Proposal for representing the Devanagari ‘bhale mīṇḍu’ in Unicode

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May 21, 2021

1 Introduction

This is a proposal to encode ten new Devanagari characters in Unicode, which are used for representing a class of auspicious signs that have been attested in inscriptions and manuscripts since the 11th century:

<table>
<thead>
<tr>
<th>Glyph</th>
<th>Codepoint</th>
<th>Character name</th>
</tr>
</thead>
<tbody>
<tr>
<td>𑼀</td>
<td>U+11B00</td>
<td>DEVANAGARI HEAD MARK</td>
</tr>
<tr>
<td>𑼁</td>
<td>U+11B01</td>
<td>DEVANAGARI HEAD MARK WITH HEADSTROKE</td>
</tr>
<tr>
<td>𑼂</td>
<td>U+11B02</td>
<td>DEVANAGARI SIGN BHALE</td>
</tr>
<tr>
<td>𑼃</td>
<td>U+11B03</td>
<td>DEVANAGARI SIGN BHALE WITH HOOK</td>
</tr>
<tr>
<td>𑼄</td>
<td>U+11B04</td>
<td>DEVANAGARI SIGN EXTENDED BHALE</td>
</tr>
<tr>
<td>𑼅</td>
<td>U+11B05</td>
<td>DEVANAGARI SIGN EXTENDED BHALE WITH HOOK</td>
</tr>
<tr>
<td>𑼆</td>
<td>U+11B06</td>
<td>DEVANAGARI SIGN FIVE-LIKE BHALE</td>
</tr>
<tr>
<td>𑼇</td>
<td>U+11B07</td>
<td>DEVANAGARI SIGN NINE-LIKE BHALE</td>
</tr>
<tr>
<td>𑼈</td>
<td>U+11B08</td>
<td>DEVANAGARI SIGN MIRRORED NINE-LIKE BHALE</td>
</tr>
<tr>
<td>𑼉</td>
<td>U+11B09</td>
<td>DEVANAGARI SIGN MINDU</td>
</tr>
</tbody>
</table>

As the ‘Devanagari’ (U+0900) and ‘Devanagari Extended’ (U+A8E0) blocks in the BMP are full, the proposed characters should be allocated to ‘Devanagari Extended-A’ (U+11B00 .. U+11B4F) in the SMP. The representative glyphs have been designed by the proposal author in conformity with glyphs used in the Devanagari code charts.
2 Background

Numerous Devanagari inscriptions and manuscripts from western and central India, produced since the 11th century, begin with signs such as:

\[\text{𑼀𑼧 𑼀𑼨 𑼁𑼧 𑼁𑼪 𑼮 𑼄 𑽄 𑼫 𑼬 𑼭}\]

They express the Sanskrit term सिद्धम् *siddham* ‘may it be accomplished’. These siddham signs may be classified as a subset of maṅgala signs, which represent a “benediction or an auspicious word” (Sircar 1965: 92). They are functionally similar to the \(\text{ॐ} \ U+0950 \text{DEVANAGARI OM}\) (see Pandey 2012b), but differ from it both graphically and structurally. These signs often occur concurrently with another category of maṅgala signs, \(\text{ॐ} \ U+0950 \text{DEVANAGARI OM}\) characters: ओम. They are functionally similar to the maṅgala signs, \(\text{ॐ} \ U+0950 \text{DEVANAGARI OM}\) and \(\text{ॐ} \ U+ABFD \text{DEVANAGARI JAIN OM}\) (see Pandey 2013). In fact, siddham expressions typically precede om invocations in benedictions, eg. नामासवर्ज्ञायः, as in the following folio of the Jñātadharmakathā from 1589 CE (Bodleian Library, Prakrit d.4, f.1v):

![Image of a folio from a Prakrit manuscript]

Signs for siddham and om are palaeographically, semantically, and graphically distinct, and were treated separately for centuries. By the 17th century, usage of the siddham diminished in northern Devanagari and auspicious signs coalesced into the ubiquitous सो. However, usage of ओम, etc. continued in western and central India, especially in Jaina orthography for Devanagari. The convention of writing siddham before om continued as well. The importance of siddham signs in Jaina traditions is observed by the fact that they are used consistently in benedictions, while om is not. Indeed, siddham signs may be considered to be part of ‘standard’ benedictions for certain Jaina schools, such as the Śvētāmbara sect.

