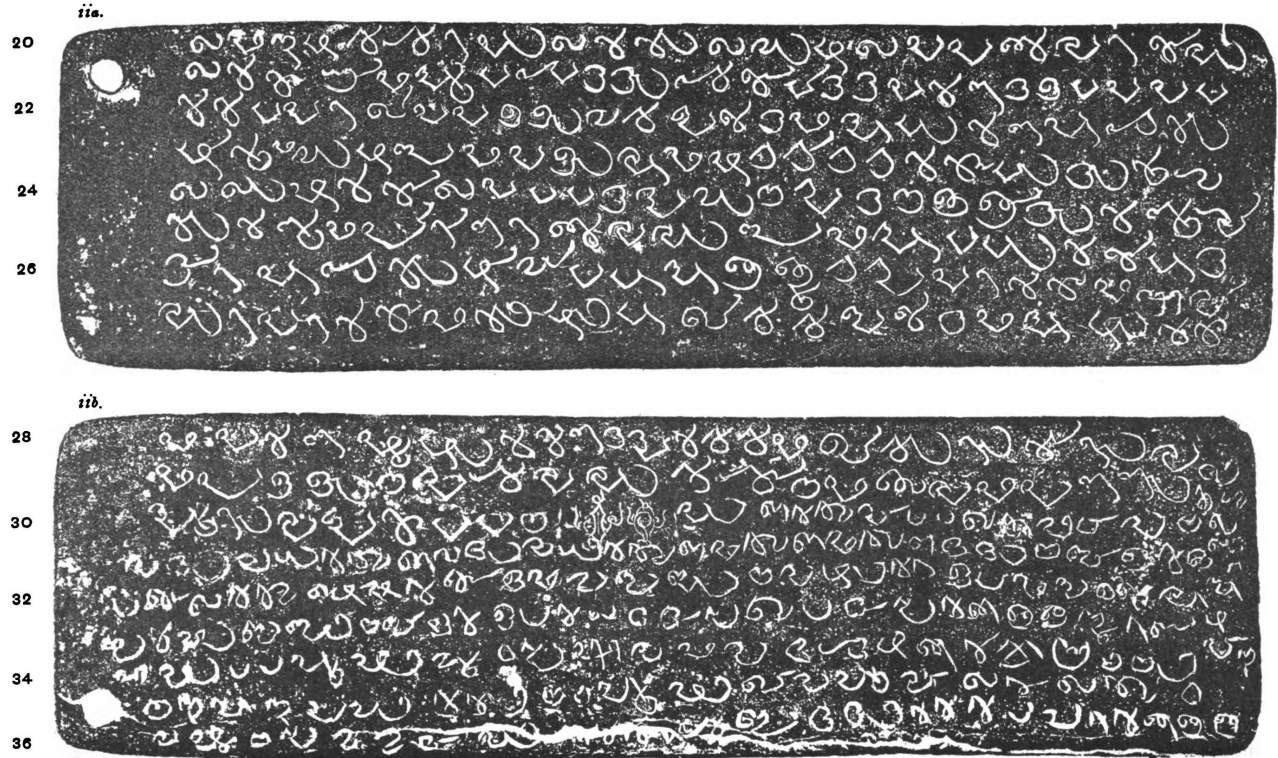
*First Plate; First Side.*

- 1 Svasti śīlḥ ௨³² Kō **Pakkaraṇ=Iravivarṇmar** tīruvaḍikku=chchellā-ṇiṇṇa
 2 yāṇḍaikk=edir nālppatt-ārām=āṇḍu avvāṇḍu Siṇṇattil Viyālan=ni-
 3 ṇṇa Magara-ṇāyirṇṇuḷ **Tirunelli-Pperumāḷiḍaiya** śīrikāriyam=āva-
 4 du [1*] **Tirunelli=kkollum** uḍaṇṇpāḍu **Tirunelli-Pperumāḷkku** a-
 5 ṇṇi=kkōḍuttāṇ **Saṇṇaraṇ=Kōdavarṇman**=āyina aḍigaḷ **Puraigilā-**
 6 **rum** [1*] nīlalam paṇiyum kūḍiy aṭṭi kōḍuttār [1*] **Puraigilā-**
 7 **naḍu** mudugūṇṇ vāḷumavar vanna ti[ru*]vaḍiy=ttoludāl muṇṇā-
 8 nāḷiyāl āyira=nāḷiy ariy kōḍuttu iraiyppi³³=kkaḍa-
 9 var [1*] **Tirunelli-Pperumāḷiḍaiya** śīrikāriyam kuḍa³⁴=kkaḍaviyava-
 10 gaḷ kūḍiy=allādu oruttaṇ ēkkaiykam oru-śuvāmiyōḍu kūḍi dē-

First Plate; Second Side.

