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Proposal to Encode the Gondi Script in ISO/IEC 10646

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1 Introduction

This is a proposal to encode the Gondi script in the Universal Character Set (ISO/IEC 10646). It replaces the following documents:

- N3841 L2/10-207 "Preliminary Proposal to Encode the Gondi Script in the UCS"
- N4291 L2/12-235 "Revised Preliminary Proposal to Encode the Gondi Script"

This document provides a description of the writing system, a code chart and names list, character properties, and specimens that illustrate letterforms and usage.

2 Background

The Gondi script was invented by Munshi Mangal Singh Masaram of Kochewada, Balaghat District, Madhya Pradesh, India in 1918. It has no genetic relationship to other writing systems, but it is based upon the Brahmi model. It is used for writing Gondi (ISO 639-3: gon), a Dravidian language spoken by 2.6 million people, primarily in Madhya Pradesh and Maharashtra, with some speakers in Andhra Pradesh and Chhattisgarh. The language is generally written in both Devanagari and Telugu. The Gondi script is actively used and has been slightly modified over the years in order to facilitate needs of the modern user community. It is used for producing both hand-written and printed materials. Fonts have been developed for the production of books. In 2011, the Akhil Gondvana Gondi Sahitya Parishad (Chandagadh, Maharashtra) passed a resolution adopting Masaram's script as the official script of the Gondi language.

3 Script Details

3.1 Structure

Gondi is an alphasyllabic script that is written from left to right. Consonant letters possess the inherent vowel *a*, which is graphically represented by a horizontal stroke that extends rightward from the right edge of each consonant glyph. A bare consonant is represented by removing this stroke. Consonant clusters are represented as conjuncts, which are rendered linearly using bare forms for all letters expect for the final

consonant. There are some exceptions to this rule. Independent and initial vowels are written using vowel letters, while dependent signs are used for medial and final vowels. There is no *mātrā* reordering.

3.2 Character Repertoire

A total of 72 characters are proposed for encoding in the Gondi script block. A code chart and names list are attached. Names for characters follow the UCS convention for Brahmi-based scripts and align with the Latin transliteration of Devanagari correspondences for Gondi letters given by B. S. Masaram (1951). There are glyphic variations for some consonant letters. These differences result from the simplification of glyphs for ease of writing, ie. sets of independent circles being joined into a single-stroked loop. Representative glyphs are based upon forms shown in published script primers and reflect modern preferences.

The Gondi script is actively used. Consequently, the original script designed by Masaram has been expanded by modern users. Such changes include the addition of new consonant letters, vowel letters, vowel signs, and even the use of a visible VIRAMA for marking a bare consonant. Some of these newly-invented characters are included in the proposed repertoire, while others are not. Rationale for inclusion and exclusion of newly-invented characters is given in section 3.13.

3.3 Vowel Letters

Ten vowel letters are proposed for encoding:

GONDI LETTER A	GONDI LETTER U	GONDI LETTER O
GONDI LETTER AA	GONDI LETTER UU	GONDI LETTER AU
GONDI LETTER I	GONDI LETTER E	
GONDI LETTER II	GONDI LETTER AI	

3.4 Vowel Signs

Ten dependent vowel signs are proposed for encoding:

◌𑵄 GONDI VOWEL SIGN AA	◌𑵊 GONDI VOWEL SIGN VOCALIC R
◌𑵅 GONDI VOWEL SIGN I	◌𑵋 GONDI VOWEL SIGN E
◌𑵆 GONDI VOWEL SIGN II	◌𑵌 GONDI VOWEL SIGN AI
◌𑵇 GONDI VOWEL SIGN U	◌𑵍 GONDI VOWEL SIGN O
◌𑵈 GONDI VOWEL SIGN UU	◌𑵎 GONDI VOWEL SIGN AU

Vowel signs and modifiers are written above and below the horizontal stroke of a consonant letter:

𑵐	𑵐𑵄	𑵐𑵅	𑵐𑵆	𑵐𑵇	𑵐𑵈	𑵐𑵊	𑵐𑵋	𑵐𑵌	𑵐𑵍	𑵐𑵎
ka	*kā*	*ki*	*kī*	*ku*	*kū*	*kṛ*	*ke*	*kai*	*ko*	*kau*

They are represented in encoded text as follows:

kā 𑴐𑴰 <𑴐 KA, ◌𑴰 SIGN AA>

ki 𑴐𑴱 <𑴐 KA, ◌𑴱 SIGN I>

kī 𑴐𑴲 <𑴐 KA, ◌𑴲 SIGN II>

ku 𑴐𑴳 <𑴐 KA, ◌𑴳 SIGN U>

kū 𑴐𑴴 <𑴐 KA, ◌𑴴 SIGN UU>

kr̥ 𑴐𑴵 <𑴐 KA, ◌𑴵 SIGN VOCALIC R>

ke 𑴐𑴶 <𑴐 KA, ◌𑴶 SIGN E>

kai 𑴐𑴷 <𑴐 KA, ◌𑴷 SIGN AI>

ko 𑴐𑴸 <𑴐 KA, ◌𑴸 SIGN O>

kau 𑴐𑴹 <𑴐 KA, ◌𑴹 SIGN AU>

There is no independent counterpart to VOWEL SIGN VOCALIC R. The independent form of this vowel is represented using a consonant-vowel combination composed with the letter RA:

r̥ 𑴓𑴵 <𑴓 RA, ◌𑴵 VOWEL SIGN VOCALIC R>

3.5 Vowel modifiers

Two 'vowel modifiers' are proposed for encoding:

◌𑴺 GONDI SIGN ANUSVARA

◌𑴻 GONDI SIGN VISARGA

Anusvara The ◌𑴺 ANUSVARA is used for marking nasalization. It is placed above the horizontal stroke of a consonant. Its position differs slightly in different sources. In some documents the position is altered by the presence of an accompanying above-base vowel sign:

𑴐𑴺 𑴐𑴶𑴺 𑴐𑴱𑴺 𑴐𑴲𑴺 𑴐𑴳𑴺 𑴐𑴴𑴺 𑴐𑴵𑴺 𑴐𑴸𑴺 𑴐𑴷𑴺 𑴐𑴹𑴺 𑴐𑴶𑴸𑴺

As shown above, the ANUSVARA occurs in its normal position when there is no vowel sign or the vowel sign is positioned below the stroke. Its position is raised when ◌𑴰 VOWEL SIGN AA is present. It is placed to the right of the following: ◌𑴱 VOWEL SIGN I, ◌𑴲 VOWEL SIGN II, ◌𑴳 VOWEL SIGN U, ◌𑴴 VOWEL SIGN UU, ◌𑴶 VOWEL SIGN E, ◌𑴷 VOWEL SIGN AI. It is placed to the right and raised higher when it occurs with ◌𑴸 VOWEL SIGN O, ◌𑴹 VOWEL SIGN AU. Some modern users prefer a more stationary position for ANUSVARA and place it towards the left edge of the stroke raised slightly higher:

𑴐𑴺 𑴐𑴶𑴺 𑴐𑴱𑴺 𑴐𑴲𑴺 𑴐𑴳𑴺 𑴐𑴴𑴺 𑴐𑴵𑴺 𑴐𑴸𑴺 𑴐𑴷𑴺 𑴐𑴹𑴺 𑴐𑴶𑴸𑴺

These positional preferences are to be managed in the font. The ANUSVARA is used in encoded text as shown below. It is always placed after a vowel sign in the encoded sequence.

kaṃ 𑴐𑴺 <𑴐 KA, ◌𑴺 SIGN ANUSVARA>

kāṃ 𑴌𑴱𑵀 <𑴌 KA, ◌𑴱 SIGN AA, ◌𑵀 SIGN ANUSVARA>

kīṃ 𑴌𑴳𑵀 <𑴌 KA, ◌𑴳 SIGN II, ◌𑵀 SIGN ANUSVARA>

kr̥ṃ 𑴌𑴶𑵀 <𑴌 KA, ◌𑴶 SIGN VOCALIC R, ◌𑵀 SIGN ANUSVARA>

Visarga The ◌𑵁 VISARGA is used for the representation of Sanskrit words. It is written above the horizontal line of a consonant letter. When occurring with vowel signs its position is adjusted as follows:

𑴌𑵁 𑴌𑴱𑵁 𑴌𑴲𑵁 𑴌𑴳𑵁 𑴌𑴴𑵁 𑴌𑴵𑵁 𑴌𑴶𑵁 𑴌𑴺𑵁 𑴌𑴼𑵁 𑴌𑴽𑵁 𑴌𑴿𑵁

Some modern sources show the ◌𑵁 VISARGA written as the glyphic variant ◌:. This form is placed after the base letter:

𑴌𑵁 𑴌𑴱𑵁 𑴌𑴲𑵁 𑴌𑴳𑵁 𑴌𑴴𑵁 𑴌𑴵𑵁 𑴌𑴶𑵁 𑴌𑴺𑵁 𑴌𑴼𑵁 𑴌𑴽𑵁 𑴌𑴿𑵁

The VISARGA is used in encoded text as follows:

kaḥ 𑴌𑵁 <𑴌 KA, ◌𑵁 SIGN VISARGA>

kāḥ 𑴌𑴱𑵁 <𑴌 KA, ◌𑴱 SIGN AA, ◌𑵁 SIGN VISARGA>

3.6 Consonants

There are 34 consonant letters:

𑴌	GONDI LETTER KA	𑴘	GONDI LETTER DDA	𑴤	GONDI LETTER MA
𑴍	GONDI LETTER KHA	𑴙	GONDI LETTER DDHA	𑴥	GONDI LETTER YA
𑴎	GONDI LETTER GA	𑴚	GONDI LETTER NNA	𑴦	GONDI LETTER RA
𑴏	GONDI LETTER GHA	𑴛	GONDI LETTER TA	𑴧	GONDI LETTER LA
𑴐	GONDI LETTER NGA	𑴜	GONDI LETTER THA	𑴨	GONDI LETTER VA
𑴑	GONDI LETTER CA	𑴝	GONDI LETTER DA	𑴩	GONDI LETTER SHA
𑴒	GONDI LETTER CHA	𑴞	GONDI LETTER DHA	𑴪	GONDI LETTER SSA
𑴓	GONDI LETTER JA	𑴟	GONDI LETTER NA	𑴫	GONDI LETTER SA
𑴔	GONDI LETTER JHA	𑴠	GONDI LETTER PA	𑴬	GONDI LETTER HA
𑴕	GONDI LETTER NYA	𑴡	GONDI LETTER PHA	𑴭	GONDI LETTER LLA
𑴖	GONDI LETTER TTA	𑴢	GONDI LETTER BA		
𑴗	GONDI LETTER TTHA	𑴣	GONDI LETTER BHA		

The letter 𑴭 LLA is not part of Masaram's original script. It was introduced by later users in order to properly represent Marathi ळ *ḷa* (see figure 17 for an example of LLA in usage).

3.7 Virama

The embedding of the inherent vowel into the graphical structure of a consonant is a unique and innovative feature of the Gondi script. The horizontal stroke of each consonant letter represents the inherent vowel; removal of this stroke produces a bare consonant. In traditional Brahmi-based scripts, such as Devanagari, the inherent vowel is not part of the graphical structure of a consonant letter. For this reason these other scripts require some mechanism for indicating the absence of the inherent vowel. In Devanagari this mechanism is the sign called ◌् *halanta*: क *ka* + ◌् → क् *k*, etc. The Gondi script as designed by Masaram does not have a native *halanta*, as the structure of the script does not require it. However, the encoding model requires a method of controlling the production of a bare consonant. This is achieved through the encoding of the following control character:

◌𑵍 GONDI SIGN VIRAMA

The Gondi VIRAMA is identical in shape and function to the corresponding character ◌् U+094D DEVANAGARI SIGN VIRAMA. It is rendered by default as a visible sign. All sequences of a consonant + VIRAMA produce a half-form of the consonant:

k 𑵐 <𑵐 KA, ◌𑵍 VIRAMA>

kh 𑵑 <𑵑 KHA, ◌𑵍 VIRAMA>

g 𑵒 <𑵒 GA, ◌𑵍 VIRAMA>

gh 𑵓 <𑵓 GHA, ◌𑵍 VIRAMA>

ṅ 𑵔 <𑵔 NGA, ◌𑵍 VIRAMA>

The representative glyph for the Gondi VIRAMA is identical to the *halanta* or *hal cinha* that was recently introduced into the modern script. In current usage a visible *halanta* is written with the regular full form of a consonant letter for indicating the absence of the inherent vowel (see figure 22). In encoded text, this behavior is to be produced using the generic control character ZWNJ U+200C ZERO WIDTH NON-JOINER, as is the practice for the representation of visible VIRAMA in Unicode encodings for Indic scripts:

k 𑵐◌𑵍 <𑵐 KA, ◌𑵍 VIRAMA, ZWNJ U+200C ZERO WIDTH NON-JOINER>

kh 𑵑◌𑵍 <𑵑 KHA, ◌𑵍 VIRAMA, ZWNJ U+200C ZERO WIDTH NON-JOINER>

3.8 Nukta

The ◌𑵎 SIGN NUKTA is used for representing sounds that are not native to the Gondi language. It is written beneath the horizontal stroke of a consonant:

ṛa 𑵖◌𑵎 <𑵖 DDA, ◌𑵎 NUKTA>

Some users prefer to position the NUKTA below the body of the consonant letter: 𑵖

3.9 Consonant Conjuncts

Consonant clusters are written as conjuncts, which are rendered linearly using half-forms of all but the final letter in a cluster, eg. 𑵐𑵐 *kka*, 𑵐𑵕 *kta*, etc. Conjuncts are represented in encoded text by placing the sign ◌𑵍

VIRAMA after each non-initial consonant in a cluster. Consonants in the cluster are placed sequentially in the order that they occur in the cluster.

kka		< KA, ◌् VIRAMA, KA>
kta		< KA, ◌् VIRAMA, TA>
dga		< DA, ◌् VIRAMA, GA>
nda		< NA, ◌् VIRAMA, DA>
rya		< RA, ◌् VIRAMA, YA>
lla		< LA, ◌् VIRAMA, LA>
sva		< SHA, ◌् VIRAMA, VA>

The sequence <(C, ◌् VIRAMA)*, C_f> produces a half-form of all C and the regular full-form of C_f:

ktva < KA, ◌् VIRAMA, TA, ◌् VIRAMA, VA>

There are two exceptions to the rule of conjunct formation: the behavior of RA (explained below) and the use of atomic ligatures for three conjuncts (see section 3.10).

