Proposal to Encode the Pabuchi Script in UCS

Biswajit Mandal biswajitmandal.bm90@gmail.com 15 August 2023

1. Introduction

The purpose of the documents is to bring the attention of the Unicode Technical Committee (UTC) the Pabuchi script. It provides a draft character repertoire, names list, and some specimens. An allocation for the script should be made in the roadmap to the Supplementary Multilingual Plane. The code chart, name list, and all information presented here are subject to change. Additional information will be provided as it is obtained.

2. Background

Pabuchi (अ जि कि) is a script used for writing Sirmauri (ISO 639-3 srx) and Mahasui (ISO 639-3 bfz) language used by the astrologers in Himachal Pradesh , India. This script is not only used for Sirmauri language but also for other languages. Sirmauri script which used to be the official script of Sirmauri language but Pabuchi script still used by astrologers only. The script of public dialogue was Sirmauri, but the script of astrologers is still Pabuchi and other Sancha scripts. This script is currently being used in Sāmcā Vidhyā. Sāmcā Grantha (साँचा ग्रंथ) is a complete book of local ancient astrology. In this book, mainly after the question episode, there is a detailed mention of many types of auspicious Muhūrta मुहूर्त (times) and Yantras यंत्र (instrument) -Mantras मंत्र (spell) and Tantra तंत्र (mechanism) vidhyās.

According to Dr. Tulsi Raman, "When handwritten texts started being scripted, manuscripts of open pages were prepared. These books of open pages were kept tied in cloth. Its name was Sāmcā by the Samcayan संचयन (lit: accumulation) of written letters or knowledge.

In the 11-12th century, the Kashmiri Pundits¹ who came along with the queen and settled in the villages of Sirmaur, this Sāmcā vidhyā is their legacy. Punditai² was their profession, through the knowledge of tantra, mantras, yantras and astrology; they used to solve people's diseases and various problems. These scripts evolved from the practices of Sāmcā Pundits of the four lineages over about eight centuries."^[1]

According to Dr. Gokul Chand Sharma, "the scripts of most of the Sāmcā are local. Sancha texts found in different regions of Himachal Pradesh are available in many scripts like Pābūcī, Bhaṭṭākṣarī, Paṇḍwāṇī, Candwāṇī etc. these scripts also originated from Sharada script. Adequate Sāmcā texts are found in Shimla, Sirmaur and Jaunsar-Bawar region of present Uttarakhand.

Vedic and non-Vedic tantras are present in Sāmcā vidhyā. This education was taught by in Kharkan, Khaddar, Gumma, Rohru Manayoti in Gurukuls³ of Churdhar region. Sāmcā vidhyā is of four types: Ugtāī Sāmcā (Astronomy based), Phalit Sāmcā (Vāstu based), Bhārathā Sāmcā (Mythology based) and Tantra-mantra-yantra Sāmcā (Black magic based).

-

 $^{^1}$ Originated from the Sanskrit term paṇḍita पण्डित, meaning "knowledge owner" or learned man"

² The function of a Pundit

³ Vedic school

The initial script of sancha was Brahmi. Sharada was made by amendment and change in it. In course of time, that too got converted into the local scripts. In these hilly areas, Takri was used in official work, Landa in business and Bhaṭṭākṣarī script was used in Brāhmākārya (rituals). Pābūc⁴ pundits predit by throwing dice on the book and matching the numbers with Horā ⁵numbers."[1]

The texts of ancient times are handwritten by black ink. This Sainca book is mainly written in five scripts. Like $P\bar{a}b\bar{u}c\bar{\imath}$, $Bhaṭṭ\bar{a}kṣar\bar{\imath}$, $Paṇḍwaṇ\bar{\imath}$, $Candwaṇ\bar{\imath}$ and $B\bar{a}go\bar{\imath}$. Of these, only Bagoi is used in Uttarakhand. Apart from these five scripts it is also written in $Sirm\check{o}r\bar{\imath}$ script and Devanagari script. Of these, the Pabuchi script is the most commonly used and has the largest number of preserved books. Pabuchi script is used by Pundits of Kharkhan and Jamlog villages of Sirmaur district, Chopal and Bamnol villages of Shimla district, etc.

There are different theories about the development of these scripts. One of them has already been described. Sharada script is believed to be the progenitor of these scripts. According to some beliefs, $M\bar{a}h\bar{a}su\ Devat\bar{a}^6$, he brought Goddess $\dot{S}\bar{a}rad\bar{a}^7$ from Kashmir to Himachal. And this script originated from Goddess $\dot{S}\bar{a}rad\bar{a}$. Another belief is that it originated from a symbol shown by $M\bar{a}h\bar{a}su\ Devat\bar{a}$ in a sage's dream.

According to Dr. Om Prakash Sharma, "the descendants of Pabuchs of Kharkhan village were residents of Kashmir in the past. The descendants of these Pabuch Brahmins settled in Jaisalmer, Rajasthan after acquiring Kashmiri knowledge. The King of Sirmaur married the princess of Jaisalmer and Pabuch Pundits came with them. First they settled in Barwala, then Chandni, Kumarsain, Charoli, Shillai and Kharkhan." [2]

The journey of Pabuch Brahmins from Kashmir to Kharkhan village is evidence of the origin of pabuchi script. The alphabets, words, sentences and numbers of the Sharada script from Kashmir have taken a new form by being influenced by the geographical conditions, Prakrit language and dialects and writing of scribes.

Pabuch Pundits considered that this knowledge and script very sacred and that is why they did not tell and teach about it to outsides. They only teach this script to their descendants. They believe that if an outsider learns of it, then their prediction will not work. But due to the extinction of this script, now they are coming forward to preserve it digitally and have agreed to teach it to outsiders. $S\bar{a}mc\bar{a}$ Grantha is written in Sirmauri and other regional languages like Mahasui of that area.

As per Dr. Om Prakash Sharma, "according to the records of the sancha collection, the oldest Khujitrā sancha was written by Dhana Pabuch in 1503 VS (1446 AD). The oldest Ugtāī (Ugut) sancha was written in 1543 VS (1486 AD). Surdas Pabuch's Chiri (Ugtāī) based sancha was written in 1603 VS (1546 AD) and Ramdiya Pabuch's sancha is 400 years old. "[9]

About 400 astrology and questionnaire texts were prepared in the Pabuchi script, of which 350 are still preserved. About 1100 people know this knowledge. This handwritten book gives relief from problems like disease, defect, distortion, disorder, pain etc. Only a few manuscripts are shown in this proposal.

Written information about Pabuchi script is very less in internet and also very less mentioned in books which are written in Hindi. *Himāchal Kalā Samskriti Bhāṣā Academy* was established in 1972.

⁶ Local name for Lord Shiva a.k.a Mahādevaḥ (Mahāśiva महाशिव)

⁴ The Pundits and Brahmins who use Pābūci

⁵ Hour in astrological language

⁷ Another name of Goddess Sarasvatī सरस्वती(Goddess of knowledge, music-arts, learning and wisdom)

Through which investigation started on $Samca\ Vidhya$ as well. Whatever knowledge about Sancha has come to light today, it is the gift of the academy. The first book was published by this academy in 2004. The second edition 'Himācal Pradeś kā prācīn gramtha: Sāmcā' was published in 2012. Some of whose photos have been attached in the proposal [see fig 24(a) &(b)]. This is based on Pabuchi Sāmcā received from Amar Singh of Kharkhan. Presently Yatin Pandit of Kullu conducts a class Pabuchi n his online Takri workshop. Dr. Dilip Singh Tilkan of Sirmaur is trying to preserve them digitally. The author of this proposal Biswajit Mandal had prepared the font of Pabuchi for the first time 2021, which was also published in the newspaper [8]. There were some mistakes in the letters of that font, they have been modified and proposed in this proposal.

3. Purpose of the proposal

Pabuch Pundits consider this script sacred, so they teach this script only to their son and successor. This script has not yet been written in printed or digital form. All manuscripts are handwritten. Due to lack of any digital font, they are facing difficulties in reading and learning. For this reason, in this modern time, all novice Pabuch Pundits do not want to write it by hand and have started using Devanagari script instead. Now all the beginners and old people all want to write and preserve this script in digital form. If it is not preserved now, then this script will be extinct in the next decade or two. This proposal has been proposed because already the use of some symbols has become extinct. All the letters given in this proposal have been done in the consultation and supervision of the scholars. Most of the evidences used in this proposal have been obtained from primary sources. More information about this script is not available in any book or on the internet. In this proposal, 3 manuscripts of Pt. Se Ram Pabuch, 2 manuscripts of Pt. Sree Kanshi Ram Pabuch and 1 manuscript of Pt. Chandramani Pabuch have been shown. Apart from this, 2 manuscripts of Pt. Devi Ram have been shown. All of which are in Sirmauri language. In this, 3 manuscript of Pt. Rajender Sharma have also been shown which are written in Mahasui language.

4. Scripts

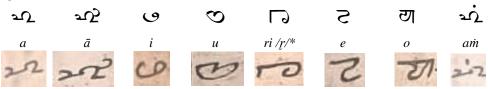
Pabuchi script is an abugida based written from left to right on horizontal line. Pabuch Pundits call this script as 'Sadamāī' (सदमाई) or 'Siddhamāī' (सिद्धमाई). Sadamāī has a symbol of fourteen letters. These signs contain the formulas of vowels and consonants. Probably the literal meaning of 'Siddhamātrikā' (सिद्धमातुका) is 'Sadamāī' or 'Siddhamāt'.

7	^ c	2 c	5	13)	${\mathfrak O}$, c
rā	ma	sa	ta	ji	и	та
2 c	ر ع د	[5	اعد	너	\circ	æ. ए
sa	si	ti	si	$dhar{a}$	и	aṁ
	"Lord R	āma is i	the only	truth, on	ly truth	wins."

The Pabuchi which is derived from the Sharada script. Other scripts such as Dogra and other Takri scripts also derived from Sharada [§ 12]. Due to which the letters of Pabuchi script are similar to these scripts. And the rest of Sancha scripts are also very similar to each other [see table 1].

4.1 Independent Vowels

There are 8 independent vowels found in the manuscript, but only 5 proposed. Apart from these some more vowels found in the manuscript cum alphabet charts. Those may be written by using combining the vowel signs.



* Vocalic $r \supset is$ written by $\langle \neg ra + \neg -i \rangle$

Some vowels also used for other phonemes:

- Letter \bar{a} \mathfrak{L}^2 also used for ah (अः)
- Letter $i \circ also used for \bar{\iota} (\$)$
- Letter $u \circ$ also used for \bar{u} (\bar{s})
- Letter $e \ge$ also used for ai (\dot{v})

Letter \mathcal{L} a functions as vowel carrier. Independent forms of vowels like \bar{a} , o, au and $a\dot{m}$ are produced by writing those vowels with this letter.

$$\bar{a} \stackrel{\mathcal{L}}{\sim} \langle \stackrel{\mathcal{L}}{\sim} a + \stackrel{1}{\circ} - \bar{a} \rangle,$$
 $o \stackrel{\mathcal{L}}{\sim} \langle \stackrel{\mathcal{L}}{\sim} a + \stackrel{\circ}{\circ} - o \rangle,$
 $au \stackrel{\mathcal{L}}{\sim} \langle \stackrel{\mathcal{L}}{\sim} a + \stackrel{\circ}{\circ} - au \rangle,$
 $a\dot{m} \stackrel{\dot{\mathcal{L}}}{\sim} \langle \stackrel{\mathcal{L}}{\sim} a + \stackrel{\dot{\circ}}{\circ} - \dot{m} \rangle,$

We have also found the sign -au in the Pabuchi tables given by the Pundits, but its use is not present in any manuscript. It is taken from TAKRI VOWEL SIGN AU U+116B5. Apart from this, we also found a distinct letter o^{-2} in the same table. These letters are not authentic and not proposed. In another table we find a different letters au in the same table. A different letter ai in found, but it is not proposed and it is taken from TAKRI VOWEL AI U+11687.



4.1.1 All 6 vowel signs are proposed in this proposal:

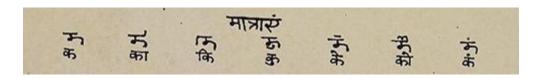
	Unicode Character Name	Takri	Dogra	Sharada
σV	PABUCHI LETTER A	ত	म्य	भ
O	PABUCHI LETTER I	ઉ	6/ë	39
\circ	PABUCHI LETTER U	ß	उ	8
5	PABUCHI LETTER E	S	ป	р
स्य	PABUCHI LETTER O	ਨੌ	ਤੰ/ਓ	В

4.2 Vowel Signs

There are 6 vowel signs (5 pure vowel signs + 1 nasal sign). Some vowel signs change their shapes according to the base letter [§5].