- 11 vakāriyam keḍukkum ūrāḷaṇ nḷḷidu uḍaiyadu
 12 śuvāmi kollā=kkaḍavar [1*] ūrāḷaṇum ōr-ōttarai oḷi dēvakāriya-
 13 m śeyil āyiratt-eṭṭu kaṇam poṇ daṇḍam paḍa=kkaḍavaṇ [1*] i-
 14 ttāṇattinṇu taṇ=ṇṇāṭigaḷum yēgigaḷum uṇṇiṇṇu³⁵
 15 śelutti kollā=kkaḍavar [1*] **ipperumāḷiḍaiya** śīrikāri-
 16 y āraṇṇu aṇiṇṇu śeluttichehu kollā=kkaḍavar [1*] i-
 17 vvūr=agattu ūrāḷar=āga kōyil maṇṇaḷachēḷ=āga śēdu-
 18 m³⁶ śeyyum vilakkummavagaḷ ūrāḷaṇ vilakkil i-
 19 rubattu-nāl=kkaḷaiṇṇu poṇ daṇḍam paḍa=kkaḍavar [1*] kōyi-

Figure 8: Vatteluttu inscription in the Tirunelli copper plate grant of Bhaskara Ravi Varman, plate 1, verso and recto (from Hultzschi 1891: plate 1; p. 290). Plate 2 is given in figure 9.

*Second Plate; First Side.*

20 I mapuñachehēr vilakkil niñal=vvagaiyra kōyi-
 21 lkku pōm [i*] āttai=ttiśai koḍattavagaḷ danḍa-ppaḍa=
 22 kkaḍavar [i*] ippanṇina śaṅkētam aḍigaḷ **Puraigi-**
 23 ārum niñalum paṇiyum murrāra=kkūḍi **Tirune-**
 24 lli mukkālvattattu niṇṇu taṇ=ñḍātigaḷa[m*] yō-
 25 giḷaḷum ūrāḷar kaiyyilum aṭṭi=kkodut-
 26 tār [i*] **Puraigilaṇāṭṭu** Añṇūruvarkkum Aiyā-
 27 yiravarkkum kī=ḍu [i*] iccheaṅkētam aḷikku-

Second Plate; Second Side.

28 mavagaḷ **Majikkalattu** kacheham [i*] i-śirikāriya-
 29 m unṇiṇṇu śeyyicheḥṇ Malaiyampalli
 30 Āriyañ=Kuṭṭaṇ || 27 || 28 viḷakku nāṭṭal[k*]ku maḍavaṇ
 31 nadiyaḍikkula=nadiyaḍikkulaṁ kuḷam kuḷattin nāṇagaṇ-
 32 ḍa kōl=kkulaḷai mukkōṇam vaṇṇiṇa vaḷi karaṇḍam tuṇagaiyu-
 33 ṇgamiṇiṇa nāṇagaṇḍa kalattāru ḍḍadāru **Karaiñṇaṇṇū** sa-
 34 bha viṭṭa pūmi nūṇṇu-aiymbatt-ēḷ-arai kāṣu poṇṇi-
 35 ṇṇu aṇubavikkiṇṇa pūmi [i*] ippū[mi*]yāl kāla-kuṇ[ai]-
 36 yā mūṇṇu nandā-vi[la]kku śeluttikka kaḍavar **Karaiñṇa-**
 37 [ṇūṇ sabha] [i*]

Second Plate; Right Margin.

[1] **Ti-** [2] **rune-** [3] **l-** [4] **li** [5] **Ā-** [6] **l-** [7] **vānu.**

Figure 9: Vatteluttu inscription in the Tirunelli copper plate grant of Bhaskara Ravi Varman, plate 2, verso and recto (from Hultzscht 1891: plate 2, p. 290, 291). Plate 1 is given in figure 8.

