Unicode Technical Note No. 42: Tangut Character Additions and Glyph Corrections

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Version 1

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Contents

1. Introduction

Since the finalization of the encoding of the set of 6,125 Tangut ideographs and 755 Tangut components in ISO/IEC 10646:2014 Amendment 2 and Unicode version 9.0 in 2016 a number of additional Tangut ideographs have been identified and proposed for encoding. This technical note documents these additional Tangut ideographs (see Table 1). This technical note also documents glyph changes that have been made to Tangut ideographs and components since their initial standardization (see Table 2).

Table 1: Summary of Additional Tangut Characters

No.	Code Point	Glyph	IDS	Radical/ Strokes	Source	Section
001	U+187ED	禓	⿰⿱禾日⿱卅刈	195.14	Li Fanwen 2012b #6075	2.1
002	U+187EE	談	⿰言刈夂	308.14	Li Fanwen 2012b #6076	2.1
003	U+187EF	骸	⿰半丨亥	415.13	Li Fanwen 2012b #6077	2.1
004	U+187F0	議	⿰言日⿱艹⿰斤羊	308.17	*Vajrayana.* IOM Tang. 293	2.2
005	U+187F1	絀	⿰半米	415.11	Disunification	2.3
006	U+187F2	攮	⿰扌日⿱艹⿰斤羊	42.15	*Hevajra's Abhisamaya* col. 223	2.4
007	U+187F3	薺	⿱日⿱艹⿰斤羊	185.12	*Hevajra's Abhisamaya* col. 144	2.4
008	U+187F4	廗	⿱广⿰多半	73.11	*Three Generations.* IOM Tang. 27 folio 2a col. 5	2.5
009	U+187F5	纙	⿰後米昆	383.18	*Three Generations.* IOM Tang. 27 folio 22a col. 3	2.5
010	U+187F6	矗	⿱二⿰弓廈	79.14	*Three Generations.* IOM Tang. 27 folio 29b col. 3	2.5
011	U+187F7	矗	⿰矗月	79.19	*Three Generations.* IOM Tang. 27 folios 36a through 38a	2.5

Table 2: Summary of Tangut Glyph Corrections

Code Point	Original Glyph	New Glyph	Original Radical/Strokes	New Radical/Strokes	Section
U+17013	𗀓	𗀓	1.9	1.10	3.1
U+17159	𗅙	𗅙	17.10	17.10	3.4
U+1732E	𗌮	𗌮	37.10	37.10	3.5
U+17336	𗌶	𗌶	41.8	41.8	3.4
U+17378	𗍸	𗍸	47.10	47.9	3.6
U+173E1	𗏡	𗏡	68.11	68.11	3.4
U+173EB	𗏫	𗏫	68.12	68.12	3.4
U+173EC	𗏬	𗏬	68.12	68.12	3.4
U+173F4	𗏴	𗏴	68.13	68.13	3.4
U+173FB	𗏻	𗏻	68.15	68.15	3.4
U+173FF	𗏿	𗏿	68.16	68.16	3.4
U+17403	𗐃	𗐃	68.20	68.20	3.4
U+1756E	𗕮	𗕮	79.14	79.14	3.7
U+176E4	𗛤	𗛤	106.13	106.13	3.8
U+17712	𗜒	𗜒	106.13	106.14	3.2
U+1788A	𗢊	𗢊	134.9	134.9	3.4
U+1788B	𗢋	𗢋	134.11	134.11	3.4

Code Point	Original Glyph	New Glyph	Original Radical/Strokes	New Radical/Strokes	Section
U+1788C			134.13	134.13	3.4
U+1788D			134.14	134.14	3.4
U+17B16			145.12	145.12	3.4
U+17B17			145.15	145.15	3.4
U+17B5B			155.14	155.14	3.4
U+17D36			206.12	206.13	3.9
U+17D9F			216.12	216.12	3.3
U+17F8B			267.9	267.9	3.4
U+17FBB			267.13	267.13	3.4
U+181B2			328.11	328.11	3.10
U+181C0			328.13	328.13	3.11
U+1820D			348.10	348.10	3.4
U+1823D			369.14	369.14	3.4
U+183B3			436.10	436.10	3.4
U+1841D			436.14	436.14	3.4
U+18488			458.13	325.13	3.12
U+187C6			729.15	729.15	3.4
U+18885			4	4	3.4

2. Additional Tangut Characters

2.1 187ED, 187EE, and 187EF

Prof. Li Fanwen has identified three previously unknown Tangut characters in the Tangut translation of the *Classic of Filial Piety* (Chinese *Xiào Jīng* 孝經). These characters are found in the cursive manuscript version in the collection of the Institute of Oriental Manuscripts [IOM] of the Russian Academy of Sciences (Saint Petersburg, Russia) [Tang. 1, Inv. No. 1, old Inv. No. 2627], as shown in Fig. 3 & Fig. 4 and Fig. 5 & Fig. 6.

The regular forms of these three characters were published by Li Fanwen in 2012a, in a paper dedicated to Prof. Kychanov under the heading "Three new Tangut characters" (see Fig. 1).

Fig. 1: Li Fanwen 2012a (*Тангуты в Центральной Азии*) p. 212

119280 𘛵 6075	(牙音 ŋa 音雅) ода (кит. *я* 雅)	𘊆 𘛵 𗅁 𗗟 𗿢 𗰭 𗉵 𗉵 𗿁 𗉫 𗄽 𗫿 Кит.《大雅》云：『無念爾祖，聿脩厥德。』（《孝經》開宗明義章 第一）
122482 𘛶 6076	(正齒音 zja 音社) в соч. алтарь (кит. *шэцзи* <u>社</u>稷)	𗠝 𗗟 𗤁 𗉫 𗿢 𗆧 𗿉 𗉫 𘛶 𘛷 𗉵 𗉷 𗉱 𗄽 𗫿 𗁬 𗯴 �- 𗉫 𗉵 Кит. 富貴不離其身，然後能保其社稷，而和其民人（《孝經》諸侯章 第三）
982422 𘛷 6077	(齒頭音 tsjwak 音稷) в соч. алтарь (кит. *шэцзи* 社<u>稷</u>)	𗠝 𗗟 𗤁 𗉫 𗿢 𗆧 𗿉 𗉫 𘛶 𘛷 𗉵 𗉷 𗉱 𗄽 𗫿 𗁬 𗯴 𗰭 𗉫 𗉵 Кит. 富貴不離其身，然後能保其社稷，而和其民人（《孝經》諸侯章 第三）

Li Fanwen subsequently included these three characters as nos. 6075, 6076 and 6077 in the 2012b abridged edition of his 2008 *Tangut-Chinese Dictionary* (see Fig. 2). Nos. 6076 and 6077 are written slightly differently in these two publications, but based on the cursive forms in the original manuscript, and their presumed character construction, it would seem that the character form for no. 6077 in the 2012 dictionary is correct, but the character form for no. 6076 in the 2012 dictionary is slightly wrong, and should be as given in the 2012 paper, with 刂 rather than 丶丨 in the middle.

No. 6075 𘛵 is used to transcribe Chinese *yǎ* 雅 in the title of the *Dà Yǎ* 大雅 section of the *Book of Songs*.

Nos. 6076 and 6077 𘛶𘛷 are used to transcribe the Chinese word *shèjì* 社稷 'altars to the land and the grain'.

Fig. 2: Li Fanwen 2012b (*Jiǎnmíng Xià-Hàn zìdiǎn* 簡明夏漢字典) p. 722

"6074" is a typo for "6075"

Note. The quality of the scanned image shown here corresponds to the quality of the original. The whole of page 722 with these additions (补遗) and a few characters before it (it is the last page of dictionary) was included as an image inside the book by the publisher. It means that the text layout of this page was changed to a scanned/edited picture during the final stage of the publishing process (we believe that this was done in order to add these three additional characters at the request of the author) and that is the reason why the printing quality of this page only is so bad (it contains visible halftone screen pattern and can only be read with difficulty).

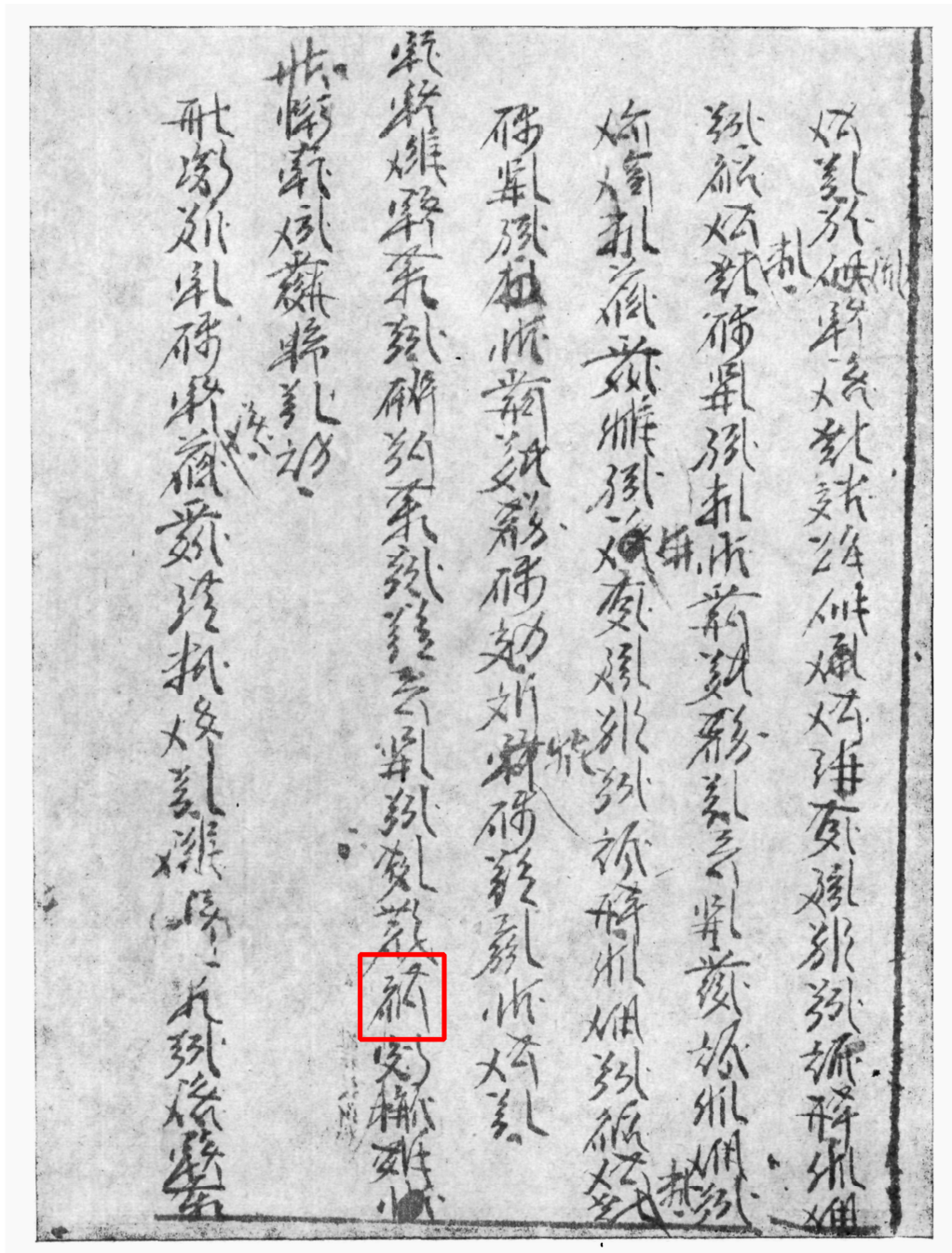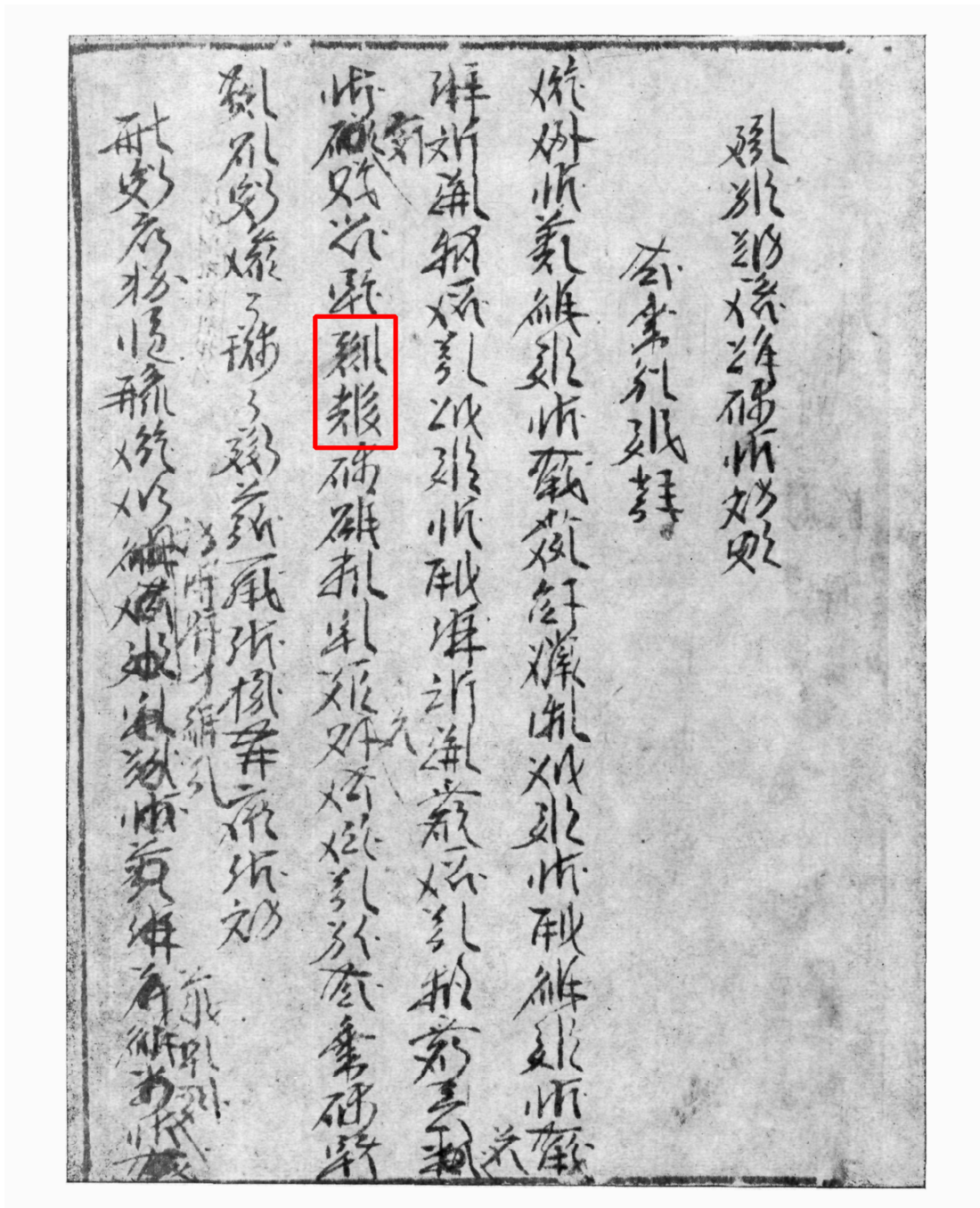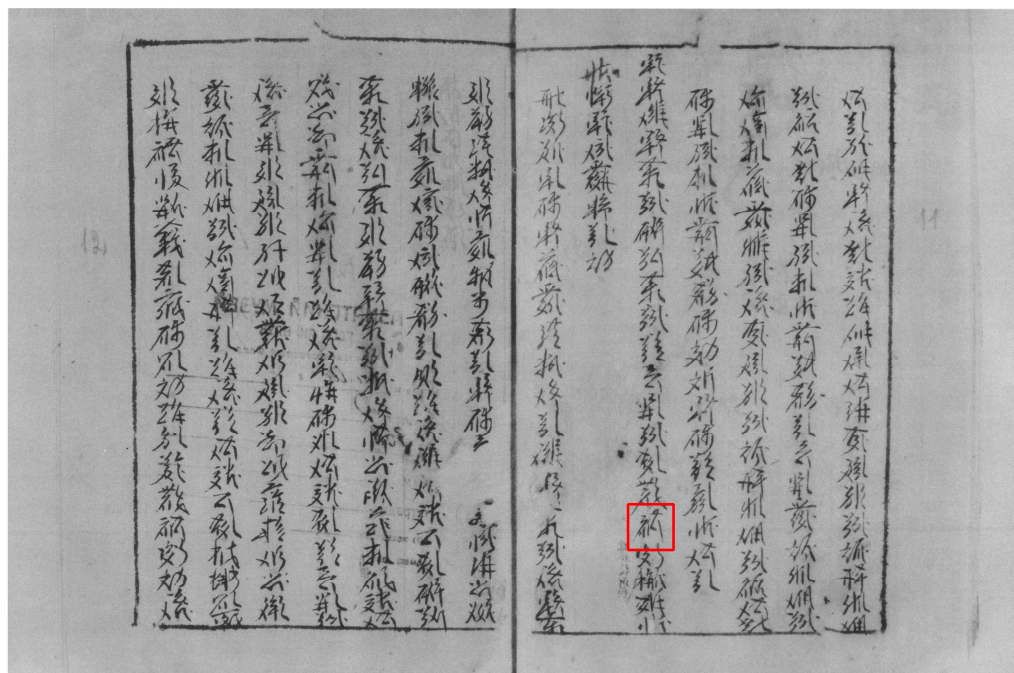**Fig. 3:** *Chinese Classics in Tangut Translation* **1966 p. 145**