• Sign $-\dot{m}$ $\dot{\circ}$ used for nasal (/ $\tilde{\circ}$ /, /- η /, /- η /, /- η /, /-n/ and /-m/) sounds.



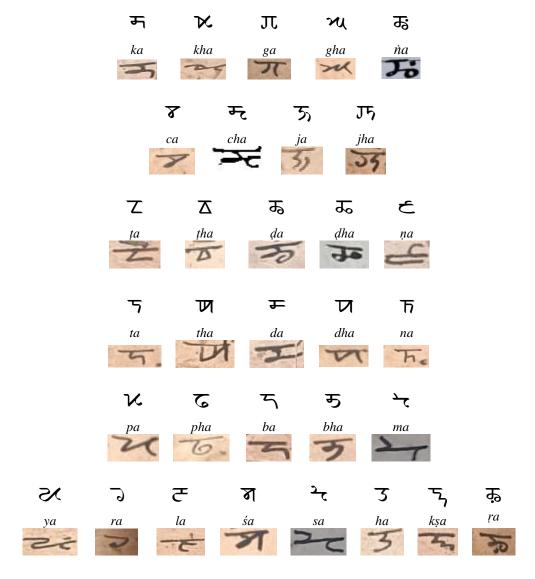
It shows the vowel signs with letter ka (from fig 1)

4.2.1 All 6 vowel signs are proposed in this proposal:

	Unicode Character Name	Takri	Dogra	Sharada
d	PABUCHI VOWEL SIGN AA	<i>ં</i>	୍ୟ	ਾ
ெ	PABUCHI VOWEL SIGN I	ि	ি	ি
ے	PABUCHI VOWEL SIGN U	ુ	ु/ु	្
ੋ	PABUCHI VOWEL SIGN E	ਂ	ō	ੋ
~	PABUCHI VOWEL SIGN O	ீ	૽ /૿	៊

4.3 Consonants

There are 32 consonants found in the manuscripts. In these, ∇h $k \circ a$ ($\Re h$) is a ligature. Apart from these two more letters also found in the manuscript i.e $\dot{n}a$ and $\tilde{n}a$. But these letters represented by combining two or more letters or signs.



০ \ltimes kha also used for $\mathfrak{s}a$ (ष). \vdash ba used for both /bɔ/ and /wɔ/. \Join ya pronounced as /dʒjɔ/.

Other represented forms for letter $\dot{n}a$ and $\tilde{n}a$:

- $\dot{\pi} < \pi \ ga + \dot{\circ} \dot{m} > \text{used for } \dot{n}a \ (\ensuremath{\mathfrak{F}}).$ According to Brahmic rules it should be $ga\dot{m}$ but Pabuch Pundits consider it as $\dot{n}a \ (\ensuremath{\mathfrak{F}})$ and $ga\dot{m}$ both [§ 7].
- ৬ফ /iɔ̃/ < ৬ $i + \dot{w}$ $a\dot{m}$ > used for $\tilde{n}a$ (ञ) and $\dot{n}a$ (ङ) both.

4.3.1 Proposed consonants in this proposal:

	Unicode Ch	aracter	Name	Takri	Dogra	Sharada
퐈	PABUCHI L	ETTER	KA	96	ਕ	क
X	PABUCHI L	ETTER	KHA	ㅂ	В	प
π	PABUCHI L	ETTER	GA	ฎ	11/11	ग
ગ્ય	PABUCHI L	ETTER	GHA	ա	պ/m	ч
क	PABUCHI L	ETTER	NGA	3.	γ .	て
8	PABUCHI L	ETTER	CA	ມ	Ŋ	Ħ
म् ट	PABUCHI L	ETTER	CHA	¾ 8	क/क	æ
5 5	PABUCHI L	ETTER	JA	31	<u>ক</u>	۳.
ፓን	PABUCHI L	ETTER	JHA	ን	π/π	ारु
Z	PABUCHI L	ETTER	TTA	5	2	T
Σ	PABUCHI L	ETTER	TTHA	8	ō	0
क	PABUCHI L	ETTER	DDA	3	क	ॸ
æ	PABUCHI L	ETTER	DDHA	J.	쬬	ᄹ
ح	PABUCHI L	ETTER	NNA	໘	<u>~</u>	~
ጛ	PABUCHI L	ETTER	TA	3	3	3
অ	PABUCHI L	ETTER	THA	퍽	य/ष	घ
ᄑ	PABUCHI L	ETTER	DA	ມ	₹	\mathfrak{r}
П	PABUCHI L	ETTER	DHA	ט	ध/ज	Ū
त	PABUCHI L	ETTER	NA	ካ	3	7
K	PABUCHI L	ETTER	PA	ч	Ŋ	ч
<u>ح</u>	PABUCHI L	ETTER	PHA	8	ठ	$\boldsymbol{\omega}$
5	PABUCHI L	ETTER	ВА	Կ	द	а
रु	PABUCHI L	ETTER	ВНА	3	ਭ	5
<u>, c</u>	PABUCHI L	ETTER	MA	ท	η	ਮ
%	PABUCHI L	ETTER	YA	ਧ	य	ਬ
5	PABUCHI L	ETTER	RA	δ	र/व	1
き	PABUCHI L	ETTER	LA	ਲ	$\overline{\sigma}$	ल
ন	PABUCHI L	ETTER	SHA	হা	श	म
2 c	PABUCHI L	ETTER	SA	স	$\overline{\eta}$	મ
3	PABUCHI L	ETTER	HA	3	ತ	ठ
ري	PABUCHI L	ETTER	KSA	-	ક્ષ	জ
क़	PABUCHI L	ETTER.	RRA	3	র	-

4.4 Letter NGA <ৰ্জ>

In some current handwritten chart we found the letter $\sqrt[3]{a}$. That is not found n the manuscript. It is based on DEVANAGARI $\sqrt[3]{a}$ NGA U+0919 style.[see fig 4, 7 &9]









It <ৰ্জ> is different from ৰু· < ৰু ḍa, · abbreviation sign>

4.5 Letter KSA < ¬¬>

ኻ k sa proposed as a separate letter in this proposal because due to absence of letter sa it is not possible to make ligature with aa ka.



4.6 Letter RRA < ৰু>

Retroflex ra = 1 is also available in the Pabuchi orthography. It was not a part of original orthography. It come into exist after inclusion of Urdu/Hindi words in Sirmauri language during 20^{th} century. It has limited usage. Due to absence of nukta sign in the Pabuchi orthography this letter is separately proposing here.







4.7 Pabuchi OM <ଔ>

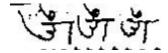
We also found Pabuchi $\begin{tabular}{l} \begin{tabular}{l} \begin{t$

Unicode Character Name



PABUCHI OM

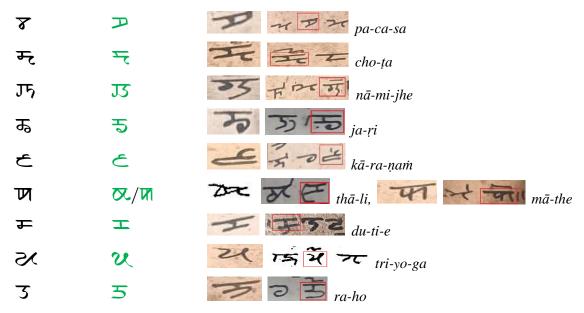




5. Variations

Due to handwritten styles and cursive forms many vowels and consonants changed their actual shapes; these letters make complexity for new readers. We can see two types of letter forms in a single manuscript. It is because some manuscripts were written and completed by two to three generations. We proposed only original forms of letters.

<u>Original</u>	<u>Variant</u>	
$\sigma \mathcal{N}$	ક- શ	a-ra-tha-lā-bha
σV_{5}	2- 6	\bar{a} -ga
O	େ/ ୩	G G 劳 死 市 i-jo-ga-nam, 1 [i u la]
$\boldsymbol{\wp}$	B	ちょう 下 h ba-u-te-di-na
म	ጘ	kā-ja
×	X	de-khi-e
ગ્ય	کر	gha-ṭe



6. Consonants-Vowel Ligatures

Due to variations in vowel letters, we can see also variants of vowel signs. Apart from these we can see the change of shapes of sign \bar{a} and sign i in some specific letters. [§Appendix]

• When sign $-\bar{a}$ comes after letter $na \subset$, then $n\bar{a}$ turn into \subset .

Apart from this we can see another form of $n\bar{a}$ is \vec{c} .

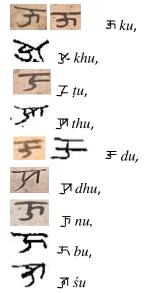
• When sign -i □ comes after letter na ⊆, then ni turn into ⊆.

Apart from this we can see another form of ni is ς .

• When sign -i \cap comes after letter ma $\stackrel{\iota}{\sim}$ and sa $\stackrel{\iota}{\sim}$ then it changes from to \cap . E.g. $\stackrel{\iota}{\sim}$ mi and $\stackrel{\iota}{\sim}$ si.



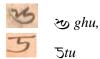
Sign $-u \subseteq$ have three different positions. When sign $-u \subseteq$ comes after letters $-\pi$ ka, $-\kappa$ kha, $-\pi$ ta, $-\pi$



When sign -u \subseteq comes after letters π ga, = cha, \subseteq pha, = bha, = ma, = ra and = sa. Then it \subseteq sits at bottom right side, i.e. π gu, π chu, \subseteq phu, π bhu, π mu, π nu and π su.



• When sign -u \circ comes after letters $\sim gha$ and $\sim ta$ then ghu turn into $\sim m$ and tu turn into $\sim m$.



• In the rest of the letters, the sign $-u \subseteq s$ its in the middle below that letter like $\Im cu$, $\Im ju$, $\Im du$, $\Im nu$, $\Im yu$, $\Im nu$ and $\Im / \Im nu$ etc.





• When sign -o $\hat{\circ}$ comes after letter $na \subset$, then no turn into \subset .



7. Pabuchi ANUSVARA < >

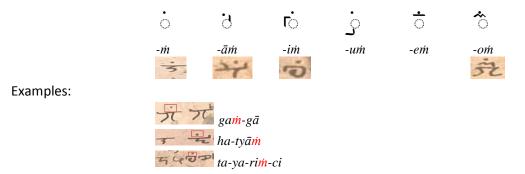
ANUSVARA $\langle \dot{} \rangle$ is used for nasal ($\langle \tilde{} \rangle / -\eta / , /-\eta / , /-\eta / , /-n /$ and /-m /) sounds.

Unicode Character Name

• PABUCHI SIGN ANUSVARA

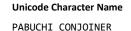
The position of Anusvara is top of the base letter and atop of the vowel signs.

•



8. Pabuchi CONJOINER < >>

It does not exist in the original orthography of the Pabuchi. This has been specially included in this proposal. This conjoiner has been used to form conjunction, due to the absence of the *virama* in the Pabuchi script [§ 9]. Apart from this, it has also been used to write letters and numbers with KAMANDALA [§ 11]. And it has also been used to write $Ghat\bar{t}$ signs [§ 13].