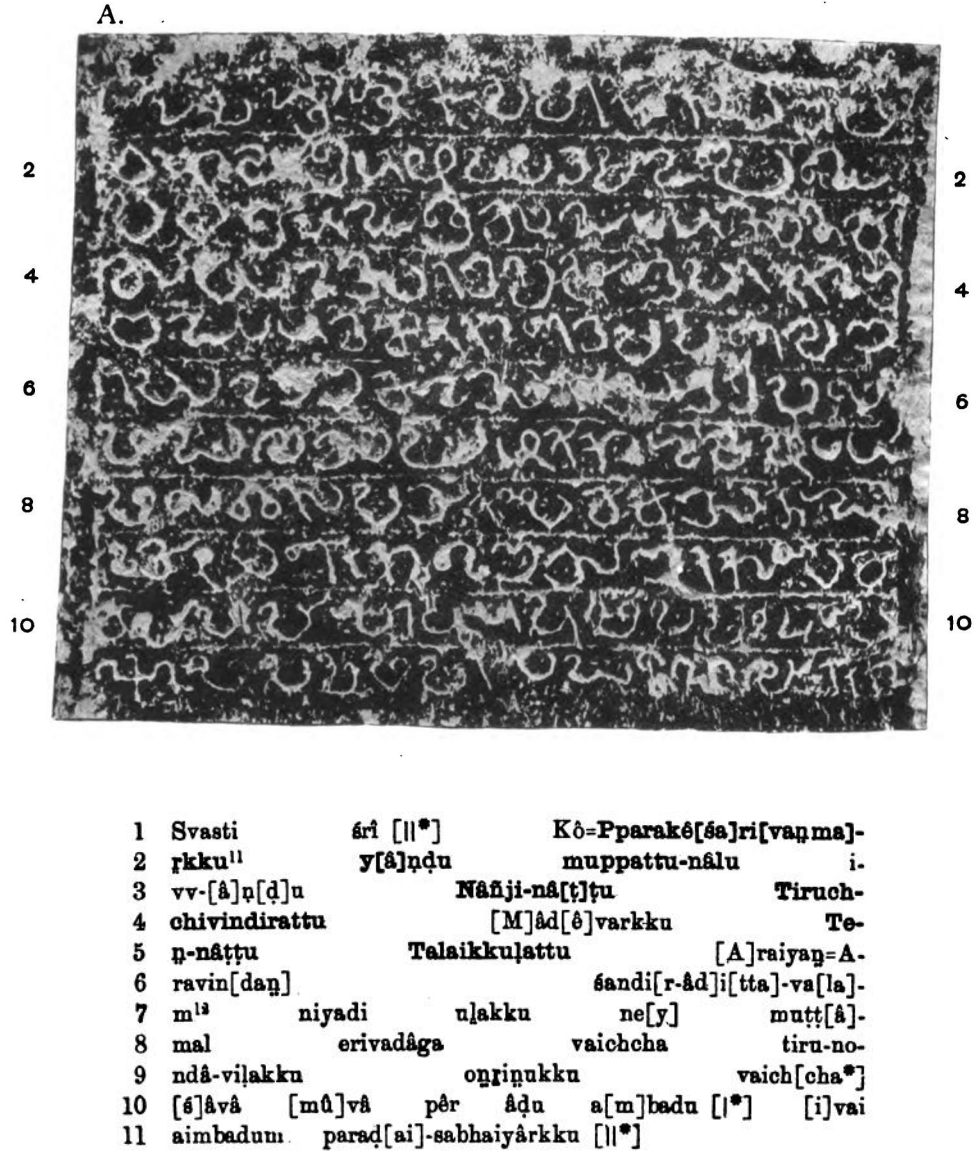
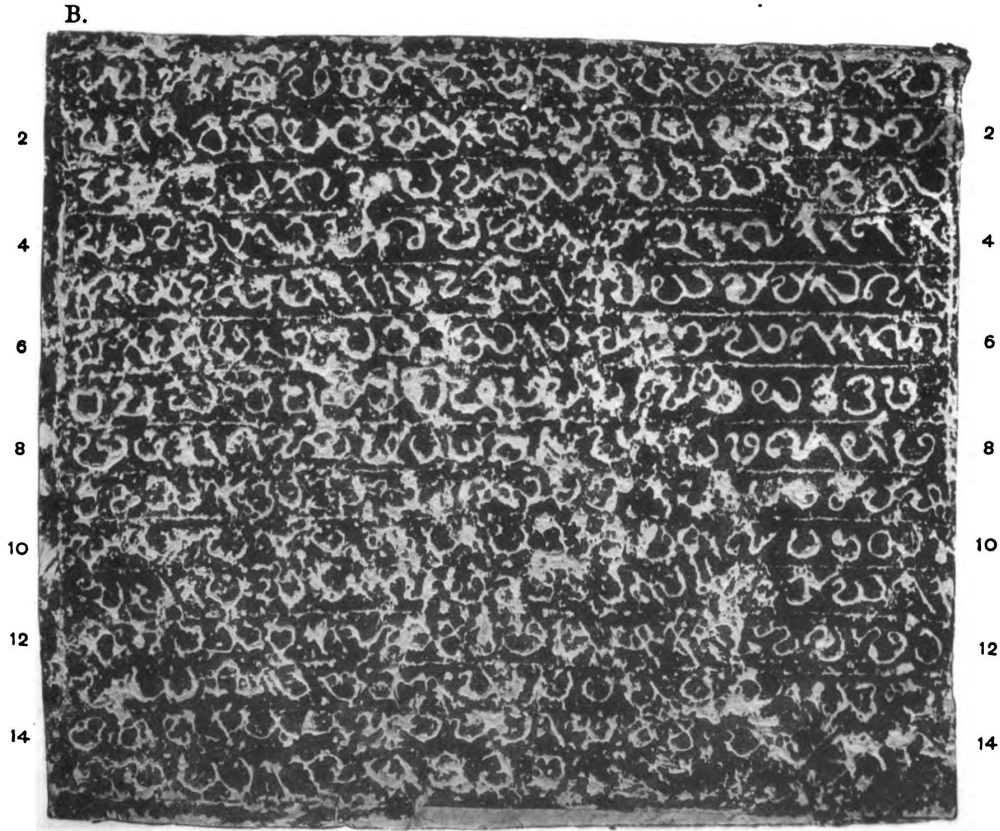