Today, these siddham signs are used predominantly in Jaina orthography for Devanagari. Jaina practitioners and scholars refer to them using the Gujarati and Rajasthani terms भले bhale (‘may it be blessed’) or भले मींठ bhale mīṇṭu. As this usage indicates a semantic divergence from the original siddham expression of “may it be accomplished”, it is appropriate to refer to these signs as bhale instead of as siddham characters. Moreover, it is appropriate to consider the bhale signs as a palaeographical sub-class of siddham characters.

Despite their common occurrence in inscriptions and manuscripts, in printed scholarly materials, and continued usage by Jaina practitioners and scholars, these western and central siddham signs cannot be represented in digital Devanagari plain text because the necessary characters are not available in Unicode. This document proposes the encoding of new Devanagari characters that will enable usage of the bhale mīṇṭu signs in order to support the full representation of Devanagari texts.
3 Description of characters

3.1 Relationship to other characters

The western and central Devanagari siddham signs are functionally similar to, but structurally and graphically distinct from the conventional and more ancient \( \text{ॐ U+0A8FC DEVANAGARI SIGN SIDDHAM} \) (see Pandey 2012b), and its analogues, such as \( \text{ॐ U+115C1 SIDDHAM SIGN SIDDHAM} \) and \( \text{ॐ U+0FD3 TIBETAN MARK INITIAL BRDA RNYYING YIG MGO MDUN MA} \), as well as extended forms such as \( \text{ॐ U+0C77 TELUGU SIGN SIDDHAM} \) and \( \text{ॐ U+0C84 KANNADA SIGN SIDDHAM} \). These siddham signs differ in the same regard from other auspicious signs used in north Indic scripts, such as \( \text{ॐ U+111DA SHARADA EKAM} \) (see Pandey 2011b), and the ānjī signs used in eastern Indic scripts, eg. \( \text{ॐ U+0980 BENGALI ANJI} \) (see Pandey 2012a), \( \text{ॐ U+11480 TIRHUTA ANJI} \) (see Pandey 2011a), \( \text{ॐ U+AAF2 MEETEI MAYEK ANJI} \).

The western and central Devanagari siddham signs have a more complex structure than other siddham signs in that they consist of multiple elements and have variant representations that involve distinctive alternate forms. They are as complex as Tibetan auspicious forms, such as \( \text{ॐ U+0F04 TIBETAN MARK INITIAL YIG MGO MDUN MA} \).

3.2 Structure and Typology

The auspicious signs are often considered atomic characters in Jaina orthographic and cultural traditions. However, they may be analyzed as sequences of graphemes for purposes of character encoding. For example, \( \text{ॐ U+0960, ॐ U+0960, ॐ U+0960} \) should be considered a sequence of a ‘head-mark’ ()&&(property)& followed by the ‘core’ (ॐ) of the expression. The ‘core’ itself may be interpreted as an atomic character, but it also may be further analyzed as an initial (ॐ) + a terminal (ॐ) element. Such a decomposition is practical because various combinations of these components are attested, and there are combinations in which only two components are present.

<table>
<thead>
<tr>
<th>head-mark</th>
<th>core (initial)</th>
<th>core (terminal)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>,</td>
</tr>
</tbody>
</table>

Throughout this section, the compound ः is a proxy for the ‘core’, unless explicitly stated. The ‘core’ or ‘head-mark’ + ‘core’ is often accompanied by a || double danda, which may follow the core, eg. ||, but may also precede the head-mark, eg. ||. In some sources, the head-mark is absent, eg. ||, and in other cases it may both precede the core and follow the double danda, eg. ||. There are several combinations, as shown by Kapadia (1936, appendix 2, p. 12):

\[ चि, चिव, चिॊ, चिॊॊ, चिॊॊॊ, चिॊॊॊॊ, चिॊॊॊॊॊ \]

Of special note is the variable presence of the ः element. It is doubled in ||; while it is absent in ||. In fact, Kapadia (1936, appendix 2, p. 4–5) shows variants of ः in isolation (see fig. 3), which further supports the analysis described here. Another variation, in which the head-mark is replaced by double danda, eg. ||, occurs in a manuscript of the Br̥hatkalpasūtracūrṇi, as noted by Kapadia (1936: 248):
While इ is typically followed by || double daṇḍa, in some sources it is both preceded and followed by the उ head mark. The below excerpt from the first folio of the *Anuyogadvārasūtra* (Cambridge MS Add. 1266.2) shows distinctive usage of both the head-mark and double daṇḍa:

Although the उ and इ may be interpreted as atomic signs, the variation in the forms of the elements suggests that they should be represented as a sequence of characters instead of as an atomic sign. While this approach would require multiple characters where users may expect a single character, it allows for complete representation of the sign and its variant forms, as well as the individual representation of its elements. Accordingly, उ and its alternates should be treated as being composed of three distinct elements, which are referred to here as ‘head-mark’ + bhale + mīṇḍu, by mapping terms from the modern Jaina name for the sign to its components.

