

Doc Number: SC2/WG2 NXXXX

Title: Preliminary Proposal on Encoding Ersu Hieroglyphs

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Status: Individual Contribution

Action: For Comments

Date: 2017-09-24

Reference: L2/16-262

Abstract: This preproposal collates and arranges southwest China minority hieroglyph script Ersu. We made glyph charts for Ersu Script and tried to propose an encoding project to it.

ISO/IEC JTC 1/SC 2/WG 2

PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS

FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646¹

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> 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.html>.

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

A. Administrative

1. Title: ***A Proposal to Encode Ersu Hieroglyphs in the UCS***

2. Requester's name: **China**

3. Requester type (Member body/Liaison/Individual contribution): **Memberbody**

4. Submission date: **2017-09-24**

5. Requester's reference (if applicable): **孙宏开, 尔苏沙巴图画文字, 民族语文, 1982(6):44-50**

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: **Ersu Hieroglyphs**

1

b. The proposal is for addition of character(s) to an existing block:

Name of the existing block:

2. Number of characters in proposal: **108**

3. Proposed category (select one from below - see section 2.2 of P&P document):

A-Contemporary **.....** B.1-Specialized (small collection) **B. 1** 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

Yes

5. Fonts related:

a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?

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b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):

¹ Form number: N4502-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08,

1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11,

2011-03, 2012-01)

chenzh@cesi.ac.cn

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)? No

8. Additional Information:

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see Unicode Character Database (<http://www.unicode.org/reports/tr44/>) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before?	No
If YES explain [redacted]	
2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?	Yes
If YES, with whom? <i>Ersu Tibetan, Shimian County, Ersu Tibetan priests, Sun Hongkai 孙宏开, Yin Weibin 尹蔚彬, Huang Chenglong 黄成龙, Song Zhaolin 宋兆麟, Li Xingxing 李星星, Zhao Liming 赵丽明</i>	
If YES, available relevant documents: [redacted]	
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?	Yes
Reference: <i>Ersu Hieroglyphs Script is used by the Ersu Tibetan priests in Xieluo Tibetan Township, Shimian County, Ya'an City, Sichuan Province, China</i>	
4. The context of use for the proposed characters (type of use; common or rare)	Almanac, Common
Reference: <i>It is widely used among Ersu Tibetan priests like Priest Wang Dejun 苏明文, Priest Wang Xueyin 王学银 and other priests</i>	
5. Are the proposed characters in current use by the user community?	Yes
If YES, where? Reference: <i>Xieluo Tibetan Township, Shimian County, Ya'an City, Sichuan Province, China (中国四川省雅安市石棉县蟹螺藏族乡)</i>	
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?	No
If YES, is a rationale provided? [redacted]	
If YES, reference: [redacted]	
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	Yes
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?	No
If YES, is a rationale for its inclusion provided? [redacted]	
If YES, reference: [redacted]	
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?	No
If YES, is a rationale for its inclusion provided? [redacted]	
If YES, reference: [redacted]	
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to, or could be confused with, an existing character?	No
If YES, is a rationale for its inclusion provided? [redacted]	
If YES, reference: [redacted]	
11. Does the proposal include use of combining characters and/or use of composite sequences?	No
If YES, is a rationale for such use provided? [redacted]	
If YES, reference: [redacted]	
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided? [redacted]	
If YES, reference: [redacted]	
12. Does the proposal contain characters with any special properties such as control function or similar semantics?	No
If YES, describe in detail (include attachment if necessary) [redacted] [redacted]	
13. Does the proposal contain any Ideographic compatibility characters?	No
If YES, are the equivalent corresponding unified ideographic characters identified? [redacted]	
If YES, reference: [redacted]	

I. Introduction

Ersu Hieroglyphs is a kind of religious hieroglyph used by Ersu /ə⁵⁵sə⁵⁵/ (a Ersu Language speaking branch of East Tibetan) people who live in Xieluo Tibetan Township, Shimian County, Ya'an City, Sichuan Province, China and believe in the Tibetan primitive religion Bon ཚོན. Ersu Language belongs to the Sino-Tibetan Tibeto-Burmese Qiangic languages.

This script now mainly exists in almanac *Kasipu* /ka³¹si⁵⁵pu⁵³/ used by Ersu Priests (/ʂə³¹pə⁵⁵/). There are 1121 glyphs in Dkar Rtsis Almanac. Through our arrangement we found that there might be 108 glyphs should be encoded in this script system in total.

This proposal is one of the project *Rescue, Recovery and Research on Minority Languages in Southwest China* undertaken by the Tsinghua University.

Since 2007, teachers and students have gone through all over counties like Ganluo, Yuexi and Shimian, found 10 Ersu religious books extant. So far these books could not be interpreted by anyone.