Figure 10: Vatteluttu stone inscription recording the gift of a lamp by Araiyan Aravindan of Talaikulam to the Sthanunatha temple at Tiruchchivindiram during the reign of the Chola king Parakesarivarman (from Hultzsch 1898: plate A; p. 42).



1 Svasti [śrī] [||*] Madi[raiyu]m ũamum koṇḍa kô=P-
 2 para[ké]śa[ri]vaṇmarkku [yāṇ]ḍu nārpadu i-
 3 v[v-āṇ]ḍu Ku[m]ba-nā[y]iṛ[ru]=Ttiruchchi-
 4 vindirat[tu] Emberumāṇukku=Kkaḷak-
 5 [k]uḍ[i]-nāṭṭu-[K]kara[va]ndapurat[tu] vi[y]āpāri Oru-
 6 [ṇ]g[ai] Araṇḡa[ṇ] vaitta tiri-nondā-viḷakku o-
 7 [ṇ]ru niṇai [palattu] mu[ppadu] [i*] i[ḍu] ni[śa]dam
 8 uḷa[kk=a]rai ne[y] muttā[ma] pa[ga]lu[m] iravum
 9 [śa]ndi[r]-ādi[tta-vaṛ] e[r]i[vadā]ga [vi]ṭ[ṭa] [śā]vā mū-
 10 vā=[p]pēr=āḍ[u] eḷu[ba]tt-aiṇju [i*] iva[ṇḍ] Tir[u]-
 11 vē[ṇ]gaḍa[ṇilai]kku [vaitta ti]ri-[non]dā-viḷak-
 12 ku oṇṇi[ṇuk]ku [ni]śa[da]m āḷ[ā]k[ku] ne[y] mēṛ-
 13 [pa]ḍi [e]ri[va]dā[ga] vi[ṭ]ṭa āḍ[u] i]rubatt-ai-
 14 ṇju [i*] ā[ga] āḍu nū[rum pa]raḍai-chchavai[y]ā[rkku]
 15 [kāt]ṭi=kkuḍu[t]taṇa [||*]

Figure 11: Vatteluttu stone inscription recording the gift of two lamps by Orungai Arangan, a merchant of Karavandapuram, to the Sthanunatha temple at Tiruchchivindiram (from Hultsch 1898: plate B; p. 43).



1 Svasti śrī [||*] Kō Irāsairāśa-Kēśarivaṇ-
 2 markku yāṇḍu pattām yāṇḍu tuḍan-
 3 giṇa Kaṇkaḍaga-nā[yi*]ṛṛu [Nā]ṇji-nāṭ[ṭu]
 4 brahmadēyam Tiruchchi[v]in[di]rat[tu]
 5 Mahādēvark[ku] īḷa-[nā]ṭṭu Mala[va]-
 6 [raiya]ṇ [śe]ṇ[ṇi] Ka[ṇḍa]ṇ [niśada]m u[la]-
 7 k[ku] ney śāndir-āditta-val ira-
 8 [vu]m pa[ga]lum [mu*][t]ṭā[ma]l erivadāga [vai]-
 9 chcha tir[u]-nondā-viḷak[k]u oṇṇu [i*] [i]ḍuk[ku]
 10 vai[ch]cha [śā]vā ⁶ muvā=ppēr=āḍu aṇmbadu⁷ [i*]
 11 ivai mūla-paraḍai-[sa]bh[aiy]ār vaśam kāṭṭi=
 12 kkuḍuttana || mūla-paraḍai-chcha[vai]yārum
 13 Embērumāṇ [V]eṭṭirkūḍi [Pa]ḍait[aru]-
 14 [ma]ṇ Kāṇai[ya]n=du[ṇ]ai[y=ā]kki⁸ va[śa*][m] k[ā]ṭṭi=
 15 k[ku]ḍuttana [||*]

Figure 12: Vatteluttu stone inscription recording the gift of a lamp by Malavaraiya Senni Kandan of Ilanadu (Sri Lanka) to the Sthanunatha temple at Tiruchchivindiram during the reign of the Chola king Rajaraja-Kesarivarman (from Hultzsch 1898: plate C; p. 44).