### 3.3 Palaeographical origins

These auspicious signs are commonplace in Jaina manuscripts, and referenced in reproductions and transliterations of texts in scholarly literature. However, there is little consensus regarding their origins. Some scholars suggest that they are stylized forms of auspicious Jaina utterances. In his catalogue of manuscripts at the Royal Library of Berlin, Weber (1892: xvi) explained that the ‘Diagramm’ इ is an invocatory formula, such as arhaṃ, oṃ, aim, namah (see text in fig. 1). But, this explanation is unsatisfactory as such words are fully written following the sign in various sources. Bhattacharya (2000) dispels the notion that इ represents oṃ or arhaṃ, and asserts that it was originally a sign for siddham. The proposal author agrees.

In the catalogue of the Jaina manuscripts at Strausbourg, Tripāṭhi (1975: 39) offers a general description of the sign इ, but does not touch upon its origins. He writes that the sign consists of two elements: the first resembling “the ‘siddham’ symbol (representing the figure ‘9’ as written in modern Devanāgarī)” and the second resembling a sign taking the shape of the letters tha, cha, etc.” He further mentions that “[s]ome Indian publications print the sign in Devanāgarī numerals (‘50’, ‘60’ or ‘90’)”. Although Tripāṭhi refers to Weber’s ‘Diagramm’, it is clear from his description that he is referring to the ‘core’ इ portion of इ. Following that, is it likely that the elements to which Tripāṭhi refers are इ and इ. However, he does not provide additional information about the resemblance of the first element to “the ‘siddham’ symbol”, the usage of numbers in transliterations, or any details on the alternate forms. Furthermore, Tripāṭhi avoids issues of the semantic and palaeographical identity of the signs by transliterating them all using “§O”.

To be sure, the forms of the initial ‘core’ or bhale sign do not resemble other characters in conventional Devanagari. However, when considering historical styles, it is loosely possible to see similarities with digits:
This may explain Tripathi’s reference to the usage of numbers for transliterating the sign; however, as shown later in this section, there is no similarity between the bhale and digits used in Jain manuscripts. A more plausible explanation is that the bhale is based on a rotated form of the siddham, whose representation was angularized, capped with a headstroke, and further normalized over time according to the conventions of the Jaina style of Devanagari into the shape ꦠ. The top-hooks may be considered embellishments, perhaps with esoteric significance.

A primitive form of ꦠ appears in a palm-leaf manuscript containing the Brhaçcūrṇivāyākyā (British Library, MS Or. 1386, f.1v, excerpt), a Śvetāmbara Jaina treatise written in the 13th century:

Here, the same structure of ꦠ is found in the ꦡ sign at the beginning of the text. It is easy to visualize the normalization of ꦡ into ꦠ taking place by making the second stroke angular, while retaining the top-curl. The appearance of the ꦡ also helps to explain why certain scholars chose to represent the sign as ‘60’ in transliteration as it resembles the modern Devanagari ꦡ.

Similarly, the origin of ꦢ may be traced to ꦣ, which bears resemblance to the modern Devanagari ꦣ. The ꦢ appears in a step-well inscription from VS 1350 (1293 CE) at Surwaya, modern Madhya Pradesh, during the reign of the Yajavapāla ruler Ganaṭa (Sircar 1962: plate after p. 342):
In the following folio of a copy of the Śrīpālakathā (British Library, Or. 2126 ms A), written in 1487 vs (1537 CE), the auspicious sign उ (red) resembles the digit 9 (green). The 0 is written as ० to differentiate it from usage of ० for zero (blue):

By the 19th century, any palaeographical relationship between digits and bhale signs was gone. Manuscripts show standardized usage of certain bhale signs and distinguish them from digits. A folio of a Prakīrṇaka (Cambridge MS Add. 1816) written in 1920 vs (1863 CE) shows the distinction between the elements of the auspicious sign (red) and digits (blue), which are used as line numbers and illuminated in orange in the source. The ॅ differs from ‘5’ (५) and other digits, and the ० differs from the zero in “10’ (last blue box).