145

𧜓

Fig. 4: *Chinese Classics in Tangut Translation* **1966 p. 150**
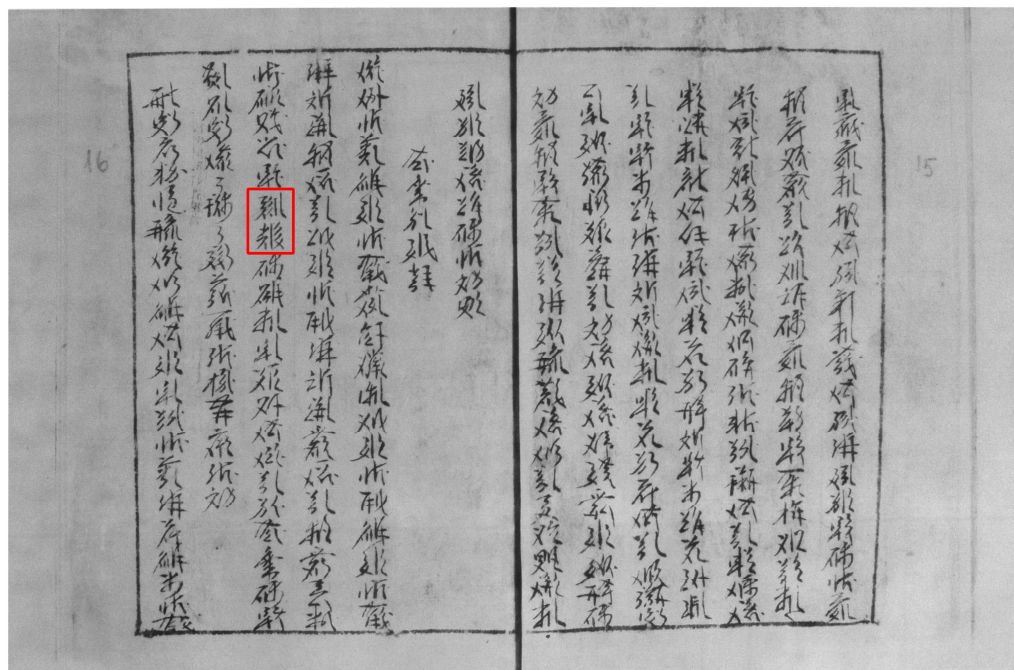

150

譏 and 骸

Fig. 5: *Heishuicheng Manuscripts Collected in Russia* **vol. 11 (1999) p. 8: photo 45–7**

俄 **Инв.No.**2627　孝經傳　　(45−7)

禑

Fig. 6: *Heishuicheng Manuscripts Collected in Russia* **vol. 11 (1999) p. 12: photo 45–11**

俄 **Инв.No.**2627　孝經傳　　(45−11)

譏 and 粶

2.2 187F0

Prof. Sun Bojun has drawn our attention to a recently-identified Tangut character in a Tangut Buddhist manuscript in the collection of the Institute of Oriental Manuscripts of the Russian Academy of Sciences (Saint Petersburg, Russia) [Tang. 293, Inv. No. 1149, old Inv. No. 4900] (Tangut title 𘄴𗴲𗏁𘈩𘓨𘃡; translated into Chinese by modern scholars as *Fānyán Jīngāngwáng chénggēn* 番言金剛王乘根; see p. 594 of Prof. Kychanov's 1999 catalogue, No. 697).

Fig. 7: *Vajrayana* (Tang. 293, Inv. No. 1149, old Inv. No. 4900)
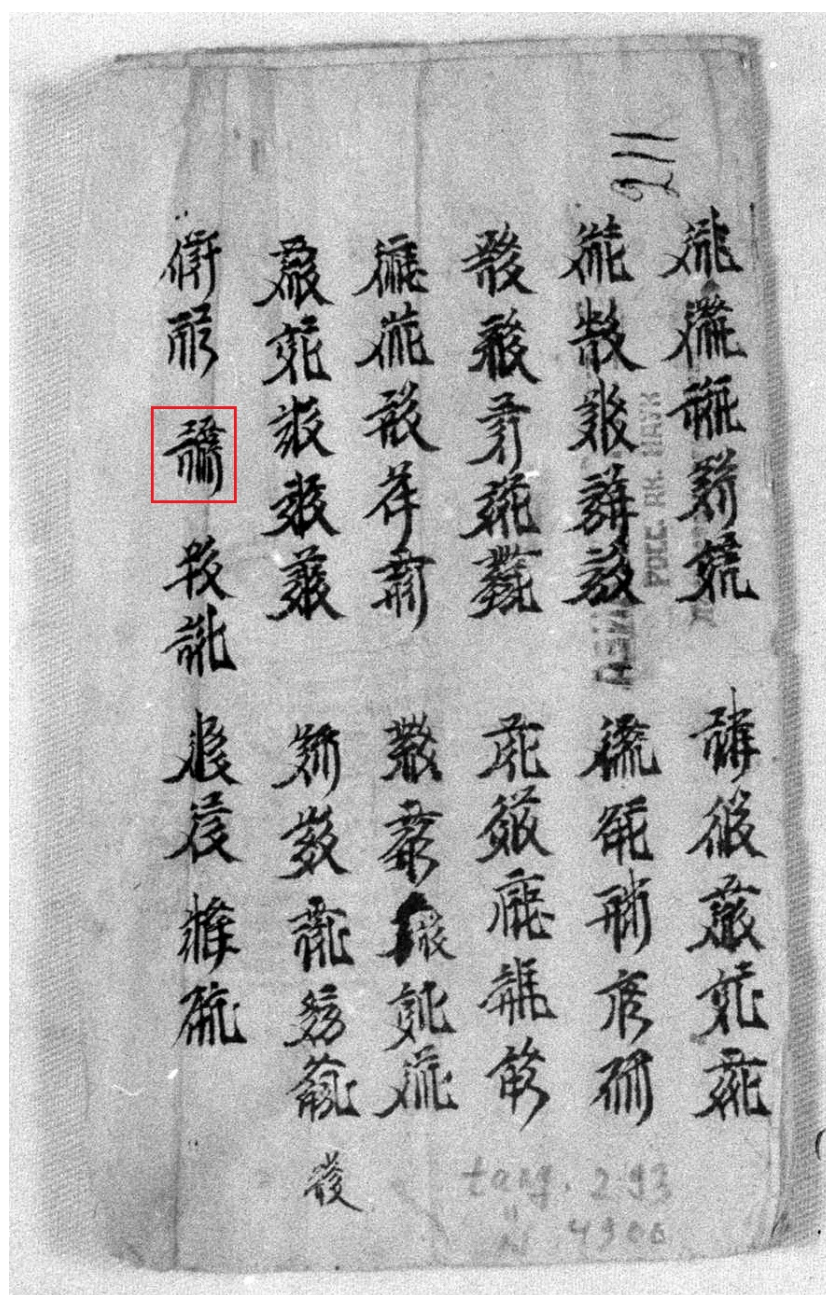
This character occurs at the end of the last page as part of the Tangut transcription of the Sanskrit title of this text, the *Vajrayānamūlāpatti* ('Root downfalls of Vajrayana') by Aśvaghoṣa (see Fig. 7):

y a n a m u l a p a t i

𗧃𗼮 𗘂 𗭁𗜓 𗰈𗰛 𗥰𗁅

Sanskrit language: *Vajrayānamūlāpatti*

The character 𗘂 stands for the Sanskrit word *vajra*, and is constructed from the left side of 𗧁 (ba), the top and left of 𗸐 (dzjɨ), and the left side of 𗼮 (rjar), the three parts together transcribing *vajra*. In the mid 14th-century Tangut inscription on the east wall of the Cloud Platform at Juyong Pass in Beijing, the Sanskrit word *vajra* is transcribed once using these three characters 𗧁𗸐𗼮 (see Fig. 8), and so 𗘂 in the manuscript can be regarded as a portmanteau abbreviation for these three characters. Cf. with newly identified character 𗘃 used for the same purpose (abbreviation for *vajra*) and discussed in section 2.4 of this document.

Fig. 8: Juyong Pass East Wall col. 10: rubbing and Nishida's transcription

(Murata 1957 (*Kyoyōkan* 居庸關) rub. IV & p. 182)

𗧁𗸐𗼮 = *vajra*

2.3 187F1

In the past some modern scholars considered the component 𗤌 to be a cursive variant of 𗤌, and characters with the 𗤌 component were sometimes normalized to use the 𗤌 component. For example, in Li Fanwen's 1997 *Tangut-Chinese Dictionary* the characters U+178EB 𗣫 and U+178C5 𗣅 are both written identically, using the 𗤌 component (see Fig. 9).

Fig. 9: Li Fanwen 1997 p. 705

2942
74

𗣫

3797

〔牙音 ŋwu 2.1 音兀〕

surname

〔兀〕族姓也。(音)

𗣫 𣲆 ŋu 2.1 lhi 2.10 〔兀叻〕(族姓)(同 20B2)。

𗣅

3798

〔齒頭音 tsəj 1.40 羅 繳 菝祖來切 音 栽〕

small；little；yong

小、少、幼也。(形)

𣸕 𗣅 zĭə 1.92 tsɛ 1.40 〔邪栽〕稀少(同 33B5)。

However, in the revised 2008 edition of Li Fanwen's *Tangut-Chinese Dictionary* the two characters U+178EB 𗣫 and U+178C5 𗣅 are clearly distinguished with different right hand components (see Fig. 10).

2942

74

3797

〔牙音 ŋwu 2.1 音兀〕

a surname

〔兀〕族姓也。（音）

絼魀 ŋu 2.1 lhi 2.10〔兀叻〕(族姓)(同 20B2)。

絼翍絼〔兀〕：族姓(同丁21A72背注)。

3798

〔齒頭音 tsəj 1.40 鬚繖皴祖來切 音栽〕

small；little；young

小、少、幼也。（形）

祕絼 zǐ̹ 1.92 tsɛ 1.40〔邪栽〕微少(同 33B5)。

It seems that the character U+18307 絼 unifies two different characters with the 朮 and 朮 components.

- 絼 *niọ* [Kychanov *nọn*] (Initial class III, rising tone, rime 63) : 'an ear of grain.'
- 絼 *ku* [Kychanov *kọn*] (Initial class V, rising tone, rime 4) : either a transcription of the Chinese surname Gu 顧, or 'millet sprouts'.

These are both rare characters with few attestations, and in some modern dictionaries the two characters have been treated as a single character. This is the case in both the 1997 and 2008 editions of Li Fanwen's *Tangut-Chinese Dictionary*, where the two characters are both included under entry No. 5990 (see Fig. 11 and Fig. 12). As a result of this mistaken unification, the two characters have been encoded as a single character (U+187F1).

Fig. 11: Li Fanwen 1997 p. 1085

9922
24

5990

〔舌頭音 nio 2.63 音奴〕

spike;tassel

穗、歧也。（名）

〔㻌〕〔㻌〕rəi 2.71 nuo 2.63〔日奴〕稻穗（同 10A7）。

穗、〔奴〕：稻旁嬰下；

Fig. 12: Li Fanwen 2008 p. 943

9922
24

5990

〔牙音 ku 2.4 貢絹皺郭杜切 音谷〕

a transliteration

①〔顧〕、〔谷〕也。（音）②谷穗也。

ku 2.4 mer 1.86 mʉ 2.25〔顧彌没〕

〔顧〕：族姓（合編甲 13.111）。

rəi 2.71 ku 2.4〔吟顧〕稻穗（同 16A7）。

谷

Although the 2008 edition of Li Fanwen's dictionary gives the main reading as *ku*, a note to the entry gives the alternative reading *nio*, and so it is clear that this entry in Li Fanwen's dictionary covers both meanings and readings of the character.
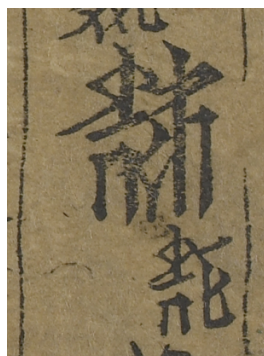
In original Tangut texts the two meanings and readings of these characters are distinguished by their glyph forms. In the *Homophones* (*Tóngyīn* 同音), where the character is read as *niọ* 'ear of grain', the right hand component is clearly U+188BF 𘢿 (4 strokes) in all editions (see Fig. 13).