9. Consonants conjunctions

The specialty of Pabuchi orthography is that it lacks virama sign but we can see the use of conjunctions. In that context, this CONJOINER sign is proposed for make conjunction. In Pabuchi, most of the conjunctions are in vertical form. C_d is on top of C_n . But in some cases C_d and C_n conjunct side by side or sometimes make single ligature. There is no standard parameter for the conjunctions in the Pabuchi orthography. The conjunctions found in the manuscript are being written in the same form from one generation to another and no change has been made in them. That is why it is difficult to tell which letter will come below and which will be on the side. The inscriptions below are shown as found in all

manuscripts. And the conjunctions which were not found have been consulted by the scholars. Given in the followings are the common conjunctions found in manuscript.

a. Top-bottom conjunctions

In this C_d is on top of C_n :



In this C_d is on top of C_n , but they touch each other :



$$V_{5}pra < V_{5}pa + \bigcirc + \bigcirc ra >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa >$$

$$V_{5}fra < \nabla fa + \bigcirc + \nabla fa$$

In some cases if C_n is $\not\sim ya$ then it changes to $\mathcal Q$ and in others it remains $\mathcal Q$:

In some cases if C_n is $\lnot ra$ then it changes to \lnot and in others it remains \unlhd :

ች,
$$kra$$
 $<$ ች, ka $+$ \odot $+$ \Im ra $>$
 \forall , $khra$ $<$ \forall , kha $+$ \odot $+$ \Im ra $>$
 \exists , tra $<$ \lnot ta $+$ \odot $+$ \Im ra $>$
 \exists , sra $<$ \lnot , sa $+$ \odot $+$ \Im ra $>$
 \exists , sra $<$ \lnot , sa $+$ \odot $+$ \Im ra $>$

In some cases if C_d is = da, it changes into alternative = da:

b. Side by side conjunctions

In this C_d and C_n touch side by side:

Jh
$$gna < \pi ga + \Theta + h na >$$
The $tpa < h ta + \Theta + k pa >$
The $fa < h ta + \Theta + h ta >$
The $fa < h ta + \Theta + h ta >$
The $fa < h ta + \Theta + h ta >$
The $fa < h ta + \Theta + h ta >$
The $fa < h ta + \Theta + h ta >$

* It is alternative of ৰ śra

c. Conjunctions of alternative letters

$$\exists cca < \neg ca + \boxdot + \neg ca >$$

$$\equiv dda < \neg da + \boxdot + \neg da >$$

$$\neg dya < \neg da + \boxdot + \nearrow ya >$$

d. Triconsonantal Conjunction

We can see only one triconsonantal conjunction in Pabuchi:

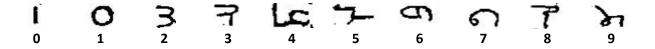
$$\frac{1}{2}$$
 stra $< \frac{1}{2}$ sa $+ \boxed{0} + \boxed{0}$ ta $+ \boxed{0} + \boxed{0}$ ra $> \boxed{0}$

e. Conjunction-vowel ligatures

Following are the example of some conjunction-vowel ligatures. (Alternatives are in green)

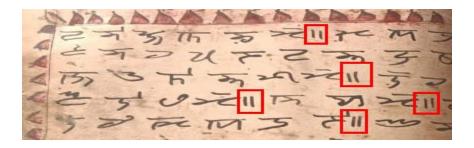
10. Digits

There are full set of decimal digits: I ZERO, O ONE, B TWO, B THREE, A FOUR, A FIVE, A SIX, A SEVEN, A EIGHT and A NINE.



11. Punctuation

DOUBLE DANDA <||>: Pabuchi uses this sign for punctuation. This sign is equivalent to Devanagari character U+0965.



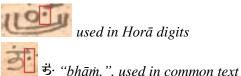
PABUCHI SECTION MARK < || >: this SECTION MARK is generally used to mark the end of the sentence or paragraph. It is a combination of DOUBLE DANDA < || > and DIGIT ONE < 0 >.



QUOTATION MARK $<^+>$: Pabuchi manuscripts contain a 'plus' shaped punctuation mark $<^+>$. This mark used in pairs to set off quotation or *mantras*. The pair consists of an opening quotation mark and closing quotation mark. In some manuscript it is found as $<^*>$ which is due to the writing style. A 'plus' shaped mark is also used in Sharada (L2/09-074R2) as a revision mark.

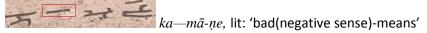


ABBREVIATION SIGN <>>: it is written after the point at which a word is abbreviated. This abbreviation may be occurred in $Hor\bar{a}$ digits and in common texts.



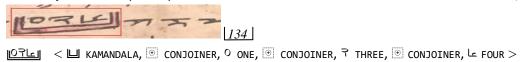
Syllable separator < $^->$:

Use of this sign is very less; it is used to separate the syllables. It can be represented by existing Unicode character U+02C9 MODIFIER LETTER MACRON.



PABUCHI SIGN KAMANDALA < oxdots >: Kamaṇḍala कमण्डल means reliquary in Sanskrit. It is also known as koṣṭaka कोष्टक (lit: sign bracket) or $p\bar{a}tra$ पात्र (lit: vessel). It is used as bullet sign. And it is most common sign in all $S\bar{a}mc\bar{a}$ manuscript. $Hor\bar{a}$ numbers and letters are written in middle of that sign Kamandala, and sits as bullet mark in front of the phrases or paragraphs. Linebreak is not occurring inside the sign Kamanḍala.

The conjoiner \odot is specially used to write $Hor\bar{a}$ numbers and letters inside the Kamandala.



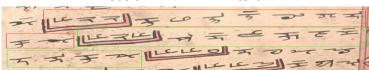


|3 ba jha|

1755

< □ KAMANDALA, ⊕ CONJOINER, ¬ THREE, ⊕ CONJOINER, ¬ BA, ⊕ CONJOINER, ¬ JHA >

Use of KAMANDALA in text:



Pabuchi: Leti チッカラゴルギ

∓ ४ ៤३७ को में ट उक्त स

 54×10^{-1}

Transliteration: |433| du-i- $j\bar{a}$ -he- $r\bar{a}$ -ga- $k\bar{a}$ -du-kha

|434| śā-ke-ṇa-he-ku-la-de-ba(va)-kā-du-kha

Translation: |433| crisis organized by both

[434] suspicion of the totem as a result of doubt

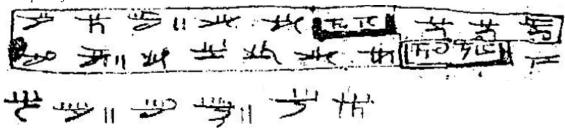
12. Other signs

There are confusions between Pabuchi scholars about the usage of these following signs:

double triple quadraple
vertical bars vertical bars vertical bars bar above bar below

According to some scholars these signs (",",",",",",") are for Vedic tones. And according to others these signs are for decorations or highlight the base letter. There are confusions among them. These signs are currently not being used. People who know the usage of these signs are not alive.

Examples of vertical bars:



Examples of bar above:



Examples of bar below $\leq 2 >$:



Due to confusing and lack of information these signs are not proposing yet. But required blocks are reserved for the future. Otherwise these signs may be represented by existing Unicode characters:

glyphs	Name		Unicode representation						
៉	Double vertical bars	៉	U+030E	COMBINING DOUBLE VERTICAL LINE ABOVE					
Ö	Triple	៉	U+030E	COMBINING DOUBLE VERTICAL LINE ABOVE +					
	vertical bars	់	U+030D	COMBINING VERTICAL LINE ABOVE					
<u>"</u>	Quadraple	៉	U+030E	COMBINING DOUBLE VERTICAL LINE ABOVE +					
	vertical bars	៉	U+030E	COMBINING DOUBLE VERTICAL LINE ABOVE					
ত	Bar above	Ō	U+030E	COMBINING OVERLINE					
<u></u>	Bar below	<u></u>	U+0332	COMBINING LOW LINE					

13. Time signs

Pabuchi is an astrological script. Time units or ghațī units are the key signs for fortune telling. In Pabuchi script we can see several signs for indicating unique timer and values.

SIGN SHUNI < >>: It is also known as ब्राप्त १५ ईंग्यां ghaṭī (शूनि घटी). It is an unlucky sign as per Sāṁcā. Value of this sign is '½ - half time' (amdhi ghaṭī).



Sāmcā. Value of these signs are '1½ - one and half time' (der ghaṭī).

SIGN RIGHT FACED KATTAK $< \S>$: It is right faced katak sign as per $S\bar{a}\dot{m}c\bar{a}$.



SIGN LEFT FACED KATTAK $< \delta >$: It is left faced kațak sign as per $S\bar{a}\dot{m}c\bar{a}$.



SIGN AMRIT < ১ >: It is also known as Ք ६०५ ५ ७ ५ ५ वि. ५ १ अमृत घटी). It is a lucky sign as per Sāmcā. Value of this sign is '2-two times' (do ghaṭī).



Ghar Bandhani Signs: These signs known as খ্ৰ ক দান খ্ৰ বি gharbamdhanī ghaṭī (घरबंधनी घटी). These are lucky signs as per Sāmcā. Value of these signs are '2+, more than two times'. There are five types of gharbarindhanīs signs i.e. $< \Omega >$ value is 3, $< \Omega >$ value is 4 and $< \Omega >$ $< \Omega >$ $< \Omega >$ value is 5.











Only one $< \emptyset >$ of these proposed to be encoded. And the rest can be written by combining other with the help of conjoiner \boxdot . The thing to note in this is that we have to pay attention to the structural instead of looking at the numerical values.

PABUCHI SIGN GHAR BANDHANI $< \emptyset >$

Proposed methods of representing the other Ghar Bandhani signs:

 $\mathfrak{M} < \mathfrak{h}$ GHAR BANDHANI \odot CONJOINER \mathfrak{J} LEFT FACED KATTAK >

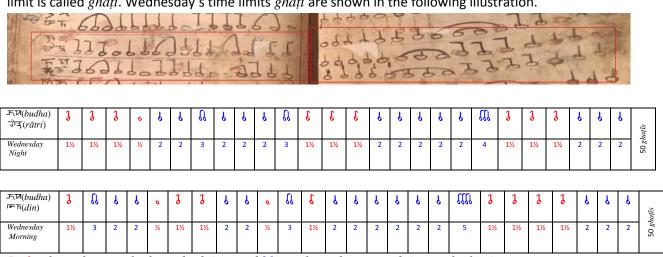
 ${rac{L}{L}} < {rac{L}{L}}$ GHAR BANDHANI ${rac{L}{L}}$ CONJOINER ${rac{L}{L}}$ LEFT FACED KATTAK ${rac{L}{L}}$ CONJOINER ${rac{L}{L}}$ LEFT FACED KATTAK

 $\Omega < \Omega$ GHAR BANDHANI \odot CONJOINER Ω GHAR BANDHANI >

 $\mathfrak{M} < \mathfrak{l}$ GHAR BANDHANI \odot CONJOINER \mathfrak{l} AMRIT \odot CONJOINER \mathfrak{l} AMRIT >

a. Usage of Time signs:

In this method every single day is divided into two parts like night ($r\bar{a}tri$) and morning (din). A day is divided into 8 pahars पहर (o'clock). And the same time limit has been kept in both the parts. This time limit is called $ghat\bar{\iota}$. Wednesday's time limits $ghat\bar{\iota}$ are shown in the following illustration.



Red colour shows unlucky or bad time and blue colour shows good time or lucky time