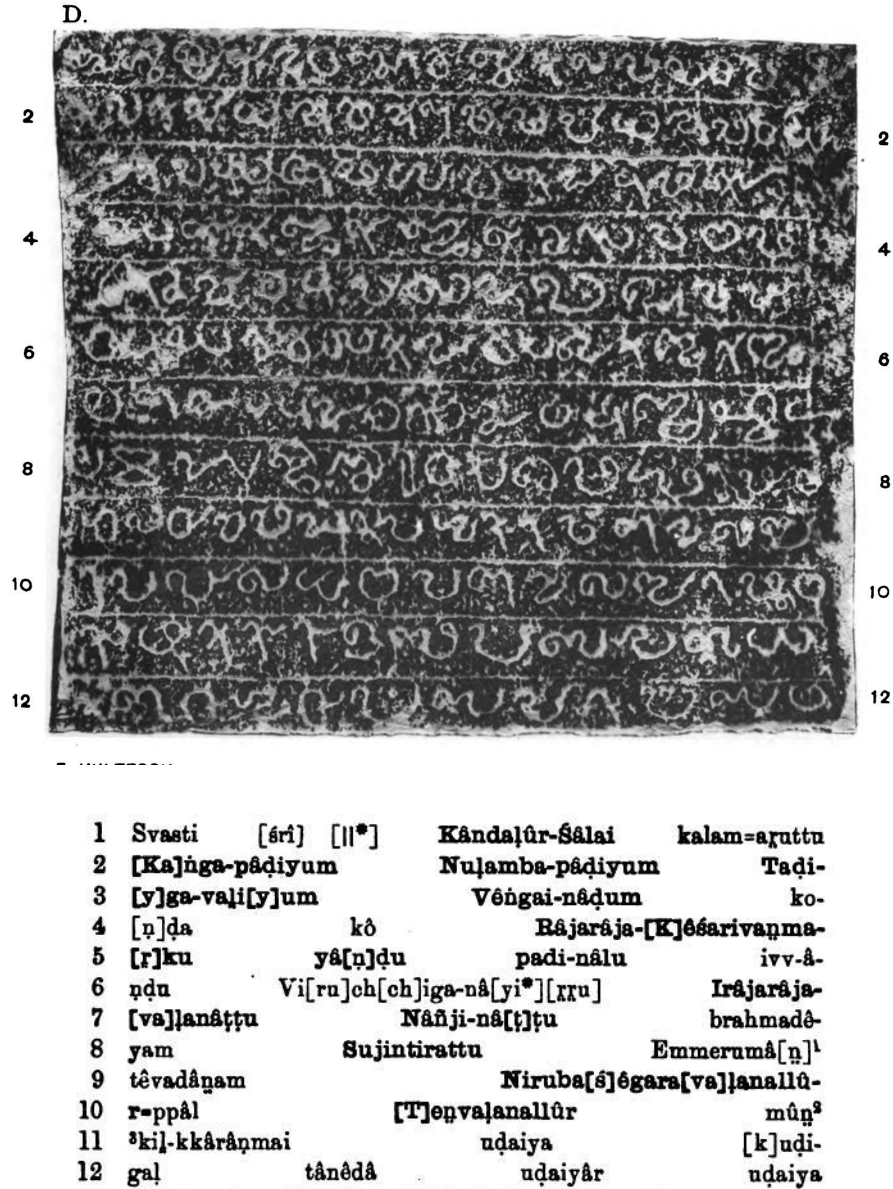


Figure 13: Vatteluttu stone inscription (from Hultzsich 1898: plate D; p. 45). The inscription is incomplete, as noted by Hultzsich, on account of damage. Portions below line 12 are, therefore, unavailable.