A folio of the Jaṃbūdvīpa no vīcāra (Cambridge MS Add. 1266.6), written in 1879 vs (1929 CE) also shows a distinction between the first element उ (red) of the auspicious sign and the digits. Here the second element ० is similar in shape to the digit zero shown in the number ‘10’ (last blue box); however, the ० is angular, while the zero is more curved ०, and annotated with an arch diacritic above.
The distinction between the mīṇḍu sign and zero is observed is numerous manuscripts, for example, in the first folio of the Tattvārthādhigamasūtra (Cambridge MS Or. 127):

The difference between ə (red) and zero (blue) is readily apparent in printed conventional Devangari, such as the following excerpt from a manuscript of the Anuyogadvārāntargatasādhūpamādvādaśī in Kapadia’s catalogue (1936: 365):

The relationship between these signs and digits is unknown. Whatever their palaeographical origins may be, these signs were fossilized as auspicious characters and carry semantics that distinguish them from digits and other characters.

4 Proposed Characters

Although originally siddham signs, the proposed characters are used today primarily by readers and writers of Jaina texts. For this reason, the names of the proposed Unicode characters is based on the terminology for the signs in modern Gujarati and Rajasthani. The signs 𑼂, 𑼃, 𑼄, 𑼅, 𑼆, 𑼈, 𑼉 are referred to as bhale characters; and ə is referred to as mīṇḍu. Transliterations have been normalized without diacritics in adherence to
Unicode naming conventions. Additional descriptions and examples of usage for the proposed characters are provided below.

4.1 Headmarks

Two headmarks are proposed for encoding:

\[ \text{𑼀} \text{ DEVANAGARI HEAD MARK} \]

\[ \text{𑼁} \text{ DEVANAGARI HEAD MARK WITH HEADSTROKE} \]

In Jaina manuscripts, the \( \text{𑼀} \) is typically the first written sign. It has an alternate form \( \text{𑼁} \) with a headstroke. The \( \text{𑼀} \) resembles the \( \text{॥} \) double daṇḍa with a south-eastward diagonal below-base extension of the left descender. The \( \text{𑼁} \) is semantically and functionally distinct from double daṇḍa, and occurs concurrently with it. The \( \text{𑼀} \) and \( \text{𑼁} \) are both common forms of the head-mark, and are represented distinctively in both manuscripts and in printed sources.

<table>
<thead>
<tr>
<th>Manuscript</th>
<th>Print</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ \text{𑼀} ]</td>
<td></td>
</tr>
<tr>
<td>\text{Laghulaṇḍaka} (Cambridge MS Add. 1266.9)</td>
<td>fol. 1º ॥ ५० ॥ ५ े नमः श्रीसांतिनाधाय ॥ ॥</td>
</tr>
<tr>
<td>[ \text{𑼁} ]</td>
<td></td>
</tr>
<tr>
<td>\text{Jñātādharmakathā} (Cambridge MS Add. 2286)</td>
<td>fol. 1º ए ५० ॥ श्रीयुङ्गोऽनमः ॥</td>
</tr>
</tbody>
</table>

Kapadia represents \( \text{𑼁} \) using the vowel letter \( \text{ए} \), likely due to the absence of a dedicated punch, and \( \text{𑼀} \) using a modified form of \( \text{ए} \), without a headstroke.

Some sources show concurrent usage of \( \text{𑼀} \) (red) and \( \text{𑼁} \) (blue), such as a copy of the \textit{Yatijītakalpasūtra} from vs 1456 (Kapadia 1936: 283),

and an undated copy of the \textit{Nandīsūtra} (Kapadia 1936: 296):

The \( \text{𑼀} \) is also used as the primary benedictory phrase, as \( भाॅुः \) in a 19th century copy of the \textit{Sukhabodhikā} (Cambridge MS Corpus Christi 33.B.4.1):
The distinctive representations of भळे and भळे and their concurrent usage in both manuscripts and in printed materials, particularly scholarly publications, requires an encoding of these signs as separate characters.