14. Collation

15. Character Repertoire and Properties

```
xxx00; PABUCHI LETTER A; Lo; 0; L;;;;; N;;;;;
xxx01; PABUCHI LETTER I; Lo;0;L;;;;;N;;;;
xxx02; PABUCHI LETTER U; Lo;0;L;;;;;N;;;;;
xxx03;PABUCHI LETTER E;Lo;0;L;;;;N;;;;
xxx04; PABUCHI LETTER O; Lo; 0; L;;;;; N;;;;
xxx05; PABUCHI LETTER KA; Lo;0;L;;;;;N;;;;
xxx06; PABUCHI LETTER KHA; Lo;0;L;;;;;N;;;;;
xxx07; PABUCHI LETTER GA; Lo;0; L;;;;; N;;;;;
xxx08; PABUCHI LETTER GHA; Lo; 0; L;;;;; N;;;;;
xxx09; PABUCHI LETTER NGA; Lo; 0; L;;;; N;;;;
xxx0A; PABUCHI LETTER CA; Lo; 0; L;;;;; N;;;;;
xxx0B;PABUCHI LETTER CHA;Lo;0;L;;;;N;;;;
xxx0C; PABUCHI LETTER JA;Lo;0;L;;;;;N;;;;;
xxx0D;PABUCHI LETTER JHA;Lo;0;L;;;;N;;;;
xxx0E; PABUCHI LETTER TTA; Lo; 0; L;;;;; N;;;;;
xxx0F;PABUCHI LETTER TTHA;Lo;0;L;;;;N;;;;
xxx10; PABUCHI LETTER DDA; Lo; 0; L;;;;; N;;;;;
xxx11; PABUCHI LETTER DDHA; Lo; 0; L;;;;; N;;;;
xxx12; PABUCHI LETTER NNA; Lo;0;L;;;;;N;;;;
xxx13; PABUCHI LETTER TA; Lo; 0; L;;;;; N;;;;;
xxx14; PABUCHI LETTER THA; Lo; 0; L;;;;; N;;;;
xxx15;PABUCHI LETTER DA;Lo;0;L;;;;;N;;;;;
xxx16;PABUCHI LETTER DHA;Lo;0;L;;;;N;;;;
xxx17; PABUCHI LETTER NA; Lo; 0; L;;;;; N;;;;;
xxx18; PABUCHI LETTER PA;Lo;0;L;;;;;N;;;;;
xxx19; PABUCHI LETTER PHA; Lo; 0; L;;;;; N;;;;
xxx1A;PABUCHI LETTER BA;Lo;0;L;;;;;N;;;;;
xxx1B;PABUCHI LETTER BHA;Lo;0;L;;;;N;;;;
xxx1C;PABUCHI LETTER MA;Lo;0;L;;;;;N;;;;;
xxx1D;PABUCHI LETTER YA;Lo;0;L;;;;N;;;;
xxx1E; PABUCHI LETTER RA; Lo; 0; L;;;;; N;;;;;
xxx1F; PABUCHI LETTER LA;Lo;0;L;;;;;N;;;;;
xxx20; PABUCHI LETTER SHA; Lo; 0; L;;;;; N;;;;;
xxx21; PABUCHI LETTER SA;Lo;0;L;;;;;N;;;;;
xxx22; PABUCHI LETTER HA; Lo; 0; L;;;;; N;;;;;
xxx23; PABUCHI LETTER KSA; Lo; 0; L;;;;; N;;;;;
xxx24; PABUCHI LETTER RRA; Lo; 0; L;;;;; N;;;;;
```

```
xxx25; PABUCHI VOWEL SIGN AA; Mn; 0; NSM; ; ; ; ; N; ; ; ;
xxx26; PABUCHI VOWEL SIGN I; Mn;0; NSM;;;;; N;;;;;
xxx27; PABUCHI VOWEL SIGN U; Mn; 0; NSM;;;;; N;;;;
xxx28; PABUCHI VOWEL SIGN E; Mn; 0; NSM;;;;; N;;;;;
xxx29; PABUCHI VOWEL SIGN 0; Mn;0; NSM;;;;; N;;;;
xxx2A; PABUCHI OM; Lo; 0; L;;;;; N;;;;;
xxx2B;PABUCHI SIGN ANUSVARA;Mn;0;NSM;;;;;N;;;;
xxx2C; PABUCHI SIGN CONJOINER; Mc; 9; NSM; ;; ;; N; ;; ;;
xxx2D;PABUCHI DOUBLE DANDA;Po;0;L;;;;;N;;;;
xxx2E; PABUCHI SECTION MARK; Po; 0; L;;;;; N;;;;;
xxx2F;PABUCHI QUOTATION MARK;Po;0;L;;;;;N;;;;
xxx30; PABUCHI ABBREVIATION SIGN; Po;0;L;;;;;N;;;;;
xxx31;PABUCHI SIGN KAMANDALA;Po;0;L;;;;;N;;;;
xxx32; PABUCHI SIGN SHUNI; Nd;0;L;; ½; ½; ½; N;;;;;;;
xxx33; PABUCHI SIGN RIGHT FACED KATTAK; Nd; 0; L;; 1½; 1½; 1½; N;;;;;
xxx34; PABUCHI SIGN LEFT FACED KATTAK; Nd; 0; L;; 1%; 1%; 1%; N;;;;;
xxx35; PABUCHI SIGN AMRIT; Nd; 0; L;; 2; 2; 2; N;;;;;
xxx36; PABUCHI SIGN GHAR BANDHANI; Nd;0;L;;3;3;3;N;;;;;
xxx40; PABUCHI DIGIT ZERO; Nd;0;L;;0;0;0;N;;;;;
xxx41; PABUCHI DIGIT ONE; Nd; 0; L;; 1; 1; 1; N;;;;;
xxx42; PABUCHI DIGIT TWO; Nd; 0; L;; 2; 2; 2; N;;;;;
xxx43;PABUCHI DIGIT THREE;Nd;0;L;;3;3;3;N;;;;;
xxx44; PABUCHI DIGIT FOUR; Nd; 0; L;; 4; 4; 4; N;;;;;
xxx45; PABUCHI DIGIT FIVE; Nd; 0; L;; 5; 5; 5; N;;;;;
xxx46; PABUCHI DIGIT SIX; Nd;0;L;;6;6;6;N;;;;;
xxx47; PABUCHI DIGIT SEVEN; Nd;0;L;;7;7;7;N;;;;;
xxx48;PABUCHI DIGIT EIGHT;Nd;0;L;;8;8;8;N;;;;;
xxx49; PABUCHI DIGIT NINE; Nd; 0; L;; 9; 9; 9; N;;;;;
```

16. Acknowledgement

I would like to thank various people who helps me lot on this proposal. I would like to thank Dr. Dilip Singh Tilkan for providing various manuscripts of many pabuchs like Pt. Se Ram Pabuch, Pt. Sree Kanshi Ram, Pt. Chandramani Pabuch, etc. I also thanks to Dr. Tilkan for providing various translations, meanings, how to read and how to use the Time signs. I would also like to thank Pt. Rajender Sharma (from Shimla) for providing his various Sanchas.

I would also like to thank Sherjung Chouhan for providing various materials from various pabuch like Haridatt Sharma, Yagyadatt Sharma. I would also like to thanks Dr. Om Prakash Sharma for his guidance and supplying various manuscripts of Pt. Devi Ram Pabuch and books.

I would also like to thanks Yatin Pandit (from Kullu) and Pari Verma (correspondent to *Dainik Jagran*) for making contacts to the scholars and supplying materials of Pt. Atma Ram Sharma.

I would also like to thanks Dr. Debbie Anderson, Jan Kučera and Anshuman Pandey for their support and reviews on this proposal. Along with I would like to thank Srinidhi A (from Guntur) for his review.

	xxx0	xxx1	xxx2	xxx3	xxx4
0	z	સ	স	•	
	xxx00	xxx10	xxx20	xxx30	xxx40
1	9	ૠ	ۍ		0
	xxx01	xxx11	xxx21	xxx31	xxx41
2	\mathcal{O}	5	3	o	3
	xxx02	xxx12	xxx22	xxx32	xxx42
3	S	xxx12	لح	\mathfrak{k}	7
	xxx03	xxx13	xxx23	xxx33	xxx43
4	या	অ	ххх23 Ђ	1	لد
	xxx04	xxx14	xxx24	xxx34	xxx44
5	五	于	xxx24	P	Ч
	xxx05	xxx15	xxx25	xxx35	xxx45
6	X	ᄓ	ਿ	\mathfrak{V}	8
	xxx06	xxx16	xxx26	xxx36	xxx46
7	π	त	្ន		6
	xxx07	xxx17	xxx27		xxx47
8	×	K	xxx27		7
	xxx08	xxx18	xxx28		xxx48
9	क्	G			व
	xxx09	xxx19	xxx29		xxx49
А	8	5	•		
В	xxx0A	xxx1A	xxx2A		
Ь	म्	も			
	xxx0B	xxx1B	xxx2B		
C	3 5 xxx0c	کر	(±)		
		xxx1C	xxx2C		
	J 5	%)))		
	xxx0D	xxx1D	xxx2D		
-	Z)	0 0		
F	XXX0E	XXX1E	****2E		
	xxx0F	xxx1F	xxx2F		

Independent Vowel		Vowel	Various signs		
xxx00	σV	PABUCHI LETTER A		_	
		also used as a vowel carrier	xxx2A	ওঁ	PABUCHI OM
xxx01	؈	PABUCHI LETTER I	xxx2B	ċ	PABUCHI SIGN ANUSVARA
xxx02	\circ	PABUCHI LETTER U	xxx2C	①	PABUCHI SIGN CONJOINER
xxx03	5	PABUCHI LETTER E	Punctua	ation	
xxx04	या	PABUCHI LETTER O	xxx2D	II	PABUCHI DOUBLE DANDA
Conso	nants				double danda
xxx05	퐈	PABUCHI LETTER KA	xxx2E	IJ	PABUCHI SECTION MARK
xxx06	X	PABUCHI LETTER KHA			≡ xxx2C ∥ xxx41 ^O
xxx07	π	PABUCHI LETTER GA	xxx2F	+	PABUCHI QUOTATION MARK
xxx08	ત્ર	PABUCHI LETTER GHA	xxx30	•	PABUCHI ABBREVIATION SIGN
xxx09	क्	PABUCHI LETTER NGA	xxx31		PABUCHI SIGN KAMANDALA
XXX0A	8	PABUCHI LETTER CA			
xxx0B	₹	PABUCHI LETTER CHA			
xxx0C	5,	PABUCHI LETTER JA			
xxx0D	JF ₃	PABUCHI LETTER JHA			
xxx0E	Z	PABUCHI LETTER TTA			
xxx0F	$\overline{\Delta}$	PABUCHI LETTER TTHA			
xxx10	क	PABUCHI LETTER DDA			
xxx11	ᆓ	PABUCHI LETTER DDHA	Other Sig	gns	
xxx12	€	PABUCHI LETTER NNA	xxx32	0	PABUCHI SIGN SHUNI
xxx13	<u>ኝ</u>	PABUCHI LETTER TA	xxx33	f	PABUCHI SIGN RIGHT FACED KATTAK
xxx14	ਾ _	PABUCHI LETTER THA	xxx34	3	PABUCHI SIGN LEFT FACED KATTAK
xxx15	∓	PABUCHI LETTER DA	xxx35	P	PABUCHI SIGN AMRIT
xxx16	ਧ –	PABUCHI LETTER DHA	xxx36	$\mathfrak V$	PABUCHI SIGN GHAR BANDHANI
xxx17	त	PABUCHI LETTER NA			
xxx18	K	PABUCHI LETTER PA	Digits		
xxx19	<u> </u>	PABUCHI LETTER PHA	xxx40	ı	PABUCHI DIGIT ZERO
xxx1A	<u>ጘ</u>	PABUCHI LETTER BA	xxx41	0	PABUCHI DIGIT ONE
xxx1B	रू	PABUCHI LETTER BHA	xxx42	3	PABUCHI DIGIT TWO
xxx1C	<u>~</u> €	PABUCHI LETTER MA	xxx43	7	PABUCHI DIGIT THREE
xxx1D	×	PABUCHI LETTER YA	xxx44	اد -	PABUCHI DIGIT FOUR
xxx1E	۔ 2	PABUCHI LETTER RA	xxx45	J.	PABUCHI DIGIT FIVE
xxx1F	౽	PABUCHI LETTER LA	xxx46	S	PABUCHI DIGIT SIX
xxx20	ম	PABUCHI LETTER SHA	xxx47	و	PABUCHI DIGIT SEVEN
xxx21	ح ع د	PABUCHI LETTER HA	xxx48	ر د	PABUCHI DIGIT EIGHT
xxx22 xxx23	3 5 ₁	PABUCHI LETTER HA PABUCHI LETTER KSA	xxx49	જા	PABUCHI DIGIT NINE
xxx23 xxx24	न क	PABUCHI LETTER RRA			
Vowel		TABOON EETTER MOT			
xxx25	ി	PABUCHI VOWEL SIGN AA			
xxx26	r	PABUCHI VOWEL SIGN I			
xxx27	્ર	PABUCHI VOWEL SIGN U			
xxx28	៑	PABUCHI VOWEL SIGN E			
xxx29	্	PABUCHI VOWEL SIGN O			

References:

- [1] Pandey, Devi Ram; and Sharma, Mani Ram. 2012. 'हिमाचल प्रदेश का प्राचीन ग्रन्थ: साञ्चा' Himācal Pradeś kā prācīn gramtha: Sāmcā [Ancient book of Himachal Pradesh: Sancha].Bharat Offset Works 3550, Jatwara Street, Delhi. ISBN: 978-81-86755-13-6. Secretary, Himachal Academy of Arts, Culture & Languages, Shimla-171001.
- https://archive.org/details/bvp-06264-haacl-sancha/page/n307/mode/1up
- [2] Dr. Sharma, Om Prakash. 2021. 'हिमाचल लिपिमाला: The Paleography of Himachal' Himācal Lipimālā .Design India. ISBN: 978-81-947799-1-9. Himachal academy of Arts, Culture & Languages, Cliff-End Estate, Shimla-171001.
- [3] Denvy, G. N.; Bhatt, Uma and Pathak, Shekhar. 2015. 'The Languages of Uttarakhand- Volume 30, Part 2'. Orient BlackSwan. ISBN-13: 978-8125056263. People's Linguistic Survey of India.
- [4] Denvy, G. N. and Tobdan. 2015. 'The Languages of Himachal Pradesh- Volume 11, Part 2 (PLSI)'. Orient BlackSwan (P) Ltd. ISBN-13: 978-8125056904. People's Linguistic Survey of India.
- [5] Deambi, Bhushan Kumar Kaul. 2008. 'Śāradā and Ṭākarī alphabets: origin and development'. D.K Printworld (P) Ltd, New Delhi. ISBN: 81-246-0412-6. Indira Gandhi National Centre for the Arts, Central Vista, New Delhi-110 001.
- https://archive.org/details/saradaandtakarialphabetsoriginanddevelopme
 ntb.k.kauldeambi/mode/lup
- [6] भाषा एवं संस्कृति विभाग [Department of Language and Culture]. भाषा 'Bhāṣā' [Language]. The Government of Himachal Pradesh. https://lac.hp.gov.in/hi/language/
- [7] Pandey, Anshuman. 2009. 'Proposal to Encode the Sharada script in ISO/IEC 10646'. L2/09-074R2. https://www.unicode.org/L2/L2009/09074r2-n3595-sharada.pdf
- [8] The Tribune. 2021. "Digital font of endangered 'pahari' script 'Pabuchi Lipi' developed'. https://m.tribuneindia.com/news/himachal/digital-font-of-endangered-pahari-script-developed-350920
- [9] Dr. Sharma, Om Prakash. 2022. 'हिमाचली पहाड़ी भाषा लिपियों व लोक साहित्य' Himācalī Pahāṇī Bhāṣā Lipiyõ va Lok Sāhitya [Himachali Pahari Language Scripts and Folk Literature]. AKASH PUBLISHING HOUSE Railway Road, Rohtak.