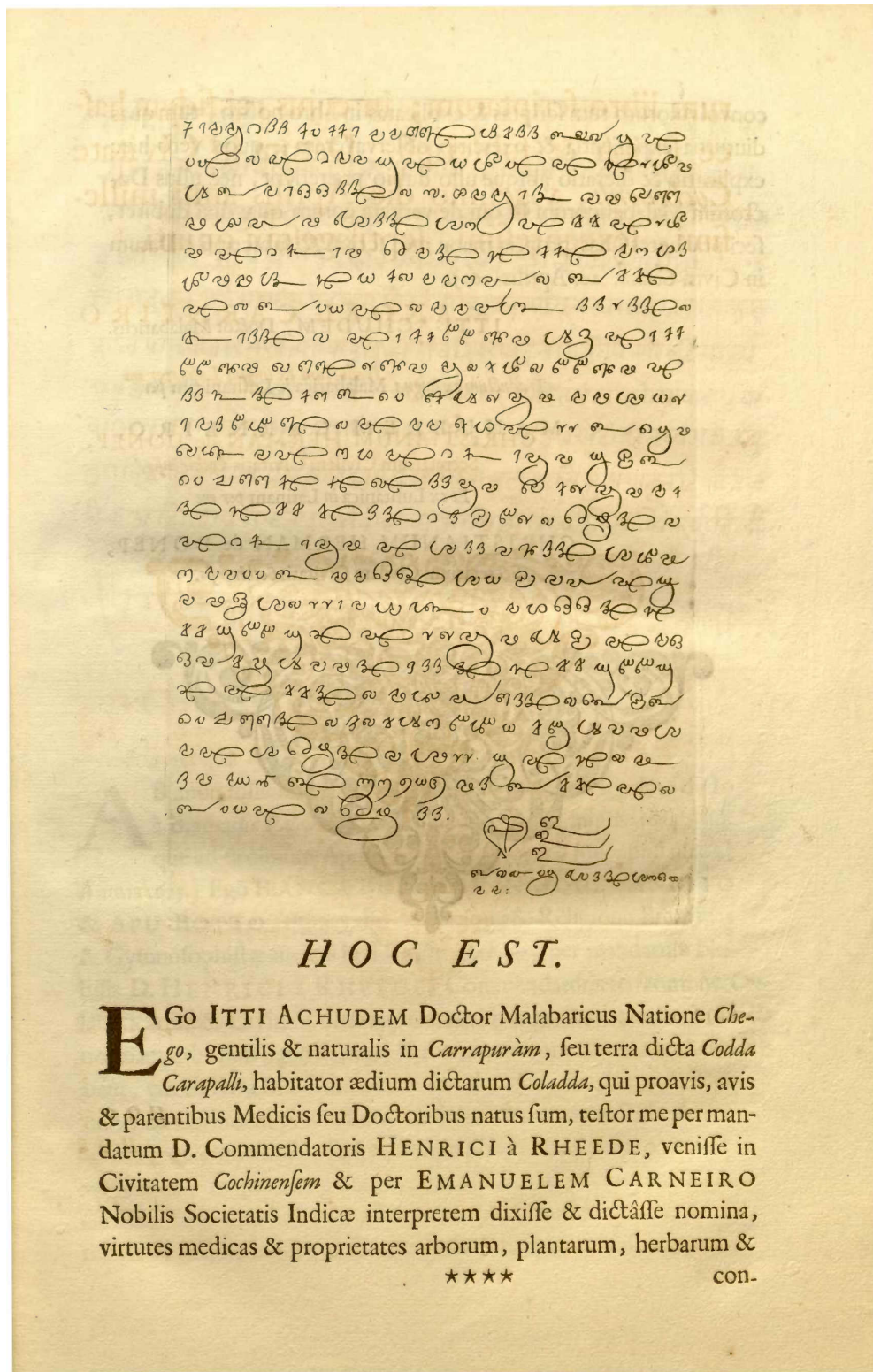


Figure 14: Malayalam text written in Vatteluttu by Itti-Achudem in the *Hortus Indicus Malabaricus*, a Latin text on the flora of Malabar (from van Reede tot Drakestein 1678). The remainder of the translation is shown in figure 15 below.