In the year 2013 we met Ersu Priest Su Mingwen 苏明文 and found that the almanac *Kasipu* kept by him is still in use. This almanac is used to calculate the fate of 360 days in a year. The local Ersu people are inseparable from the almanac to divine, exorcise and pray in their daily life. Now Priest Su trains apprentices to inherit his work and the treatise *Southwest China Endangered Script Literature Interpreting : Volume Ersu* is completed and waiting to be published.

II. The Character Table

1x000

Ersu Hieroglyphs

1x06B

	1x00	1x01	1x02	1x03	1x04	1x05	1x06
0							
1							
2							
3							
4							
5							
6							
7							
8							
9							
A							
B							
C							
D							
E							
F							

Ersu Hieroglyphs

1X000 ☽ ERSU HIEROGLYPH SUN ONE
 1X001 ☾ ERSU HIEROGLYPH SUN TWO
 1X002 ☿ ERSU HIEROGLYPH SUN THREE
 1X003 ☿ ERSU HIEROGLYPH SUN FOUR
 1X004 ☽ ERSU HIEROGLYPH SUN FIVE
 1X005 ☽ ERSU HIEROGLYPH SUN COVERED BY CLOUD
 1X006 ☿ ERSU HIEROGLYPH SUN BREAKING WIND HORSE
 1X007 ☽ ERSU HIEROGLYPH RISING MOON
 1X008 ☽ ERSU HIEROGLYPH MOON RISING FROM THE SOUTH
 1X009 ☽ ERSU HIEROGLYPH MOON HIGH ABOVE IN THE SKY
 1X00A ☽ ERSU HIEROGLYPH FALLING MOON
 1X00B ☽ ERSU HIEROGLYPH MOON FALLING TO THE SOUTH
 1X00C ☽ ERSU HIEROGLYPH HALFMOON
 1X00D ☽ ERSU HIEROGLYPH MOON COVERED BY CLOUD
 1X00E ☽ ERSU HIEROGLYPH MOON COVERED BY CLOUD AND EVENING GLOW
 1X00F ☿ ERSU HIEROGLYPH MOON BREAKING WIND HORSE
 1X010 ☽ ERSU HIEROGLYPH METEOR ONE
 1X011 ☽ ERSU HIEROGLYPH METEOR TWO
 1X012 ☽ ERSU HIEROGLYPH METEOR THREE
 1X013 ☽ ERSU HIEROGLYPH BLOODY METEOR MALEFIC ONE
 1X014 ☽ ERSU HIEROGLYPH BLOODY METEOR MALEFIC TWO
 1X015 ☽ ERSU HIEROGLYPH BLOODY METEOR MALEFIC THREE
 1X016 ● ERSU HIEROGLYPH MALEFIC
 1X017 ○ ERSU HIEROGLYPH BLOODY MALEFIC
 1X018 ● ERSU HIEROGLYPH TWO MALEFICS
 1X019 ☽ ERSU HIEROGLYPH THREE STARS
 1X01A :: ERSU HIEROGLYPH THREE MALEFICS ONE
 1X01B :: ERSU HIEROGLYPH THREE MALEFICS TWO
 1X01C :: ERSU HIEROGLYPH FOUR STARS
 1X01D :: ERSU HIEROGLYPH FOUR MALEFICS
 1X01E :: ERSU HIEROGLYPH FIVE STARS ONE
 1X01F :: ERSU HIEROGLYPH FIVE STARS TWO
 1X020 :: ERSU HIEROGLYPH FIVE MALEFICS
 1X021 :: ERSU HIEROGLYPH SIX STARS ONE
 1X022 :: ERSU HIEROGLYPH SIX STARS TWO
 1X023 :: ERSU HIEROGLYPH SIX STARS THREE
 1X024 :: ERSU HIEROGLYPH SIX STARS FOUR
 1X025 :: ERSU HIEROGLYPH SEVEN STARS
 1X026 -○ ERSU HIEROGLYPH SUN EASTWARD MALEFIC
 1X027 ☽ ERSU HIEROGLYPH SUN SOUTHEASTWARD MALEFIC
 1X028 ☽ ERSU HIEROGLYPH SUN SOUTHWARD MALEFIC
 1X029 ☽ ERSU HIEROGLYPH SUN SOUTHWESTWARD MALEFIC
 1X02A -○ ERSU HIEROGLYPH SUN WESTWARD MALEFIC