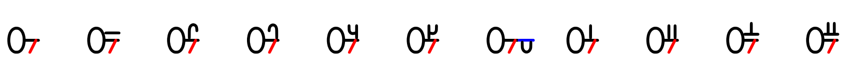
Forms of RA Sources show different ways of writing RA in conjuncts. It occurs in its half-form when cluster-initial or alternately as ◌ when cluster-initial and as ◌ when cluster-final. These are described below:

- *Half-form* The half-form is used for representing semantic distinctions of RA when it occurs at a morphological boundary. Its usage is influenced by Devanagari orthography for the Marathi language, in which र RA is represented as one of two forms when it is the initial consonant in a cluster: the ◌र्‍ regular *repha* and the ऱ्◌ 'eyelash' *repha*. The distinction between the two types of *repha* is both morphological and phonemic. For example, the 'eyelash' *repha* marks plural suffixes — compare दऱ्या *daryā* 'valleys' and दर्या *daryā* 'ocean' — and inflectional suffixes: आचाऱ्यास *ācāryās* 'to the cook' and आचार्यास *ācāryās* 'to the teacher'.

- *Repha* The secondary cluster-initial form ◌ of RA is known as *repha*. It is written above the horizontal line of the final consonant in a conjunct and is placed to the right above an extension of the horizontal stroke if there is an accompanying above vowel sign:

  Some modern sources show the ◌ *repha* represented using the form ◌, eg. . This form is a glyphic variant and is to be handled by the font.

- *Ra-kāra* The secondary cluster-final form ◌ of RA is known as *ra-kāra*. It is written below the horizontal line of a consonant glyph: *ka* + *ra* → *kra*. If a below-base vowel sign is attached to the consonant, then the sign is placed after *ra-kāra* beneath an extension of the horizontal line:



Some modern sources show the ◌ *ra-kāra* represented using the form ◌, eg. . This form is a glyphic variant and is to be handled by the font.

The proposed representation for the three forms of RA requires an exception to the rule of conjunct formation. The general rule states that the sequence <RA, VIRAMA> is rendered normatively using the half-form ◌𑵊. It also states that <*C*, VIRAMA, RA> would produce the half-form of *C* and the full-form of RA. For this reason another method is required for the encoded representation of ◌𑵍 *repha* and ◌𑵎 *ra-kāra*, for which the expected representations would also be <RA, VIRAMA> and <*C*, VIRAMA, RA>, respectively. The generic control character [ZWJ] U+200D ZERO WIDTH JOINER offers a mechanism for representing the *repha* and *ra-kāra*. The proposed encoded representation of the three forms of RA are as follows:

half-form	◌𑵊	<◌𑵊 RA, ◌𑵍 VIRAMA, C>
repha	◌𑵍	<◌𑵊 RA, [ZWJ] ZERO WIDTH JOINER, ◌𑵍 VIRAMA, *C*>
ra-kāra	◌𑵎	<*C*, ◌𑵍 VIRAMA, ◌𑵊 RA, [ZWJ] ZERO WIDTH JOINER>

This approach provides a means for accommodating all possible representations of RA in Gondi

rha	𑵊𑵖	<◌𑵊 RA, ◌𑵍 VIRAMA, 𑵖 HA>
rha	𑵖𑵰	<◌𑵊 RA, [ZWJ] ZERO WIDTH JOINER, ◌𑵍 VIRAMA, 𑵖 HA>
hra	𑵖𑵊	<𑵖 HA, ◌𑵍 VIRAMA, ◌𑵊 RA>
hra	𑵖𑵷	<𑵖 HA, ◌𑵍 VIRAMA, ◌𑵊 RA, [ZWJ] ZERO WIDTH JOINER>

It also provides a way to handle hypothetical sequences entered by a user:

rra	𑵊𑵊	<◌𑵊 RA, ◌𑵍 VIRAMA, ◌𑵊 RA>
rra	𑵊𑵰	<◌𑵊 RA, [ZWJ] ZERO WIDTH JOINER, ◌𑵍 VIRAMA, ◌𑵊 RA>
rra	𑵊𑵷	<◌𑵊 RA, ◌𑵍 VIRAMA, ◌𑵊 RA, [ZWJ] ZERO WIDTH JOINER>

The *repha* requires reordering during rendering. The glyph is to be placed at the end of the cluster after any accompanying vowel signs.

3.10 Conjunct letters

The clusters *kṣa*, *jña*, *tra* are represented not as conjuncts, but as distinctive letters. These are proposed for encoding as atomic letters:

𑵥	GONDI LETTER KSSA
𑵦	GONDI LETTER JNYA
𑵧	GONDI LETTER TRA

Following the rules of conjunct formation, the expected representation of these three conjuncts would be:

kṣa	𑵆𑵘	<𑵆 KA, ◌𑵍 VIRAMA, 𑵘 SSA>
jña	𑵉𑵣	<𑵉 JA, ◌𑵍 VIRAMA, 𑵣 NYA>
tra	𑵁𑵊	<𑵁 TA, ◌𑵍 VIRAMA, ◌𑵊 RA>

In the Gondi script, each of these three letters represent a phoneme that is phonetically a consonant cluster, but, they all have the structure of an atomic letter. These forms are encoded as consonant letters because in all cases consonant conjuncts are written as linear sequences of half-forms, not as ligatures. While in most Indic scripts the written forms for *kṣa*, *jña*, *tra* have encoded representations as a character sequence, such an approach would not be consistent with this script.

It is evident that these ligatures were developed because distinctive forms exist in Devanagari. These three conjuncts are often shown at the end of Devanagari orthographies for various languages and are often interpreted by users as being distinctive letters that are fundamental elements of the script.

3.11 Digits

There is a full set of digits:

𑵐	GONDI DIGIT ZERO	𑵔	GONDI DIGIT FOUR	𑵘	GONDI DIGIT EIGHT
𑵑	GONDI DIGIT ONE	𑵕	GONDI DIGIT FIVE	𑵙	GONDI DIGIT NINE
𑵒	GONDI DIGIT TWO	𑵖	GONDI DIGIT SIX		
𑵓	GONDI DIGIT THREE	𑵗	GONDI DIGIT SEVEN		

3.12 Punctuation

Script-specific punctuation is not attested. The *daṇḍā* and double *daṇḍā* are commonly; these are not included in the Gondi block, but are to be unified with । U+0964 DEVANAGARI DANDA and ॥ U+0965 DEVANAGARI DOUBLE DANDA. Latin marks of punctuation, such as periods, are also used.

3.13 Characters Not Proposed for Encoding

The following are newly-invented characters. Their actual usage beyond their inclusion in new charts of the script is unknown. For this reason, they are not proposed for encoding at present. Space has been reserved in the code chart for their future inclusion in the event that usage of these characters becomes conventional.

Representation of Dravidian vowels /eː/ and /oː/ The vowels /eː/ and /oː/ are distinct phonemes in Gondi. They are represented in the Telugu orthography for Gondi using ఏ *ē* and ఓ *ō*. Neither independent letters or dependent signs for these vowels exist in the original script designed by Masaram. Modern users have tried to fill this gap by borrowing signs used for short vowels in Devanagari. The book *Koyābolī* by Sītārām Maṇḍāle shows the following additions to the script:

/eː/ 𑴆ॆ ◌ॆ

/oː/ 𑴁ॆ ◌ॊ

The above representation of /eː/ in the Gondi script consists of the sign ◌ॆ combined with the vowel letter 𑴆 E. This form is borrowed from Devanagari, where the sign ◌ॆ (U+0946 DEVANAGARI VOWEL SIGN SHORT E) is used for representing the short vowel /e/ and the independent form of the vowel is formed by combining the sign with Devanagari letter ए U+090F DEVANAGARI LETTER E to produce ऎ (U+090E DEVANAGARI LETTER SHORT E). Similarly, the vowel /oː/ is represented as ◌ॊ which is a combination of ◌ॆ and ◌ा VOWEL SIGN AA. The independent form 𑴁ॆ is produced by combining the sign ◌ॆ with 𑴁 VOWEL LETTER AA. This concept

is also borrowed from Devanagari, in which the sign ◌े is combined with ◌ा (U+093E DEVANAGARI VOWEL SIGN AA) to produce ◌ॊ (U+094A DEVANAGARI VOWEL SIGN SHORT O).

4 Character Data

4.1 Character Properties

The properties for Gondi in the Unicode Character Database format are:

```
11B90;GONDI LETTER A;Lo;0;L;;;;N;;;;;
11B91;GONDI LETTER AA;Lo;0;L;;;;N;;;;;
11B92;GONDI LETTER I;Lo;0;L;;;;N;;;;;
11B93;GONDI LETTER II;Lo;0;L;;;;N;;;;;
11B94;GONDI LETTER U;Lo;0;L;;;;N;;;;;
11B95;GONDI LETTER UU;Lo;0;L;;;;N;;;;;
11B96;GONDI LETTER E;Lo;0;L;;;;N;;;;;
11B98;GONDI LETTER AI;Lo;0;L;;;;N;;;;;
11B99;GONDI LETTER O;Lo;0;L;;;;N;;;;;
11B9B;GONDI LETTER AU;Lo;0;L;;;;N;;;;;
11B9C;GONDI LETTER KA;Lo;0;L;;;;N;;;;;
11B9D;GONDI LETTER KHA;Lo;0;L;;;;N;;;;;
11B9E;GONDI LETTER GA;Lo;0;L;;;;N;;;;;
11B9F;GONDI LETTER GHA;Lo;0;L;;;;N;;;;;
11BA0;GONDI LETTER NGA;Lo;0;L;;;;N;;;;;
11BA1;GONDI LETTER CA;Lo;0;L;;;;N;;;;;
11BA2;GONDI LETTER CHA;Lo;0;L;;;;N;;;;;
11BA3;GONDI LETTER JA;Lo;0;L;;;;N;;;;;
11BA4;GONDI LETTER JHA;Lo;0;L;;;;N;;;;;
11BA5;GONDI LETTER NYA;Lo;0;L;;;;N;;;;;
11BA6;GONDI LETTER TTA;Lo;0;L;;;;N;;;;;
11BA7;GONDI LETTER TTHA;Lo;0;L;;;;N;;;;;
11BA8;GONDI LETTER DDA;Lo;0;L;;;;N;;;;;
11BA9;GONDI LETTER DDHA;Lo;0;L;;;;N;;;;;
11BAA;GONDI LETTER NNA;Lo;0;L;;;;N;;;;;
11BAB;GONDI LETTER TA;Lo;0;L;;;;N;;;;;
11BAC;GONDI LETTER THA;Lo;0;L;;;;N;;;;;
11BAD;GONDI LETTER DA;Lo;0;L;;;;N;;;;;
11BAE;GONDI LETTER DHA;Lo;0;L;;;;N;;;;;
11BAF;GONDI LETTER NA;Lo;0;L;;;;N;;;;;
11BB0;GONDI LETTER PA;Lo;0;L;;;;N;;;;;
11BB1;GONDI LETTER PHA;Lo;0;L;;;;N;;;;;
11BB2;GONDI LETTER BA;Lo;0;L;;;;N;;;;;
11BB3;GONDI LETTER BHA;Lo;0;L;;;;N;;;;;
11BB4;GONDI LETTER MA;Lo;0;L;;;;N;;;;;
11BB5;GONDI LETTER YA;Lo;0;L;;;;N;;;;;
11BB6;GONDI LETTER RA;Lo;0;L;;;;N;;;;;
11BB7;GONDI LETTER LA;Lo;0;L;;;;N;;;;;
11BB8;GONDI LETTER VA;Lo;0;L;;;;N;;;;;
11BB9;GONDI LETTER SHA;Lo;0;L;;;;N;;;;;
11BBA;GONDI LETTER SSA;Lo;0;L;;;;N;;;;;
11BBB;GONDI LETTER SA;Lo;0;L;;;;N;;;;;
11BBC;GONDI LETTER HA;Lo;0;L;;;;N;;;;;
11BBD;GONDI LETTER LLA;Lo;0;L;;;;N;;;;;
11BBE;GONDI LETTER KSSA;Lo;0;L;;;;N;;;;;
11BBF;GONDI LETTER JNYA;Lo;0;L;;;;N;;;;;
11BC0;GONDI LETTER TRA;Lo;0;L;;;;N;;;;;
11BC1;GONDI VOWEL SIGN AA;Mn;0;NSM;;;;N;;;;;
11BC2;GONDI VOWEL SIGN I;Mn;0;NSM;;;;N;;;;;
11BC3;GONDI VOWEL SIGN II;Mn;0;NSM;;;;N;;;;;
```

```
11BC4;GONDI VOWEL SIGN U;Mn;0;NSM;;;;;N;;;;;
11BC5;GONDI VOWEL SIGN UU;Mn;0;NSM;;;;;N;;;;;
11BC6;GONDI VOWEL SIGN VOCALIC R;Mn;0;NSM;;;;;N;;;;;
11BCA;GONDI VOWEL SIGN E;Mn;0;NSM;;;;;N;;;;;
11BCC;GONDI VOWEL SIGN AI;Mn;0;NSM;;;;;N;;;;;
11BCD;GONDI VOWEL SIGN O;Mn;0;NSM;;;;;N;;;;;
11BCF;GONDI VOWEL SIGN AU;Mn;0;NSM;;;;;N;;;;;
11BD0;GONDI SIGN ANUSVARA;Mn;0;NSM;;;;;N;;;;;
11BD1;GONDI SIGN VISARGA;Mn;0;NSM;;;;;N;;;;;
11BD2;GONDI SIGN VIRAMA;Mn;9;NSM;;;;;N;;;;;
11BD3;GONDI SIGN NUKTA;Mn;7;NSM;;;;;N;;;;;
11BE0;GONDI DIGIT ZERO;Nd;0;L;;0;0;0;N;;;;;
11BE1;GONDI DIGIT ONE;Nd;0;L;;1;1;1;N;;;;;
11BE2;GONDI DIGIT TWO;Nd;0;L;;2;2;2;N;;;;;
11BE3;GONDI DIGIT THREE;Nd;0;L;;3;3;3;N;;;;;
11BE4;GONDI DIGIT FOUR;Nd;0;L;;4;4;4;N;;;;;
11BE5;GONDI DIGIT FIVE;Nd;0;L;;5;5;5;N;;;;;
11BE6;GONDI DIGIT SIX;Nd;0;L;;6;6;6;N;;;;;
11BE7;GONDI DIGIT SEVEN;Nd;0;L;;7;7;7;N;;;;;
11BE8;GONDI DIGIT EIGHT;Nd;0;L;;8;8;8;N;;;;;
11BE9;GONDI DIGIT NINE;Nd;0;L;;9;9;9;N;;;;;
```

