

Universal Multiple-Octet Coded Character Set  
International Organization for Standardization  
Organisation Internationale de Normalisation  
Международная организация по стандартизации

**Doc Type:** Working Group Document

**Title:** Proposal for encoding the Ol Cemet' script in the BMP of the UCS

**Source:** Michael Everson, EGT (IE)

**Status:** Expert Contribution

**Action:** For consideration by JTC1/SC2/WG2 and UTC

**Date:** 1999-01-29

This is a revision of an exploratory proposal by James Kass, and contains the proposal summary form.

## A. Administrative

### 1. Title

Proposal for encoding the Ol Cemet' script in the BMP of the UCS.

### 2. Requester's name

Michael Everson, EGT (WG2 member for Ireland).

### 3. Requester type

Expert contribution.

### 4. Submission date

1999-01-29.

### 5. Requester's reference

#### 6a. Completion

This is a complete proposal.

#### 6b. More information to be provided?

No.

## B. Technical -- General

### 1a. New script? Name?

Yes. Ol Cemet'.

### 1b. Addition of characters to existing block? Name?

No.

### 2. Number of characters

43

### 3. Proposed category

Category A.

### 4. Proposed level of implementation and rationale

Level 2 as it uses diacritics in the Brahmic style.

### 5a. Character names included in proposal?

Yes.

### 5b. Character names in accordance with guidelines?

Yes.

### 5c. Character shapes reviewable?

Yes (see below).

**6a. Who will provide computerized font?**

James Kass via Michael Everson.

**6b. Font currently available?**

Yes.

**6c. Font format?**

TrueType.

**7a. Are references (to other character sets, dictionaries, descriptive texts, etc.) provided?**

Yes, see bibliography below.

**7b. Are published examples (such as samples from newspapers, magazines, or other sources) of use of proposed characters attached?**

No.

**8. Does the proposal address other aspects of character data processing?**

Yes, see Unicode properties below.

## **C. Technical -- Justification**

**1. Contact with the user community?**

No. We need to contact Norman Zide and get his opinion of this proposal.

**2. Information on the user community?**

Speakers of the Santali language, whose population is 5,800,000, with 25%–50% literacy, according to the SIL *Ethnologue*.

**3a. The context of use for the proposed characters?**

To write the Santali language. Latin, Devanagari, Bengali, and Oriya scripts have also been used to write Santali.

**3b. Reference**

See bibliography.

**4a. Proposed characters in current use?**

Yes.

**4b. Where?**

In primary and adult education (general use)

**5a. Characters should be encoded entirely in BMP?**

Yes.

**5b. Rationale**

Contemporary use.

**6. Should characters be kept in a continuous range?**

Yes.

**7a. Can the characters be considered a presentation form of an existing character or character sequence?**

No.

**7b. Where?**

**7c. Reference**

**8a. Can any of the characters be considered to be similar (in appearance or function) to an existing character?**

No.

**8b. Where?**

**8c. Reference**

**9a. Combining characters or use of composite sequences included?**

Yes.

**9b. List of composite sequences and their corresponding glyph images provided?**

**10. Characters with any special properties such as control function, etc. included?**

No. They freely combine as in Brahmic scripts.

**E. Proposal**

The Ol Cemet' script, also called Ol or Ol Ciki, was invented by Pandit Raghunath Murmu in the first half of the 20th century CE. Ol Cemet' is alphabetic, sharing none of the syllabic properties of the other Indic scripts. Members of several linguistic groups in India apparently felt that a unique script was necessary for their cultural identities. As a result, more than a dozen scripts were devised. Most of these scripts are forgotten now, but the Ol Cemet' script has received some official recognition and Raghunath has been honoured by the Orissan government.

Languages using the Ol Cemet' script: Santali (a Munda language of India). According to Ethnologue, Santali's various dialects are spoken by 5.8 million people with 25% to 50% literacy, mostly in India with a few in Nepal and Bangladesh. The Ol Cemet' script is used for the southern dialect of Santali as spoken in the Orissan Mayurbhañj district. While this dialect has only six vowels, the Santal Parganas dialect has eight or nine vowels. The extra Santal Parganas vowels are reportedly made by combining existing vowels with diacritics. There is room in the table for 2 or 3 diacritics.

Ol Cemet' has recently been promoted by some Santal organizations, with uncertain success, for use in certain other Munda languages in the Chota Nagpur area as well as the Dravidian Kuḍux language.