**Fig. 13: L5990 [*niọ*] in editions of *Homophones***

Tongyin A	*Tongyin* B2	*Tongyin* D
16A72	17A47	17A47

However, in the manuscript *Combined Edition of Homophones and Sea of Characters* (*Tóngyīn Wénhǎi Bǎoyùn hébiān* 同音文海寶韻合編), where the character is read as *ku*, the right hand component is U+18927 𘤧 (5 strokes) (see Fig. 14).

Fig. 14: L5990 [*ku*] in *Combined Edition of Homophones and Sea of Characters*
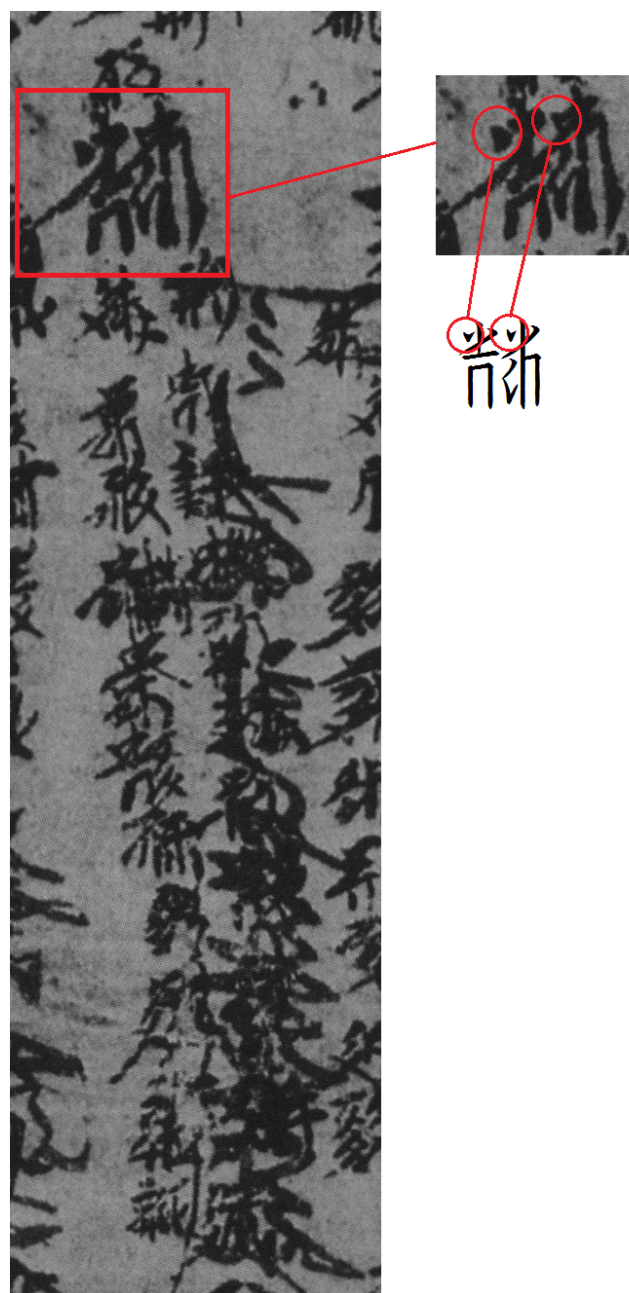
13.111

Although the right hand component is not entirely clear in this manuscript text, the character composition given beneath the head character states that the character is constructed from the left side of 'rice' and the bottom part of 'sprout' 秕穬萧秡. This indicates that the right hand of this character (*ku*) is U+18927 𘤧 (bottom component of 萧), not U+188BF 𘢿 as shown in *Homophones* for the character read *niọ*. This same glyph form (𘤧) also occurs in one of the *Odes*, where from context it would seem to represent the *ku* reading ("millet, barley and wheat") (see Fig. 15).

Fig. 15: L5990 [*ku*] in *Odes* No. 5 folio 6a
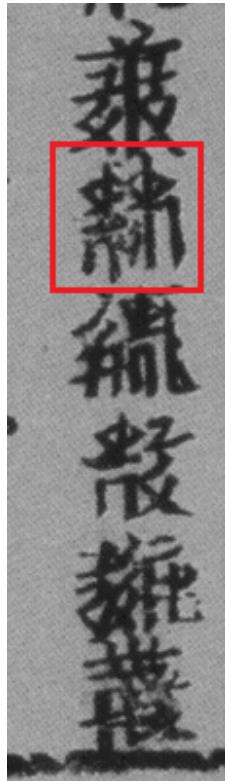
Odes No. 5 06A0712

In light of this evidence, we propose encoding a new character with the 韎 glyph shape. The existing U+18307 韇 should be unchanged in glyph shape and source reference.

2.4 187F2 and 187F3

A Yuan dynasty Tangut manuscript scroll of unknown provenance, in the ownership of an anonymous private collector, was sold at auction in Beijing on 4 June 2017 for a price of RMB 2,300,000 (approximately USD 338,000), about three times the estimate of RMB 750,000–850,000 (approximately USD 110,000–125,000).[1]

Fig. 16: *Hevajra's Abhisamaya*. Lot 2368 of the June 2017 Beijing Auction

Note: We have added column numbers for convenience.

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[1] Lot 2368 of the Spring 2017 Art Auction held by the Beijing Taihejiacheng Auction Company. See http://www.thjc.cn/web/auctionShow/viewAuctionItem?auctionItemId=86972&fromPage for details.

The manuscript is 27 × 312 cm in dimension, and consists of 236 columns of 23–26 characters per column.

The text of this manuscript is entitled *ngi̯wei ·i̯ə nın mi̯uo ·i̯u tsın phi mbi̯u ldi̯ə* □□□□□□□□□ (title translated into Chinese by modern scholars as *Xǐ jīngāng xiànzhèng rúyì bǎo* 喜金剛現證如意寶) "Hevajra's Wish-Fulfilling Gem of Abhisamaya", and it has been identified as a previously unknown Tangut translation of the first part of a Tibetan text relating to the Buddhist deity Hevajra (*dpal kye rdo rje'i mngon rtogs yid bzhin nor bu* དཔལ་ཀྱེ་རྡོ་རྗེའི་མངོན་རྟོགས་ཡིད་བཞིན་ནོར་བུ་) which was made in 1258 by Drogön Chögyal Phagpa (1235–1280), fifth patriarch of the Sakya school of Tibetan Buddhism and Imperial Preceptor under Kublai Khan.[2]

This text has been studied by Li Ruoyu 李若愚 in an academic article (September 2016) and in his PhD dissertation (April 2017). Li has identified two new characters (□ and □) used in this text as an abbreviation for the Sanskrit word *vajra*.

The character □ occurs twice in a mantra on column 223 (Fig. 17, Fig. 18, Fig. 20 and Fig. 22), and the character □ occurs a single time in a mantra on column 144 (Fig. 19 and Fig. 23). In two out of the three cases the character is used in an abbreviation for the name Hevajra. Note that in the title of the Tangut text the name Hevajra is translated as □□□ (Chinese *Xǐ Jīngāng* 喜金剛), but within mantras given in the text the name Hevajra is transcribed phonetically as □□□□ (*xa mba ndzı ri̯ạ*) or using the abbreviations □□ or □□.

The character □ is constructed from the left side of □ (*mba* = *va-*), the top and left of □ (*ndzı* = *-j-*), and the left side of □ (*ri̯ạ* = *-ra*), the three parts together transcribing *vajra* (see Fig. 21 for Li Ruoyu's explanation). This character is very similar in construction to the character □ which was proposed for encoding at U+187F0 in WG2 N4724. □ also stands for *vajra*, and has the same right side as □, but the left side is derived from the left side of □ (*mba*). That is to say, □ and □ are two different ways of representing *vajra* as a portmanteau abbreviation, but with different homophonic source characters for the left side element representing the *va-* part of *vajra*. In the mid 14th-century Tangut inscription on the east wall of the Cloud Platform at Juyong Pass in Beijing, the Sanskrit word *vajra* is transcribed once using the three characters □□□ (see Fig. 8) and four times using the three characters □□□ (see Fig. 28), thus indicating that □ and □ are equivalent abbreviations for *vajra*.

According to Li Ruoyu (see Fig. 25), the character □ is an idiosyncratic creation for the word *vajra*, composed from the top and left of □ (*ndzı* = *-j-*), and the left side of □ (*ri̯ạ* = *-ra*). However, without the left side component ⼧ or ⼧ representing the *va-* of *vajra* this character construction is incomplete. Although it is possible that this is a deliberate alternative form for *vajra*, as it only occurs once it is more likely that □ is a scribal error for □. Even though □ may be an error, we propose encoding it as it is required by scholars studying this important Buddhist text.

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[2] Tibetan text published in Drogön Chögyal Phagpa 2007 pp. 413–451. See Fig. 26 and Fig. 27.

Fig. 17: *Hevajra's Abhisamaya*. Cols. 223–232 of the original manuscript showing 攦
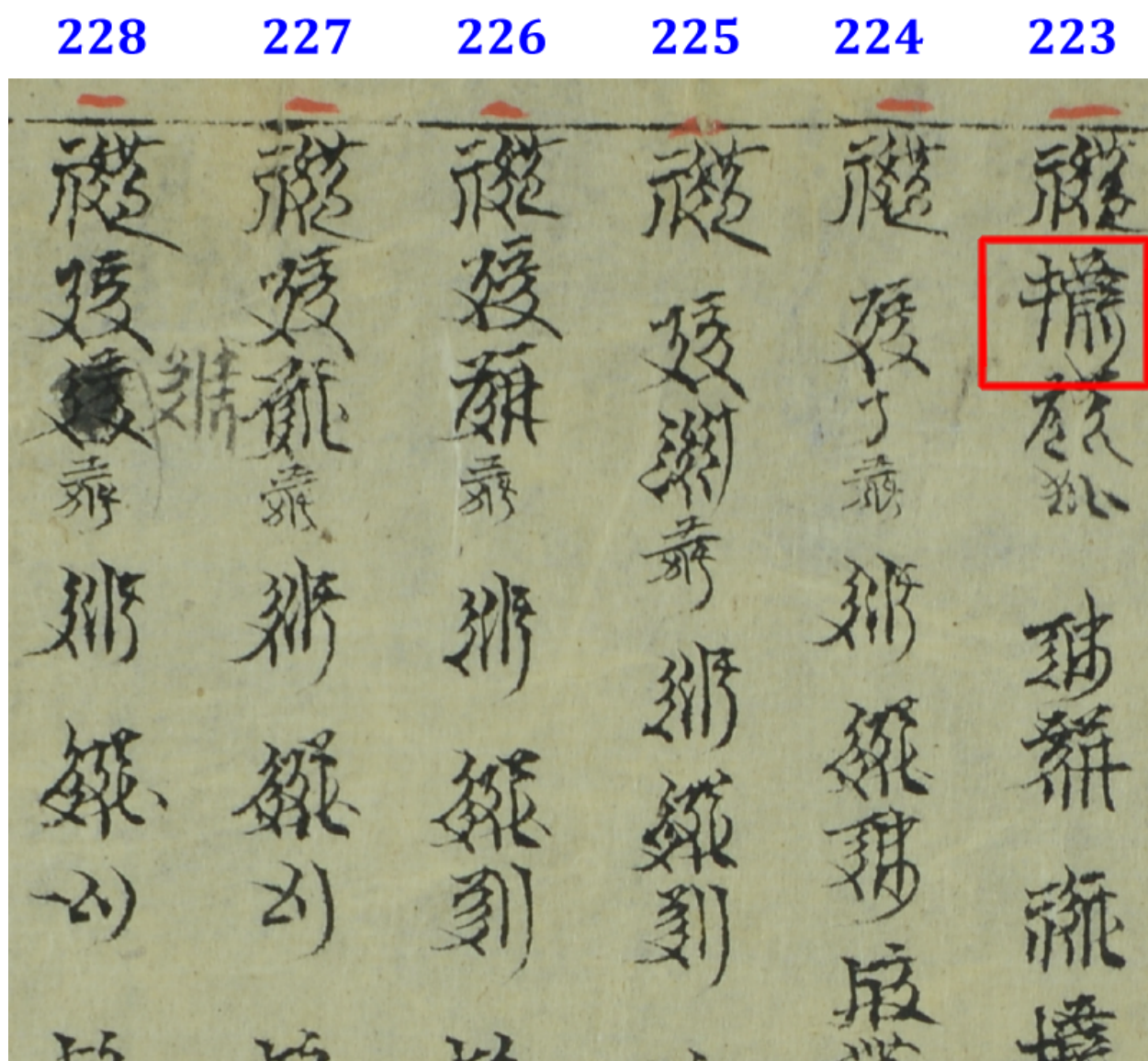
232   231   230   229   228   227   226   225   224   223
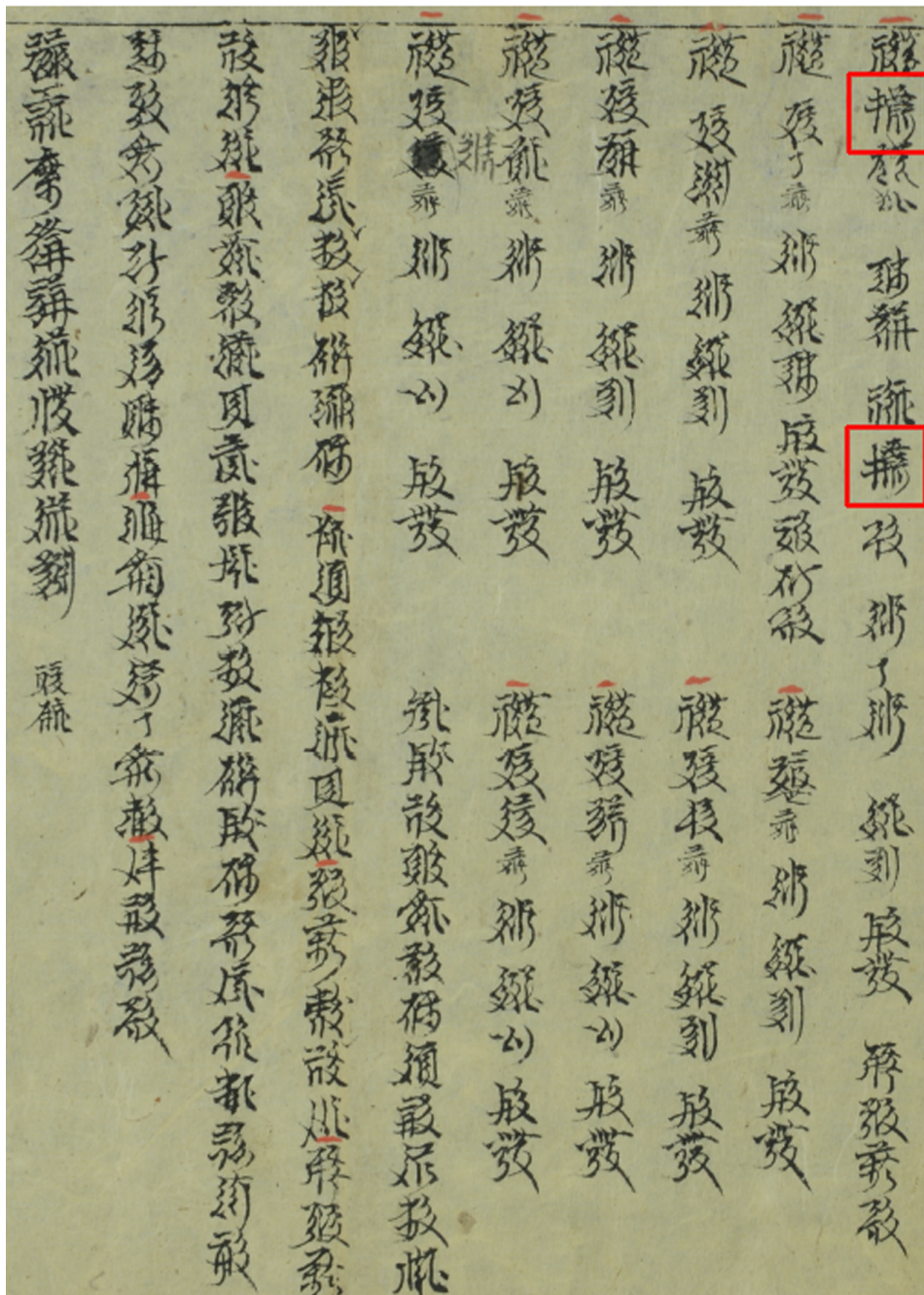
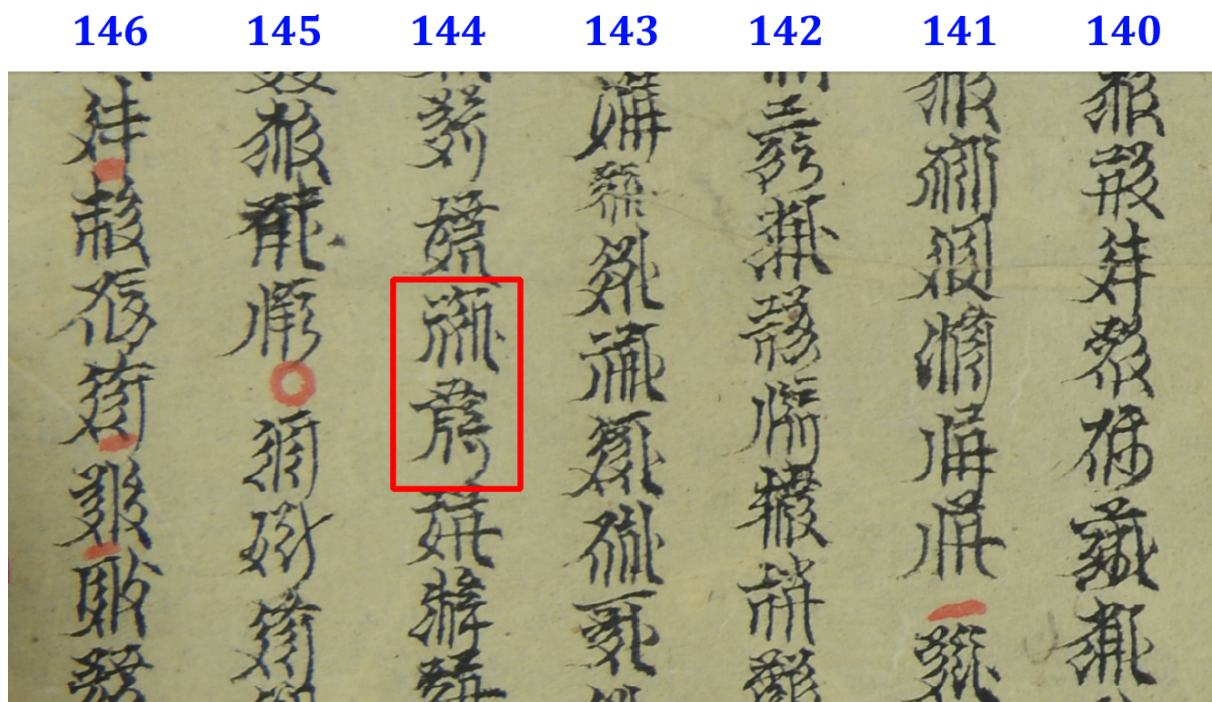Column 223: *oṃ **vajra**kartari he**vajrā**ya hūṃ hūṃ hūṃ phaṭ svāhā*