4.2 Linebreaking

Linebreaking properties given in the data format of `LineBreak.txt`:

```
11B90..11BC0; AL   # GONDI LETTER A .. GONDI LETTER TRA
11BC1..11BD3; CM   # GONDI SIGN AA .. GONDI SIGN NUKTA
11BE0..11BE9; NU   # GONDI DIGIT ZERO .. GONDI DIGIT NINE
```

4.3 Syllabic Categories

Syllabic categories given in the format of `IndicSyllabicCategory.txt`:

```
# Indic_Syllabic_Category=Bindu
11BD0         ; Bindu               # Mn        SIGN ANUSVARA

# Indic_Syllabic_Category=Visarga
11BD1         ; Visarga             # Mc        SIGN VISARGA

# Indic_Syllabic_Category=Virama
11BD2         ; Virama              # Mn        SIGN VIRAMA

# Indic_Syllabic_Category=Vowel_Independent
11B90..11B9B  ; Vowel_Independent   # Lo   [10] LETTER A .. LETTER AU

# Indic_Syllabic_Category=Vowel_Dependent
11BC1..11BCA  ; Vowel_Dependent     # Mn    [6] VOWEL SIGN AA .. VOWEL SIGN VOCALIC R
11BCA         ; Vowel_Dependent     # Mn        VOWEL SIGN E
11BCC..11BCD  ; Vowel_Dependent     # Mn    [2] VOWEL SIGN AI .. VOWEL SIGN O
11BCF         ; Vowel_Dependent     # Mn        VOWEL SIGN AU

# Indic_Syllabic_Category=Consonant
11A5C..1181F  ; Consonant           # Lo   [40] LETTER KA .. LETTER TRA
```

4.4 Positional Categories

Positional data for Gondi combining signs in the format of `IndicPositionalCategory.txt`:

```
# Indic_Positional_Category=Top
11BC1..11BCA   ; Top     # Mn    [6] VOWEL SIGN AA .. VOWEL SIGN VOCALIC R
11BCA          ; Top     # Mn        VOWEL SIGN E
11BCC..11BCD   ; Top     # Mn    [2] VOWEL SIGN AI .. VOWEL SIGN O
11BCF          ; Top     # Mn        VOWEL SIGN AU
11BD0          ; Top     # Mn        SIGN ANUSVARA
11BD1          ; Top     # Mn        SIGN VISARGA

# Indic_Positional_Category=Bottom
11BD2          ; Bottom  # Mn        SIGN VIRAMA
11BD3          ; Bottom  # Mn        SIGN NUKTA
```

4.5 'Confusable' Characters

Gondi characters that bear resemblances to those of other scripts are listed below:

```
11BC1 GONDI VOWEL SIGN AA  ;  0304 COMBINING MACRON
11BB1 GONDI LETTER PHA     ;  1109D KAITHI LETTER NNA
11BBA GONDI LETTER SSA     ;  0398 GREEK CAPITAL LETTER THETA
11BE2 GONDI DIGIT TWO      ;  0055 LATIN CAPITAL LETTER U
```

5 References

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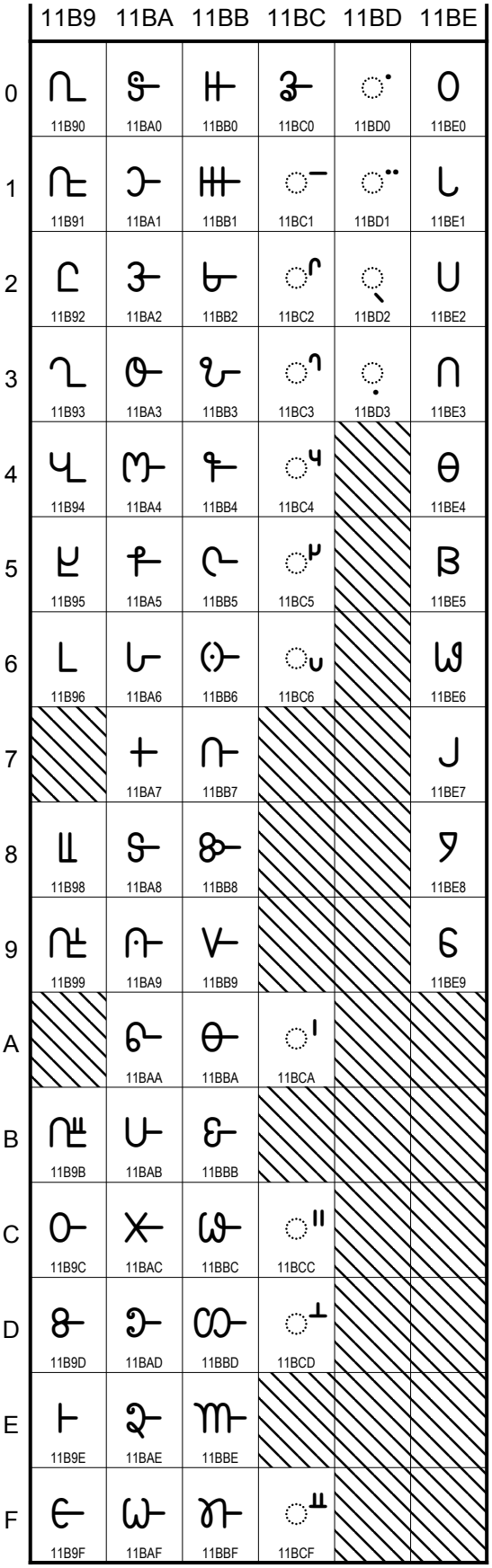
6 Acknowledgments

I owe much gratitude to Mukund Gokhale (Script Research Institute, Pune) for providing me with materials in the Gondi script and details on the current usage of the script. The Gondi chart shown in figure 1 was provided by B. A. Sharada and Suman Kumari of the Central Institute of Indian Languages (Mysore). Mark Penny provided the chart shown in figure 5.

This project was made possible in part through a Google Research Award, granted to Deborah Anderson for the Script Encoding Initiative. Research for earlier phases of this project was made possible in part by a grant from the United States National Endowment for the Humanities, which funded 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.


11B9 11BA 11BB 11BC 11BD 11BE
0 11B90 11BA0 11BB0 11BC0 11BD0 11BE0
1 11B91 11BA1 11BB1 11BC1 11BD1 11BE1
2 11B92 11BA2 11BB2 11BC2 11BD2 11BE2
3 11B93 11BA3 11BB3 11BC3 11BD3 11BE3
4 11B94 11BA4 11BB4 11BC4 11BE4
5 11B95 11BA5 11BB5 11BC5 11BE5
6 11B96 11BA6 11BB6 11BC6 11BE6
7 11BA7 11BB7 11BE7
8 11B98 11BA8 11BB8 11BE8
9 11B99 11BA9 11BB9 11BE9
A 11BAA 11BBA 11BCA
B 11B9B 11BAB 11BBB
C 11B9C 11BAC 11BBC 11BCC
D 11B9D 11BAD 11BBD 11BCD
E 11B9E 11BAE 11BBE
F 11B9F 11BAF 11BBF 11BCF

Vowels

11B90 GONDI LETTER A
11B91 GONDI LETTER AA
11B92 GONDI LETTER I
11B93 GONDI LETTER II
11B94 GONDI LETTER U
11B95 GONDI LETTER UU
11B96 GONDI LETTER E
11B97 <reserved>
11B98 GONDI LETTER AI
11B99 GONDI LETTER O
11B9A <reserved>
11B9B GONDI LETTER AU

Consonants

11B9C GONDI LETTER KA
11B9D GONDI LETTER KHA
11B9E GONDI LETTER GA
11B9F GONDI LETTER GHA
11BA0 GONDI LETTER NGA
11BA1 GONDI LETTER CA
11BA2 GONDI LETTER CHA
11BA3 GONDI LETTER JA
11BA4 GONDI LETTER JHA
11BA5 GONDI LETTER NYA
11BA6 GONDI LETTER TTA
11BA7 GONDI LETTER TTHA
11BA8 GONDI LETTER DDA
11BA9 GONDI LETTER DDHA
11BAA GONDI LETTER NNA
11BAB GONDI LETTER TA
11BAC GONDI LETTER THA
11BAD GONDI LETTER DA
11BAE GONDI LETTER DHA
11BAF GONDI LETTER NA
11BB0 GONDI LETTER PA
11BB1 GONDI LETTER PHA
11BB2 GONDI LETTER BA
11BB3 GONDI LETTER BHA
11BB4 GONDI LETTER MA
11BB5 GONDI LETTER YA
11BB6 GONDI LETTER RA
11BB7 GONDI LETTER LA
11BB8 GONDI LETTER VA
11BB9 GONDI LETTER SHA
11BBA GONDI LETTER SSA
11BBB GONDI LETTER SA
11BBC GONDI LETTER HA
11BBD GONDI LETTER LLA

Conjunct letters

11BBE GONDI LETTER KSSA
11BBF GONDI LETTER JNYA
11BC0 GONDI LETTER TRA

Dependent vowel signs

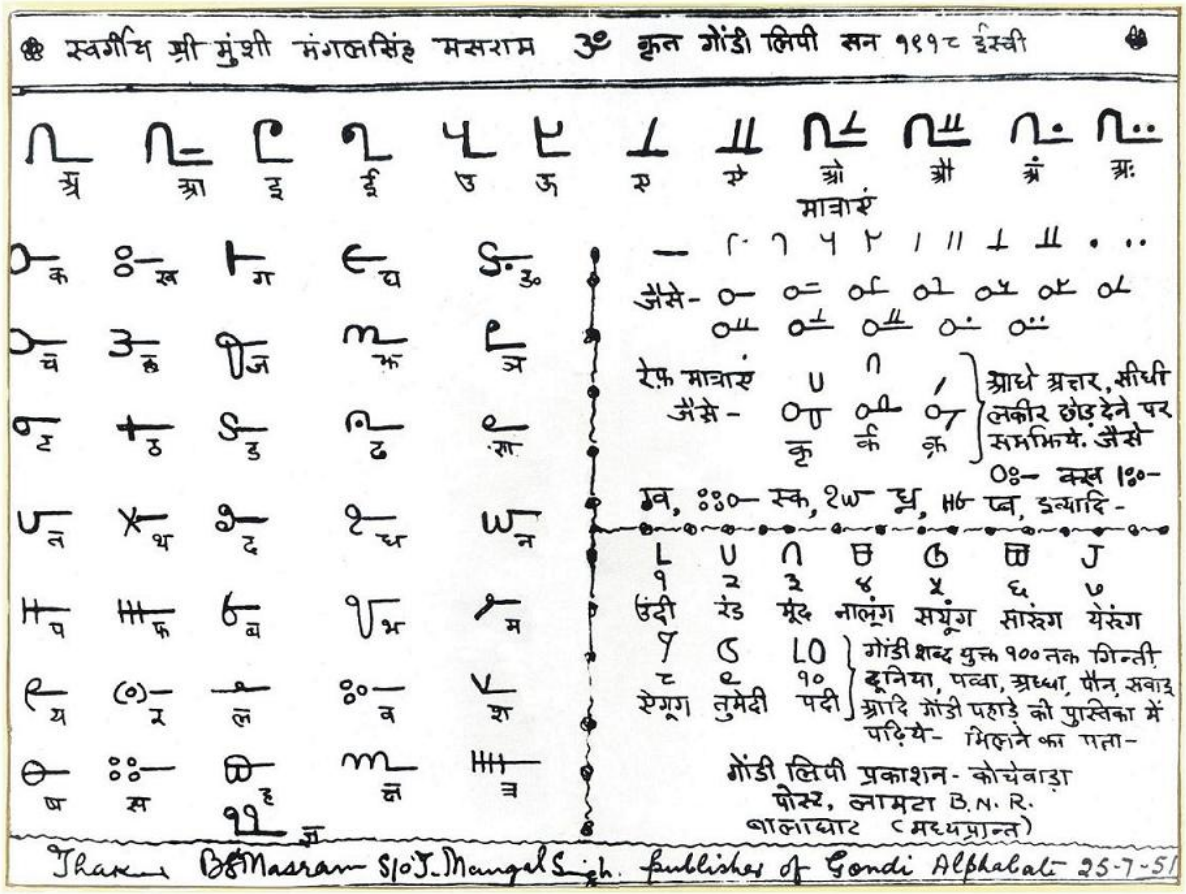
11BC1 ◌𑵁 GONDI VOWEL SIGN AA
11BC2 ◌𑵂 GONDI VOWEL SIGN I
11BC3 ◌𑵃 GONDI VOWEL SIGN II
11BC4 ◌𑵄 GONDI VOWEL SIGN U
11BC5 ◌𑵅 GONDI VOWEL SIGN UU
11BC6 ◌𑵆 GONDI VOWEL SIGN VOCALIC R
11BC7 <reserved>
11BC8 <reserved>
11BC9 <reserved>
11BCA ◌𑵊 GONDI VOWEL SIGN E
11BCB <reserved>
11BCC ◌𑵋 GONDI VOWEL SIGN AI
11BCD ◌𑵌 GONDI VOWEL SIGN O
11BCE <reserved>
11BCF ◌𑵍 GONDI VOWEL SIGN AU

Various signs

11BD0 ◌𑵐 GONDI SIGN ANUSVARA
11BD1 ◌𑵑 GONDI SIGN VISARGA
11BD2 ◌𑵒 GONDI SIGN VIRAMA
11BD3 ◌𑵓 GONDI SIGN NUKTA

Digits

11BE0 GONDI DIGIT ZERO
11BE1 GONDI DIGIT ONE
11BE2 GONDI DIGIT TWO
11BE3 GONDI DIGIT THREE
11BE4 GONDI DIGIT FOUR
11BE5 GONDI DIGIT FIVE
11BE6 GONDI DIGIT SIX
11BE7 GONDI DIGIT SEVEN
11BE8 GONDI DIGIT EIGHT
11BE9 GONDI DIGIT NINE



SRI MUNSHI MANGALASIMHA MASARAM KRIT GONDI LIPI - 25.7.1951

Figure 1: A document illustrating the basic principles of the Gondi script (Masaram 1951). Courtesy of the Central Institute of Indian Languages (Mysore).