Zide 1996 says: "One ingenious – "scientific" – and unique feature of Ol Cemet' that certainly increases the efficiency of writing Santali is the deglottalizing *ϕhot'* diacritic. This neatly preserves the morphophonemic relationships between the glottalized and voiced equivalents: the former occurs word-finally and at certain word-internal preconsonantal junctures, the latter prevocally, but never morpheme-initially in these alternations. Thus, *ϕk'* is the name of a letter that represents both [k'] and [g]. Two further diacritics include a horizontal loop added at the top right of the character for the aspiration of consonants, and a raised dot for vowel nasalization." Unfortunately Zide does not indicate the glyph of the *ϕhot'* character.

**Names and ordering**

Characters are arranged in a 5 by 6 matrix, named in a conventional way as shown in the names list. The first characters in each row (LO, LA, LI, LU, LE, LOO) are vowels. xx2D has been named VISARGA, but it indicates consonant aspiration, and a better name should be sought. xx2E has been named ANUSVARA, and it does indicate vowel nasalization, but a better name should be sought.

**Unicode Character Properties**

Spacing letters, category "Lo", bidi category "L" (strong left to right)

xx00 - xx1D

Numbers, decimal digits, category "Nd", bidi category "L" (strong left to right)

xx20-xx29

Non-spacing marks, category "Mc", bidi category "ON" (other neutral); combining priorities in parentheses:

xx2D (232)

Non-spacing marks, category "Mn", bidi category "ON" (other neutral); combining priorities in parentheses:

xx2E - xx2F (230) [xx2F is conjectural]

## Bibliography

Zide, Norman. 1996. "Scripts for Munda languages", in Peter T. Daniels and William Bright, eds. *The world's writing systems*. New York; Oxford: Oxford University Press. ISBN 0-19-507993-0

Zide gives other sources in his bibliography, none of which I have seen.

TABLE XXX - Row xx: OL CEMET

	xx0	xx1	xx2
0	𐌲	𐌳	0
1	𐌴	𐌵	𐌶
2	𐌷	𐌸	𐌹
3	𐌺	𐌻	𐌼
4	𐌽	𐌾	𐌿
5	𐍂	𐍃	𐍄
6	𐍆	𐍇	𐍈
7	𐍊	𐍋	𐍌
8	𐍐	𐍑	𐍒
9	𐍔	𐍕	𐍖
A	𐍘	𐍙	
B	𐍛	𐍜	
C	𐍞	𐍟	
D	𐍡	𐍢	𐍣
E	𐍤		𐍥
F	𐍩		𐍪

G = 00  
P = 00

**TABLE XXX - Row xx: OL CEMET**

dec	hex	Name	dec	hex	Name
	00	OL CEMET LETTER LO			
	01	OL CEMET LETTER OT			
	02	OL CEMET LETTER OKH			
	03	OL CEMET LETTER ONG			
	04	OL CEMET LETTER OL			
	05	OL CEMET LETTER LA			
	06	OL CEMET LETTER AK			
	07	OL CEMET LETTER ACH			
	08	OL CEMET LETTER AM			
	09	OL CEMET LETTER AW			
	0A	OL CEMET LETTER LI			
	0B	OL CEMET LETTER IS			
	0C	OL CEMET LETTER IH			
	0D	OL CEMET LETTER INY			
	0E	OL CEMET LETTER IR			
	0F	OL CEMET LETTER LU			
	10	OL CEMET LETTER UC			
	11	OL CEMET LETTER UTH			
	12	OL CEMET LETTER UNN			
	13	OL CEMET LETTER UY			
	14	OL CEMET LETTER LE			
	15	OL CEMET LETTER EP			
	16	OL CEMET LETTER EDD			
	17	OL CEMET LETTER EN			
	18	OL CEMET LETTER ERR			
	19	OL CEMET LETTER LOO			
	1A	OL CEMET LETTER OOTT			
	1B	OL CEMET LETTER OOPH			
	1C	OL CEMET LETTER OOWW			
	1D	OL CEMET LETTER OOH			
	1E	(This position shall not be used)			
	1F	(This position shall not be used)			
	20	OL CEMET DIGIT ZERO			
	21	OL CEMET DIGIT ONE			
	22	OL CEMET DIGIT TWO			
	23	OL CEMET DIGIT THREE			
	24	OL CEMET DIGIT FOUR			
	25	OL CEMET DIGIT FIVE			
	26	OL CEMET DIGIT SIX			
	27	OL CEMET DIGIT SEVEN			
	28	OL CEMET DIGIT EIGHT			
	29	OL CEMET DIGIT NINE			
	2A	(This position shall not be used)			
	2B	(This position shall not be used)			
	2C	(This position shall not be used)			
	2D	OL CEMET VISARGA			
	2E	OL CEMET ANUSVARA			
	2F	OL CEMET OHOTT			