### 4.2 Bhale signs

The following 4 conventional bhale signs are proposed for encoding:

- भळे DEVANAGARI SIGN BHALE
- भळे DEVANAGARI SIGN BHALE WITH HOOK
- भळे DEVANAGARI SIGN EXTENDED BHALE
- भळे DEVANAGARI SIGN EXTENDED BHALE WITH HOOK

The distinctiveness of these signs is evident from manuscripts, inscriptions, and printed sources:

<table>
<thead>
<tr>
<th>Manuscript / Inscription</th>
<th>Print</th>
</tr>
</thead>
<tbody>
<tr>
<td>भळे</td>
<td>fol. 1b १२ नमः अरिहतांगां एते etc. (Kapadia 1936: 181)</td>
</tr>
<tr>
<td>भळे</td>
<td>fol. 1b १२ नमः एते</td>
</tr>
<tr>
<td>भळे</td>
<td>fol. 1b १२ नमः एते भ्रेमव्याय मम:</td>
</tr>
<tr>
<td>भळे</td>
<td>—</td>
</tr>
</tbody>
</table>

The भळे, भळे, भळे, भळे may be considered conventional bhale signs. They may occur concurrently in the same source. This is typically the case with manuscripts that contain both the canonical text and a commentary. The authors of the original and the commentary are different, and each author may have preferred a different auspicious sign. Both भळे (red) and भळे (blue) occur in the canonical text and the commentary, respectively, in a manuscript of the Byhatakalpasūtracūrṇi, dated VS 1218 (Kapadia 1936: 249):
Kapadia (1936) shows ornamental representation of the छ (see fig. 2, 3) where the top-hook is reduplicated as an ascending series of curls:

![Image of ornamental representation](image)

### 4.3 Digit-like signs

The following 3 digit-like bhale signs are proposed for encoding:

- उ DEVANAGARI SIGN FIVE-LIKE BHALE
- ऊ DEVANAGARI SIGN NINE-LIKE BHALE
- ऋ DEVANAGARI SIGN MIRRORED NINE-LIKE BHALE

The उ, ऊ, ऋ occur less frequently in the extant sources. They are given names that reference the Jaina style digits they resemble, even though they do have any numerical properties.

The distinctiveness of these signs is evident from manuscripts, inscriptions, and printed sources:

<table>
<thead>
<tr>
<th>Manuscript / Inscription</th>
<th>Print</th>
</tr>
</thead>
<tbody>
<tr>
<td>उ</td>
<td>leaf 1b उ नमः तत्त्वशाय।</td>
</tr>
<tr>
<td></td>
<td>Sircar 1962: plate following p. 342 (Kapadia 1936: 274)</td>
</tr>
<tr>
<td>ऊ</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Śrīpālakathā (British Library Or. 2126 ms. A)</td>
</tr>
<tr>
<td>ऋ</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Śrāddhavidhi-viniścaya (BL Or. 2120 ms. B)</td>
</tr>
<tr>
<td></td>
<td>fol. 1v उ नमः श्रीजित्वधनाय Jitakalpasūtra (Kapadia 1936: 268)</td>
</tr>
</tbody>
</table>

Both छ (red) and उ (blue) occur in the canonical text and the commentary, respectively, in a manuscript of the Br̥hatkalpasūtracūrṇi, dated VS 1218 (Kapadia 1936: 249):
4.4 The auspicious circle: mīṇḍu

The following character is proposed for representing the second element used in various representations of the auspicious sign:

𑼊 DEVANAGARI SIGN MINDU

The terminal element ₀ in ₀, ₀, etc. is called mīṇḍu ‘circle’ in Gujarati. It resembles the styles of the digit zero ₀ and ₀ used in Jaina manuscripts. But, it differs from the normative ० U+0966 DEVANAGARI DIGIT ZERO. It also resembles ॰ U+0966 DEVANAGARI ABBREVIATION SIGN. As shown in § 3.3, the ₀ has a representation that is distinct from ० when conventional Devanagari digits are used.

However, usage of ₀ for representing zero is attested in several Jaina manuscripts, particularly those containing cosmological texts. In a version of the Samgrahaṇiratna by Śrīcandra from the 17th century (British Library Or. 2116C), the ₀ is used as zero for writing 10, 20, etc. (red) and is used concurrently with ० U+0966 DEVANAGARI DIGIT ZERO (blue):

This indicates that ₀ also possess a semantic identity of ‘zero’, even though that attribute may not be present in typical representations of the auspicious symbol.