Fig. 18: *Hevajra's Abhisamaya*. **Close-up of Fig. 17**

Fig. 19: *Hevajra's Abhisamaya*. **Cols. 140–146 of the original manuscript showing** 㕰䇮

Column 144: *oṃ bhagavāṃ mahākāru[ṇi]ka* **hevajra** *saparivāra …*

禭拔䫫䂔嬸歂皖嬌[菀]皖㕰䇮㽅觲㽅䂔杉 …

Note that all the manuscript examples write the component 𠂉 in 㩪 and 䇮 as 𠂈, with an extra horizontal stroke, but this is an obvious scribal error which we do not follow in the proposed code chart glyphs.

Fig. 20: Li Ruoyu 2016 p. 208: *Hevajra's Abhisamaya*.
Transcription of Cols. 222–228

卷尾部分
西夏文原文：

[222]

[223]

[224]

Note. Due to a production issue the unencoded character 攞 is misplaced in the two places it occurs. We indicate its correct placement with red arrows.

校注：

（1）心咒（𗆨𗃛），西夏字面义为"心真"，对应藏文 snying po（精华，藏，要旨），佛经常译作"心咒"。

（2）vajra，西夏文作 ▢。该字不见于西夏字书，系译经人临时自造的合体俗字，实为"𗆬 𗒤 𗮦"（vajra）三字的省写，以"𗆬"字的左半部加上"𗒤"字的上半部和下半部的左边，另外加上"𗮦"字的左半边构成。

（3）根本心咒（𗑱𗆨𗃛），西夏字面义为"近心真"，对应藏文 nye ba'i snying po，在佛经中常译作"根本心咒，本尊心咒"。

Li Ruoyu's explanation that the unencoded character 攦 is an abbreviation for 𗆬𗒤𗮦 (vajra) and that it is constructed from elements of those three characters.

Fig. 22: Li Ruoyu 2017 p. 96: *Hevajra's Abhisamaya*.
Transcription of Tangut text (Col. 223) with Literal translation into Chinese, Transcription of Tibetan text, Free translation into Chinese, and Notes

"𗏇 [𘃎] 𗗚𗅫𗁬 𗩴 𘄒 [𘃎] 𗴟 𘓐 𘓐 𘓐 𗤋𗺉 𘃳𗓽" 𗼃𗣠𗷖𗣊。

"oṃ vajra karta ri he vajrā ya hūṃ hūṃ hūṃ phaṭ svāhā" 近心真也。

oṃ vajra karta ri he vajrā ya hūṃ hūṃ hūṃ phaṭa svāhā/ nye ba'i snying po'o

"oṃ vajra[2] karta ri he vajrā ya hūṃ hūṃ hūṃ phaṭ svāhā",根本心咒[3]也。

注释：

[1] 心咒，西夏文作"𗣠𗷖"，字面意思是"心真"，对应藏文 snying po（精华；藏；要旨），在佛书中常译作"心咒"。《甘露泉》作"心咒"。

[2] vajra，西夏文作"[𘃎]"，仔细分析字形我们发现该俗体字是西夏文"𗔜𗣋𗼨"（vajra）的省写，即是"𗔜"字的左半部加上"𗣋"字的上半部和下半部的左边，另外加上"𗼨"字的左半边构成的俗体字，用来对音 vajra 一词。

Fig. 23: Li Ruoyu 2017 p. 73: *Hevajra's Abhisamaya*.
Transcription of Tangut text (Col. 144) with Literal translation into Chinese

"𗣠 𗁬 𗦻 𘋨𗣊𗁬 𗔜𗼨" 𗰩𗴟𗜐𗵚𗁛𗣤。𗷝𗰖𗰷𗣤𗌭𗩴𘄴𗅫𗜵𘍞思，矿镣印结， "ve tā lī pandha baṃ" 谓咒以自于入。   次复 ghasmarī 鸣钟持𗵚𗉞，𘄴𗅫𘔼𗤊𗤊𗺉𘊝𘏑，𘄴𗅫𘈖𗆧，"𗏇 𗔜 𗗚 𗀕 𘋨 𗓽 𗩴 𗀛 𗩴 𘄒 [𘈦] 𗴕多发， 鸣钟声一切于至思， 鸣钟印结，"oṃ bha ga vāṃ ma hā kā ru ka he vajra sa

𘋨𗩴𗀕𗼨 𗗚𗣤𘋨𗁬 𘋨 𘈚 𗡜 𗓽 𗔾" 𗰩𗴟𗜐𗣊𘏅𗵚𘄴𗵷𗜐𗺐𘏑。

pa ri vā ra ghasma va śaṃ ku ru ho" 谓咒以智佛自入喜以居思。

Fig. 24: Li Ruoyu 2017 p. 74: *Hevajra's Abhisamaya*.

Transcription of Tibetan text, and Free translation into Chinese (for Col. 144)

baṃ zhes brjod pas rang la thim/ de nas/ sma rī dril bu 'dzin pa mang po spros/ dril bu'i sgra thams cad la khyab par bsam zhing/ dril bu'i phyag rgya byas la/ oṃ bha ga vāṃ ma hā kā ru ṇi ka he [vajra] sa pa ri vā ra ghasma rī va śaṃ ku ru hoḥ zhes brjod pas ye zhes pa rnams rang la mnyes bzhin du bzhugs par bsam mo//

思自心中射出[1]多个 gaurī 母，皆持铁钩[2]，以钩触诸智尊[3]心，挽于近旁[4]，身结铁钩印，语[5] "ye hye hi bha ga vān ma hā kā ru ṇi ka he vajra sa pa ri vā ra"，于后二处[6]亦合，诵咒 "gau rī ā karṣa ya ja"，使诸智尊至于己处。次思射出多个红色 caurī 母，皆持羂索[7]，以羂索触诸智尊颈，挽于近旁，以诵咒 "cau rī pra be śa ya hūṃ"，至于胜妙殿。次思射出多个黄色 vetālī 母，皆持铁链[8]，触诸智尊之足，入于己身，结铁链印，以诵咒"ve tā lī pandha baṃ"入于己身。复次思射出多个 ghasmarī 母，皆持铃[9]，铃声遍及一切，结铃印，诵咒 "oṃ bha ga vāṃ ma hā kā ru ka he [vajra][10] sa pa ri vā ra ghasma va śaṃ ku ru ho"，使智尊欢居于己。

注释：

Fig. 25: Li Ruoyu 2017 p. 75 Note 10 for p. 74 (see Fig. 24 above)

[10] vajra，西夏文作 "[字]"。该字不见于西夏字书，系译经人临时自造的合体俗字，实为 "蔽稽"（jra）二字的省写，以 "蔽" 字的上半部和下半部的左边，另外加上 "稽" 字的左半边构成。

Fig. 26: Drogön Chögyal Phagpa 2007 p. 432: Tibetan text (for Col. 223)

ཕཊ་སྭཱ་ཧཱ། ཞེས་པ་ནི་ཙ་བའི་སྔགས་སོ། །ཨོྃ་དེ་ཁ་པི་ཙུ་བཛྲ་ཧཱུྃ་ཧཱུྃ་ཧཱུྃ་ཕཊ་སྭཱ་ཧཱ།

སྙིང་པོའོ། །ཨོྃ་བཛྲ་ཀཱཏ་རི་ཧེ་བཛྲ་ཡ་ཧཱུྃ་ཧཱུྃ་ཧཱུྃ་ཕཊ་སྭཱ་ཧཱ། ཉེ་བའི་སྙིང་པོའོ། །ཨོྃ་

ཨཱཿ（《ལྦ》 +ཨ་ཨཱཿ ཨི་ཨཱི། ཨུ་ཨཱུ། རྀ་རཱྀ། ལྀ་ལཱྀ། ཨེ་ཨཻ། ཨོ་ཨཽ། ཨཾ་ཧཱུྃ་ཕཊ་སྭཱ་ཧཱ། ཡུམ་གྱི་ཙ་སྔགས་

སོ།།）ཨོྃ་ཧཱུྃ་ཕཊ་སྭཱ་ཧཱ། ཡུམ ： གྱིའོ（《ལྦ》 གྱི་སྙིང་པོའོ）། །ཨོྃ་ཨཱུཿགཱི་ཧཱུྃ་ཕཊ་སྭཱ་ཧཱ།

ཨོྃ་ཨཱུཿཙཱུ་ཧཱུྃ་ཕཊ་སྭཱ་ཧཱ། ཨོྃ་ཨཱུཿབཱི་ཧཱུྃ་ཕཊ་སྭཱ་ཧཱ། ཨོྃ་ཨཱུཿགཱི་ཧཱུྃ་ཕཊ་སྭཱ་ཧཱ། ཨོྃ་ཨཱུཿཔཱི་

ཧཱུྃ་ཕཊ་སྭཱ་ཧཱ། ཨོྃ་ཨཱུཿབཱི་ཧཱུྃ་ཕཊ་སྭཱ་ཧཱ། ཨོྃ་ཨཱུཿལཱི་ཧཱུྃ་ཕཊ་སྭཱ་ཧཱ། ཨོྃ་ཨཱུཿཏཱི་ཧཱུྃ་ཕཊ་སྭཱ་

ཧཱ།། འཁོར་གྱི་ལྷ་མོ་རྣམས་ཀྱི་སྔགས་སོ། །ཙིག་གཞན་གྱིས་བར་མ་ཆད་པར་

Sanskrit transliteration for Tangut (Col. 223): *oṃ **vajra**kartari he**vajrā**ya hūṃ hūṃ hūṃ phaṭ svāhā*

Tibetan: oM **badz+ra** karta ri he **badz+rA** ya hU~M hU~M hU~M phaT swA hA/

ཨོྃ་བཛྲ་ཀཱཏ་རི་ཧེ་བཛྲ་ཡ་ཧཱུྃ་ཧཱུྃ་ཧཱུྃ་ཕཊ་སྭཱ་ཧཱ།

Fig. 27: Drogön Chögyal Phagpa 2007 p. 425: Tibetan text (for Col. 144)