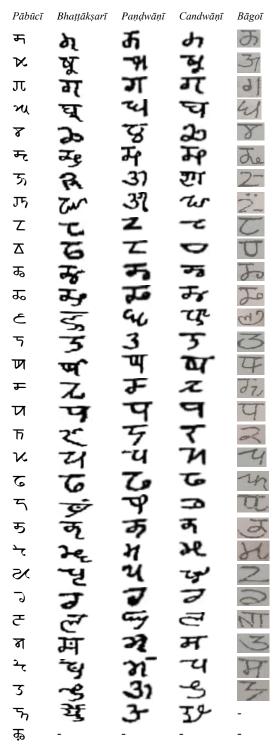


Table: 1 comparison table of Pabuchi, Bhattakshari, Pandwani, Chandwani and Bagoi.

Appendix:

Proposed Consonants-vowel ligatures:-

		ੈ	ि	্ৰ	ੋ	ैं	்
		-ā	- <i>i</i>	<i>-u</i>	- <i>е</i>	-0	-ṁ
ਸ	ka	뷱	Æ٦	五	哥	釬	मं
×	kha	×	TX.	K	$\overline{\aleph}$	Ŕ	×
π	ga	π	IJτ	ரு	$ar{\pi}$	$\widehat{\pi}$	π̈́
ગ	gha	ત્રા	rxy	zs	\bar{z}_{u}	πû	ત્રં
क़	'nа	햐	ाक	₽;	퍙	÷	कं

8	ca	8	ि	3	\$	ŝ	र्ड
म्ट	cha	균	ा ग्ट	ग ु	₹ -	र ्दे	म्
35	ja	3	13)	3	5 5	贫	方
ፓዓ	jha	功	เมร	巧	<i>ট</i> ন	Ĵ̈́	坊
Z	ţа	Z	乊	廴		Ź	Ż
\mathbf{Z}	ţа	昪	区	\$	$\overline{\Delta}$	$\widehat{\Sigma}$	之
ಕ	ḍа	る	க	љ	ᇙ	ã	कं
华	ḍhа	な	ಹ	ಸ್ತ	ヹ	£	芘
ح	ņа	حا	E	\$	ج	~	خ
ጛ	ta	亏	1 5	5	5	爷	÷
অ	tha	प्रो	때	J	ট্দ	Ŵ	垴

ᄑ	da	균	ι σ−	₹	ᆍ	斧	÷
ᅜ	dha	너	띠	Ŋ	ᅜ	Ĥ	দ
त	na	त्त	ता	冗	त्त	तें	तं
K	pa	V	ΓK	K	Z	Ŕ	Ż
6	pha	4	િ	હ	<u>e</u>	Ê	Ġ
5	ba	컥	占	五	亏	夸	芍
も	bha	롸	ச	ಕ್ರ	ま	Ŝ	ं
<u>, c</u>	ma	~ f	۱ ٬ ۲	5-	<u>~</u> c	₹	بر
X	ya	%	(SX	S.	Š	Ŝ	×
5	ra	7	L ³	3	2	~	<u>.</u>
ਣ	la	굳	己	子	き	Ê	Ė

ন	śa	में	া	_ব্র	<u>ক্</u> ব	र्वे	न
2 C	sa	3 र	اع د	25	5_ c	5~ c	2, ¢
3	ha	3	L3	于	3	3	उं
ىرج	kṣa	ل <u>رح</u> ا	لي	لاتي	لإ	Ť	ىنج
क़	ŗa	फ़	क्	<u>ሙ</u>	₹	÷	कं

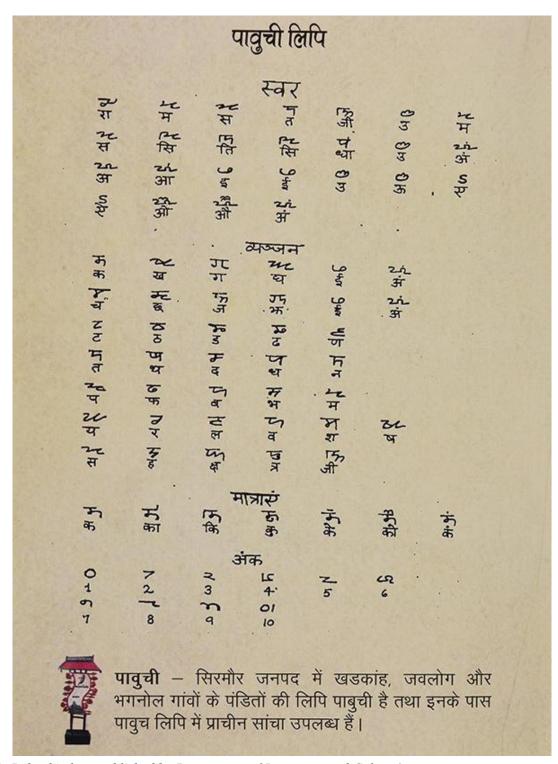


Fig.1: Pabuchi chart published by Department of Language and Culture.

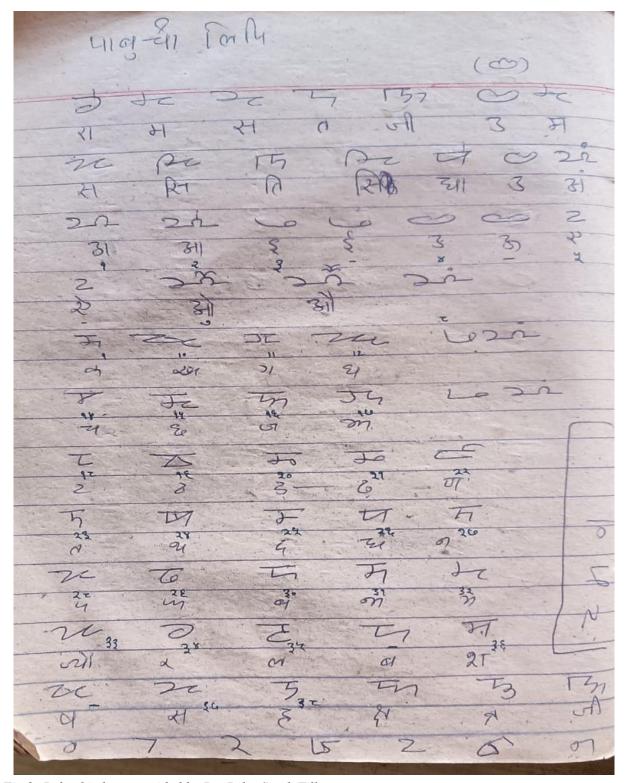


Fig.2: Pabuchi chart provided by Dr. Dilip Singh Tilkan.

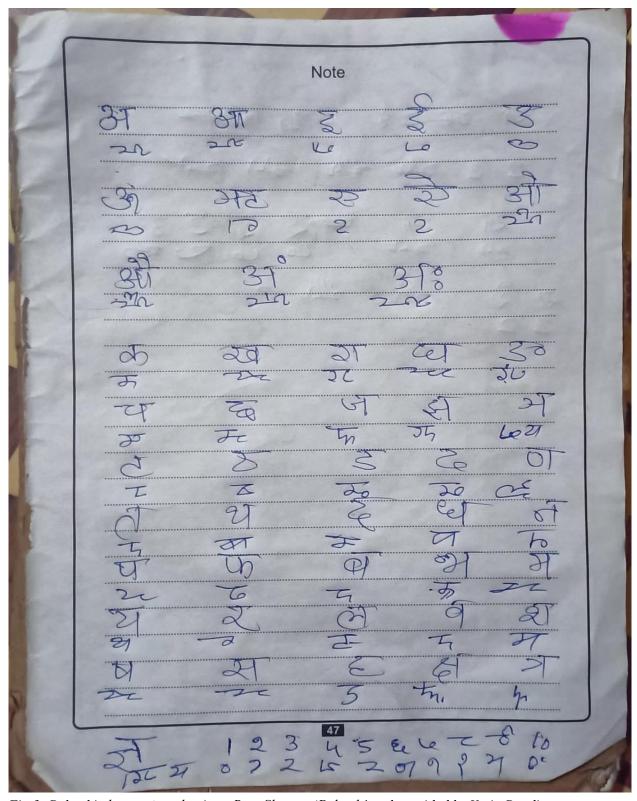


Fig.3: Pabuchi chart written by Atma Ram Sharma 'Pabuch' and provided by Yatin Pandit.

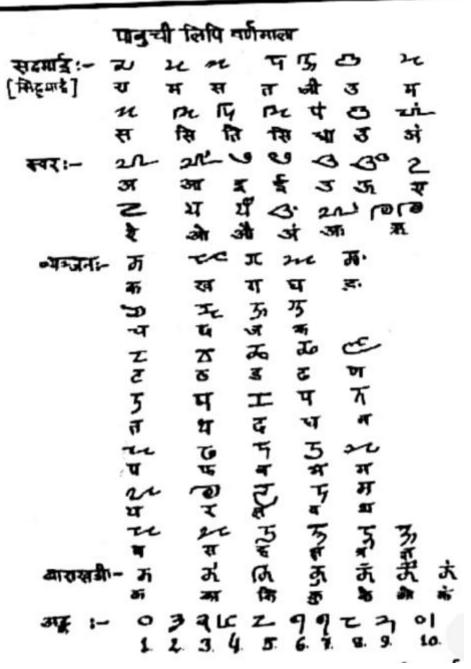


Fig.4: Pabuchi chart extracted from हिमाचल लिपिमाला: The Paleography of Himachal (Sharma, 127:2021).

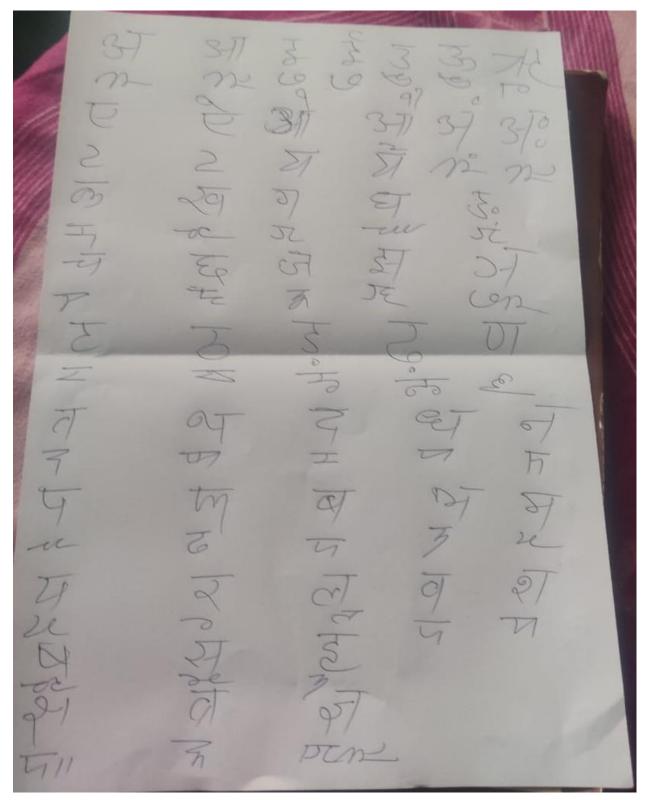


Fig.5: Pabuchi chart written by Haridatt Sharma 'Pabuch' and provided by Sherjung Chouhan.