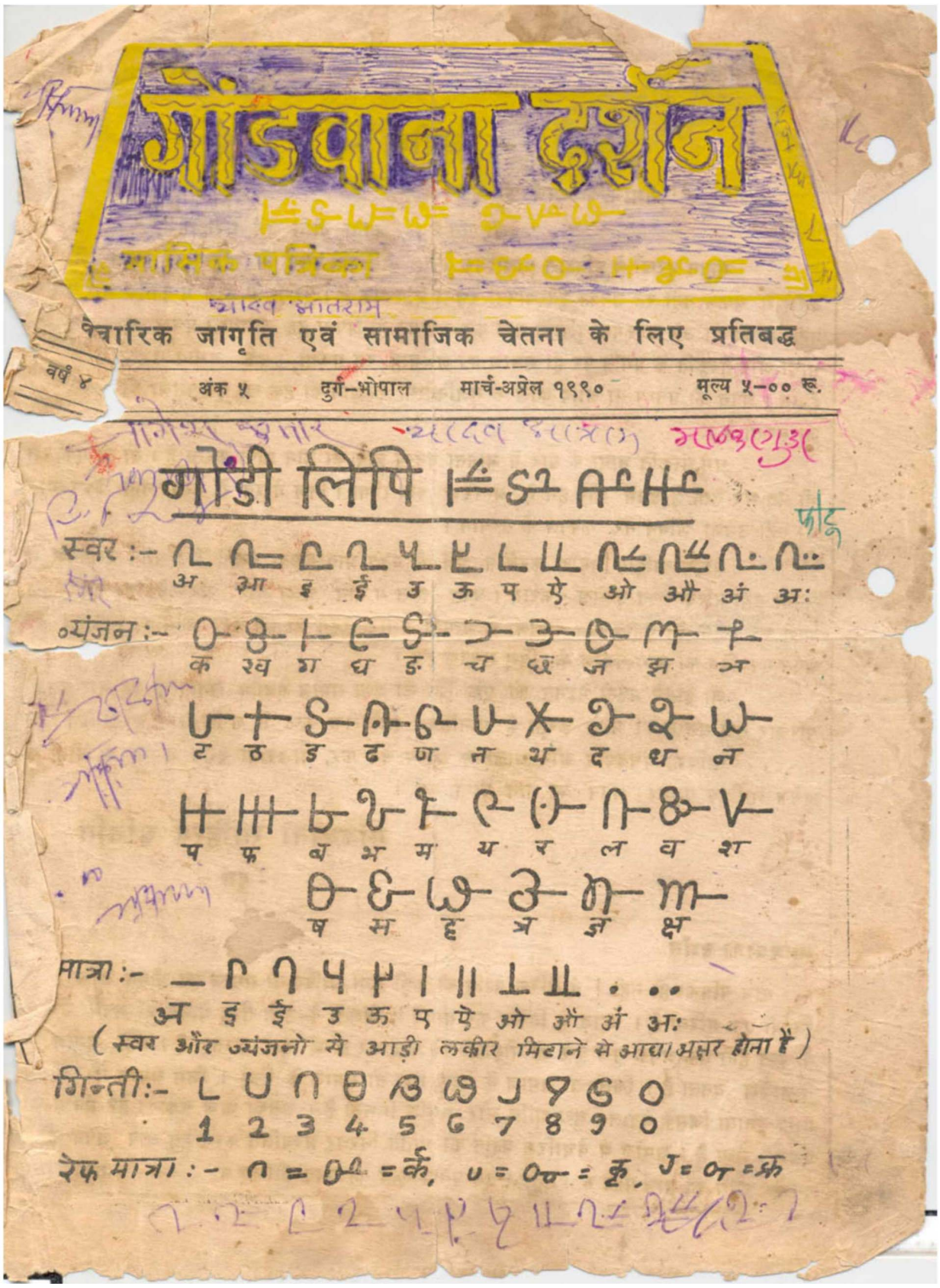


Figure 2: Cover of *Gondwana Darshan* (March-April 1990, vol. 5).

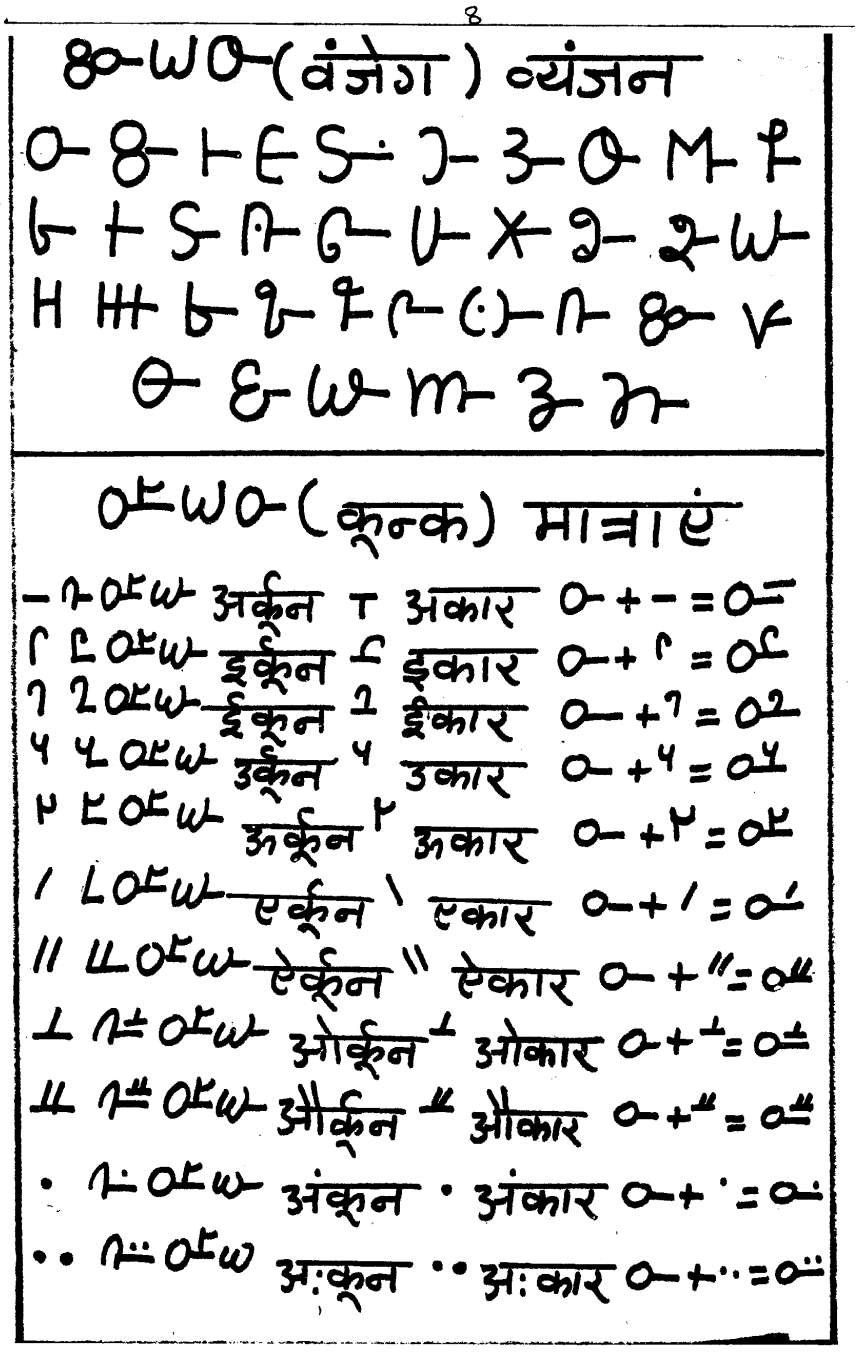


Figure 3: Page from *Goṃḍī Akṣara Jñāna* showing consonants and vowel signs, and consonant-vowel combinations (from Rāmānanda: 8).

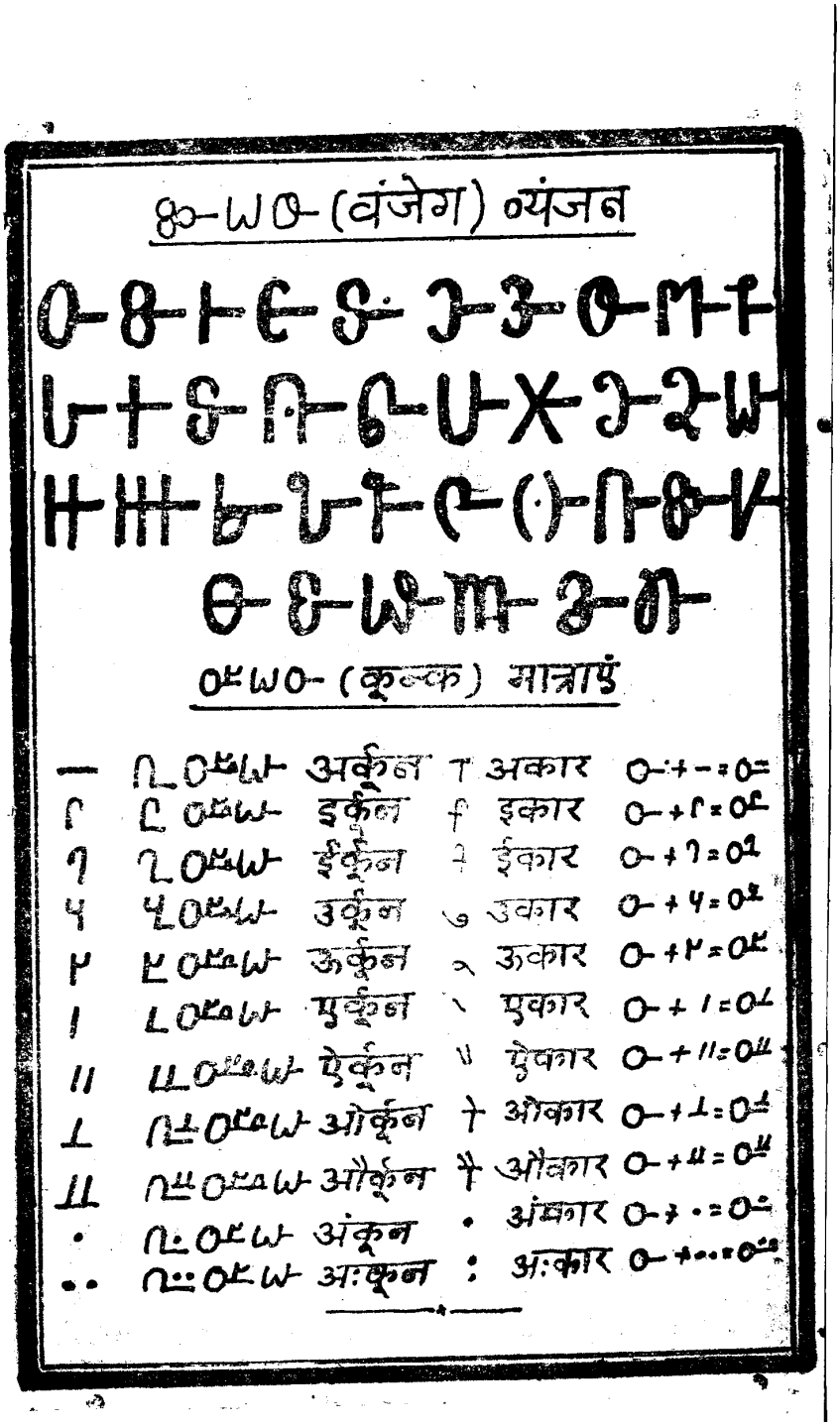


Figure 4: Page from *Goṃḍī Lamk Pundan* showing consonants and vowel signs, and consonant-vowel combinations (from Guruji: 11).

Consonants व्यञ्जन

	Cons. only	– [voice]		+ [voice]		Nasals	Cons. with word
Aspiration		– [asp]	+ [asp]	– [asp]	+ [asp]		
Velar							
Palatal							
Retroflex							
Dental							
Bilabial							
Liquids and Semi-Vowels							
Fricatives							
Affricates							

Vowels स्वर

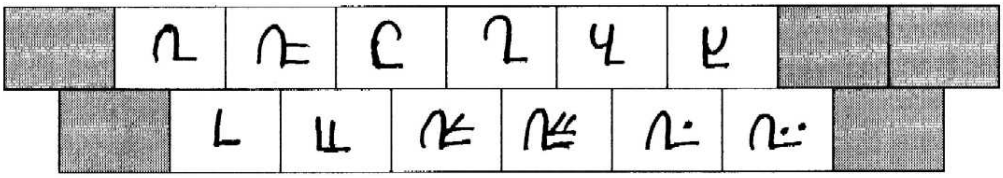


Figure 5: A handwritten chart of the Gondi script. Source: Ramesh Gedam and Mark Penny (2001).