1X02B ☽ ERSU HIEROGLYPH SUN NORTHWESTWARD MALEFIC
 1X02C ☿ ERSU HIEROGLYPH SUN NORTHWARD MALEFIC
 1X02D ☽ ERSU HIEROGLYPH SUN NORTHEASTWARD MALEFIC
 1X02E ☿ ERSU HIEROGLYPH SUN MALEFIC SHELTERING TREE
 1X02F ☽ ERSU HIEROGLYPH CLOUD
 1X030 ☽ ERSU HIEROGLYPH DARK CLOUD
 1X031 ☽ ERSU HIEROGLYPH LIGHTNING
 1X032 ■ ERSU HIEROGLYPH DARKNESS
 1X033 ☽ ERSU HIEROGLYPH BLACK RAHU
 1X034 ☽ ERSU HIEROGLYPH YELLOW RAHU
 1X035 ☽ ERSU HIEROGLYPH RAHU
 1X036 ☽ ERSU HIEROGLYPH RAHU COVERED BY CLOUD
 1X037 ☽ ERSU HIEROGLYPH RAHU BREAKING WIND HORSE
 1X038 ☽ ERSU HIEROGLYPH SPIDER ONE
 1X039 ☽ ERSU HIEROGLYPH SPIDER COVERED BY CLOUD
 1X03A ☽ ERSU HIEROGLYPH SPIDER COVERED BY DARK CLOUD
 1X03B ☽ ERSU HIEROGLYPH FOOT
 1X03C ☽ ERSU HIEROGLYPH EARTHLY BRANCH RAT
 1X03D ☽ ERSU HIEROGLYPH EARTHLY BRANCH OX
 1X03E ☽ ERSU HIEROGLYPH EARTHLY BRANCH TIGER
 1X03F ☽ ERSU HIEROGLYPH EARTHLY BRANCH RABBIT
 1X040 ☽ ERSU HIEROGLYPH EARTHLY BRANCH DRAGON
 1X041 ☽ ERSU HIEROGLYPH EARTHLY BRANCH SNAKE
 1X042 ☽ ERSU HIEROGLYPH EARTHLY BRANCH HORSE
 1X043 ☽ ERSU HIEROGLYPH EARTHLY BRANCH GOAT
 1X044 ☽ ERSU HIEROGLYPH EARTHLY BRANCH MONKEY
 1X045 ☽ ERSU HIEROGLYPH EARTHLY BRANCH ROOSTER
 1X046 ☽ ERSU HIEROGLYPH EARTHLY BRANCH DOG
 1X047 ☽ ERSU HIEROGLYPH EARTHLY BRANCH PIG
 1X048 ▲ ERSU HIEROGLYPH UPWARD MOUNT KILLING
 1X049 ▼ ERSU HIEROGLYPH DOWNWARD MOUNT KILLING
 1X04A ☽ ERSU HIEROGLYPH WIND HORSE
 1X04B ☽ ERSU HIEROGLYPH BROKEN WIND HORSE
 1X04C ☽ ERSU HIEROGLYPH RIGHTWARD ARROW KILLING
 1X04D ☽ ERSU HIEROGLYPH RIGHTWARD ARROW KILLING
 1X04E ☽ ERSU HIEROGLYPH LEFTWARD ARROW KILLING
 1X04F ☽ ERSU HIEROGLYPH DOWNWARD ARROW KILLING

1X050 ⌈ ERSU HIEROGLYPH UPWARD PHUR PA

ONE

1X051 ⌋ ERSU HIEROGLYPH UPWARD PHUR PA

TWO

- 1X052 ⚈ ERSU HIEROGLYPH DOWNWARD PHUR
PA ONE
- 1X053 ⚉ ERSU HIEROGLYPH DOWNWARD PHUR
PA TWO
- 1X054 ⚊ ERSU HIEROGLYPH DOWNWARD PHUR
PA THREE
- 1X055 ⚋ ERSU HIEROGLYPH DOWNWARD PHUR
PA FOUR
- 1X056 ⚌ ERSU HIEROGLYPH DOWNWARD PHUR
PA COVERED BY CLOUD
- 1X057 ⚍ ERSU HIEROGLYPH GOLDEN URN
- 1X058 ⚎ ERSU HIEROGLYPH EASTWARD FORK
- 1X059 ⚏ ERSU HIEROGLYPH WESTWARD FORK
- 1X05A ⚐ ERSU HIEROGLYPH CROSS
- 1X05B ⚑ ERSU HIEROGLYPH BLACK CROSS
- 1X05C ⚒ ERSU HIEROGLYPH RED CROSS
- 1X05D ⚓ ERSU HIEROGLYPH UPWARD MANIRATNA
ONE
- 1X05E ⚔ ERSU HIEROGLYPH UPWARD MANIRATNA
TWO
- 1X05F ⚕ ERSU HIEROGLYPH DOWNWARD
MANIRATNA
- 1X060 ⚖ ERSU HIEROGLYPH DOWNWARD
MANDALA ONE
- 1X061 ⚗ ERSU HIEROGLYPH DOWNWARD
MANDALA TWO
- 1X062 ⚘ ERSU HIEROGLYPH DOWNWARD
MANDALA THREE
- 1X063 ⚙ ERSU HIEROGLYPH TOR MA ONE
- 1X064 ⚚ ERSU HIEROGLYPH TOR MA TWO
- 1X065 ⚛ ERSU HIEROGLYPH TOR MA THREE
- 1X066 ⚜ ERSU HIEROGLYPH TOR MA FOUR
- 1X067 ⚝ ERSU HIEROGLYPH TOR MA COVERED BY
CLOUD
- 1X068 ⚞ ERSU HIEROGLYPH COFFIN
- 1X069 ⚟ ERSU HIEROGLYPH COFFIN COVERED BY
CLOUD
- 1X06A ⚠ ERSU HIEROGLYPH COFFIN BREAKING
WIND HORSE
- 1X06B ⚡ ERSU HIEROGLYPH ONE FIFTH IN FIFTH
MONTH