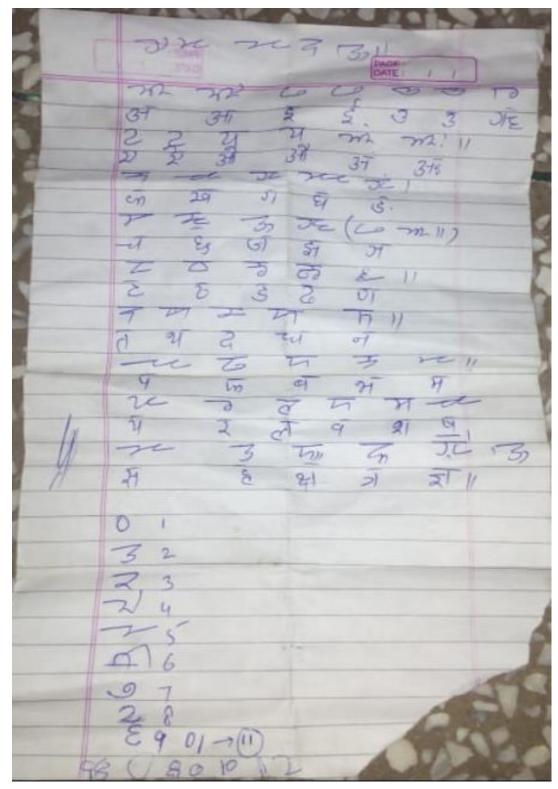


Fig.6: Pabuchi chart written by Rajender Sharma 'Pabuch' from Shimla.

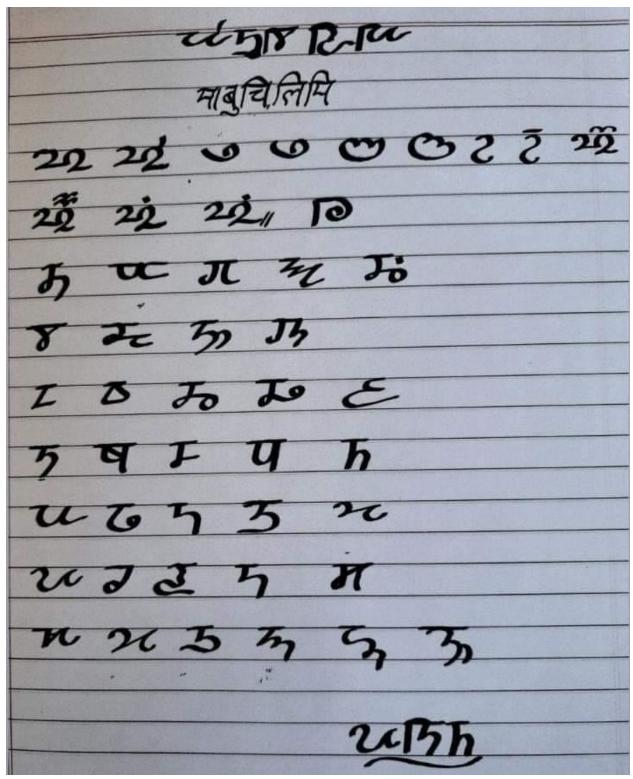


Fig.7: Pabuchi chart written by Yatin Pandit.

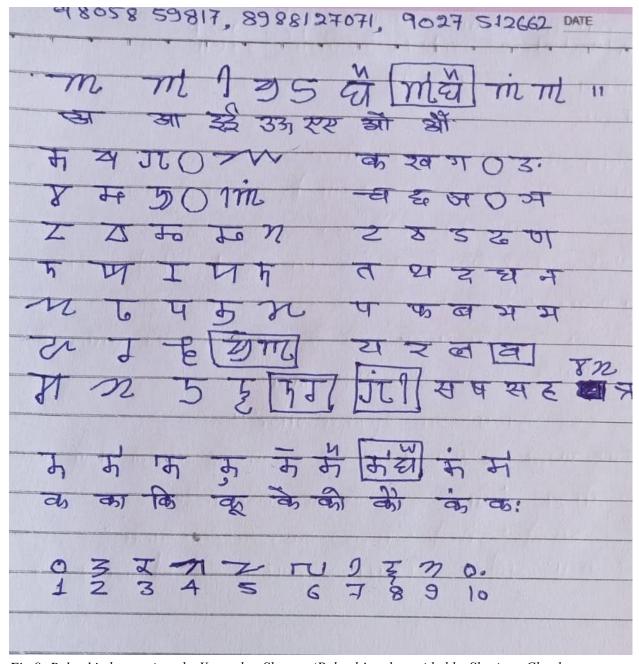


Fig.8: Pabuchi chart written by Yagyadatt Sharma 'Pabuch' and provided by Sherjung Chouhan.

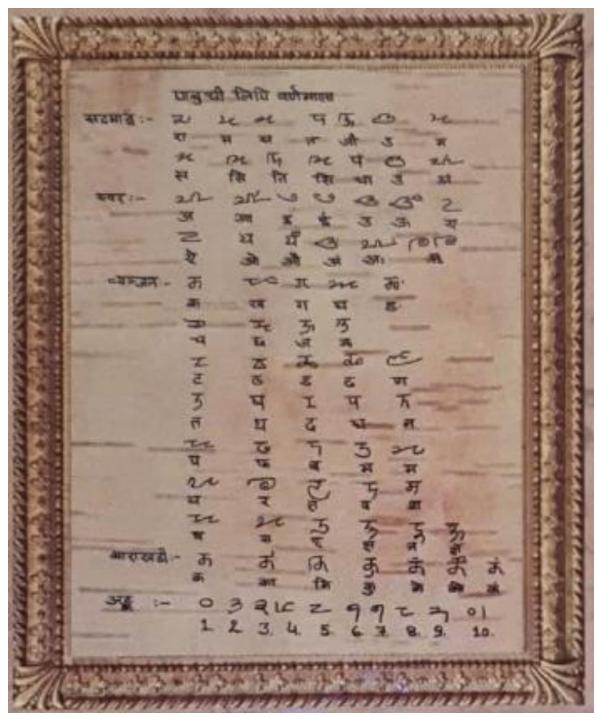


Fig.9: Pabuchi chart extracted from back cover of हिमाचल लिपिमाला: The Paleography of Himachal (2021).

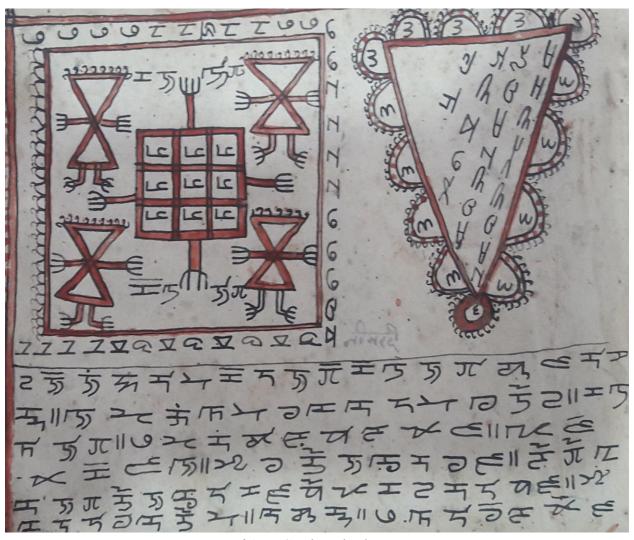


Fig. 10(a): Extracted from manuscript of Amar Singh 'Pabuch'.



 $Fig. 10 (b): Extracted \ from \ manuscript \ of \ Amar \ Singh \ `Pabuch'.$

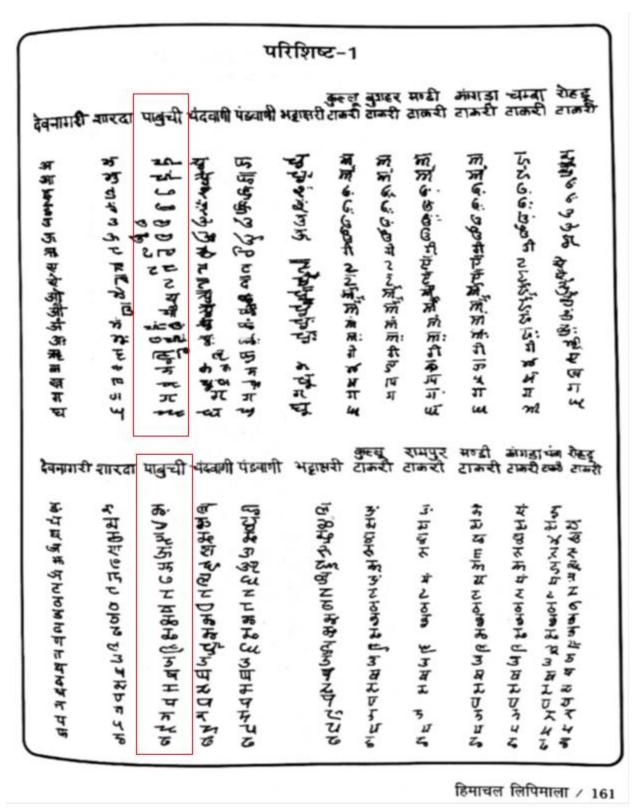
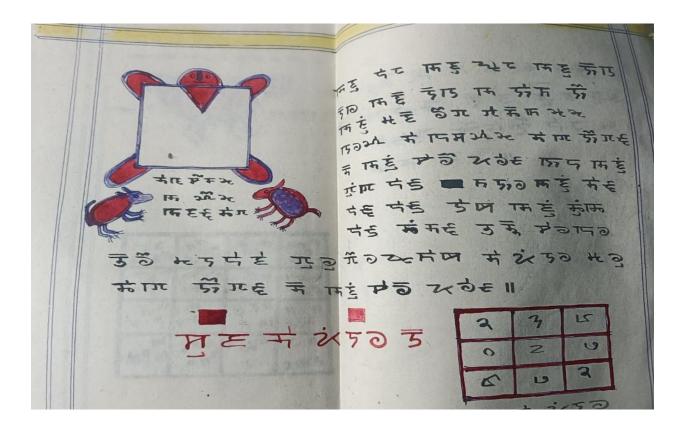


Fig.11(a): One half of comparison table of Pabuchi with other scripts of Himachal Pradesh.(Sharma 161:2021)

दैवनागरी व	मरदा	पाबुची -	<u>वंदवाणी</u>	पंडवाणी	भट्टाहरी	कुल्स् समरी	रामपुर् टाक्सी	मन्डी टामरी	मंगड़ा टान्सी	यं डा टाकी	ोहरू टाकरी
6七十 世纪义即区代内部四名人以上北西城市	DANGERRAND WAS	PANABARRARA TO	のあをなるなかにはいからればなって?	中あるとる男子をおがみもか ークッ	प्रमाण वस्यम् यश्रम्भः	THE THE PRESENT AND THE PARTY OF THE PARTY O	中国大日日の日本日日 10日日	विक्रिक्र प्रतिस्थम् ५	市場おおりのなななないなるので	THE SHARMAN AND CO	
देवनप्रशि अ	रदा प	ाबुची चं	कती पं	इवाली पं	डिवाणी कु	न्तू ३ फरी	रम्पुर : टप्नरी	क्ष्मी व टाकरी ट		चान रामी	रोहडू टामरी
てるるとがなら なもか		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0238447700	0337497777	3337 39 37 37 37 37 37 37 37 37 37 37 37 37 37			7 3 3 4 4 1 5 5 7 5	1338447592	りる まなり ブラブンセ	•

Fig.11(b): One half of comparison table of Pabuchi with other scripts of Himachal Pradesh.(Sharma 161:2021)



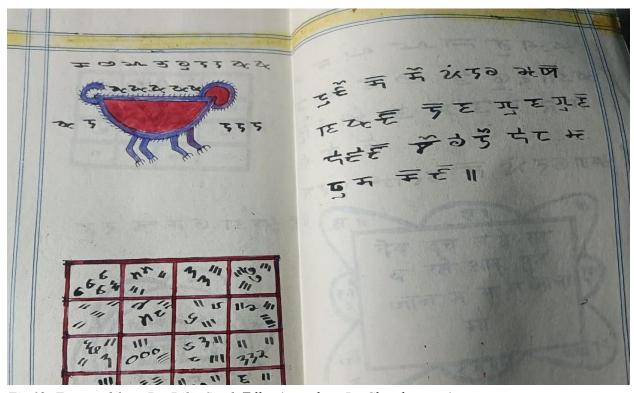


Fig.12: Extracted from Dr. Dilip Singh Tilkan's work on Pt. Chandramani's manuscript.