In numerous manuscripts, the ₀ and the typical Jaina style ₀ of ० are written distinctively, for example, in the following excerpt of a manuscript of the Śrīpālakathā (British Library, Or. 2126 ms A). Here, ₀ is written as ₀, while the zero is written as ₀:

The above indicates that there is an understood difference between mīṇḍu and zero, even though the graphical representations may be the same in some sources.

The ₀ is contrasted from the conventional Devanagari zero by Kapadia (1936: 200):

It may be contrasted from printed representations of mīṇḍu using the conventional zero ०, as in a version of the Nandīsūtraviṣamapadaparyāya (Kapadia 1936: 309):
The contrastive representation of 0 and ꜐ requires that ꜐ be encoded as a separate character. Although it may represent ‘zero’ in some instances, it is defined as a non-numeric character. It may be necessary to encode ꜐ (potentially, DEVANAGARI DIGIT WESTERN ZERO as a separate character in the future in order to properly distinguish between ꜐, the normative zero, and the Western zero, as shown above in the manuscript of thhe Saṁgrahaṇīratna.

5 Recommendations for Input Methods

While users may treat the bhale mīṇḍu as an atomic unit, the components of the sign are proposed for encoding as separate characters. Therefore, users may expect to ‘type’ the sign using a single key in a Devanagari input method. In order to facilitate intuitive access to the characters required for representing bhale mīṇḍu, the following recommendations are made:

- ꜐, ꜐: group with DOUBLE DANDA
- ꜐, ꜐, ꜐, ꜐, ꜐, ꜐: group with either OM or SIDDHAM
- ꜐: group with the bhale signs or with ZERO or the ABBREVIATION SIGN

Defining keys for pre-composed combinations of the head-mark + bhale + mīṇḍu is not recommended.

6 Character Data

Character Properties  UnicodeData.txt:

11B00;DEVANAGARI HEAD MARK;Po;0;L;;;;;N;;;;;
11B01;DEVANAGARI HEAD MARK WITH HEADSTROKE;Po;0;L;;;;;N;;;;;
11B02;DEVANAGARI SIGN BHALE;Po;0;L;;;;;N;;;;;
11B03;DEVANAGARI SIGN BHALE WITH HOOK;Po;0;L;;;;;N;;;;;
11B04;DEVANAGARI SIGN EXTENDED BHALE;Po;0;L;;;;;N;;;;;
11B05;DEVANAGARI SIGN EXTENDED BHALE WITH HOOK;Po;0;L;;;;;N;;;;;
11B06;DEVANAGARI SIGN FIVE‐LIKE BHALE;Po;0;L;;;;;N;;;;;
11B07;DEVANAGARI SIGN NINE‐LIKE BHALE;Po;0;L;;;;;N;;;;;
11B08;DEVANAGARI SIGN MIRRORED NINE‐LIKE BHALE;Po;0;L;;;;;N;;;;;
11B09;DEVANAGARI SIGN MINDU;Po;0;L;;;;;N;;;;;

Linebreaking Properties  LineBreak.txt:

11B00..11B09;88 # Po [10] DEVANAGARI HEAD MARK..DEVANAGARI SIGN MINDU

7 References


### 8 Acknowledgments

I would like to thank Srinidhi A. for bringing the *bhale mīṇḍu* signs to my attention many years ago.
Figure 1: Description by A. F. Weber of the “Diagramm” used in Jaina manuscripts (1892: xvi). The invocation is depicted here as अङ्गु using the अ व ं variant of अ with a headstroke. Weber writes, “Every Jaina manuscript begins with a ‘diagram’ that has the following form, अङ्गु, which represents an invocatory formula, such as arham, om, aym, namah, etc.
knows it full well that $\ddot{v}$ when written with its circular bottom to its left stands for $\ddot{v}$ in the *Jaina* script. The late Babu Rajendralal Mitra mistook the *Jaina* character for $\ddot{v}$ as $\ddot{v}$ as can be seen from his work "A Catalogue of Sanskrit Manuscripts in the Library of His Highness the Maharaja of Bikaner" (Calcutta, 1880), No. 1537 (p. 702) and No. 1780 (p. 719) respectively.