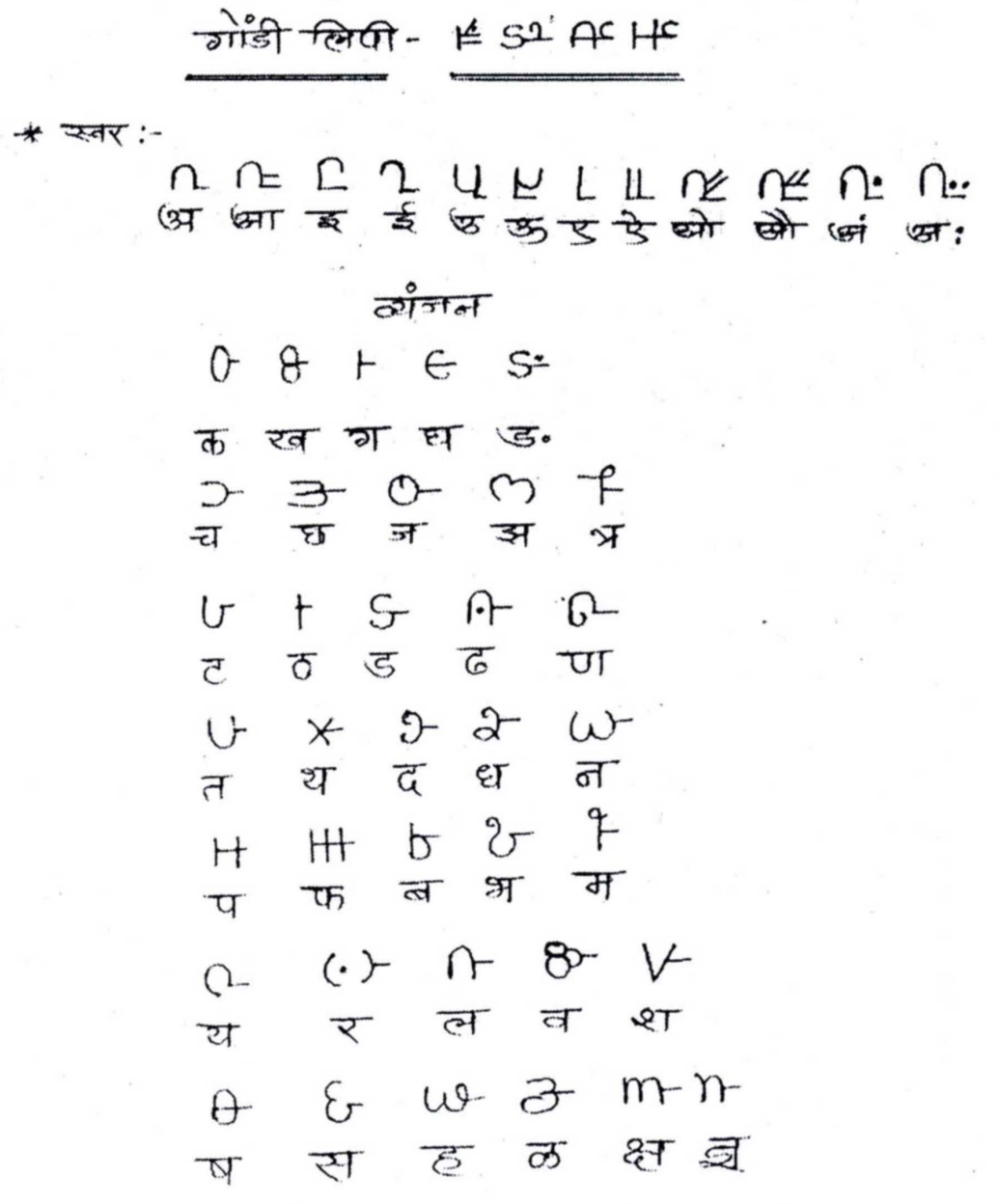


Figure 6: A handwritten chart of the Gondi script (Maṇḍāle 2008: 8).

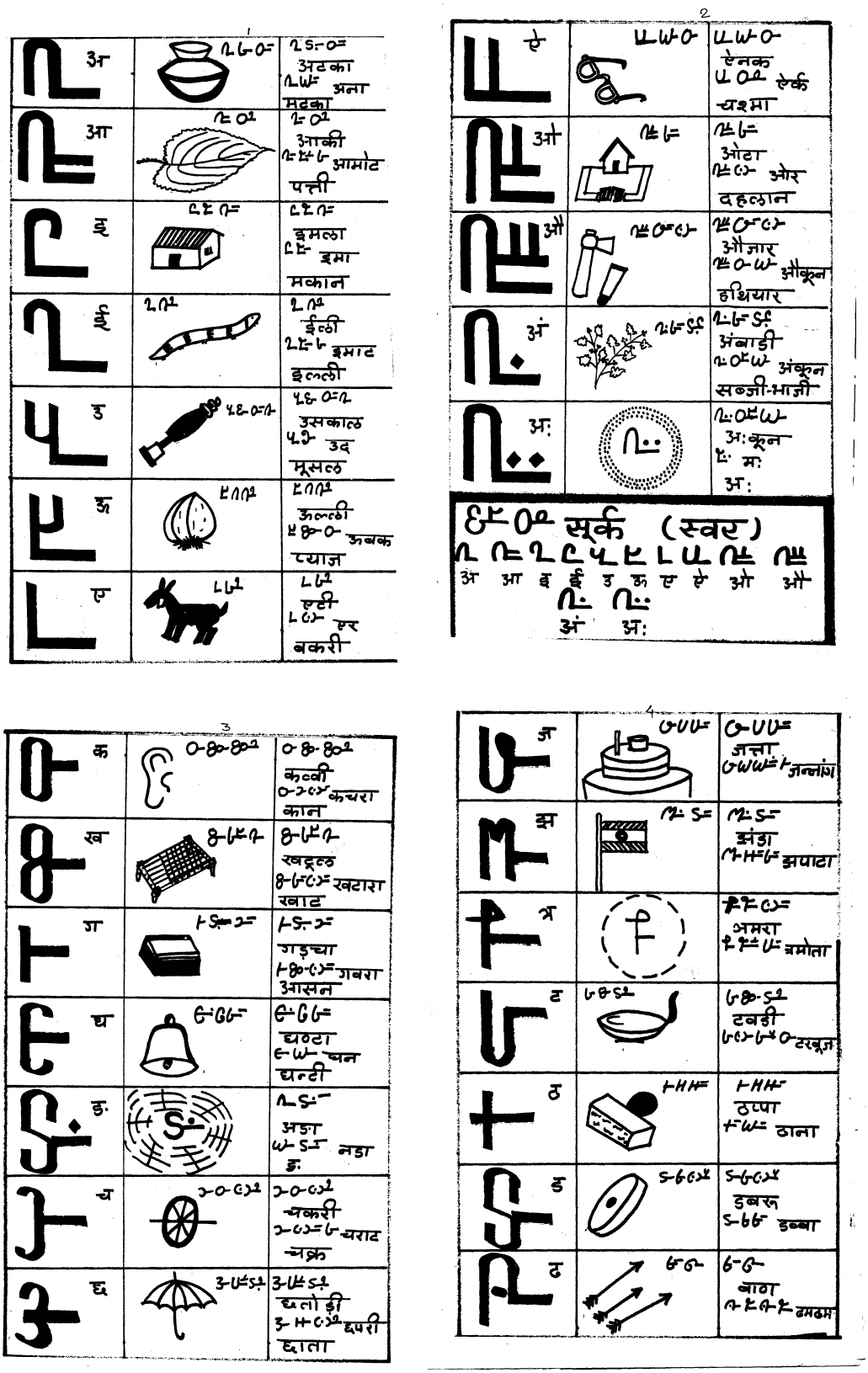


Figure 7: Page from *Goṃḍī Akṣara Jñāna* showing vowel letters (from Rāmānanda: 1–4).

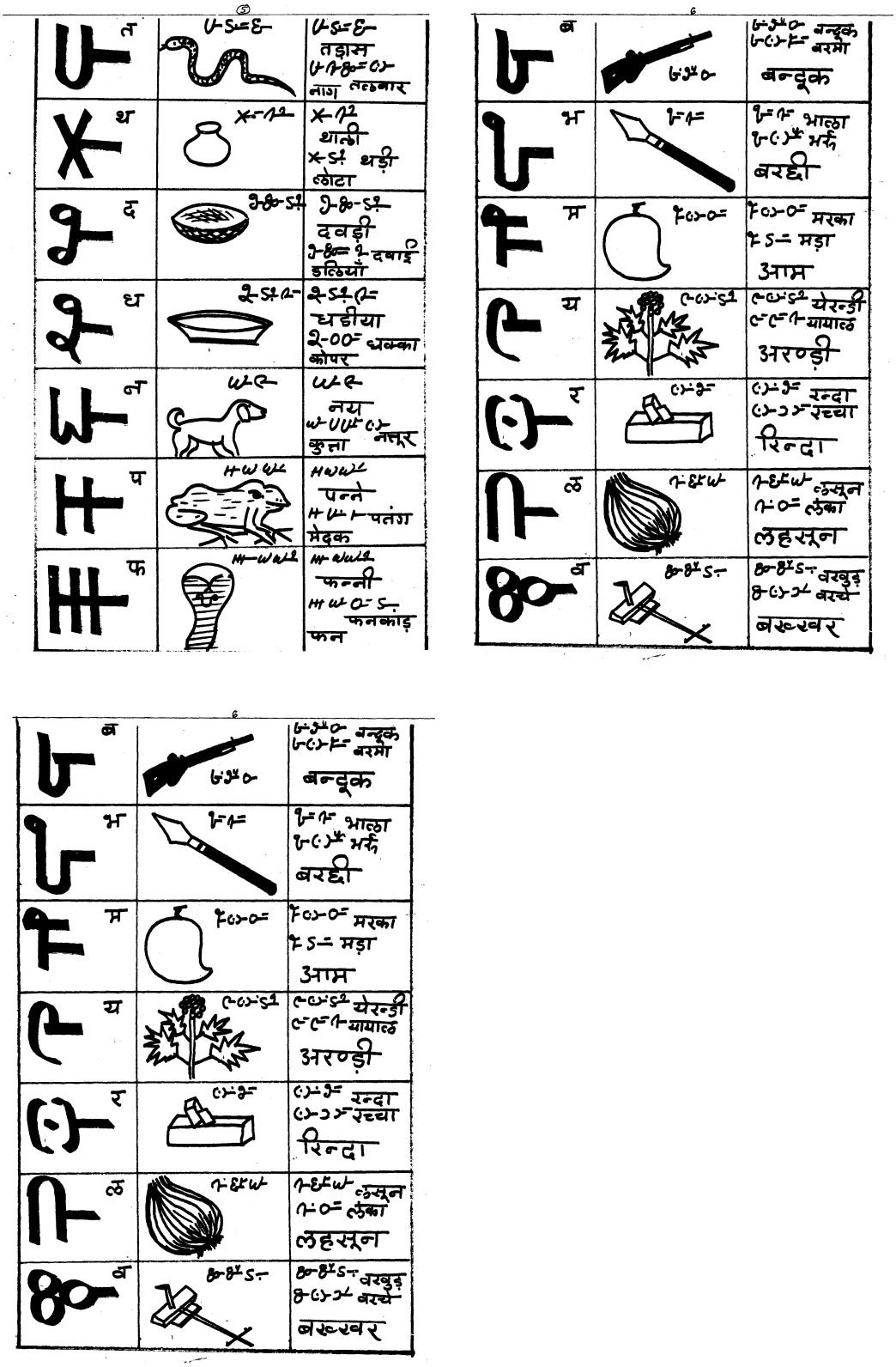


Figure 8: Page from *Goṃḍī Akṣara Jñāna* showing the letters TA .. VA (from Rāmānanda: 5–7).