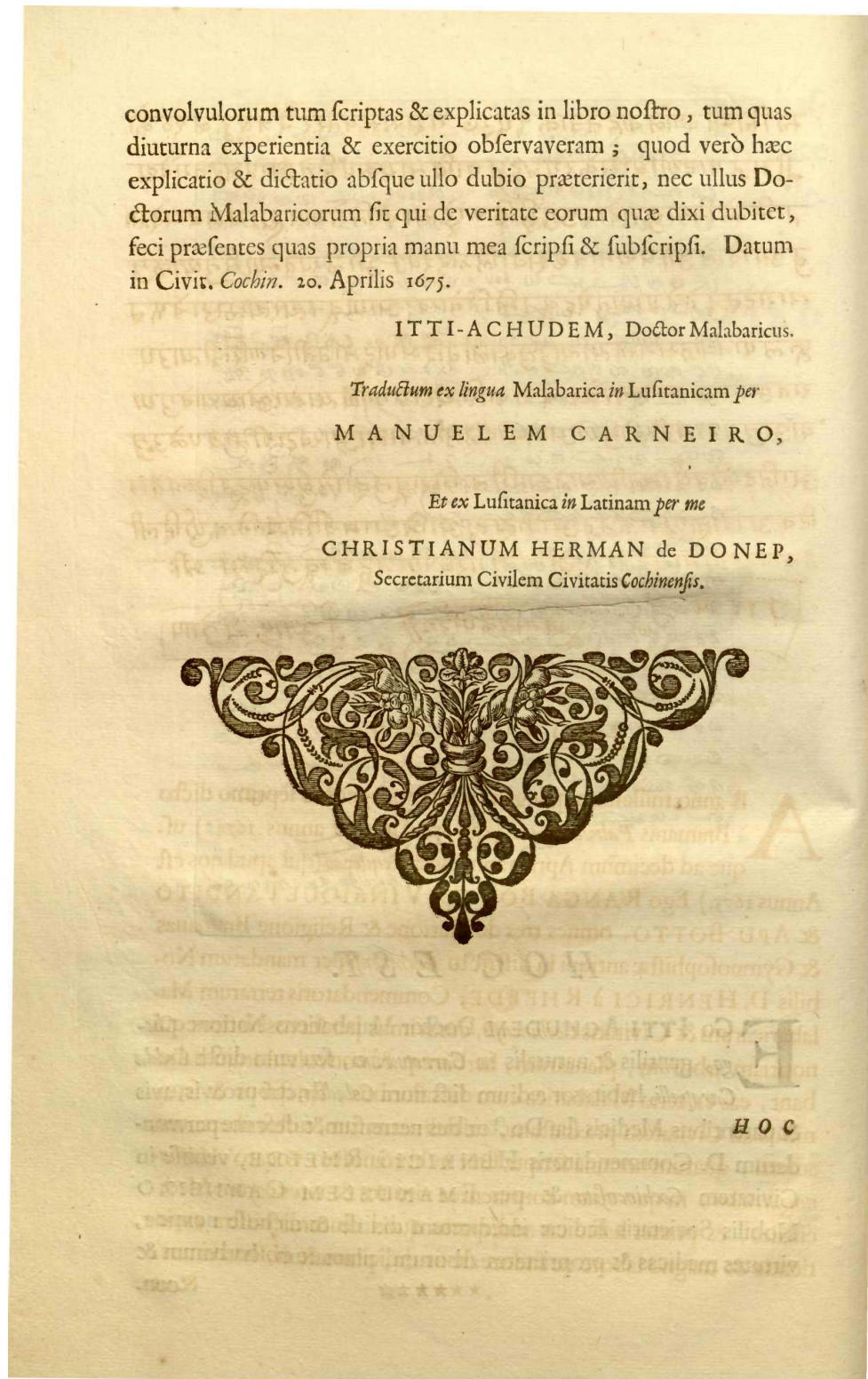


Figure 15: Latin translation of the Malayalam text in Vatteluttu in the *Hortus Indicus Malabaricus* (from van Reede tot Drakestein 1678). Continued from figure 14.

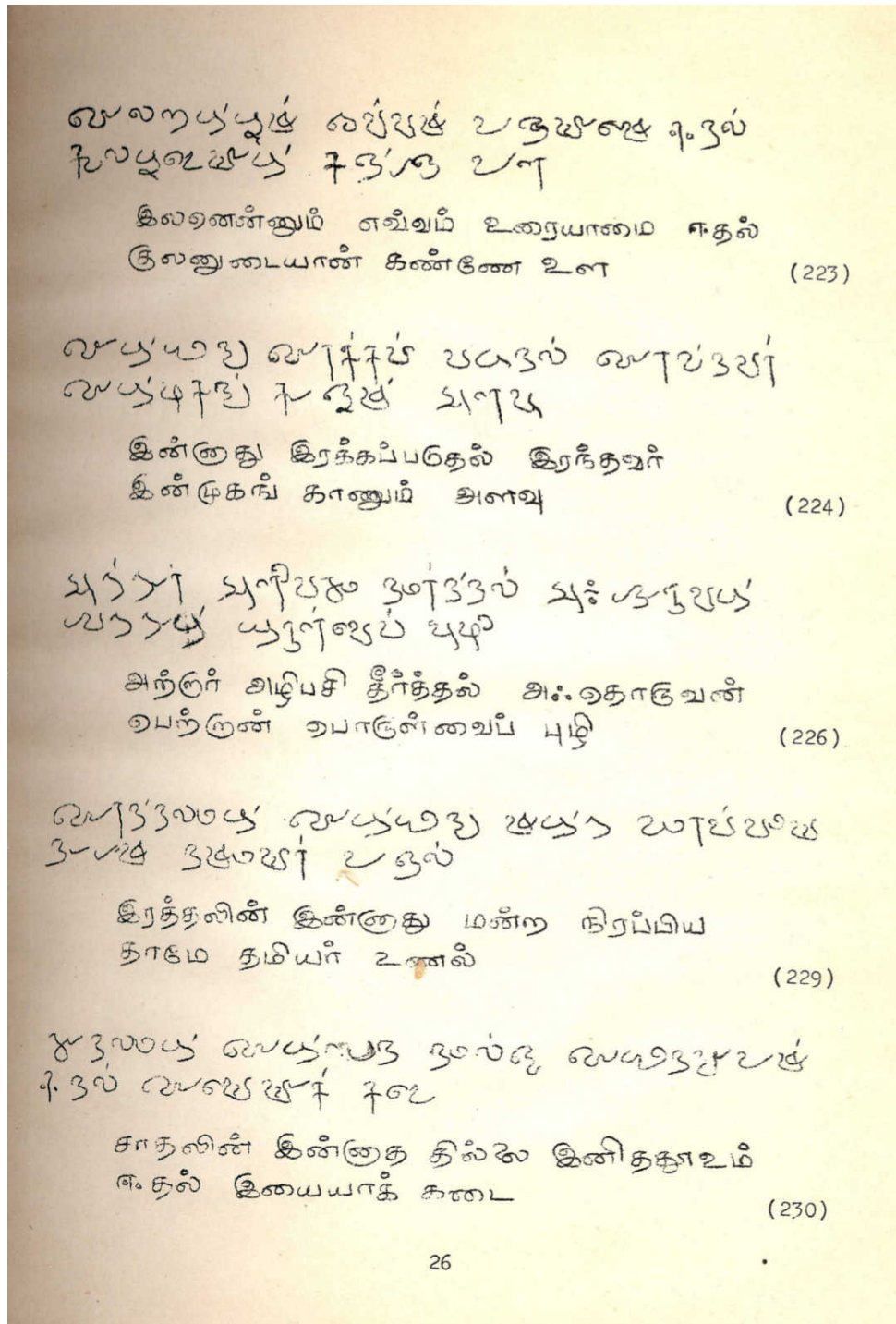
Figure 16: Excerpt of the *Thirukkural* in Vatteluttu and Tamil (from Siromoney, et al 1976: 26).