པར་བསམ་ཞིང་། སྔགས་སྒྲོག་གི་ཕྱག་རྒྱ་བྱས་ལ། བེ་དཱུ་ལཱི་བཀྲ་བོ་ཞེས་བཙོད་

པས་རང་ལ་ཐིམ། དེ་ནས། སྐུ་རྡོ་རྗེའི་ལ་བུ་འཛིན་པ་མང་པོ་སྤྲོས། དེལ་བུའི་སྐུ་

ཐམས་ཅད་ལ་ཁྱབ་པར་བསམ་ཞིང་། དེལ་བུའི་ཕྱག་རྒྱ་བྱས་ལ། ཨོྃ་ཧྲ་ག་སྥོ་

（《ན》 སྥུན）མ་དྲུ་ཀཱུ་རུ་ཧི་ཀ་ཧེ་བཛྲ་ས་པ་རི་ལྭ་ར་སྤྲཎ་རི་ཛ་ཨཱི་གུ་རུ་ཏྃཿ ཞེས་

བཙོད་པས་ཡེ་ཤེས་པ་རྣམས་རང་ལ་མཉེས་བཞིན་དུ་བཞུགས་པར་བསམ་མོ། །

Sanskrit transliteration for Tangut (Col. 144): *oṃ bhagavāṃ mahākāru[ṇi]ka **hevajra** saparivāra …*

Tibetan: oM b+ha ga wAM* ma hA kA ru Ni ka **he badz+ra** sa pa ri wA ra …

ཨོྃ་བྷ་ག་སྥོ་མ་དྲུ་ཀཱུ་རུ་ཧི་ཀ་ཧེ་བཛྲ་ས་པ་རི་ལྭ་ར་

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* Zha lu Monastery edition: *wAn* ཝན་ instead of *wAM* ཝྃ་, i. e. *b+ha ga wAn* བྷ་ག་ཝན་ = Sanskrit *bhagavān*

Fig. 28: Juyong Pass East Wall cols. 17–21: rubbing and Nishida's transcription

(Murata 1957 (*Kyoyōkan* 居庸關) rub. IV & p. 183)

Column 18:

*ga *ri bhe *mʷa *ᴮdzɨ *ra

ya- garbhe   vajra-

Column 19:

*ᴮdzɨ *ri *ni *mʷa *ᴮdzɨ *ra *mɨ

jriṇi,   vajraṁ

揆嚴彩 = *vajra*

2.5 187F4, 187F5, 187F6, and 187F7

Tang. 27 held at the Institute of Oriental Manuscripts of the Russian Academy of Sciences (Saint Petersburg, Russia) is a Tangut text printed using moveable type (Tangut *ndi sị wụ* 𘟉𗤭 "living characters") during the Western Xia period. It comprises a collection of the writings of three generations of White Cloud Sect masters entitled *sọ śịei ndźwɪ sweu ngwu śịou ·ịwə* 𗧓�374𗾴𗡝𗪤𗏵𗟲 (title translated into Chinese by modern scholars as *Sānshìshǔ míngyán jíwén* 三世屬明言集文 or *Sāndài xiāngzhào yán wénjí* 三代相照言文集) "Collected Writings of the Shining Speech of Three Generations".

This is an important text for the study of Buddhism under the Western Xia, and has been studied by Prof. Arakawa Shintarō (2001), Prof. Evgeny Ivanovich Kychanov (2004), Prof. Sun Bojun (2011), and other scholars. Sun Bojun 孫伯君 recently pointed out to us that there are four unencoded Tangut characters in the text, which she requests should be encoded. These four characters all have a unique graphic construction, and cannot convincingly be taken to be corrupt or mistaken forms for any existing encoded Tangut character.

2.5.1   U+187F4

The character 𘟴 occurs once, on folio 2a col. 5 (see Fig. 29). We do not know of any published study that discusses it.

Fig. 29: *Three Generations* (Tang. 27) folio 2a cols. 4–6: 𘟴
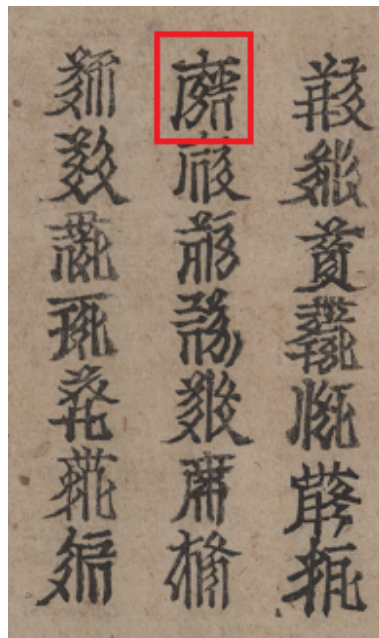
The character bottom middle and right components occur as the bottom part of *phə* 𗤴 "conceited". The character occurs before *tsị ə* 𗂧 "to give as a present". It is possible that 𘟴 is a mistake for *tśị ə* 𘟴 "presently, in a moment".

2.5.2 U+187F5

The character 𘟵 occurs once, on folio 22a col. 3 (see Fig. 30). We do not know of any published study that discusses it.

Fig. 30: *Three Generations* (Tang. 27) folio 22a cols. 3–5: 𘟵
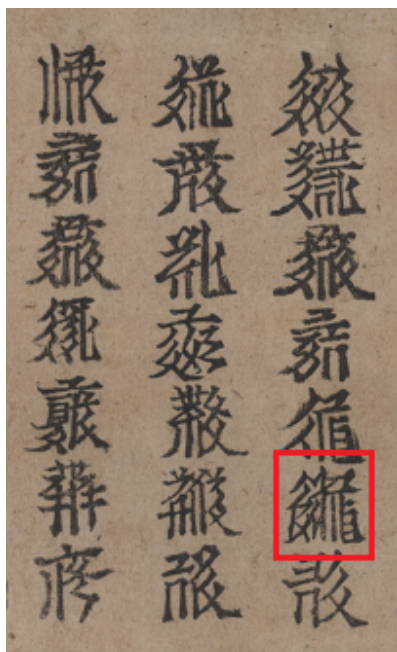
The character has the same left and right components as *po* 𘟵 "name of a ghost". The middle and right also occur as the character *tsha* 𘟵 "ghost". As 𘟵 occurs immediately after ·*ju* 𘟵 "ghost", it would seem to be a character meaning some sort of ghost.

2.5.3 U+187F6

The character 𘟶 occurs once, on folio 29b col. 3 (see Fig. 31). We do not know of any published study that discusses it.

The character is similar in construction to character *tśhi̯e* 𘟶 "to pull, to tug", but with the component 𗧀 in place of 𗦲. The bottom part also occurs as the character *nại* 𘟶 "lubrication". As 𘟶 occurs immediately after ·*ɪn* 𘟶 "self", it is possible that the character is constructed from the top and bottom right of *tśhi̯e* 𘟶 "to pull, to tug", and the bottom left of ·*ɪn* 𘟶 "self". Cf. the phrase 𘟶𘟶 "pulling at oneself" on folio 36A quoted in section 2.5.4 below. It is even possible that 𘟶 is a mistake for *tśhi̯e* 𘟶 "to pull, to tug".

Fig. 31: *Three Generations* (Tang. 27) folio 29b cols. 2–4: 𘈎
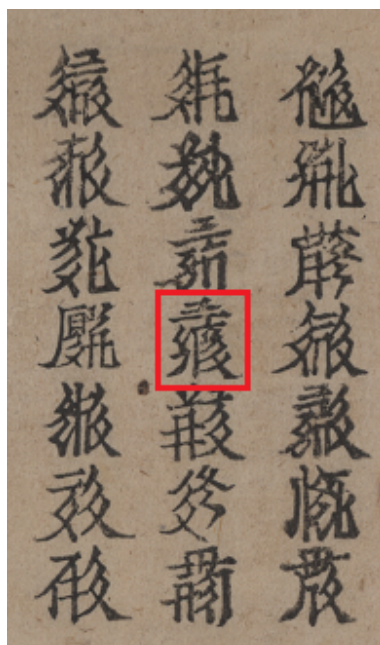
2.5.4   U+187F7

The character 𘟷 occurs twenty times on folios 36a through 38a, ten times in a poem entitled *kai tsə tśįa lə ndįe* 𘑻𘉋𗾊𘄿𗩜 "Pain of desire and *rūpa* [material objects] hindering the way" (see Fig. 32), and ten times in a poem entitled *mįe ngįe ndzįwo lįe sįwə* 𗗙𗰜𘏨𘄡𗆟 "Worrying that fame and fortune destroys people" (see Fig. 33). See Table 3 for locations and images of all occurrences of the character.

Each poem consists of ten stanzas of three seven-character lines covering fifteen columns. Both poems are transcribed and translated in Arakawa 2001 (see Fig. 34 and Fig. 36). In both poems the unknown character occurs in a refrain which comprises the third line of each stanza. The refrain is slightly different in each poem, but both refrains start with the unknown character 𘟷 followed by *ndzįe* 𗲩 "to teach".

The reading of the character 𘟷 is unknown, and its meaning is uncertain. The left side of this character does not occur as a component of any other character, but is the whole of the character *tśhįe* 𘈎 "to pull, to tug". The right side component 𗉥 occurs in characters relating to dried meat, cheese, and verbs relating to moisture, so it is not obvious what it represents semantically (it is possible that it is a phonetic component).

Arakawa relates 𘟷 to the character *tśhįe* 𘈎 "to pull, to tug" as it occurs on the line before the first occurrence of 𘟷, and he conjecturally translates the unknown character into Japanese as *indō* 引導. In Modern Japanese this word usually refers to the last words addressed to a newly-deceased person by the officiating priest at a Buddhist funeral, but we suppose that here it is used in the original Chinese sense of "to guide, to lead" or "guidance". Arakawa renders the two characters 𘟷𗲩 as "teaching of guidance" (see Fig. 34, Fig. 35 and Fig. 36).

On the first occurrence of the unknown character in each poem it is followed by two small-sized Tangut characters, which would seem to be a gloss for the reader on this unfamiliar character: *tśhêw lâ* 㛸㦎, literally "to damage" and "drunkenness", which we take to mean "drunken to the point of incapacity" ("blind drunk" in colloquial English). This gloss does not seem to have any bearing on the character 繿 if it is interpreted as meaning "guidance", so it is possible that other interpretations should be considered.

As the character *ndzi̯e* 骸 "to teach" can also mean "master, teacher" (as a homophonic alternative for *ndzi̯e* 髣 "master, teacher"), we suggest an alternative possible interpretation of the two characters 繿骸 as a sobriquet for the subject of the poem, the Drunken Master. Our tentative translation of the first stanza of each poem is given below.

First stanza of poem entitled *kai tsǝ tśi̯a lǝ ndi̯e* 綴綿藏骸繿 "Pain of desire and *rūpa* [material objects] hindering the way" (cf. Arakawa's Japanese translation shown in Fig. 34):

綵甒纚甤藗耐弻
訕甒嘉藗甒昜秖延
繿骸甪骹肕緂稶

> Grieving for somebody who renounces the world and follows the way,
> At the boundary pulling at oneself like a mad dog,
> Drunken Master's hard work, what does he hope to achieve?

First stanza of poem entitled *mi̯e ngi̯e ndzi̯wo li̯e si̯wǝ* 甈甒軗縢甒 "Worrying that fame and fortune destroys people" (cf. Arakawa's Japanese translation shown in Fig. 36):

甈甒耐秖甒甒徚
蕤蕤甒絧骸緂缒
繿骸綵甒肕緂稶

> Fame and fortune echo as sweet as other [things],
> Emptiness and no fortune encircling me,
> Drunken Master's grief and woe, what does he hope to achieve?

Fig. 32: *Three Generations* **(Tang. 27)**
folio 36a cols. 1–3: 𘟗
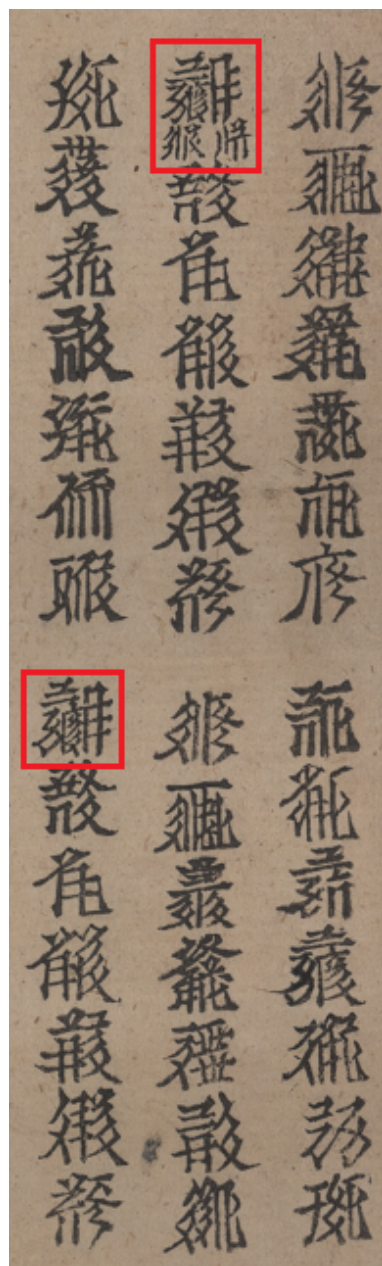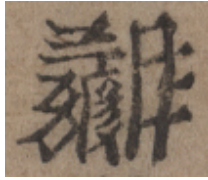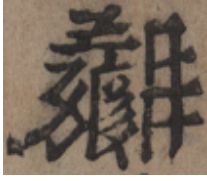
Fig. 33: *Three Generations* **(Tang. 27)**
folio 37a cols. 3–5: 𘟗
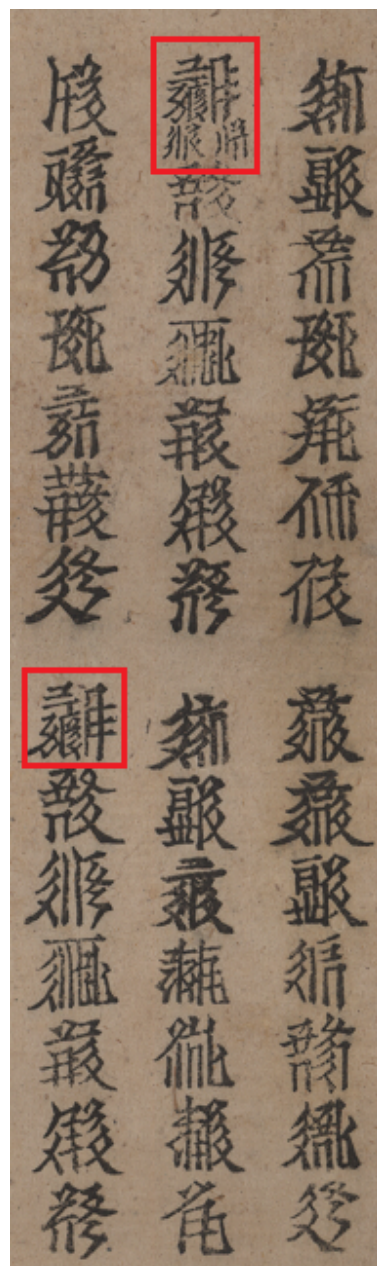
Table 3: *Three Generations* (Tang. 27). All occurrences of 龘 on folios 36 through 38

Poem 1			Poem 2
36A02			37A04
36A03			37A05
36A05			37A07
36A06			37B01
36B01			37B03
36B02			37B04
36B04			37B06

	Poem 1		Poem 2	
36B05			37B07	
36B07			38A02	
37A01			38A03	

Although the character 龘 occurs twenty times in the text, because it was printed using moveable type, some of the type sorts for this character were reused for printing on two or more folios. This can be clearly seen in the cases of defective characters resulting from damage to the type sort, such as the two characters at 36A02 and 37A04 which share the same broken top horizontal stroke, and the three characters at 36B07, 37B07 and 38A02 which share the same broken middle horizontal stroke. In the case of the characters at 36A02 and 37A04 it seems that the two following small characters 愭狾 were cut on the same type sort as the character 龘.