Now I may say a few words about some of the symbols given in the two plates of this appendix. The very first symbol given in the first square of the first plate is read as *bhale* ($\ddot{v}$) in Gujarati. It may be ornamented at times for which the reader is referred to the 68th and the 69th squares occurring in the last line of the second plate. *Bhale* occurs in the beginning of *Jaina* Mss. in various ways, some of which are as under:

\[\ddot{v}, \dddot{v}, \dddot{v}, \dddot{v}, \dddot{v}, \dddot{v}, \dddot{v}, \dddot{v}, \dddot{v}, \dddot{v}, \dddot{v}, \dddot{v}\]

The second symbol occurring in the second square of the first plate appears to be the same as one evaluated as $\ddot{v}$ by Pandit Gaurishankar Hirachand Ojha in his work *The Paleography of India*, plate XXVII. It is sometimes found in the beginning of *Jaina* Mss., like the one preceding it and the one following it. Usually we have the first symbol noted above. At times this ($\ddot{v}$) too appears without a portion above the horizontal stroke i.e. as $\dddot{v}$. Thus *Jaina* Mss. begin in a number of ways.

In Prof. A. B. Keith's *Catalogue of the Sanskrit and Prakrit Manuscripts from the Library of the India Office* (vol. II, pt. II), one comes across the phrase "*Jaina diagram*".

A question is likely to be raised here as to what is meant by this *Jaina diagram*. My surmise is that it stands for (i) any one of the

1-2 Vāṇāṅga-stūna is written for Thāṅkāṅga-stūna and Vāṇāṅga-trīpāṭha for Thāṅkāṅga-trīpāṭha.

3 See the following pages in order:
   23, 2, 127, 4, 10, 61, 63, 95, 83, 111, 38 and 118.

4 See p. 204.
   See p. 181.

5 See vol. II, pt. II, pp. 1241, 1245 etc.

**Appendix II**

The first three symbols given in the first three squares of the 1st plate, (ii) one of its variants or (iii) the combinations of one of them with or without a ḍanda or ḍandas and a cipher or ciphers.

Figure 2: Excerpt from Kapadia (1936, appendix 2, p. 12–13) providing details about the $\ddot{v}$ symbol. The plates referenced in the text are provided here in fig. 3.
Figure 3: Tables from Kapadia (1936, appendix 2, p. 4–5) showing various characters attested in Jain manuscripts. Variations of the ग sign are given in the first two squares of the box.
“edit” our Texts. It is our aim to present the passages cited from our Manuscripts in a form which is readable, but the main consideration is to present the original Text as faithfully as possible. This was also felt by WEBER (“Die Aufgabe des Verfassers eines Kataloges ist nicht die eines Kritikers”).

§ 7.3.1 Beginning of the Manuscript

The present paragraph covers the first three components of the list mentioned in § 7.1.2.

(1) Symbols. Nearly all the Śvetāmbara Manuscripts from North and Western India start with an auspicious symbol which is now called “bhole” by the Jainas. KEITH calls it “Jaina-diagram” and his explanation has been recorded by KĀPADĪ (on the basis of a letter received from KEITH). WEBER suggests a derivation from “a-ra-ma”, and in our Ser. No. 179 bhale is in fact followed by the word arham. The form of the sign varies a good deal. However it consists basically of two elements. The first of these elements shows a remote similarity to what D. C. SIRCAR calls the “siddham” symbol (resembling the figure “9” as written in modern Devanāgarī), while the second element resembles a sign taking the shape of the letters tha, cha etc. WEBER, SCHUBRING and JANERT drop the bhale from their citations. Some Indian publications print the sign in Devanāgarī numerals (“50”, “60” or “90”). We always reproduce it as § 0.

(2) Namaskāra-phrases. The bhale is sometimes followed by om (Ser. Nos. 1, 30, 137 etc.). But more often we find formulas like śri-Gautamāya namah (Ser. No. 20), namo Viṭārāgāya (Ser. Nos. 30 etc.), namah Sarvajñāya (Ser. No. 1), hṛi śri-gurubhyo namah (Ser. No. 137), or simply namah (Ser. No. 108). It might be mentioned here that we find pāchā-gurubhyo namah only in Digambara Manuscripts. — The namaskāras are especially informative when they refer to historical persons. We have for instance om namah śri-Jinabhādra-gaṇi-kaṃśarāmaneḥbhayaḥ in Ser. No. 45 (Viśesāvyaka-bhāya) and śri-Vidyānandi-gurubhyo namah in Ser. No. 107 (Tattvārtha-sūtra with Rājavārtika). — There is at least one case where it is almost certain that the namaskāra is from the pen of the author himself, Ser. No. 14 is Bhāvavijaya’s Sugamā on the Uttarādhyayana-sūtra. Here the namaskāra is “śri-Śaṅkheśvara-Pārśvanāthāya namah”, and the author’s Prasasti also begins with a salutation to Śaṅkheśvara-Pārśvanātha. It would therefore appear that Bhāvavijaya is responsible for the namaskāra. — The namaskāra-phrases are reproduced in full by WEBER and KĀPADĪ, SCHUBRING and VELANKAR drop them completely. JANERT (Ind. Hss. 1) merely writes “—”.