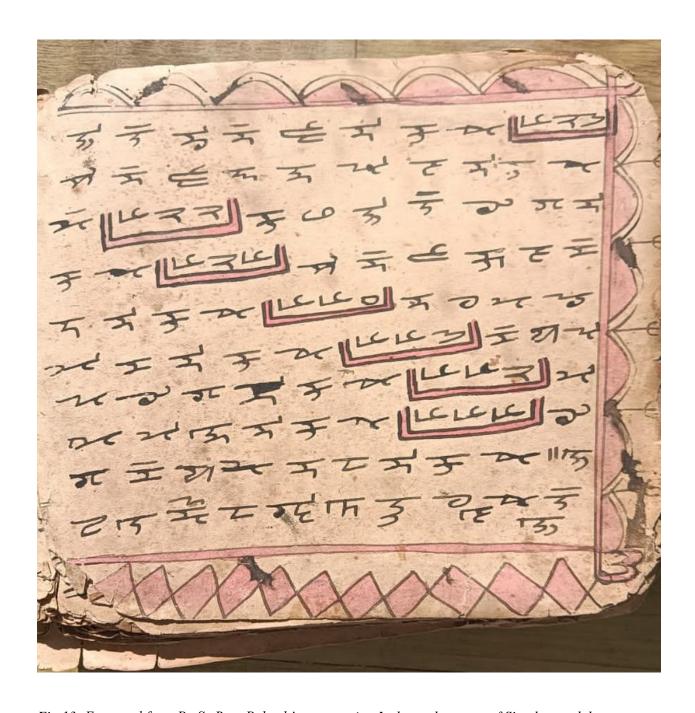


Fig. 13: Extracted from Pt. Se Ram Pabuch's manuscript. It shows the usage of Sign kamandala.

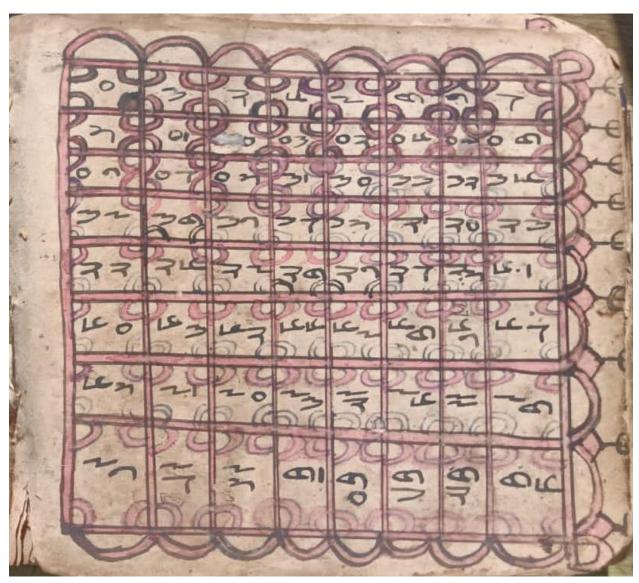


Fig.14: Extracted from Pt. Se Ram Pabuch's manuscript. It shows that pair of digits is for Hora numbers.

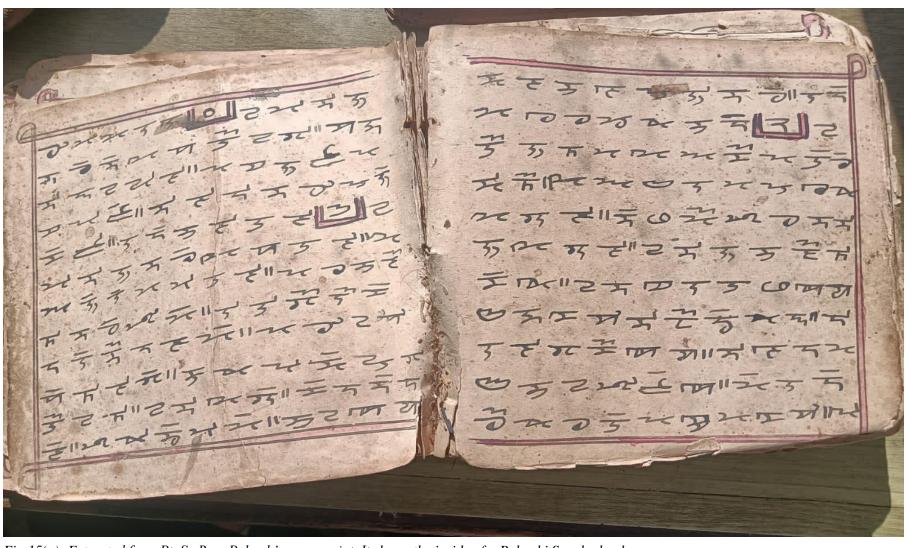


Fig.15(a): Extracted from Pt. Se Ram Pabuch's manuscript. It shows the inside of a Pabuchi Sancha book.

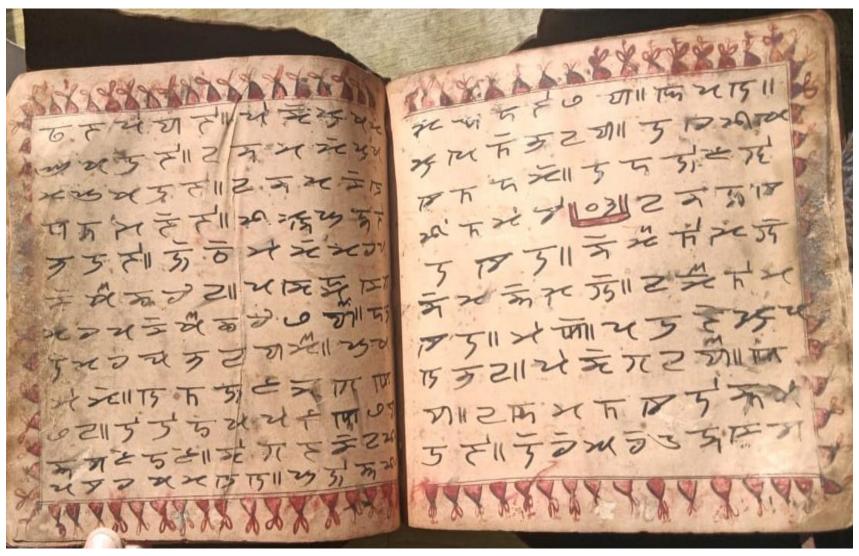


Fig. 15(b): Extracted from Pt. Shree Kanshi Ram Pabuch's manuscript. It shows the inside of a Pabuchi Sancha book.

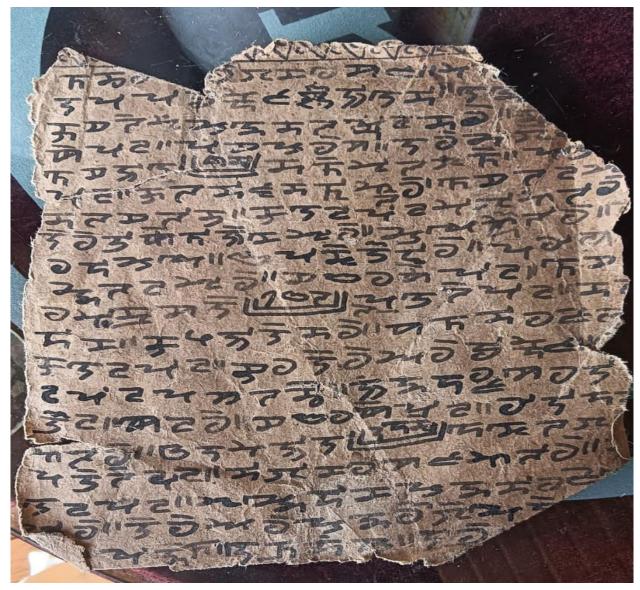


Fig. 16: Extracted from another manuscript of Pt. Shree Kanshi Ram Pabucht. It shows that Pabuchi written on goat's skin.

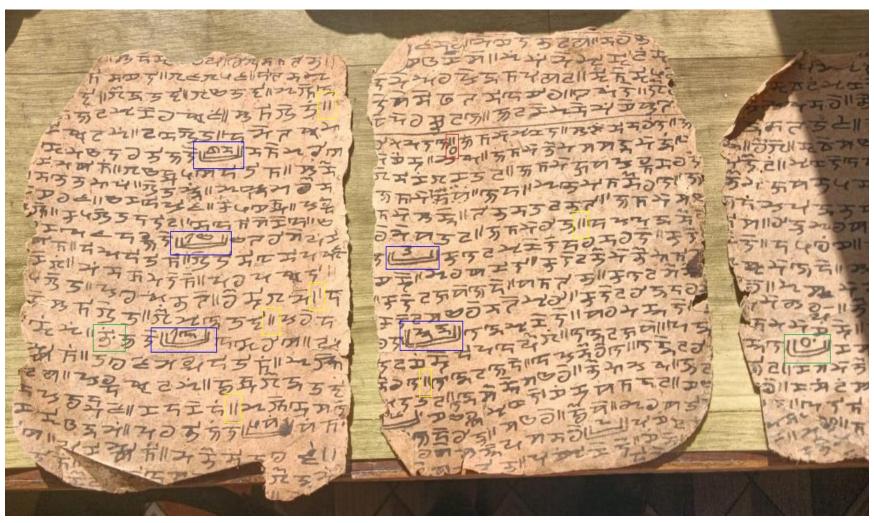


Fig.17: Extracted from Pt. Shree Kanshi Ram Pabuch's manuscript. It shows the usage of double danda, sign kamandala, abbreviation sign and section mark.

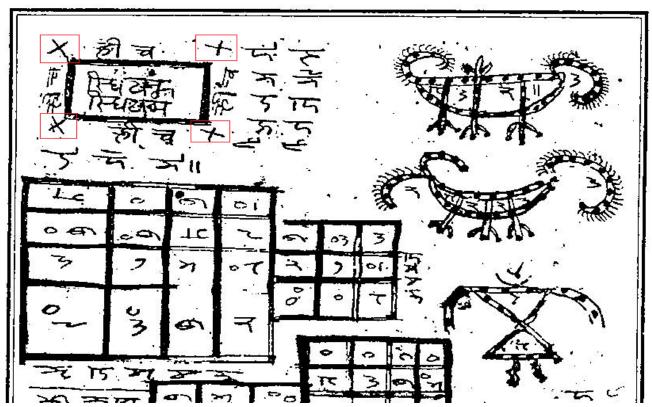


Fig. 18: It shows the usage of quotation mark. (Devi, 287:2012)



Fig. 19(a): Manuscript of Pt. Se Ram Pabuch's manuscript.



Fig. 19(b): Manuscript of Rajender Sharma Pabuch's manuscript.

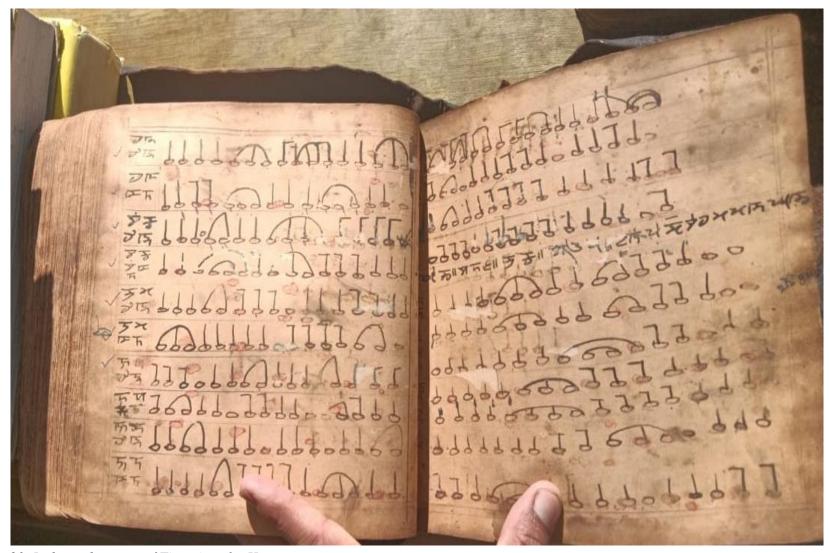


Fig. 20: It shows the usage of Time signs for Hora.

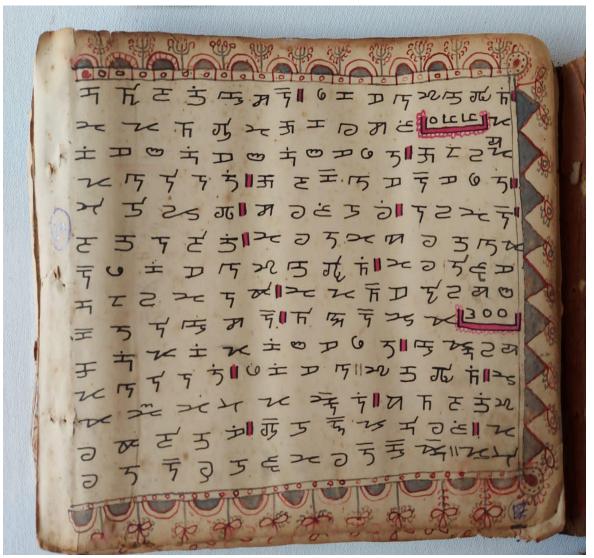


Fig.21: Extracted from Pt. Devi Ram Pabuch's manuscript.