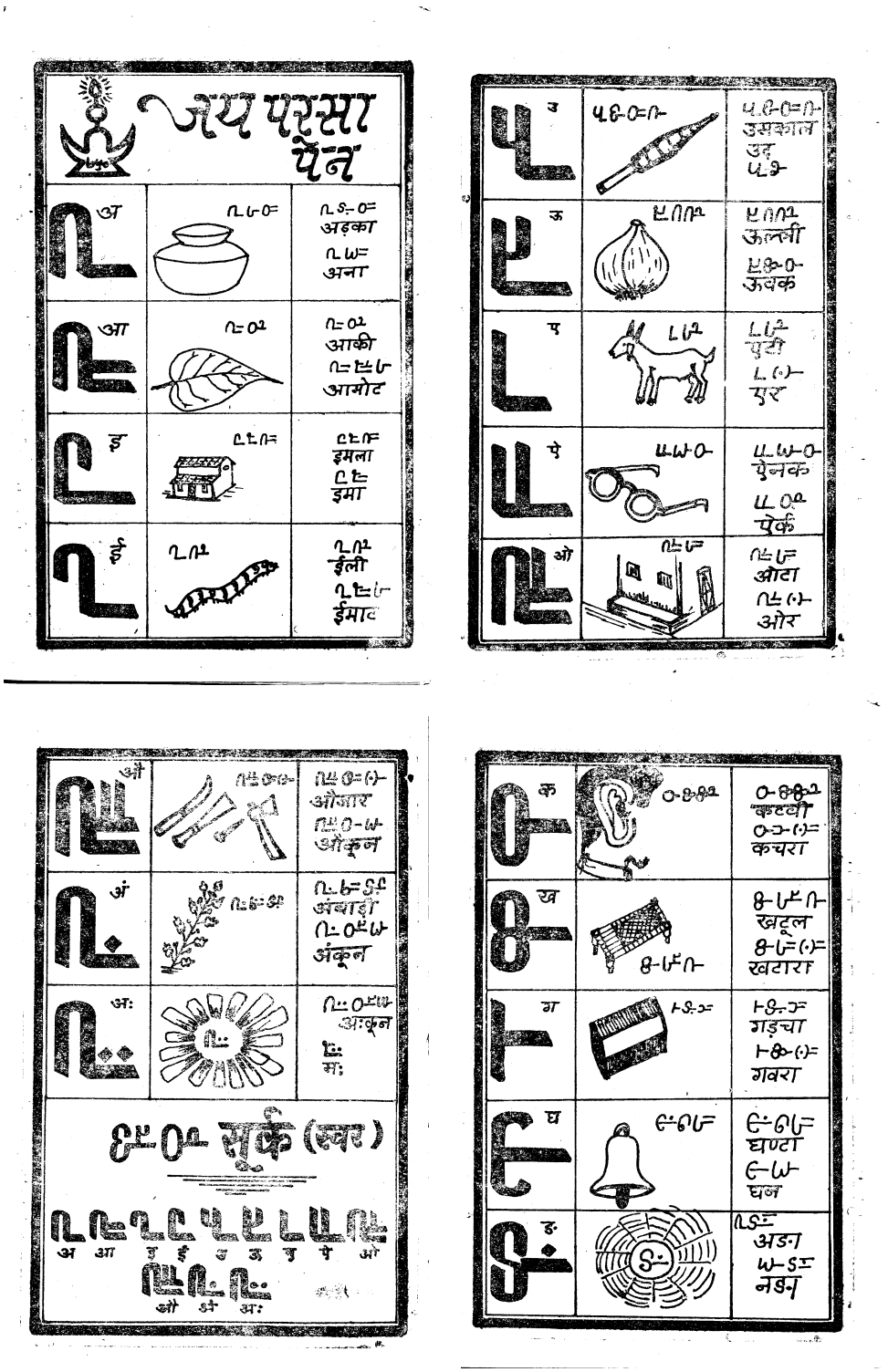


Figure 9: Page from *Goṃḍī Lamk Pundan* showing vowel letters (from Guruji: 1–4).

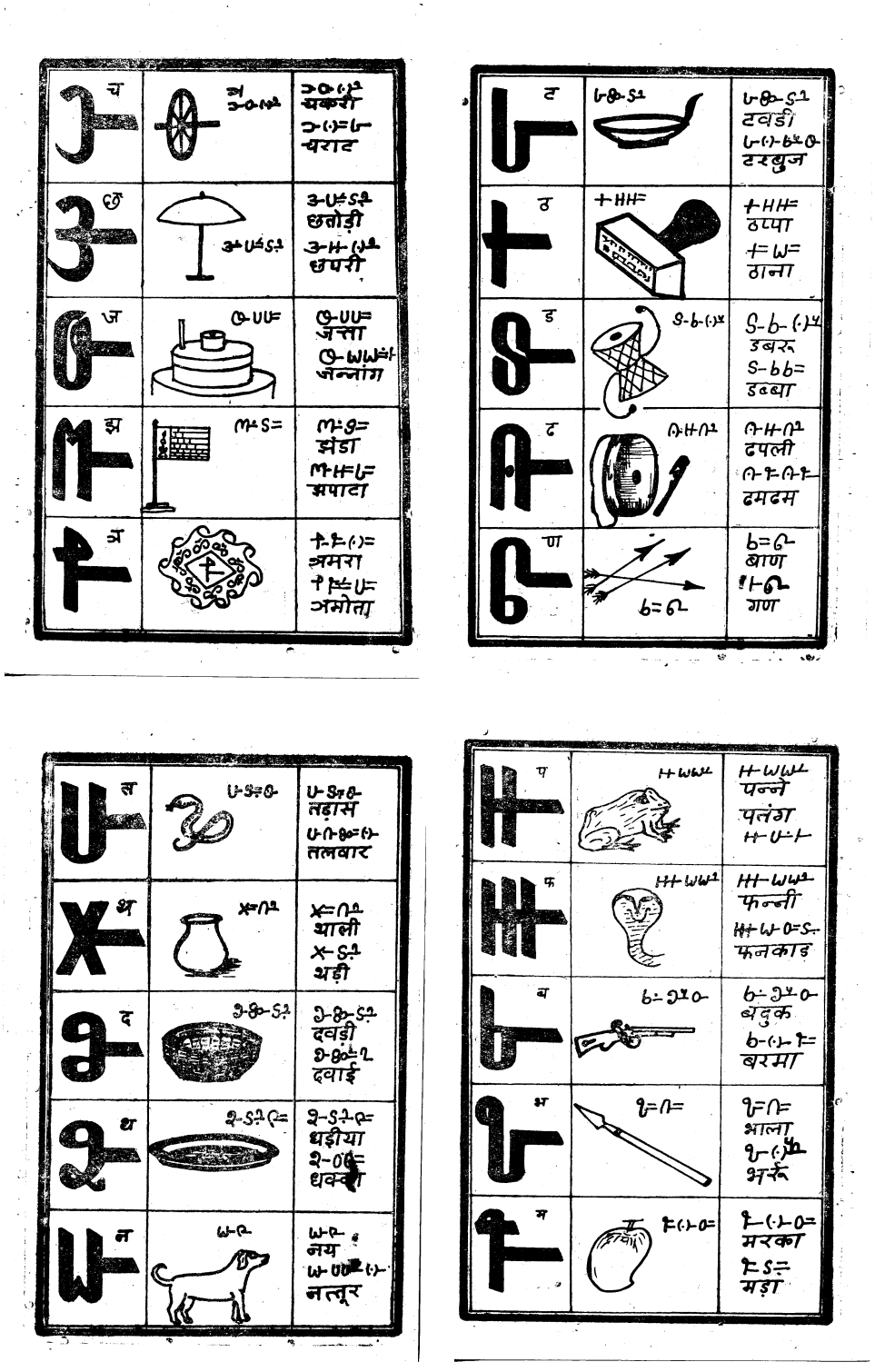


Figure 10: Page from *Goṃḍī Lamk Pundan* showing vowel letters (from Guruji: 5–8).

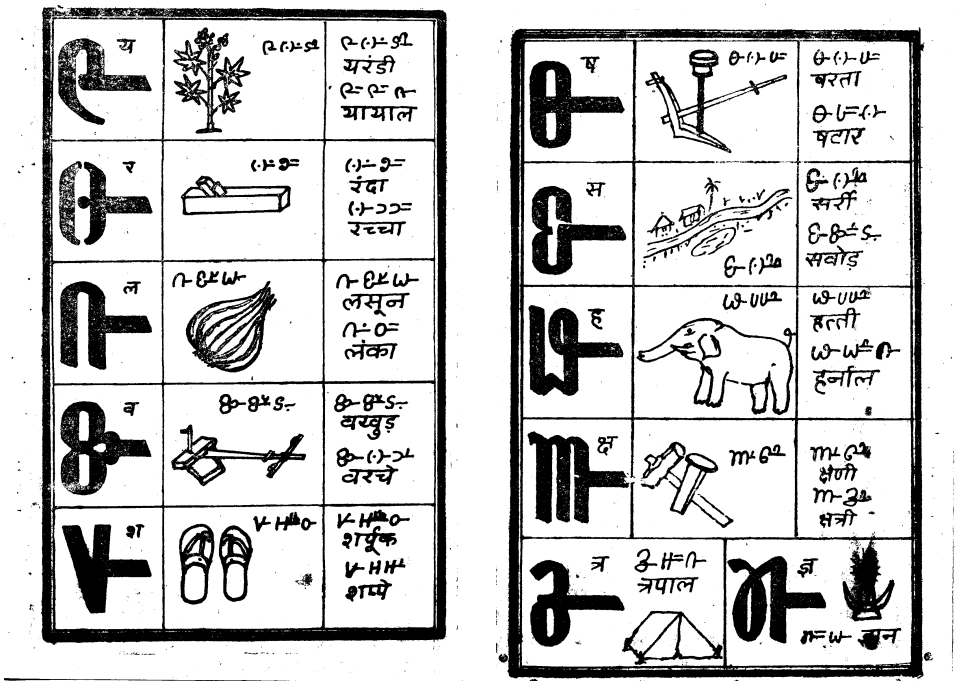


Figure 11: Page from *Goṃḍī Lamk Pundan* showing vowel letters (from Guruji: 9–10).

Figure 12: Page from *Goṃḍī Akṣara Jñāna* showing consonant-vowel combinations for KA .. DA (from Rāmānanda: 9, 10).

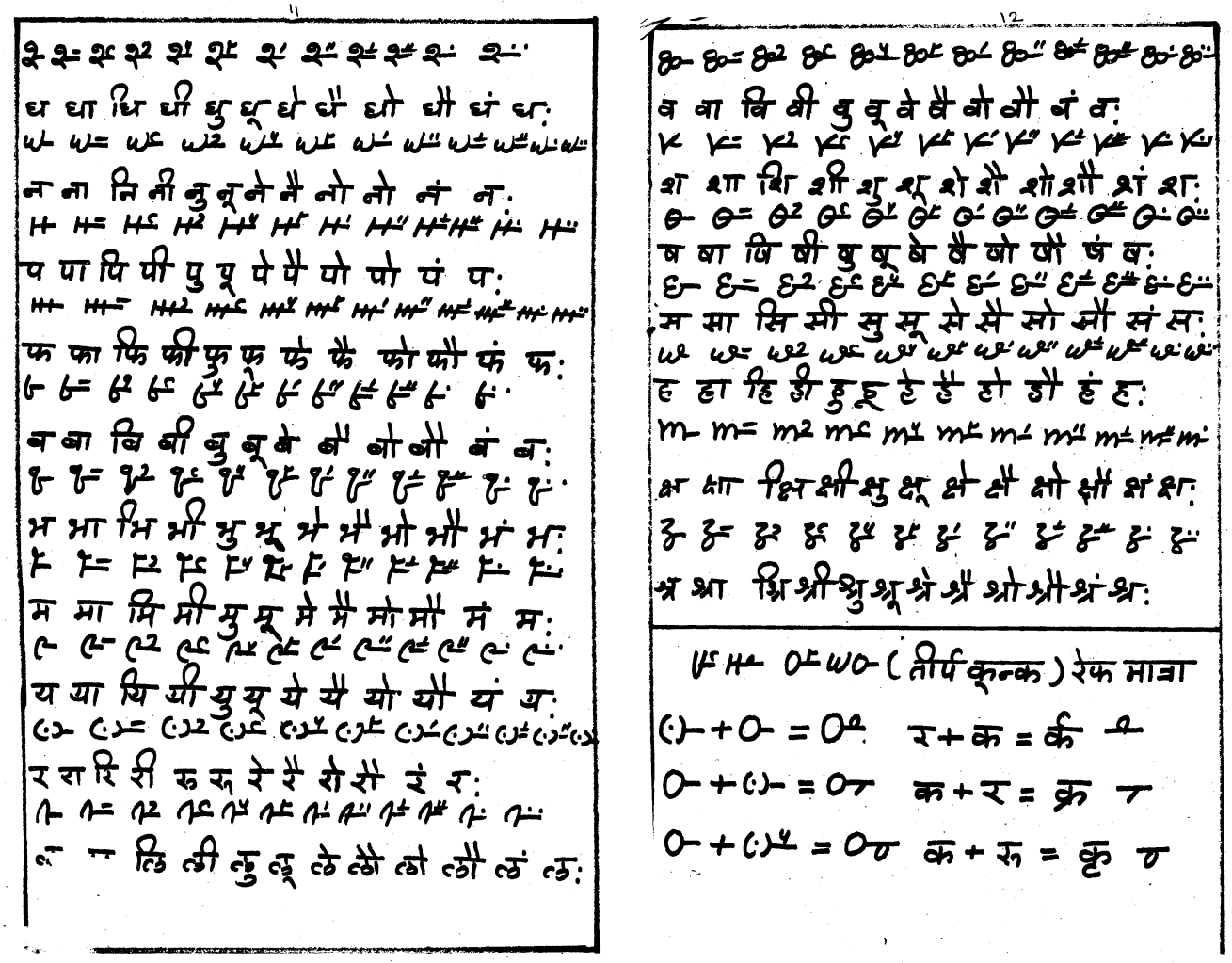


Figure 13: Page from *Goṃḍī Akṣara Jñāna* showing consonant-vowel combinations for DHA .. TRA (from Rāmānanda: 11, 12).

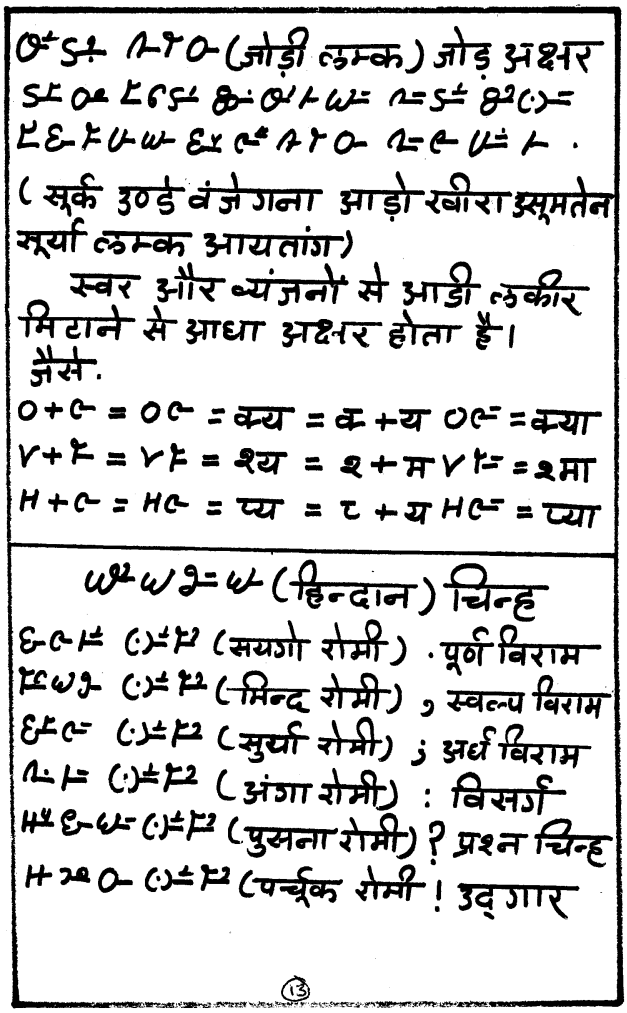


Figure 14: Page from *Goṃḍī Akṣara Jñāna* explaining conjunct formation (from Rāmānanda: 13). Bottom half describes the usage of Latin marks of punctuation.