III. Glyph Sources

Order	Glyph	Reading ²	Glyph Name	A Origin ³ And Frequency
1		me ⁵⁵ tshε ⁵³ /n̥i ⁵⁵ me ⁵³	ERSU HIEROGLYPH SUN ONE	30/1121
2		be ³¹ tʂa ⁵⁵ bu ⁵³ i ⁵³ tshou ⁵³ p̥u ³¹ tsø ³¹ u ⁵⁵	ERSU HIEROGLYPH SUN TWO	1/1121
3		ua ⁵⁵ ua ⁵³	ERSU HIEROGLYPH SUN THREE	5/1121
4		kø ³¹ lø ³¹ ua ³¹ bu ⁵⁵ /kø ³¹ le ³¹ ua ⁵⁵ ua ⁵³ /be ⁵⁵ lu ⁵³ /me ³¹ le ³¹ tsho ⁵⁵ khua ⁵³	ERSU HIEROGLYPH SUN FOUR	3/1121
5		tʂl ³¹ bu ⁵⁵	ERSU HIEROGLYPH SUN FIVE	1/1121
6		tsø ³¹ te ⁵⁵ du ⁵⁵ de ⁵⁵ le ¹³ n̥i ²¹ m̥e ³¹ bu ⁵⁵ ua ⁵³ kha ³¹ tshø ⁵⁵ tshø ⁵³ te ⁵³	ERSU HIEROGLYPH SUN COVERED BY CLOUD	3/1121
7		n̥i ³¹ me ³¹ bu ⁵³ te ⁵⁵ ka ⁵³ ne ³¹ zi ¹³ the ³¹ ke ³¹ fu ⁵⁵ te ⁵³	ERSU HIEROGLYPH SUN BREAKING WIND HORSE	3/1121
8		xa ⁵⁵ phe ⁵³	ERSU HIEROGLYPH RISING MOON	31/1121
9		xa ⁵⁵ phe ⁵³	ERSU HIEROGLYPH MOON RISING FROM THE SOUTH	4/1121
10		xa ⁵⁵ phe ⁵³	ERSU HIEROGLYPH MOON HIGH ABOVE IN THE SKY	1/1121
11		xa ⁵⁵ phe ⁵³	ERSU HIEROGLYPH FALLING MOON	26/1121
12		xa ⁵⁵ phe ⁵³	ERSU HIEROGLYPH MOON FALLING TO THE SOUTH	1/1121
13		xa ⁵⁵ phe ⁵³	ERSU HIEROGLYPH HALFMoon	1/1121
14		de ³¹ lu ⁵⁵ lɛ ⁵³ da ³¹ nua ³¹ i ⁵³ tsø ⁵³ xa ³¹ phe ⁵⁵ bu ⁵³ ua ⁵³ kha ³¹ tshø ⁵⁵ tshø ⁵³ te ⁵³	ERSU HIEROGLYPH MOON COVERED BY CLOUD	2/1121
15		xa ³¹ phe ³¹ bu ⁵⁵ ua ⁵³ tsø ⁵³ da ³¹ nua ³¹ i ⁵³ kha ³¹ tshø ⁵⁵ tshø ⁵³ te ⁵³ , n̥i ³¹ me ³¹ ne ⁵⁵ tshø ⁵³ i ⁵³ tsø ³¹ de ⁵⁵ ʂu ⁵³ te ³¹ du ³¹ de ⁵⁵ le ¹³ i ¹³ ta ³¹ tsø ⁵³ mu ⁵³ kha ³¹ tshø ⁵⁵ tshø ⁵³ te ⁵³	ERSU HIEROGLYPH MOON COVERED BY CLOUD AND EVENING GLOW	1/1121

² Sometimes a glyph have more than one pronunciation, even those pronunciations may represent the same word. Pronunciations from different sources are separated by slashes; variant pronunciations from the same source are separated by semicolons.

³ A is short for the almanac owned by Su Mingwen 苏明文.