(3) likhyate-phrases. Just after the Namaskāra-phrase, there may appear a reference to the text from the pen of the scribe. Mostly it is in the form: atha ... likhyate, liṣyate etc. We cite a few examples from the Strasbourg Collection: atha Ratnārāyanapūjī likhyate (Ser. No. 258); atha Pūjyapāda-svāmī-kṛta Samādhiṣata[kal-ki deša-bhāṣā-maya] Vacanikā likhyate (Ser. No. 161); atha granthaki Vacanikā vananēkā saṃbanḍha

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1. ALBRECHT WEBER, Verzeichnis 2.3, Vorwort, p. xvii.
5. See e.g. PUNYAVIJAYA, Ch. Jesuites.
6. In Cat. BhOri, 17.3 foll., KĀPADĪ uses a symbol corresponding to the standard form of bhale.
7. For om in Jaina Mss. see Cat. BhOri, 17.2, Appx. 1, p. 2.

Figure 4: Description of the bhale symbol in Jain manuscripts by Tripāṭhi (1975: 39).
**ISO/IEC JTC 1/SC 2/WG 2**

**PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646**

Please fill all the sections A, B and C below.


Please ensure you are using the latest Form from [http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html](http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html) for latest Roadmaps.

### A. Administrative

1. **Title:** Representing the Devanagari ‘bhale mindu’ in Unicode
2. **Requester’s name:** Anshuman Pandey <pandey@umich.edu>
3. **Requester type (Member body/Liaison/Individual contribution):** Expert contribution
4. **Submission date:** 2021-05-21
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):
   - Proposed name of script: 
   - Yes
   - b. The proposal is for addition of character(s) to an existing block:
   - Name of the existing block: Devanagari Extended-A
   - Yes
2. **Number of characters in proposal:**
   - 10
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?**
   - 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.): Anshuman Pandey
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](http://www.unicode.org) for such information on other scripts. Also see Unicode Character Database ([http://www.unicode.org/reports/tr44/](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.

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<tbody>
<tr>
<td>1. Has this proposal for addition of character(s) been submitted before?</td>
<td>No</td>
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<td>If YES explain</td>
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<td>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.)?</td>
<td>No</td>
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<td>If YES, with whom?</td>
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<td>3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?</td>
<td>Yes</td>
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<td>Reference:</td>
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<td>4. The context of use for the proposed characters (type of use; common or rare)</td>
<td>Common</td>
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<td>Reference:</td>
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<td>5. Are the proposed characters in current use by the user community?</td>
<td>Yes</td>
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<td>Reference:</td>
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<td>6. After giving due considerations to the principles in the P&amp;P document must the proposed characters be entirely in the BMP?</td>
<td>N/A</td>
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<td>If YES, is a rationale provided?</td>
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<td>If YES, reference:</td>
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<td>7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?</td>
<td>Yes</td>
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<td>8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?</td>
<td>No</td>
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<td>If YES, is a rationale for its inclusion provided?</td>
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<td>If YES, reference:</td>
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<td>9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?</td>
<td>No</td>
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<td>If YES, is a rationale for its inclusion provided?</td>
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<td>If YES, reference:</td>
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<td>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?</td>
<td>No</td>
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<td>If YES, is a rationale for its inclusion provided?</td>
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<td>If YES, reference:</td>
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<td>11. Does the proposal include use of combining characters and/or use of composite sequences?</td>
<td>No</td>
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<td>If YES, is a rationale for such use provided?</td>
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<td>If YES, reference:</td>
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<td>Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?</td>
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<td>If YES, reference:</td>
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<td>12. Does the proposal contain characters with any special properties such as control function or similar semantics?</td>
<td>No</td>
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<td>If YES, describe in detail (include attachment if necessary)</td>
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<td>13. Does the proposal contain any Ideographic compatibility characters?</td>
<td>No</td>
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<td>If YES, are the equivalent corresponding unified ideographic characters identified?</td>
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<td>If YES, reference:</td>
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