Fig. 34: Arakawa 2001 p. 218: *Three Generations* (Tang. 27). Transcription and Translation of folio 36a cols. 1–2

36a-1 〔西夏文字〕 〔西夏文字〕

2ngo 2de:' 1ni: 1phI 1ca: 1jenq 2myeq'2   2myI' 2'a 1'e: 1chi:' 1khwI: 2'aq 2syu

悲痛なるかな、出家し[70] 道を行う者   境に自らを引き出し、狂犬[71] の如し

36a-2 〔西夏文字〕 〔西夏文字〕

???[72] 2dze:' 2ryeq'2 2gyu 2wa 2ryeq'2 1wi: 2ngo 2de:' 1chwo" 1denq 2si: 1jyu ?lhe?

引導の[73][毀れ酔う[74]]教え、その労苦は何を願うのか   悲痛なるかな、或いは（同じ）部族の女をだまし取る（ほどに）

Fig. 35: Arakawa 2001 page 218 footnotes 70–73

―――――――――――――――――

[70] 西夏語の語順・意味では「家を－捨てる」となっている。

[71] 西夏語の語順では「犬－狂った」と形容詞の後置修飾である。

[72] 声調・声母・韻母不明であるので推定音は ??? で表記せざるを得なかった。

[73] この字形は各種西夏語字書『文海』、『同音』などに確認できない。意味は前の行（36a-1）に現れる字形 〔西夏文字〕 「引き出す」から推定した。

[74] 字形が確認しづらいが 〔西夏文字〕 「酔う」（『夏漢』3547, p. 660）と判読できる。

Fig. 36: Arakawa 2001 p. 220: *Three Generations* (Tang. 27). Transcription and Translation of folio 37a cols. 2–4

「名利人滅憂（名利が人を滅ぼすことを憂う）」

37a-2 〔西夏文字〕

2me:' 1genq 2dzwo: 2le:' 1syI'

名利が人を滅ぼすことを憂う

37a-3 〔西夏文字〕 〔西夏文字〕

2me:' 1genq 1zyi 2syu 1tha: 1'e: 2lyenq   1nga 1nga 1genq 1me: 2pon 2ror 2de:

名利は響く如く、その甘いこと   空空[85] であり、利はなく、自ら廻っている

37a-4 〔西夏文字〕 〔西夏文字〕

??? 2dze:' 2ngo 2de:' 2wa 2ryeq'2 1wi: 2me:' 1genq 1dzu 1byu 1nwI 1li:q' 2ryeq'2

引導の[毀れ酔う[86]]教え、その悲痛は何を願うのか   名利は楽しみに随い、（あとで）知る、労苦を[87]
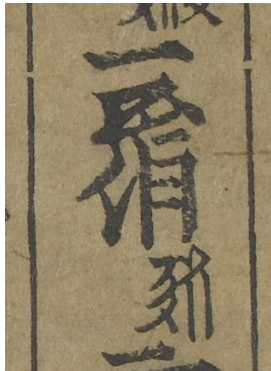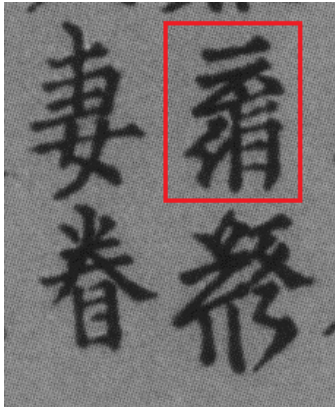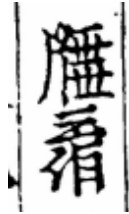
3. Tangut Glyph Corrections

3.1   17013

In modern sources it is not always clear exactly how U+17013 󰀀 'to request' is written. In the font used for Li Fanwen's 2008 *Tangut-Chinese Dictionary* (and for the ISO/IEC 10646 and Unicode code charts), this character is written with a single dot on the right of the Z-shaped stroke, and the central vertical stroke extends up into the Z-shaped stroke.

Nishida 1966	Sofronov 1968	Li Fanwen 1986	Han Xiaomang 2004	Kychanov 2006	Li Fanwen 2008	Proposed New Glyph
35-061	1124	2273	1992/2070	1514	0147	

However, original printed Tangut sources show that this character written with an extra dot in the centre of the Z-shaped stroke, and with the central vertical stroke not extending into the Z-shaped stroke. Only the example from the *Odes* shows a form that possibly matches the current code chart glyph (it is not clear).
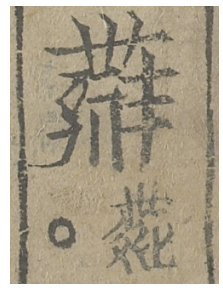
Tongyin A 40B58	*Tongyin* B2 41A34	*Zhangzhongzhu* A 34:3B	*Zazi* 15B0202	*Odes* No. 4 08B0211
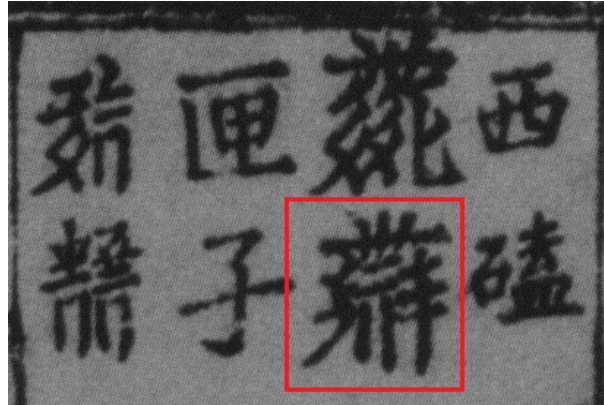
3.2   17712

In most modern sources U+17712 𗜒 'casket' *kha* is written as ▢ 卅 ▥ 弓 **冂** 丰 , as shown below. This is also the form used in the Unicode and ISO/IEC 10646 code charts.

Nishida 1966	Sofronov 1968	Li Fanwen 1986	Han Xiaomang 2004	Kychanov 2006	Li Fanwen 2008	Proposed New Glyph
𗜒	𗜒	𗜒	𗜒	𗜒	𗜒	𗜒
17-09e	0908	2409	1614/1711	0454	4201	
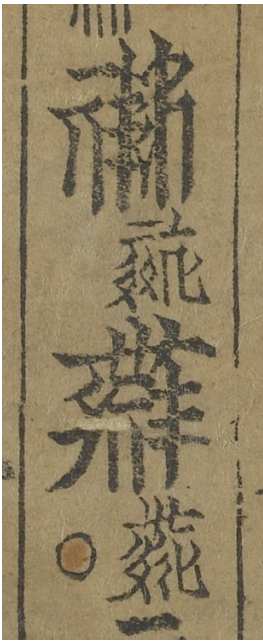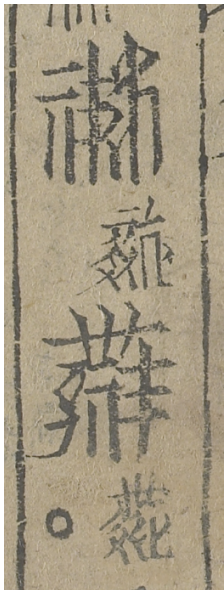
U+17712 is a rare character, and we only know of two attestations in original Tangut texts, once in *Tongyin* ('Homophones') and once in *Zhangzhongzhu* ('Pearl in the Palm'). In these texts the character is written as ▢ 卅 ▥ 弓 **冂** 丰 , with a different lower middle component. The only source which shows the 冂 component is the A edition of *Tongyin*.

Tongyin A 27A14	*Tongyin* B1 27B36	*Tongyin* B2 27B36	*Tongyin* D 27B36

Zhangzhongzhu A 24:2A

U+17712 is evidently constructed using the left and middle components of U+1765D 㙝 'sound' *kha* as a phonetic. Both characters are read *kha*, and U+1765D is the character immediately preceding U+17712 in *Tongyin* ('Homophones'). In the A edition both U+1765D and U+17712 are written with the 丌 component, whereas in the B edition both characters are written with the 丌̄ component, indicating that the same component occurs in both characters.

Tongyin A 27A13–14	*Tongyin* B1 27B35–36	*Tongyin* B2 27B35–36	*Tongyin* D 27B35–36

U+1765D 㙝 'sound' *kha* is constructed using the left side of U+1764F 㙏 'sound' as a semantic, and the middle and right components of U+186CB 㛋 'bitter lettuce' *kha* as a phonetic, which indicates that the left side component of U+1765D must be 丌̄ , as shown in the B and D editions of *Tongyin*. As U+17712 uses the left and middle components of U+1765D 㙝 as its phonetic, this clearly demonstrates that the lower middle component of U+17712 㜒 must also be 丌̄   rather than 丌 .
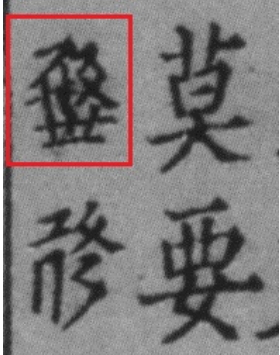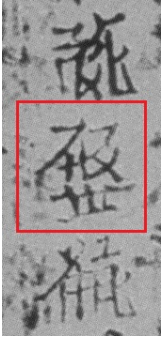
3.3   17D9F

In modern sources U+17D9F 鼗 'ceremony' is written either as ☐☐☐ 开 殳 世 or ☐☐☐ 开 殳 世, as shown below. The former form is used in the Unicode and ISO/IEC 10646 code charts.

Nishida 1966	Sofronov 1968	Li Fanwen 1986	Han Xiaomang 2004	Kychanov 2006	Li Fanwen 2008	Proposed New Glyph
143-081	4826	4221	3286/3406	0049	0906	

However, original Tangut sources all use the 开 component. Compare U+180A8 𘂨 which has U+17D9F as its right hand component, but is correctly written with 开 in the code charts.

Tongyin A 07B47	*Tongyin* B1 10A37	*Tongyin* B2 10A37	*Tongyin* D 10A37

Wenhai 1 11.121	*Zhangzhongzhu* A 29:1B	*Odes* No. 5 02A0504

3.4   Tangut Component 134

U+18885 𘢅 Tangut Component-134 is written with a slanting first stroke in Li Fanwen's 2008 dictionary and most other modern sources, as shown for example by U+1788A 𗢊 (on left side), U+173E1 𗏡 (in middle), and U+183B3 𘎳 (on right side):

Character (current glyph)	Nishida 1966	Sofronov 1968	Li Fanwen 1986	Han Xiaomang 2004	Kychanov 2006	Li Fanwen 2008
U+1788A 𗢊	𗢊 69-051	𗢊 2965	𗢊 3582	𗢊 2004/2082	𗢊 5037	𗢊 4044
U+173E1 𗏡	𗏡 202-084	𗏡 5608	𗏡 1572	𗏡 0895/0942	𗏡 2677	𗏡 2503
U+183B3 𘎳	𘎳 236-045	𘎳 2754	𘎳 4706	𘎳 4704/4859	𘎳 0461	𘎳 5435

However, original Tangut sources almost all show that the first stroke is horizontal rather than slanting (i.e. 𠃌 rather than 𠃊). In contrast, the similar component 𠄌 has a very distinct slanting first stroke. A comparison of characters with these two components from the *Homophones* (*Tongyin*) is shown below.
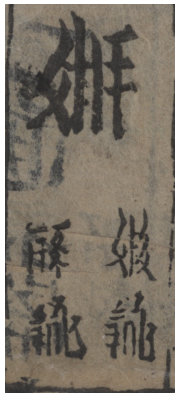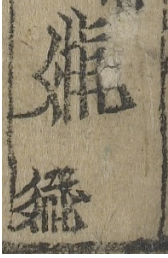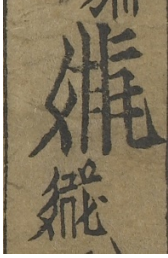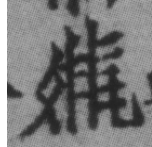
Component 134 (current glyph) 𠃌	U+1788A	U+173E1	U+183B3
Component 258 𠄌	U+17E89	U+17899	U+17C0B
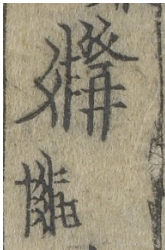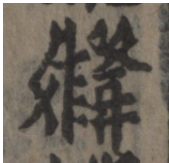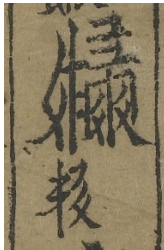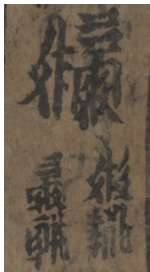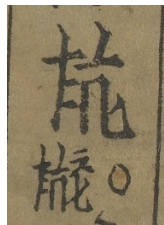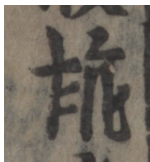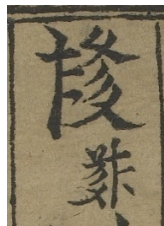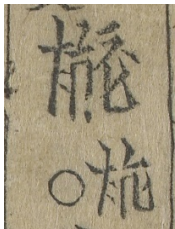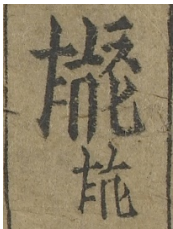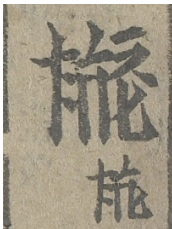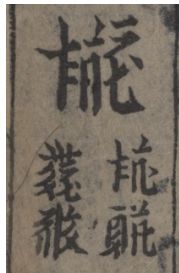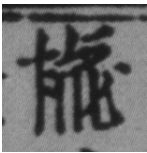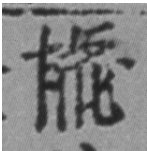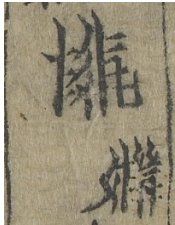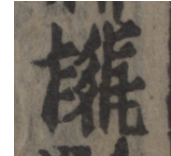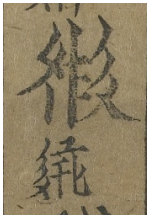
There are a total of 23 encoded Tangut characters with Component 134 ⻣, and evidence for their correct glyph forms is presented below. These examples convincingly indicate that the first stroke of the 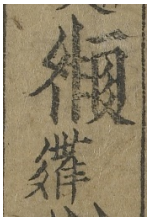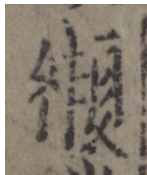component ⻣ should be horizontal rather than slanting. The only example with a slanting first stroke is one instance from *Sea of Characters* for U+1788B.
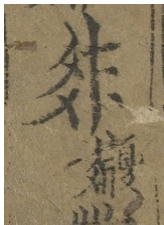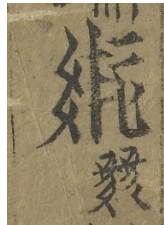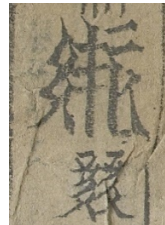
Character (current glyph)	*Tongyin* A	*Tongyin* B2	*Tongyin* D	*Wenhai*	*Zhangzhongzhu*
U+17159 ㅐ	03B66		04B51	1 63.242	
U+17336 㐸	18A65	19A16	19A16		
U+173E1 㿌	24A26	25A12	25A12	1 63.242	A 32:1A
U+173EB 㿖	49A67	49B61		1 90.262	B 22:4D
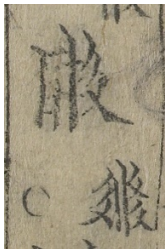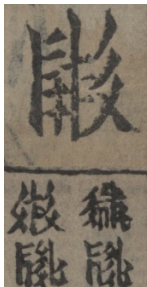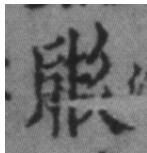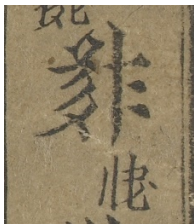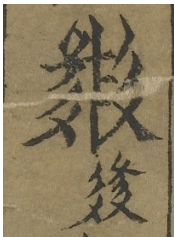
Character (current glyph)	*Tongyin* A	*Tongyin* B2	*Tongyin* D	*Wenhai*	*Zhangzhongzhu*
U+173EC 𗏬	27B22	28A12	28A12	1 90.262	
U+173F4 𗏴	37B18	38A36		1 82.222 / 3 07.211	A 30:3C / B 30:3C
U+173FB 𗏻	40B72	41A46		3 19.222	