Plate LXIII

लिपिपत्र द्दशां.

जटिलवर्मन् और वरगुणपाण्ड्य के लेखादि से.

(ई. स. की द्वावी और द्वावी शताब्दी)

जटिलवर्मन् के समय के आण्डमनी के लेख में (इ. स. की पचीसवीं शताब्दी).

[illegible]

जटिलवर्मन् के दानपत्र स (ई. स. की ८वीं शताब्दी).

अ आ इ ई उ ए ओ क ख ग घ ङ च छ ज ट ठ त न प म य र
 ए अ आ इ ई उ ए ओ क ख ग घ ङ च छ ज ट ठ त न प म य र
 ल व ळ ऴ र ण क त् चा ना मा णा कि टि की नी
 ल व ळ ऴ र ण क त् चा ना मा णा कि टि की नी
 कु टु ठ डु रु कु वृ ऋ तं पं ऐं ईं को नो पो.
 हि फ प य भि भि र्भ र्भ र्भ र्भ र्भ र्भ र्भ र्भ र्भ र्भ

वरगुणपाद्य के अवामसुद्र के लेख में ई. स की ८वीं शताब्दी

[illegible]

Figure 18: Vatteluttu repertoires from various sources (from Ojhā 1971: plate LXIII).

பாண்டியன் நெடுஞ்செழியன் பராந்தகன் காலம் (8ம் நூற்றாண்டு)

a aa i ii u uu e ee ai o oo au

அ ஆ இ ஐ உ ஊ ஏ எ ஐ ஒ ஓ ஆ

k	க	க	க	க	க	க	க	க	க	க	க
ng	ங	ங	ங	ங	ங	ங	ங	ங	ங	ங	ங
c	ச	ச	ச	ச	ச	ச	ச	ச	ச	ச	ச
nj	ஞ	ஞ	ஞ	ஞ	ஞ	ஞ	ஞ	ஞ	ஞ	ஞ	ஞ
T	ட	ட	ட	ட	ட	ட	ட	ட	ட	ட	ட
N	ந	ந	ந	ந	ந	ந	ந	ந	ந	ந	ந
th	த	த	த	த	த	த	த	த	த	த	த
nh	ந்	ந்	ந்	ந்	ந்	ந்	ந்	ந்	ந்	ந்	ந்
p	ப	ப	ப	ப	ப	ப	ப	ப	ப	ப	ப
m	ம	ம	ம	ம	ம	ம	ம	ம	ம	ம	ம
y	ய	ய	ய	ய	ய	ய	ய	ய	ய	ய	ய
r	ர	ர	ர	ர	ர	ர	ர	ர	ர	ர	ர
l	ல	ல	ல	ல	ல	ல	ல	ல	ல	ல	ல
v	வ	வ	வ	வ	வ	வ	வ	வ	வ	வ	வ
zh	ழ	ழ	ழ	ழ	ழ	ழ	ழ	ழ	ழ	ழ	ழ
lh	ள	ள	ள	ள	ள	ள	ள	ள	ள	ள	ள
t	ட	ட	ட	ட	ட	ட	ட	ட	ட	ட	ட
n	ந	ந	ந	ந	ந	ந	ந	ந	ந	ந	ந

Velvikudi Plates of Nedunchezian Parāntakan, Ten Pandya
Copper Plates (Tamil), Tamil Varalātru Kaḥhagam, Madras,
38 1967.

Figure 20: Repertoire of Vatteluttu letters occurring in the Velvikudi inscription (from Siromoney, et al 1976: 38). Notice the distinctive representation of short and long forms of the vowels /e/ and /o/.