Fig.22: Extracted from another manuscript of Pt. Devi Ram Pabuch.

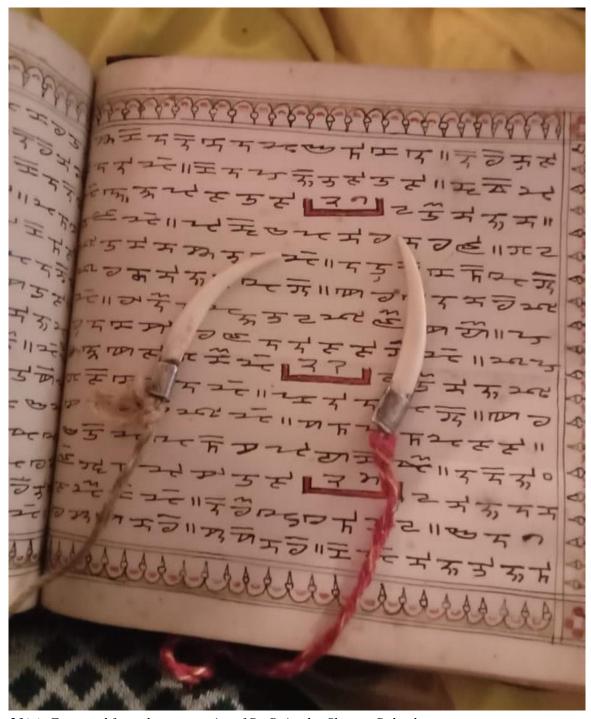


Fig.23(a): Extracted from the manuscript of Pt. Rajender Sharma Pabuch.

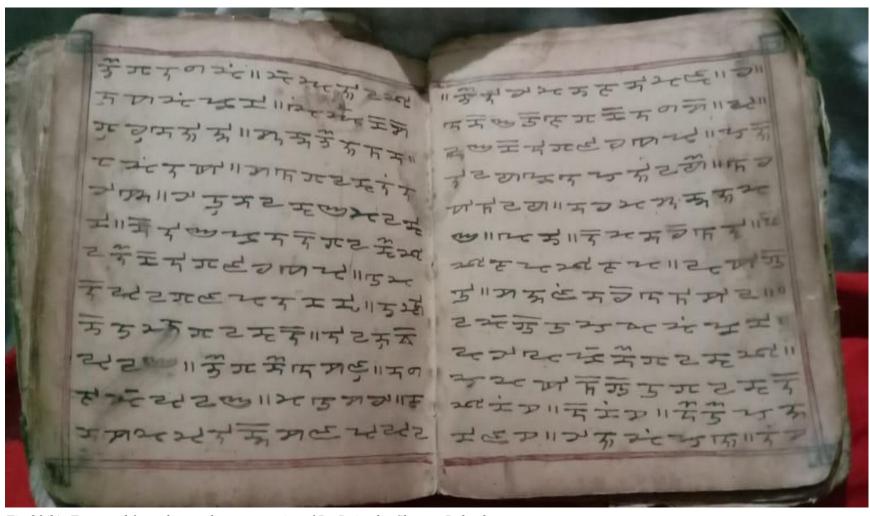
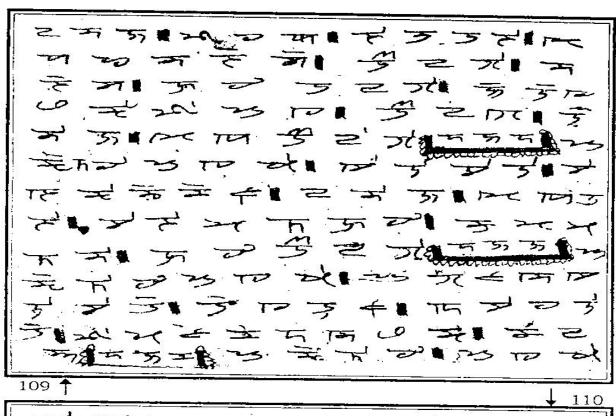
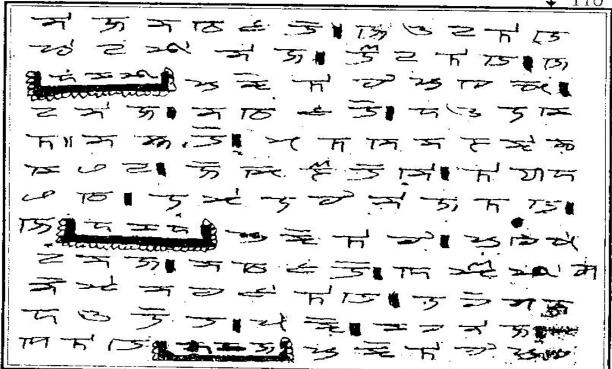


Fig.23(b): Extracted from the another manuscript of Pt. Rajender Sharma Pabuch.

साञ्चा/139

Fig.24(a): Extracted from Himācal Pradeś kā prācīn gramtha: Sāmcā.(139:2012)





साञ्चा/186

Fig.24(b): Extracted from Himācal Pradeś kā prācīn gramtha: Sāmcā.(186:2012)

Letter for support from Pt. Hari Dutta Pabuch undersigned by Pt. Kedar Dutta Pabuch, Pt. Ram Dutta Pabuch, Pt. Ramanand Pabuch and Pt. Nagendra Dutta Pabuch:

To Dr. Deborah Anderson Unicode Technical Director UTC Sub:- Supporting letter for Pabuchi Unicode proposal reg:-पूरे सम्मान के साथ, हम बताना चाहेंगे कि हम ज्योतिषी हैं जिन्हें स्थानीय तौर पर पाबुच पंडित के नाम से जाना जाता है। हम भविष्य बताने के लिए पाबुची लिपि का उपयौग करते हैं। हम लिपि के हस्तिलिखित रूपों का उपयोग कर रहे हैं। जिसके कारण कुछ भिन्नताएं देखने को मिल सकती हैं। इस प्रस्ताव द्वारा उन्हें सुधारा गया है। हम इस लिपि को यूनिकोड के माध्यम से सुरक्षित रखना चाहते हैं। भाषाविद विश्वजीत मंडल इस परियोजना पर काम कर रहे हैं और हम उनका समर्थन कर रहे हैं। मैं समझता हूं कि यदि पांबुची को अंतरराष्ट्रीय मानक यूनिकोड में शामिल किया जाता है, तो यह बिना किसी प्रतिबंध के सभी के लिए उनके कंप्यूटर और उपकरणों पर उपयोग के लिए उपलब्ध होगा। साथ ही, मैं समझता हूं कि प्रस्ताव सार्वजनिक रूप से सुलभ दस्तावेज़ रजिस्टर में पोस्ट किया जाएगा। इसलिए हमारा विनम्र अनुरोध है कि पाबुची को यूनिकोड में अनुमोदित और एन्कोड किया जाए।

Translations:

Dr. Deborah Anderson Unicode Technical Director UTC

Sub:- Supporting letter for Pabuchi Unicode proposal reg:

With all due respect, we would like to state that we are astrologers locally known as Pabuch Pandit. We use Pabuchi script for fortune telling. We are using the handwritten forms of the script. Due to which some variations can be seen. They have been are rectified by this proposal. We want to preserve this script through Unicode. Linguist Biswajit Mandal is working on this project and we are supporting him.

I understand that if Pabuchi is included in the international standard Unicode, it will be available for use by everyone on their computers and devices without restriction. Additionally, I understand that the proposal will be posted in publicly accessible Documents Register. So it is our humble request that Pabuchi be approved and encoded in Unicode.

Thanking You Yours Truly Pt. Hari Dutta Pabuch From: Chandna Dhar Supporting letter undersigned by Pt. Kantiram Pabuch, Pt. Suresh Sharma Pabuch, Pt. Deviram Sharma Pabuch and Pt. Baburam Pabuch.

To Dr. Deborah Anderson Unicode Technical Director UTC Sub:- Supporting letter for Pabuchi Unicode proposal reg:-Respected Madam, With due respect, we would to attract your kind attention towards our Pabuchi script for Sancha astrology. We are pabuchs (astrologers); we are using this script from several centuries. This script is not printed yet, we use handwritten forms. We want to preserve this script through Unicode. Researcher Biswajit Mandal is working on this project and we are supporting him. All the instruction shown by his proposal has supervised by us. So our humbly request to approved and encoded Pabuchi into Unicode. Thanking You Yours Truly

SO/IEC JTC 1/SC 2/WG 2

PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS

FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646TP PT

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

Please read Principles and Procedures Document (P & P) from http://std.dkuug.dk/JTC1/SC2/WG2/docs/principles.html utpl for guidelines and details before filling this form.

Please ensure you are using the latest Form from http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.htmluth.

See also http://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html uth for latest Roadmaps.

A. Administrative

1. Title:	Proposal to Encode the Pabuchi Script in UCS								
2. Requester's name	Biswajit Mandal (biswajitmandal.bm90@gmail.com)								
3. Requester type (N	. Requester type (Member body/Liaison/Individual contribution): Individual Contribution								
4. Submission date:									
5. Requester's refere	ence (if applicable):								
6. Choose one of the	following:								
This is a co	Υ								
(or) More	N								
B. Technical – Gener	ral								
1. Choose one of the	following:								
a. This propos	Υ								
Propo	osed name of script: Pabuchi								
b. The propos	sal is for addition of character(s) to an existing block:								
Name	e of the existing block:								
2. Number of charac	ters in proposal:	65							
3. Proposed category	y (select one from below - see section 2.2 of P&P document):								
A-Contemporary									
C-Major extinct	D-Attested extinct E-Minor extinct								
F-Archaic Hierog									
4. Is a repertoire incl	Υ								
4. Is a repertoire including character names provided? a. If YES, are the names in accordance with the "character naming guidelines"									
in An	Υ								
b. Are the cha	Υ								
5. Fonts related:									
	rovide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?								
Biswajit Mandal									
b. Identify the	e party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):								
	Biswajit Mandal (biswajitmandal.bm90@gmail.com)								
6. References:									
a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?									
b. Are published examples of use (such as samples from newspapers, magazines, or other sources)									
of proposed o									
7. Special encoding is	ssues:								
Does the pro	posal address other aspects of character data processing (if applicable) such as input,								
presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?									
8. Additional Informa	ation:								
Submitters are invite	ed 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	n, Currency information, Display behaviour information such as line breaks, widths etc., Combining be	haviour, Spacing							

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 HTUhttp://www.unicode.org/TH for such information on other scripts. Also see Unicode Character Database (Hhttp://www.unicode.org/reports/tr44/) and associated Unicode Technical Reports for information

 $needed\ for\ consideration\ by\ the\ Unicode\ Technical\ Committee\ for\ inclusion\ in\ the\ Unicode\ Standard.$

C. Technical - Justification

Has this proposal for addition of character(s) been submitted before?								
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.)?	Υ							
If YES, with whom? Pabuch community of Himachal Pradesh, India								
If YES, available relevant documents: See the proposal								
3. Information on the user community for the proposed characters (for example:								
size, demographics, information technology use, or publishing use) is included?	Υ							
Reference: See the proposal								
4. The context of use for the proposed characters (type of use; common or rare)	rare							
Reference: See the proposal								
5. Are the proposed characters in current use by the user community?	Υ							
If YES, where? Reference: See the proposal								
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely								
in the BMP?	N							
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)?								
8. Can any of the proposed characters be considered a presentation form of an existing								
character or character sequence?	Υ							
If YES, is a rationale for its inclusion provided?	Y							
If YES, reference: See the proposal								
9. Can any of the proposed characters be encoded using a composed character sequence of either								
existing characters or other proposed characters?	Υ							
If YES, is a rationale for its inclusion provided?	Υ							
If YES, reference: See the proposal								
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?	Υ							
If YES, is a rationale for its inclusion provided?	Υ							
If YES, reference: See the proposal								
11. Does the proposal include use of combining characters and/or use of composite sequences?	N							
If YES, is a rationale for such use provided?								
If YES, reference:								
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?	N							
If YES, describe in detail (include attachment if necessary)								
13. Does the proposal contain any Ideographic compatibility characters?	N							
If YES, are the equivalent corresponding unified ideographic characters identified?								
If YES, reference:								