16		xa ⁵⁵ phe ⁵³ bu ⁵³ te ⁵⁵ ka ⁵³ ne ³¹ zi ¹³ the ³¹ ke ⁵³ te ⁵³	ERSU HIEROGLYPH MOON BREAKING WIND HORSE	 1/1121
17		t ⁵³ l ³¹ bu ⁵⁵	ERSU HIEROGLYPH METEOR ONE	 1/1121
18		t ⁵⁵ l ³¹ bu ⁵³ da ³¹ nua ⁵³	ERSU HIEROGLYPH METEOR TWO	 1/1121
19		t ⁵⁵ l ³¹ bu ⁵³ da ³¹ nua ⁵³	ERSU HIEROGLYPH METEOR THREE	 1/1121
20		de ³¹ η ⁱ ³¹ ku ⁵³ i ⁵³ t ⁵³ l ³¹ bu ⁵⁵ /t ⁵³ l ³¹ de ³¹ η ⁱ ⁵⁵ ku ⁵³	ERSU HIEROGLYPH BLOODY METEOR MALEFIC ONE	 1/1121
21		de ³¹ η ⁱ ³¹ ku ⁵³ i ⁵³ t ⁵³ l ³¹ bu ⁵⁵ /t ⁵³ l ³¹ de ³¹ η ⁱ ⁵⁵ ku ⁵³	ERSU HIEROGLYPH BLOODY METEOR MALEFIC TWO	 2/1121
22		de ³¹ η ⁱ ³¹ ku ⁵³ i ⁵³ t ⁵³ l ³¹ bu ⁵⁵ /t ⁵³ l ³¹ de ³¹ η ⁱ ⁵⁵ ku ⁵³	ERSU HIEROGLYPH BLOODY METEOR MALEFIC THREE	 3/1121
23		t ⁵⁵ l ³¹ bu ⁵³ da ³¹ nua ⁵³	ERSU HIEROGLYPH MALEFIC	 1/1121
24		de ³¹ η ⁱ ³¹ ku ⁵³ i ⁵³ t ⁵³ l ³¹ bu ⁵⁵ /t ⁵³ l ³¹ de ³¹ η ⁱ ⁵⁵ ku ⁵³	ERSU HIEROGLYPH BLOODY MALEFIC	 11/1121
25		t ⁵³ l ¹³ da ³¹ nua ³¹ na ³¹ p ⁵⁵	ERSU HIEROGLYPH TWO MALEFICS	 14/1121
26		t ⁵³ l ¹³ si ³¹ p ⁵⁵	ERSU HIEROGLYPH THREE STARS	 3/1121
27		t ⁵⁵ da ³¹ nua ⁵⁵ si ³¹ bu ⁵⁵	ERSU HIEROGLYPH THREE MALEFICS ONE	 6/1121
28		t ⁵⁵ da ³¹ nua ⁵⁵ si ³¹ bu ⁵⁵	ERSU HIEROGLYPH THREE MALEFICS TWO	 1/1121
29		t ⁵³ l ¹³ z ^o ³¹ p ⁵³	ERSU HIEROGLYPH FOUR STARS	 1/1121
30		t ⁵⁵ z ^o ³¹ bu ³¹ ta ³¹ ua ⁵³	ERSU HIEROGLYPH FOUR MALEFICS	 1/1121
31		t ⁵³ l ³¹ η ^o ³¹ bu ⁵⁵	ERSU HIEROGLYPH FIVE STARS ONE	 1/1121
32		t ⁵³ l ³¹ η ^o ³¹ bu ⁵⁵	ERSU HIEROGLYPH FIVE STARS TWO	 1/1121
33		t ⁵³ l ³¹ η ^o ³¹ bu ⁵³ ta ³¹ ua ⁵⁵	ERSU HIEROGLYPH FIVE MALEFICS	 1/1121