Figure 15: Page from *Goṃḍī Akṣara Jñāna* showing Gondi digits (from Rāmānanda: 14).

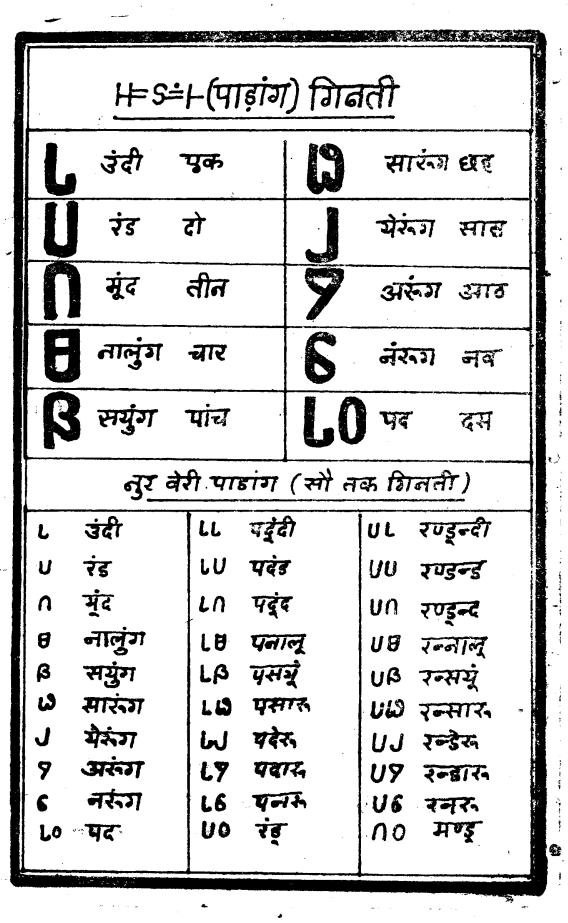


Figure 16: Page from *Goṃḍī Lamk Pundan* showing Gondi digits (from Guruji: 14).

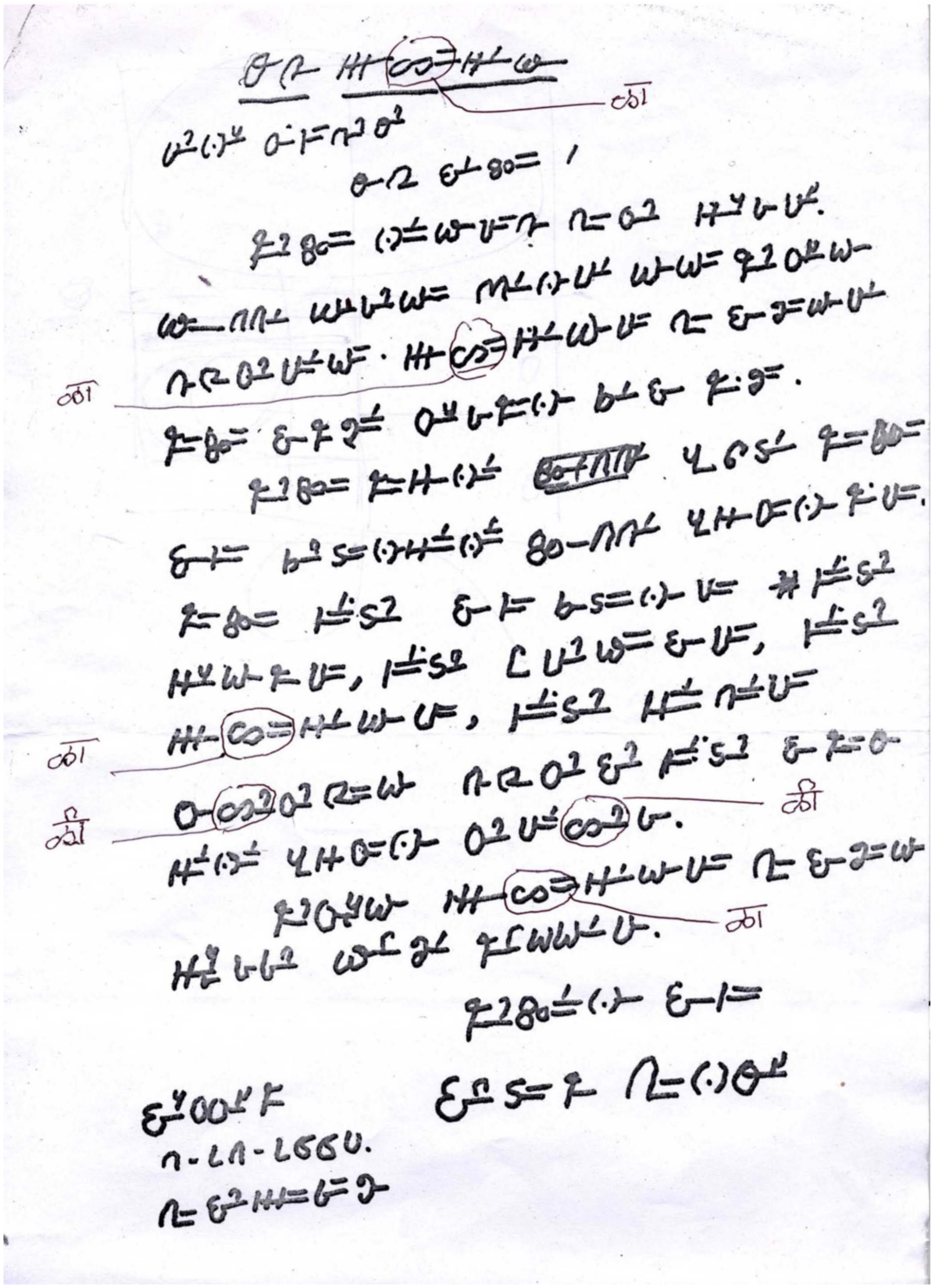


Figure 17: A document showing usage of 𑴀 LLA.

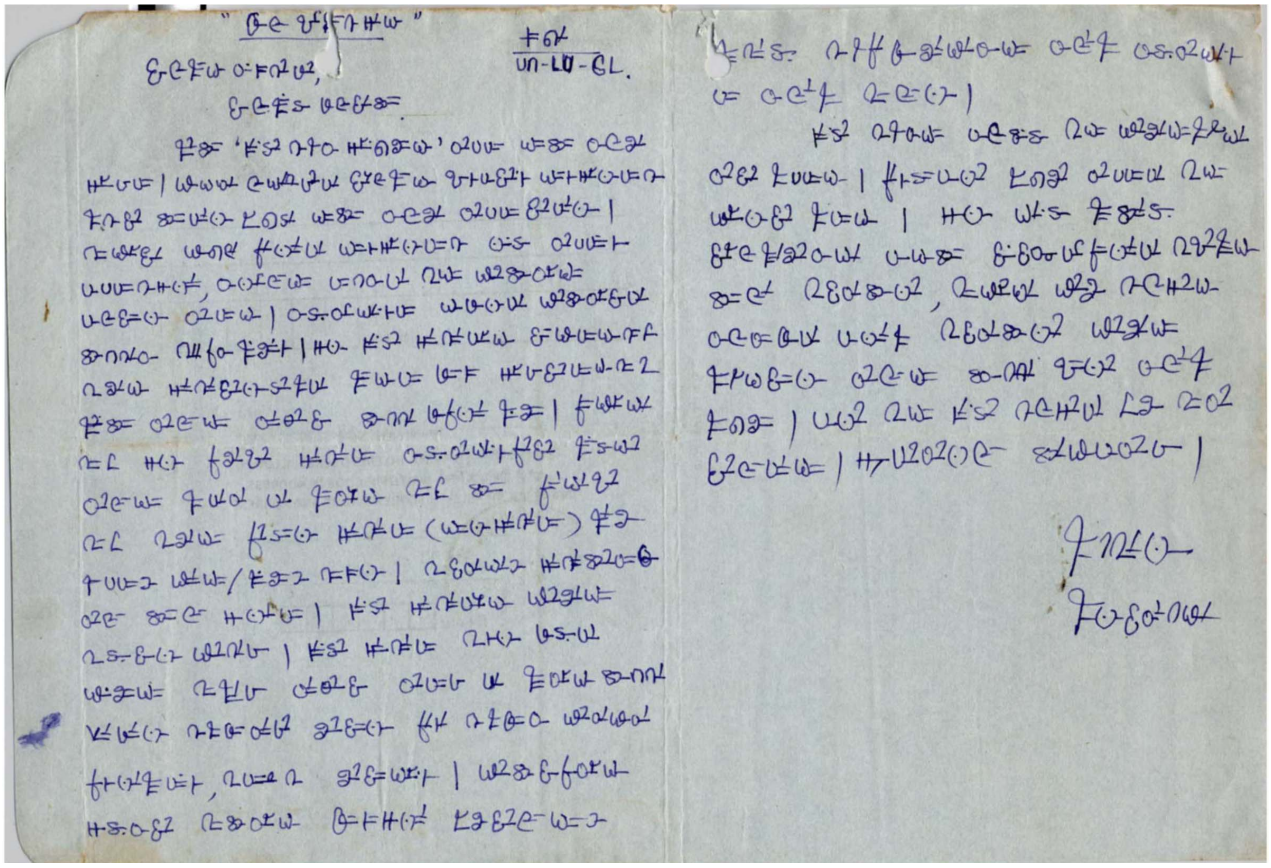


Figure 18: A letter written in Gondi.

Figure 19: An invitation card written in the Devanagari and Gondi scripts.

पेरसापेन पुयंनीना पाटा

ओ सल्ला शक्ति इमा, गांगरा शक्ति इमा ।
परसापेन मावा ओ परसापेन मावा ॥
जीवा शक्ति इमा, जायी शक्ति इमा ।
सजोर शक्ति मावा, ओ परसापेन मावा ॥
कयमो शक्ति मावा, करूमो शक्ति मावा ।
कामो शक्ति मावा, ओ परसापेन मावा ॥
मेंदोल शक्ति इमा, मती शक्ति इमा ।
मोह शक्ति मावा, ओ परसापेन मावा ॥
पुनो शक्ति इता, उनो शक्ति इमा ।
गुणो शक्ति मावा, ओ परसापेन मावा ॥
मान शक्ति इमा, माई शक्ति इमा ।
पुटसे शक्ति मावा, ओ परसापेन मावा ॥
कासे शक्ति इमा, मासे शक्ति इमा ।
गार शक्ति मावा, ओ परसापेन मावा ॥
तयमो शक्ति इमा, रयमो शक्ति इमा ।
सयमो शक्ति मावा, ओ परसापेन मावा ॥
गुर्रे शक्ति इमा, बुर्रे शक्ति इमा ।
यायाल शक्ति मावा, ओ परसापेन मावा ॥
मंत्रे शक्ति इमा, जंत्रे शक्ति इमा ।
बाबाल शक्ति मावा, ओ परसापेन मावा ॥
पुंगार शक्ति इमा, सिंगार शक्ति इमा ।
नींगार शक्ति मावा, ओ परसापेन मावा ॥
केंसार शक्ति इमा, वेंजार शक्ति इमा ।
लेंगार शक्ति मावा, ओ परसापेन मावा ॥
अगास शक्ति मावा, पताल शक्ति इमा ।
पोकराल शक्ति मावा, ओ परसापेन मावा ॥
विह्नासी शक्ति इमा, इवौसि शक्ति इमा ।
सल्ला शक्ति मावा, ओ परसापेन मावा ॥
ओ बुढालपेन मावा ॥ ओ परसापेन मावा ॥
॥ सेवा ॥ सेवा ॥ सेवा ॥

सीताराम मंडाले (सचीव)
आदिवासी गोंड समाज मंडळ, पुणे.