Character (current glyph)	*Tongyin* A	*Tongyin* B2	*Tongyin* D	*Wenhai*	*Zhangzhongzhu*
U+173FF 𗏿	49A43	49B35		1 18.223	
U+17403 𗐃	35B22	36A55		1 27.121	
U+1788A 𗢊	10A46	11A47	11A47	1 66.162	
U+1788B 𗢋	36B72	37B31		1 20.121 / 3 17.242	

Character (current glyph)	*Tongyin* A	*Tongyin* B2	*Tongyin* D	*Wenhai*	*Zhangzhongzhu*
U+1788C 㢌	07A22	10A24	10A24	1 20.171	A 13:2A B 13:2A
U+1788D 㢍	18A25	15A24	15A24	1 18.223	
U+17B16 繖	09B42	10B34	10B34	1 79.171	
U+17B17 繗	09B43	10B33	10B33	1 82.121	

Character (current glyph)	*Tongyin* A	*Tongyin* B2	*Tongyin* D	*Wenhai*	*Zhangzhongzhu*
U+17B5B 𗭛	32B66	35B11			A 19:2C B 19:2C
U+17F8B 𗾋	19A75	20A17	20A17	1 71.212	
U+17FB9 𗾹 U+17FBB 𗾻 (see 3.4.1)	33A75	33B75	33B75		
U+1820D 𘈍 (see 3.4.2)	A ghost character, not attested in any original Tangut source as far as we can ascertain				

Character (current glyph)	*Tongyin* A	*Tongyin* B2	*Tongyin* D	*Wenhai*	*Zhangzhongzhu*
U+1823D 㠽	32B67	35A78		1 52.212	A 35:6B B 35:6B
U+183B3 㠳	11A17	12A17	12A17	1 19.112	
U+1841D 㠝		38A66		1 51.132	
U+187C6 㠫		38B25		1 63.242	

3.4.1   17FBB

U+17FBB 粃 (L2008-2146) is an erroneous form of U+17FB9 粃 (L2008-2175) that is only listed in Li Fanwen 1986, Li Fanwen 1997 (see Fig. 37 & Fig. 39), and Li Fanwen 2008 (see Fig. 38 & Fig. 40). It is probably a mistake based on the glyph of the B2 edition of *Tongyin* where the three horizontal strokes of 丰 only just cross the vertical stem.

Character (current glyph)	Sofronov 1968	Li Fanwen 1986	Han Xiaomang 2004	Kychanov 2006	Li Fanwen 2008
U+17FB9 粃	粃 5664		粃 3788/3922	粃 4505	粃 2175
U+17FBB 粃		粃 3533			粃 2146

Fig. 37: Li Fanwen 1997 p. 408

〔齒頭音 tsu 2.1 音租〕

（不識）

叕 粃 ki 1.30 tsu 2.11〔鷄租〕已 ？（同 33A7）。

Fig. 38: Li Fanwen 2008 p. 355

（訛體，正體見 2175 粃 214150。）

Fig. 39: Li Fanwen 1997 p. 414

2141 50

2175

〔齒頭音 tshwu 2.1 音粗〕

shame；disgrace

恥也。（名）

粃　粃 徴 泚 毦　粃 瀲 沘 粃 散 菝 賍 菝 龐 散 瀲 散 跽 散 瀲 犲 沘 䊧 徙 縩 恥：從 ？方差；恥者羞恥也，害臊也， 恥也，愧也，羞也，有愧頌詞之義（海 15.153）。（按：此處誤將粃釋為粃）

Fig. 40: Li Fanwen 2008 p. 360

〔齒頭音 tshwu 2.1 音卒〕

for a particular person,occasion, purpose, etc.

專心、虔誠也。（形）

粃叕 tshwu 2.1 kji 1.30〔卒吃〕所專（同33A7）。 粃 �緂㞢 專：神穿成右（實61.52）。 粃 㿟㣙絣㿟 虔：行爲心著（甚爲專心）（同丁 33B75 背注）。

3.4.2 1820D

U+1820D 𘈍 (L2008-0831) is a ghost character, not attested in any original Tangut source as far as we can ascertain. It was included in Li Fanwen's dictionary because it was discussed by earlier scholars such as A. I. Ivanov (1878–1937) and Wang Jingru (1903–1990), as shown in Fig. 41, Fig. 42, Fig. 43, Fig. 44, and Fig. 45.

Fig. 41: Li Fanwen 1997 p. 163	**Fig. 42: Li Fanwen 2008 p. 142**

〔舌頭音 no(聲調不詳)音那〕
surname
彌藥也。（名）
（按：王靜如認為"𗂼𘈍其音〔米拿〕，伊鳳閣曾謂為蒙古、西藏稱西夏之詞。余按藏文作 mi-nyog 及 me-nyag 二音"（國 83）。此字其它詞書未見，疑有筆誤。《同音》及《文海》上"彌藥"二字為𗼇 𗾈mi 2.28 nĭa 2.18，而非𗂼𘈍。謹錄于此，供讀者參考。）

〔舌頭音 no(聲調不詳)音那〕
a nation
彌藥也。（名）
（按：王靜如認爲"𗂼𘈍其音〔米拿〕)，伊鳳閣曾謂爲蒙古、西藏稱西夏之詞。余按藏文作 mi-nyog 及 me-nyag 二音"（國 83）。此字其它詞書未見，疑有筆誤。《同音》及《文海》上"彌藥"二字爲𗼇 𗾈mi 2.28 nĭa 2.18，而非𗂼𘈍。謹錄于此，供讀者參考。）

Fig. 43: Wang Jingru 1932 p. 77

西 夏 國 名 考

王 靜 如

[大 夏—𗼇 𗾈，———黨 項—𗊺——於 彌—𗾨
—𘂜 𗾨—𗂼—𗂼 𘈍—楚 之 羋 姓———
河 西，——外 秦 及 尼 定]

Fig. 44: Wang Jingru 1932 p. 83

西 夏 自 稱 之 名 彌 之 同 音 𗾨 及 𗉛 𗾨 外 尚 有 𗂼 及 𗂼 𘈍 等 名。𗂼 字 輒 對 中 國 之 "番" (18) 據 伊 鳳 閣 (A.Ivanov) 所 論 其 音 mi，以 有 即 西 夏 之 mi (人) 其 音 爲 人。(19)𗂼 𘈍 其 音 米 挐，伊 鳳 閣 曾 謂 爲 蒙 古、西 藏 稱 西 夏 之 詞。余 按 藏 文 作 mi-nyag 及 me-nyag 二 音。

Fig. 45: Ivanov 1924 p. 637

637

（縦書き、右から左へ）

與羅君美書

A. Ivanof.

君美世臺雅鑒久未晤談時深渴念前者在津

提議由鄙人預備研究西夏字并西藏音一節

當即着手以便鑽研查西夏字偶發見有誹字

按掌中珠第八篇有葫桃名目此字加艸字頭

恰與葫字相對可以規定無艸字頭音應與之

相同但帶上艸字頭音拏無艸字頭音拏余

意蒙古西藏稱西夏民族曰米那乃番胡相對

之字即米拏 緅誹 是也又第八篇有蒲桃薮芽

名目音麥諾中國蒲萄是從希臘移來西夏文

化物質名目多來自小亞細亞所以麥諾名目

必爲小亞細亞之 Vainos 也明矣有外國人名

Odogson 者論怕未尔人種中有一種人叫 gya-

mi. 旁有拶字西藏音 Vca 就是漢字 mi 即人也

與羅君美書　古寫本抱朴子(下)

Ivanov gives 緅誹 "mi-na" (米拏) as an autonym of the Tangut people, but it is unclear what the source for this word is. It is possible that 緅誹 is a copying mistake by Ivanov for 緅誦 "Tangut people" which occurs as a heading in the Tangut monolingual glossary *Mixed Characters* (*Zazi*) (see Fig. 46). As Ivanov compared the character 誹 with another character 薞 (U+17751) which occurs in *Pearl in the Palm* (*Zhangzhongzhu*) (14:2A) and he did not notice difference in the bottom right component of U+17751 (𘟫 rather than 𘟪), we cannot exclude the possibility that 誹 is a mistake by Ivanov for 𘟫 (cf. Li Fanwen 1997, p. 802, no. 4390 where the character 薞 is miswritten with 𘟫 component, which shows that scholars can confuse the two components). However, we do not consider this hypothesis to be preferred because the character 𘟫 does not occur in Tangut sources either. We should also note that as far as we can tell the earlier related paper of Ivanov (1923) does not mention the character 誹.

Although we have not been able to find primary evidence for U+1820D, we think it is best to modify the glyph from 誹 to 誹 in order to be consistent with all other characters with the 𘟪 component.

Unicode Technical Note No. 42　Page 50

Fig. 46: *Mixed Characters* (*Zazi*) folio 10b
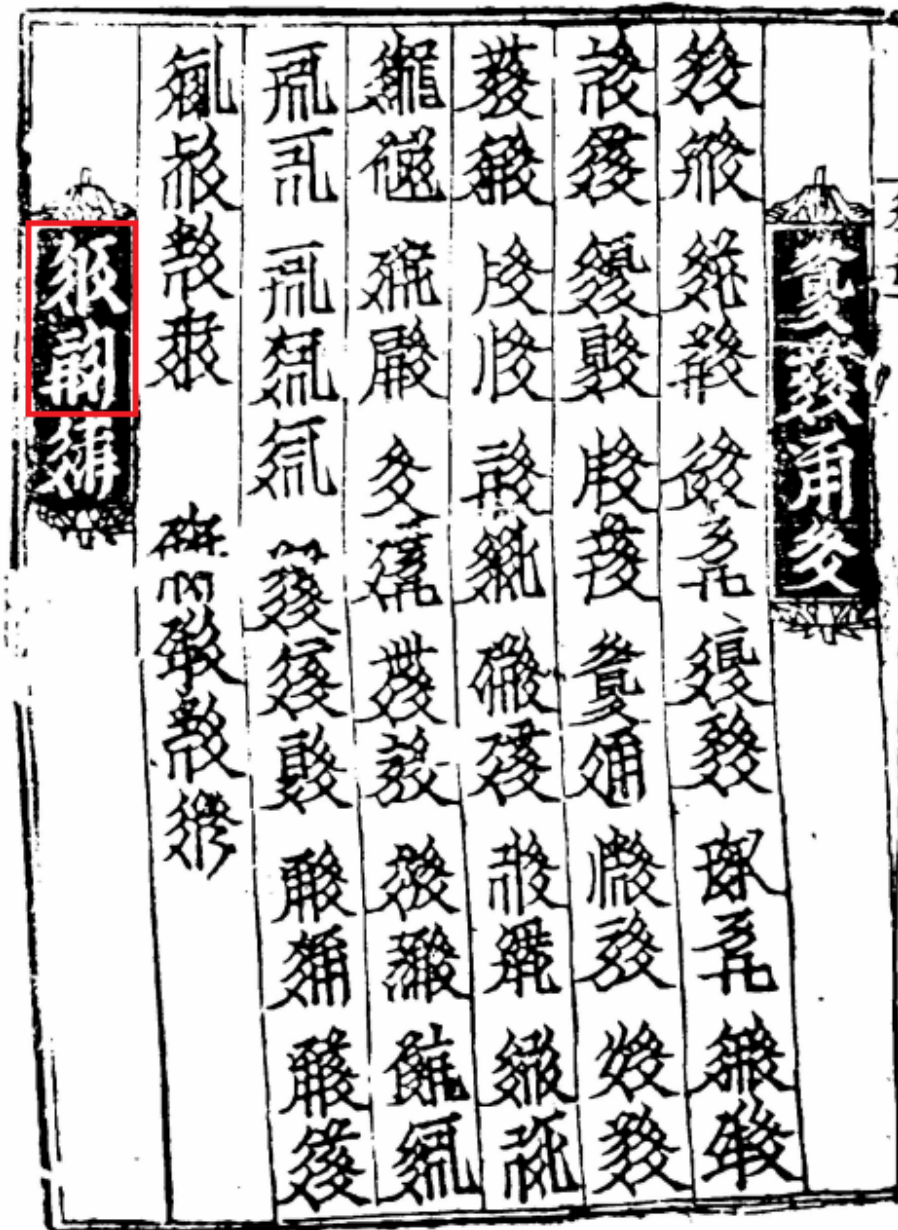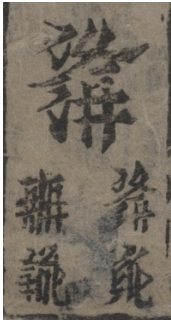
3.5   1732E
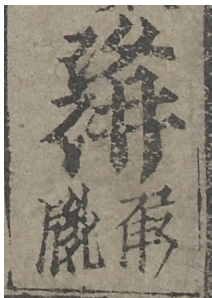
Character (current glyph)	Nishida 1966	Sofronov 1968	Li Fanwen 1986	Han Xiaomang 2004	Kychanov 2006	Li Fanwen 2008	Proposed New Glyph
U+1732E 潻	潻 180-093	潻 4141	潻 0493	潻 3161/3280	潻 1205	潻 1543	潻
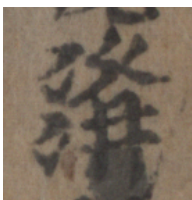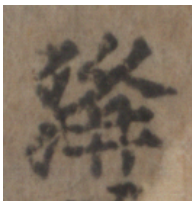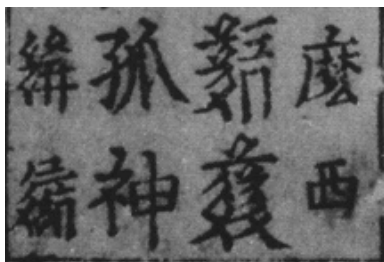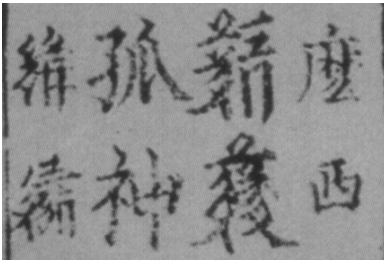
The top-right component of U+1732E 潻 is written incorrectly in Li Fanwen's 2008 dictionary and in Kychanov's 2006 dictionary. In all Tangut sources the left-slanting slope of the top-right component extends to the left edge of the character, bisecting the left-side component. The correct form of the character is given in Nishida 1966, Sofronov 1968, and Han Xiaomang 2004.