34		tʂl ⁵³ tʂhu ³¹ bu ⁵³	ERSU HIEROGLYPH SIX STARS ONE	 3/1121
35		tʂl ⁵³ tʂhu ³¹ bu ⁵³	ERSU HIEROGLYPH SIX STARS TWO	 3/1121
36		tʂl ⁵³ tʂhu ³¹ bu ⁵³	ERSU HIEROGLYPH SIX STARS THREE	 2/1121
37		tʂl ⁵³ tʂhu ³¹ bu ⁵³	ERSU HIEROGLYPH SIX STARS FOUR	 1/1121
38		tʂl ⁵⁵ sɿ ³¹ bu ⁵³	ERSU HIEROGLYPH SEVEN STARS	 1/1121
39		tsə ³¹ li ⁵⁵ ka ⁵³	ERSU HIEROGLYPH SUN EASTWARD MALEFIC	 32/1121
40		tsə ³¹ li ⁵⁵ ka ⁵³	ERSU HIEROGLYPH SUN SOUTHEASTWARD MALEFIC	 30/1121
41		tsə ³¹ li ⁵⁵ ka ⁵³	ERSU HIEROGLYPH SUN SOUTHWARD MALEFIC	 31/1121
42		tsə ³¹ li ⁵⁵ ka ⁵³	ERSU HIEROGLYPH SUN SOUTHWESTWARD MALEFIC	 29/1121
43		tsə ³¹ li ⁵⁵ ka ⁵³	ERSU HIEROGLYPH SUN WESTWARD MALEFIC	 30/1121
44		tsə ³¹ li ⁵⁵ ka ⁵³	ERSU HIEROGLYPH SUN NORTHWESTWARD MALEFIC	 29/1121
45		tsə ³¹ li ⁵⁵ ka ⁵³	ERSU HIEROGLYPH SUN NORTHWARD MALEFIC	 29/1121
46		tsə ³¹ li ⁵⁵ ka ⁵³	ERSU HIEROGLYPH SUN NORTHEASTWARD MALEFIC	 30/1121
47		tsə ³¹ li ⁵⁵ ka ⁵³ aj ⁵⁵ the ³¹ de ³¹ dʐu ¹³ tsi ⁵⁵ ka ⁵³ tsi ³¹ g ³¹ l ³¹ kha ³¹ tshə ⁵⁵ tshə ⁵³ te ⁵³	ERSU HIEROGLYPH SUN MALEFIC SHELTERING TREE	 1/1121
48		tsə ⁵³ de ⁵⁵ lu ⁵³	ERSU HIEROGLYPH CLOUD	 1/1121
49		tsə ⁵⁵ nua ⁵³	ERSU HIEROGLYPH DARK CLOUD	 1/1121
50		me ³¹ dʐə ³¹ ka ⁵⁵	ERSU HIEROGLYPH LIGHTNING	 1/1121
51		me ³¹ na ³¹ nkha ⁵⁵	ERSU HIEROGLYPH DARKNESS	 5/1121

52		tʂ̥ ⁵⁵ da ³¹ nua ¹³	ERSU HIEROGLYPH BLACK RAHU	 1/1121
53		lø ³¹ du ⁵⁵ ku ⁵³	ERSU HIEROGLYPH YELLOW RAHU	 4/1121
54		lø ³¹ du ⁵⁵ ku ⁵³	ERSU HIEROGLYPH RAHU	 24/1121  2/1121  1/1121
55		tsø ⁵³ de ³¹ lu ³¹ te ⁵⁵ ntcho ⁵³ lø ³¹ du ³¹ ku ³¹ bu ⁵⁵ ua ⁵³ kha ³¹ tshø ⁵⁵ tshø ⁵³ te ⁵³	ERSU HIEROGLYPH RAHU COVERED BY CLOUD	 3/1121
56		te ⁵⁵ ka ⁵³ the ³¹ ke ⁵³ te ⁵³ lø ³¹ du ³¹ ku ⁵⁵ bu ⁵³ te ⁵⁵ ka ⁵³ ne ³¹ zi ¹³ te ⁵³	ERSU HIEROGLYPH RAHU BREAKING WIND HORSE	 2/1121
57		kø ³¹ lø ³¹ ua ³¹ bu ⁵⁵ /kø ³¹ le ³¹ ua ⁵⁵ ua ⁵³ /be ⁵⁵ lu ⁵³ /me ³¹ le ³¹ tshø ⁵⁵ khua ⁵³	ERSU HIEROGLYPH SPIDER ONE	 32/1121
58		kø ³¹ lø ³¹ ua ³¹ bu ⁵³ tsha ³¹ bu ³¹ te ⁵⁵ bu ⁵³ dž ¹ ge ⁵³ thi ⁵⁵ dž ¹ ge ⁵⁵ xa ⁵³ tsø ⁵⁵ de ³¹ lu ⁵³ te ⁵⁵ ntcho ⁵³ kha ³¹ tshø ⁵⁵ tshø ⁵³ bø ¹³	ERSU HIEROGLYPH SPIDER COVERED BY CLOUD	 2/1121
59		tsø ³¹ te ⁵⁵ du ⁵³ da ³¹ nua ⁵³ kø ³¹ lø ³¹ ua ³¹ bu ³¹ ua ¹³ kha ³¹ tshø ⁵⁵ tshø ⁵³ te ⁵³	ERSU HIEROGLYPH SPIDER COVERED BY DARK CLOUD	 1/1121
60		lu ³¹ tshø ³¹ bu ⁵⁵	ERSU HIEROGLYPH FOOT	 1/1121
61		gu ⁵³	ERSU HIEROGLYPH EARTHLY BRANCH RAT	 8/1121  4/1121  4/1121  4/1121
62		ŋø ¹³	ERSU HIEROGLYPH EARTHLY BRANCH OX	 8/1121  4/1121