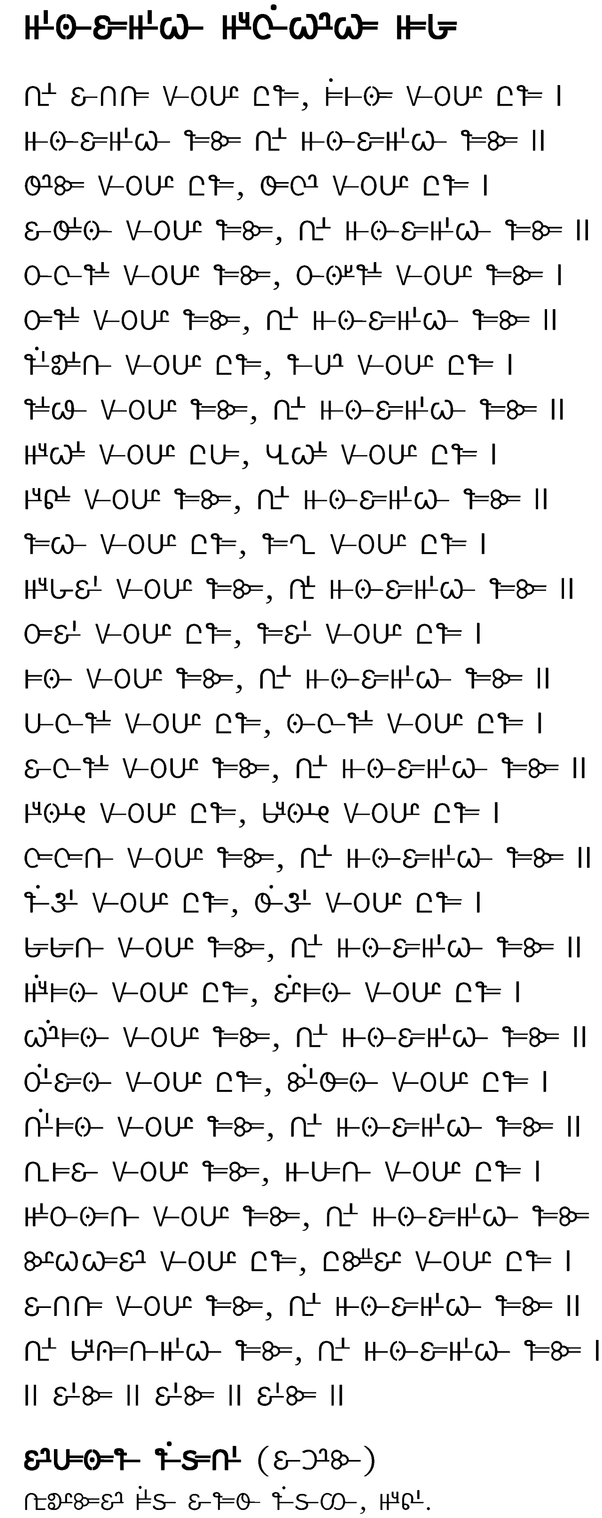


Figure 20: A Christian prayer typeset using digitized Gondi and Devanagari fonts. The Gondi font used in this specimen was designed by Mukund Gokhale.

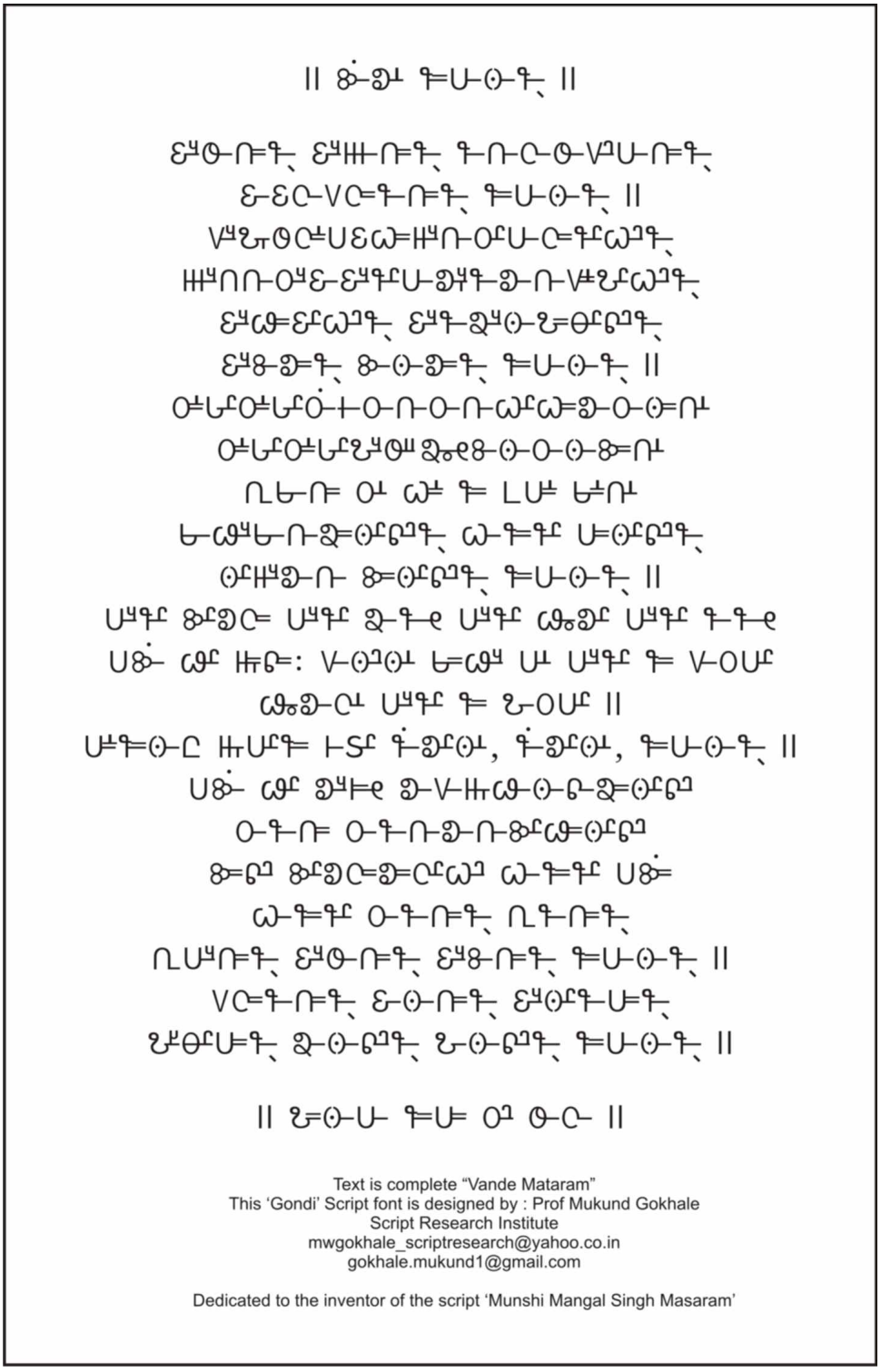
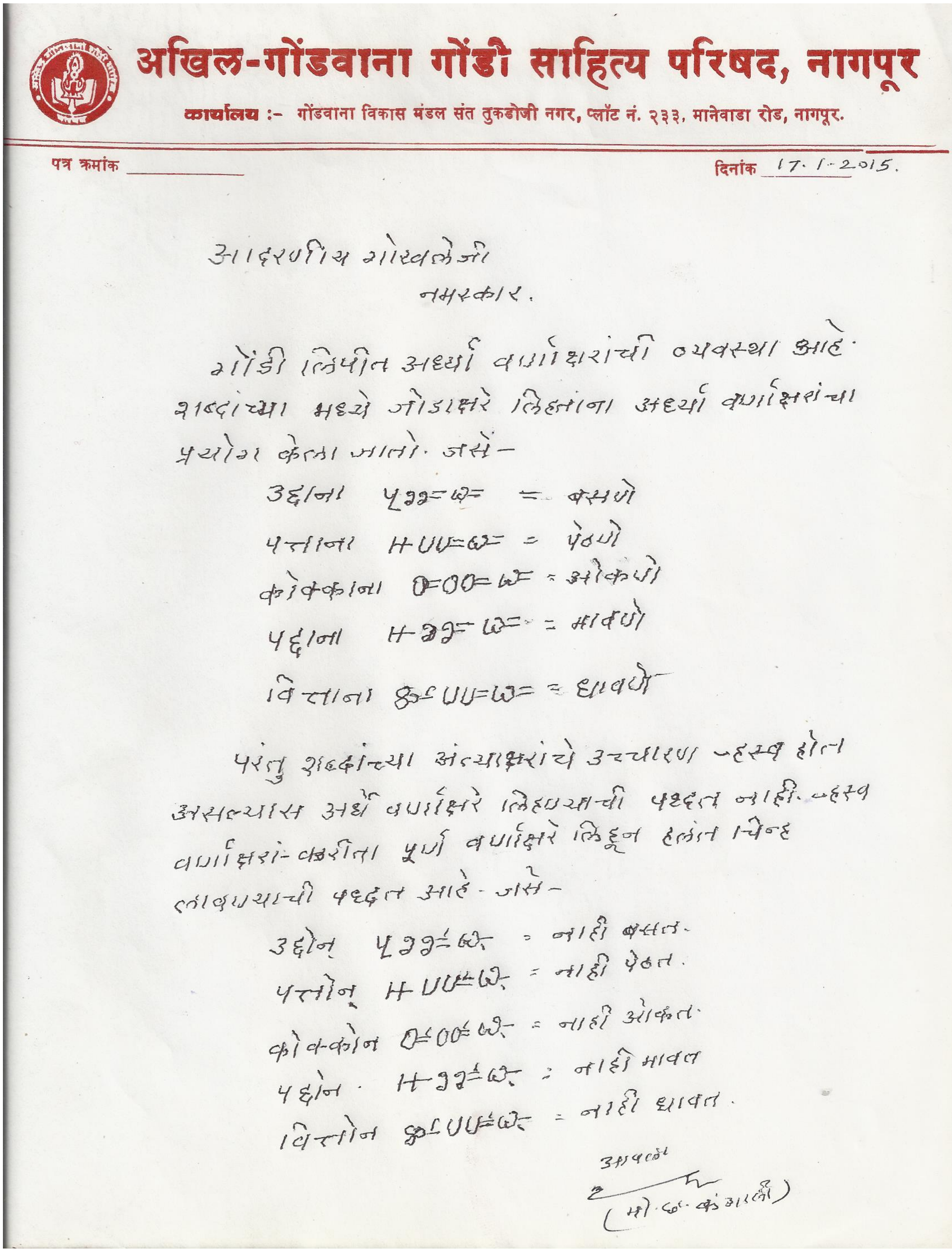


Figure 21: The lyrics to “Vande Mataram” transliterated into Gondi.



अखिल-गोंडवाना गोंडी साहित्य परिषद, नागपूर

कार्यालय :- गोंडवाना विकास मंडल संत तुकडोजी नगर, प्लॉट नं. २३३, मानेवाडा रोड, नागपूर.

पत्र क्रमांक ____________ दिनांक 17.1.2015.

आदरणीय गोरवलेजी

नमस्कार.

गोंडी लिपीत अर्ध्या वर्णाक्षरांची व्यवस्था आहे. शब्दांच्या मध्ये जोडाक्षरे लिहतांना अर्ध्या वर्णाक्षरांचा प्रयोग केला जातो. जसे—

उद्दाना = बसणे

पत्ताना = पेठणे

कोक्काना = ओकणे

पद्दाना = मावणे

वित्ताना = धावणे

परंतु शब्दांच्या अंत्याक्षरांचे उच्चारण ऱ्हस्व होत असल्यास अर्धे वर्णाक्षरे लिहण्याची पद्धत नाही. ऱ्हस्व वर्णाक्षरां-करीता पूर्ण वर्णाक्षरे लिहून हलंत चिन्ह लावण्याची पद्धत आहे. जसे—

उद्दोन् = नाही बसत.

पत्तोन् = नाही पेठत.

कोक्कोन = नाही ओकत.

पद्दोन = नाही मावत

वित्तोन = नाही धावत.

आपला

(मो. रा. कंगाली)

Figure 22: Usage of VIRAMA with regular forms of consonants for representation of bare consonants.

ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646[1]
Please fill all the sections A, B and C below.
Please read Principles and Procedures Document (P & P) from http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html **for guidelines and details before filling this form.**
Please ensure you are using the latest Form from http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html**.**
See also http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html **for latest *Roadmaps*.**

A. Administrative

1. **Title:** *Proposal to Encode the Gondi Script in ISO/IEC 10646*
2. Requester's name: *Script Encoding Initiative (SEI) / Anshuman Pandey (anshuman.pandey@berkeley.edu)*
3. Requester type (Member body/Liaison/Individual contribution): *Liaison contribution*
4. Submission date: *2015-01-27*
5. Requester's reference (if applicable):
6. Choose one of the following:
   This is a complete proposal: *Yes*
   (or) More information will be provided later:

B. Technical – General

1. Choose one of the following:
   a. This proposal is for a new script (set of characters): *Yes*
      Proposed name of script: *Gondi*
   b. The proposal is for addition of character(s) to an existing block:
      Name of the existing block:
2. Number of characters in proposal: *71*
3. Proposed category (select one from below - see section 2.2 of P&P document):
   A-Contemporary X 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
4. Is a repertoire including character names provided? *Yes*
   a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document? *Yes*
   b. Are the character shapes attached in a legible form suitable for review? *Yes*
5. Fonts related:
   a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?
   Anshuman Pandey
   b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):
   Anshman Pandey (pandey@umich.edu)
6. References:
   a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided? *Yes*
   b. 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. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at http://www.unicode.org for such information on other scripts. Also see Unicode Character Database (http://www.unicode.org/reports/tr44/) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

[1] Form number: N4102-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11, 2011-03, 2012-01)

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before? *No*
   If YES explain
2. 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*
   If YES, with whom? *Mukund Gokhale (Script Research Institute, Pune)*
   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? *Yes*
   Reference:
4. The context of use for the proposed characters (type of use; common or rare) *Common*
   Reference: *Used for writing the Gondi language in India*
5. Are the proposed characters in current use by the user community? *Yes*
   If YES, where? Reference:
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? *N/A*
   If YES, is a rationale provided?
   If YES, reference:
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)? *Yes*
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence? *No*
   If YES, is a rationale for its inclusion provided?
   If YES, reference:
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters? *No*
   If YES, is a rationale for its inclusion provided?
   If YES, reference:
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to, or could be confused with, an existing character? *No*
    If YES, is a rationale for its inclusion provided?
    If YES, reference:
11. Does the proposal include use of combining characters and/or use of composite sequences? *Yes*
    If YES, is a rationale for such use provided? *Yes*
    If YES, reference: *Combining signs*
    Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?
    If YES, reference:
12. Does the proposal contain characters with any special properties such as control function or similar semantics? *Yes*
    If YES, describe in detail (include attachment if necessary) *Virama; see text of the proposal*
13. Does the proposal contain any Ideographic compatibility characters? *No*
    If YES, are the equivalent corresponding unified ideographic characters identified?
    If YES, reference:

Addendum to Acknowledgments

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