				 4/1121  4/1121
63		le ¹³	ERSU HIEROGLYPH EARTHLY BRANCH TIGER	 8/1121  4/1121  4/1121  4/1121
64		mi ³¹ dz ₁ ⁵³	ERSU HIEROGLYPH EARTHLY BRANCH RABBIT	 8/1121  4/1121  4/1121  4/1121
65		lu ³¹ dzo ⁵³	ERSU HIEROGLYPH EARTHLY BRANCH DRAGON	 8/1121  4/1121  4/1121  4/1121
66		be ⁵⁵ lu ⁵³	ERSU HIEROGLYPH EARTHLY BRANCH SNAKE	 8/1121  4/1121  4/1121  4/1121

67		nbo ¹³	ERSU HIEROGLYPH EARTHLY BRANCH HORSE	 8/1121 4/1121 4/1121 4/1121
68		io ⁵³	ERSU HIEROGLYPH EARTHLY BRANCH GOAT	 8/1121 4/1121 4/1121 4/1121
69		mi ¹³	ERSU HIEROGLYPH EARTHLY BRANCH MONKEY	 8/1121 4/1121 4/1121 4/1121
70		dza ¹³	ERSU HIEROGLYPH EARTHLY BRANCH ROOSTER	 8/1121 4/1121 4/1121 4/1121

71		t <small>ɬ</small> ho ¹³	ERSU HIEROGLYPH EARTHLY BRANCH DOG	 8/1121  4/1121  4/1121  4/1121
72		ui ¹³	ERSU HIEROGLYPH EARTHLY BRANCH PIG	 8/1121  4/1121  4/1121  4/1121
73		le ³¹ šo ³¹ ka ⁵⁵	ERSU HIEROGLYPH UPWARD MOUNT KILLING	 10/1121  6/1121  4/1121  1/1121  1/1121  1/1121
74		le ³¹ šo ³¹ ka ⁵⁵	ERSU HIEROGLYPH DOWNWARD MOUNT KILLING	 5/1121  1/1121
75		te ⁵⁵ ka ⁵³	ERSU HIEROGLYPH WIND HORSE	 92/1121
76		te ⁵⁵ ka ⁵³	ERSU HIEROGLYPH BROKEN WIND HORSE	 29/1121

77		mə ⁵⁵ ka ⁵³	ERSU HIEROGLYPH RIGHTWARD ARROW KILLING	1/1121
78		mə ⁵⁵ ka ⁵³	ERSU HIEROGLYPH RIGHTWARD ARROW KILLING	1/1121
79		mə ⁵⁵ ka ⁵³	ERSU HIEROGLYPH LEFTWARD ARROW KILLING	1/1121
80		mə ⁵⁵ ka ⁵³	ERSU HIEROGLYPH DOWNWARD ARROW KILLING	1/1121
81		be ⁵⁵ tʂə ⁵³	ERSU HIEROGLYPH UPWARD PHUR PA ONE	9/1121
82		be ⁵⁵ tʂə ⁵³	ERSU HIEROGLYPH UPWARD PHUR PA TWO	1/1121
83		be ⁵⁵ tʂə ⁵³	ERSU HIEROGLYPH DOWNWARD PHUR PA ONE	27/1121
84		be ⁵⁵ tʂə ⁵³	ERSU HIEROGLYPH DOWNWARD PHUR PA TWO	24/1121
85		be ⁵⁵ tʂə ⁵³	ERSU HIEROGLYPH DOWNWARD PHUR PA THREE	4/1121
86		be ⁵⁵ tʂə ⁵³	ERSU HIEROGLYPH DOWNWARD PHUR PA FOUR	1/1121 3/1121 3/1121 1/1121 1/1121 1/1121
87		tsə ⁵⁵ u ⁵³ be ³¹ tʂə ⁵³ ka ⁵⁵ ua ⁵³ na ³¹ xə ³¹ xə ⁵³ tʂə ⁵³	ERSU HIEROGLYPH DOWNWARD PHUR PA COVERED BY CLOUD	3/1121
88		və ³¹ pə ⁵⁵ tsl ⁵³	ERSU HIEROGLYPH GOLDEN URN	1/1121
89		ʂə ³¹ mə ³¹ ka ⁵⁵	ERSU HIEROGLYPH EASTWARD FORK	5/1121

90		ṣə ³¹ mə ³¹ ka ⁵⁵	ERSU HIEROGLYPH WESTWARD FORK	 3/1121
91		tshə ³¹ tshə ³¹ bu ⁵⁵	ERSU HIEROGLYPH CROSS	 7/1121
92		tshə ³¹ tshə ³¹ bu ⁵⁵	ERSU HIEROGLYPH BLACK CROSS	 2/1121
93		tshə ³¹ tshə ³¹ bu ⁵⁵	ERSU HIEROGLYPH RED CROSS	 1/1121
94		po ³¹ phu ⁵³	ERSU HIEROGLYPH UPWARD MANIRATNA ONE	 9/1121 1/1121
95		po ³¹ te ³¹ phu ⁵³	ERSU HIEROGLYPH UPWARD MANIRATNA TWO	 1/1121
96		po ³¹ phu ⁵³	ERSU HIEROGLYPH DOWNWARD MANIRATNA	 3/1121
97		tsə ³¹ ŋə ³¹ phu ⁵⁵	ERSU HIEROGLYPH DOWNWARD MANDALA ONE	 2/1121
98		tsə ³¹ ŋə ³¹ phu ⁵⁵	ERSU HIEROGLYPH DOWNWARD MANDALA TWO	 1/1121
99		tsə ³¹ ŋə ³¹ phu ⁵⁵	ERSU HIEROGLYPH DOWNWARD MANDALA THREE	 1/1121
100		si ³¹ zu ⁵⁵ / pi ³¹ tshl ³¹ phu ⁵⁵	ERSU HIEROGLYPH TORMA ONE	 24/1121 1/1121
101		si ³¹ zu ⁵⁵	ERSU HIEROGLYPH TORMA TWO	 2/1121
102		si ³¹ zu ⁵⁵	ERSU HIEROGLYPH TORMA THREE	 1/1121
103		tsə ³¹ ŋə ³¹ pu ⁵⁵ / pi ³¹ tshl ³¹ phu ⁵⁵	ERSU HIEROGLYPH TORMA FOUR	 3/1121 1/1121
104		tsə ⁵³ de ³¹ lu ⁵³ te ⁵⁵ nteho ⁵³ si ³¹ zu ³¹ pu ³¹ ua ⁵³ kha ³¹ tshə ⁵⁵ tshə ⁵³ te ⁵³	ERSU HIEROGLYPH TORMA COVERED BY CLOUD	 2/1121
105		ka ³¹ ntehi ⁵⁵ /si ³¹ pu ³¹ fu ⁵⁵ /mo ³¹ bu ⁵⁵ /mo ³¹ tshl ⁵³	ERSU HIEROGLYPH COFFIN	 28/1121

106		tsø ³¹ de ⁵⁵ lε ¹³ mo ³¹ bu ³¹ ua ⁵³ kha ³¹ tshø ⁵⁵ tshø ⁵³ tε ⁵	ERSU HIEROGLYPH COFFIN COVERED BY CLOUD	 4/1121  1/1121
107		mo ³¹ da ³¹ ntshø ³¹ ntshø ⁵³ i ⁵³ si ³¹ ø ³¹ ka ⁵⁵ le ⁵³ ne ³¹ zi ¹³ the ³¹ ke ³¹ ba ¹³	ERSU HIEROGLYPH COFFIN BREAKING WIND HORSE	 1/1121
108		tʂ ³¹ ŋø ³¹ bu ⁵⁵	ERSU HIEROGLYPH ONE FIFTH IN FIFTH MONTH	 1/1121

IV. References

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V. Appendix 1: Published Examples



Ersu Priest Su Mingwen with Ersu Almanac



Ersu Almanac, Diagram



Ersu Almanac, Cover with Tibetan Script *kam* କମ୍ on it

There are still a lot of glyphs appeared on sacred printing sticks. These glyphs are worn to some degree and most of them have not been deciphered yet.

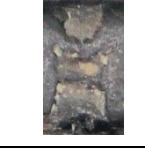
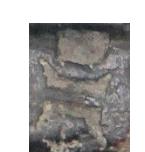
Sacred Printing Stick Glyph	Reading	Meaning
	lo ⁵³ uan ³¹ ga ⁵³ dza ³¹ po ⁵³	the deity of water
		the deity of the mountain
	le ³¹ ts ⁵⁵	a mound
	n ^o ⁵⁵ de ⁵³	the deity of the house
		not quite clear
		not quite clear

		not quite clear
		not quite clear
	tsɿ ³¹ n̥t̥chi ³¹ tsɛ ⁵⁵ ui ⁵³ lɛ ³¹ mɛ ⁵³	Tang Monk
	ŋo ⁵⁵ dɛ ⁵³ ko ³¹ dɛ ³¹ u ⁵⁵ ia ⁵³ dzɛ ³¹ nbe ³¹ lɛ ⁵³	the deity of wealth
	tʂ ⁵⁵ tʂha ⁵³	the blood
		unclear
	ʂ ³¹ ʐɿ ⁵³ lɔ ³¹ lɛ ⁵⁵ mu ⁵³	beating the drum which is used to call back the spirit of the dead
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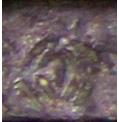
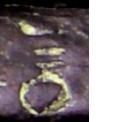
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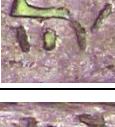
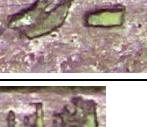
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