Tongyin A 09A52	*Tongyin* B2 09B72	*Tongyin* B3 09B72	*Tongyin* D 09B72
U+1732E	U+1732E	U+1732E	U+1732E

Wenhai 1 91.132	*Zhangzhongzhu* A 23:1B	*Grains of Gold* 10A0108
U+1732E	U+1732E	U+1732E

Note that the similar character U+1732D 潹 (L1542) is different from U+1732E in this respect, and does not have an extended left-slanting stroke. Even though in some sources shown below the left-slanting stroke just touches the 氵 component, unlike U=1732D it never crosses it in U+1732E. The code chart form of U+1732D is correct as it is, and does not need any modification.

Tongyin A 28B14	*Tongyin* B1 29A18 (1st folio)	*Tongyin* B1 29A18 (2nd folio)	*Tongyin* B2 29A18	*Tongyin* B3 29A18
U+1732D	U+1732D	U+1732D	U+1732D	U+1732D
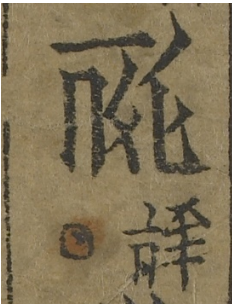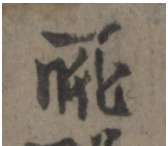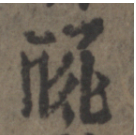
Tongyin C 29A18	*Tongyin* D 29A18	*Wenhai* 1 06.111	*Zhangzhongzhu* A 06:4E = B 07:1E	*Grains of Gold* 10A0205
U+1732D	U+1732D	U+1732D	U+1732D	U+1732D

3.6   17378

Character (current glyph)	Han Xiaomang 2004	Kychanov 2006	Li Fanwen 2008	Proposed New Glyph
U+17378 𗍸	𗍸 0015/0016	𗍸 4241	𗍸 0486	𗍸

U+17378 𗍸 "horse with white hooves" is included in Kychanov's 2006 dictionary and Li Fanwen's 2008 dictionary. A variant form with a single horizontal line across the top which is attested in the A edition of the *Homophones* (*Tongyin*) is encoded as 1700F 𗀏. The form given in Li Fanwen 2008 (and thus in the code charts) seems to be based upon the glyph for the character in the definition for an entry for a different character in the *Sea of Characters* (*Wenhai* 1. 36.152). However, this is not a good example to rely on as it is not the main entry for this character (the main entry is not in the extant copy of *Sea of Characters*), and the glyph is not well-written. In another entry in *Sea of Characters* (*Wenhai* 1. 11.153), in the *Homophones* B edition, and in other Tangut sources this character is shown with a single unbroken horizontal stroke above the left and middle components, so we believe that the form with two horizontal strokes on the top is a mistake. The correct form of the character is given in Han Xiaomang 2004.
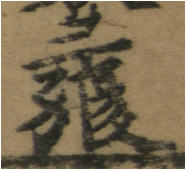
Tongyin A 07B15	*Tongyin* B2 08A53	*Tongyin* D 08A53	*Wenhai* 1 11.153	*Wenhai* 1 36.152	*Zazi* 08B0501
U+1700F	U+17378	U+17378	U+17378	U+17378	U+17378

3.7   1756E

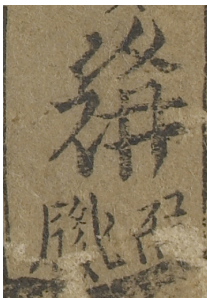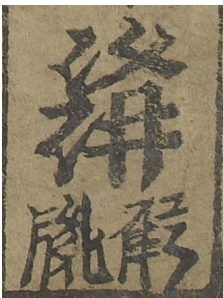| Character (current glyph)	Sofronov 1968	Li Fanwen 1986	Han Xiaomang 2004	Kychanov 2006	Li Fanwen 2008	Proposed New Glyph
U+1756E 𗕮	𗕮 4415	𗕮 1390	𗕮 1272/1329	𗕮 3292	𗕮 1361	𗕮
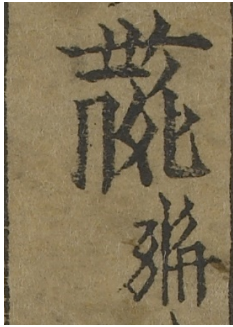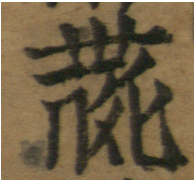
The lower right hand component is wrong in all modern sources except Sofronov 1968. Based on the original Tangut sources it should be 㢟 not 丨亥 (a combination that is not found in any other Tangut character).

Tongyin A 38B74	*Tongyin* B2 39A65	*Wenhai* 1 19.222	*Wenhai* 1 19.222	*Wenhai* 1 74.271	*Proverbs* 12A0416
U+1756E	U+1756E	U+1756E	U+1756E	U+1756E	U+1756E

3.8   176E4

Character (current glyph)	Sofronov 1968	Li Fanwen 1986	Han Xiaomang 2004	Kychanov 2006	Li Fanwen 2008	Proposed New Glyph
U+176E4 蕊	蕊 0688	蕊 2389	蕊 1648/1719	蕊 4242	蕊 4110	蕊

U+176E4 蕊 "shed" is a homophone of U+17378 discussed above (both read *ʔạ*), and the bottom part of the character should be derived from U+17378 (with ⺿ "wood" above as the semantic element). However, the glyph used in Li Fanwen 2008 does not match either the glyph for U+17378 (L0486) in Li Fanwen 2008 or the proposed corrected glyph discussed above. This character only occurs in a very few sources, but on the whole they do show that the bottom part of U+176E4 should match the proposed new glyph for U+17378, with a single horizontal stroke extending two-thirds of the way across the character (note that the shorter horizontal stroke in the *Tongyin* A and D examples is still longer than would be expected for the 门 component). One of the two examples in *Proverbs* seems to show the horizontal stroke broken into two, but this is anomalous. Sofronov 1968 and Han Xiaomang 2004 give the same glyph form as we propose.

Tongyin A 07B14	*Tongyin* B2 08A52	*Tongyin* D 08A52	*Proverbs* 04A0105	*Proverbs* 19A0709
U+176E4	U+176E4	U+176E4	U+176E4	U+176E4

3.9   17D36

U+17D36 𗴶 is a variant of U+17D69 𗵩 that is used in Nishida Tatsuo's 1966 dictionary of Tangut characters. The code chart glyph is slightly wrong, using the component 㣺 on the bottom right instead of 㣺 as shown in Nishida's dictionary (see Fig. 47).

Fig. 47: Nishida 1966 (*Seikamoji shōjiten* 西夏文字小字典) p. 335

U+17D36 occurs in the A edition of *Homophones* (*Tongyin*), and U+17D69 occurs in the B edition of *Homophones* (*Tongyin*). Examining the original printed editions of *Tongyin* it can be seen that the bottom right component is the same in both characters, and U+17D36 should indeed be written as shown by Nishida.

Tongyin A 49A28	*Tongyin* B1 49B21	*Tongyin* B2 49B21
U+17D36	U+17D69	U+17D69

3.10   181B2
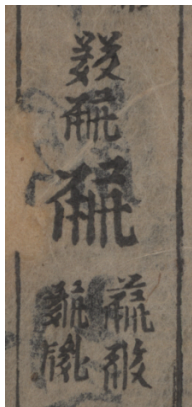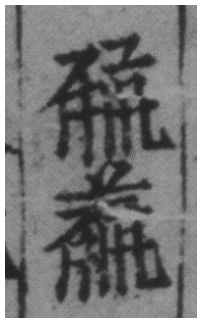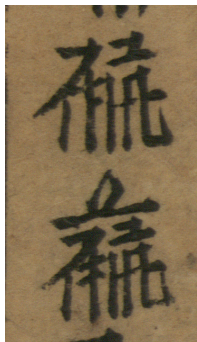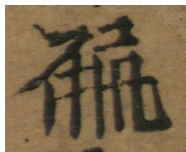
According to the *Sea of Characters* (*Wenhai*) U+174F3 蘦 'fat' is constructed from the top part of U+174F0 蘦 'deep' and the whole of U+181B2 觚 'fat' (蘦蘦觚蘦). Therefore the bottom part of U+174F3 should be identical to the whole of U+181B2. However, this is not the case in Li Fanwen's 2008 *Tangut-Chinese Dictionary*, and therefore in the ISO/IEC 10646 and Unicode code charts, where the middle vertical stroke is different in the two characters. Modern sources are inconsistent in the way that these two characters are written:

Character (current glyph)	Nishida 1966	Sofronov 1968	Li Fanwen 1986	Han Xiaomang 2004	Kychanov 2006	Li Fanwen 2008	Proposed New Glyph
U+174F3 蘦	蘦 7-11f	蘦 2092	蘦 1078	蘦 1154/ 1210	蘦 5179	蘦 4336	no change
U+181B2 觚	觚 80-068	觚 5234	觚 4059	觚 4261/ 4408	觚 5171	觚 0984	觚
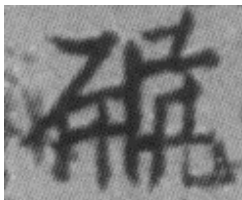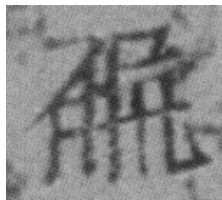
Original Tangut sources also show a mixture of glyph forms with long and short middle vertical strokes for U+174F3 and U+181B2 (see next page for examples). However, within a single source the two characters are written the same. *Sea of Characters* (*Wenhai*), *Homophones* (*Tongyin*) Editions B and D, *Mixed Characters* (*Zazi*), and *Proverbs* show a short vertical stroke for both characters; whereas only *Homophones* (*Tongyin*) Edition A shows a long a vertical stroke for both characters. In texts that only have U+181B2, *Pearl in the Palm* (*Zhangzhongzhu*) consistently writes it with a short middle vertical stroke, but *Odes* consistently writes it with a long middle vertical stroke.

It seems that both ways of writing the characters (with a long or a short middle vertical stroke) are acceptable, but the two characters should be written consistently with respect to each other. As *Sea of Characters*, *Homophones* Edition B, *Mixed Characters*, *Proverbs*, and *Pearl in the Palm* all write U+181B2 with a short middle vertical stroke, we propose changing the glyph for U+181B2 to match U+174F3, as shown above.

Wenhai 1 22.261	*Wenhai* 1 06.261	*Zazi* 17A0303	*Proverbs* 15B0703–04	*Proverbs* 26A0104
U+174F3	U+181B2	U+181B2 U+174F3	U+181B2 U+174F3	U+181B2

Tongyin A 12A31	*Tongyin* B2 13A21	*Tongyin* D 13A21	*Tongyin* A 33A77	*Tongyin* B2 35B24
U+174F3 U+181B2	U+174F3 U+181B2	U+174F3 U+181B2	U+181B2 U+174F3	U+181B2 U+174F3

Zhangzhongzhu A 13:1D	*Zhangzhongzhu* A 17:3B	*Zhangzhongzhu* A 22:5D	*Odes* No. 3 04A0514	*Odes* No. 4 03A0605
U+181B2	U+181B2	U+181B2	U+181B2	U+181B2

3.11   181C0

Character (current glyph)	Sofronov 1968	Li Fanwen 1986	Han Xiaomang 2004	Kychanov 2006	Li Fanwen 2008	Proposed New Glyph
U+181C0 𘇀	𘇀 5203	𘇀 4079	𘇀 𘇀 4275/4422–4423	𘇀 0586	𘇀 0525	𘇀
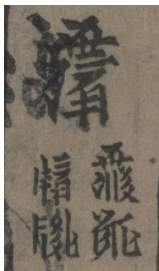
U+181C0 𘇀 is an uncommon character that only occurs in a very few Tangut sources. The code chart glyph does not exactly match the form given in any original Tangut source, as the right hand component is different. Li Fanwen's 2008 *Tangut-Chinese Dictionary* has 𢁅 on the right side, whereas Tangut sources either have 𢁆 or 𢁇. As 𢁆 is attested in two sources (*Homophones B* and *Odes* #3) and 𢁇 in only one source (*Homophones A*), we propose changing the glyph for U+181C0 to have 𢁆 on the right side. There is no change in stroke count.

Tongyin A 36A33	*Tongyin* B2 36B63	*Odes* No. 3 04A0316
U+181C0	U+181C0	U+181C0

3.12 18488

Character (current glyph)	Sofronov 1968	Li Fanwen 1986	Han Xiaomang 2004	Kychanov 2006	Li Fanwen 2008	Proposed New Glyph
U+18488 茻	茻 5185	茻 4119	茻 4237/4384	茻 1295	茻 1510	茻

U+18488 is written incorrectly in Kychanov 2006 and Li Fanwen 2008 as 茻 radical plus 7 strokes, whereas it should be 茻 radical plus 8 strokes, as shown in Han Xiaomang 2004. Tangut sources all show that the bottom left component should be 茻, and *Sea of Characters* gives the character construction as the surrounding part of 茻 and the right side of 茻.

Tongyin A 41B34	*Tongyin* B2 42A45	*Wenhai* 1 10.252	*Wenhai* 1 76.251	*Wenhai* 1 79.231
U+1756E	U+1756E	U+1756E	U+1756E	U+1756E

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Tongyin B3. *·ẹi lew* 祀毻 [*Homophones = Tóngyīn* 同音]. Edition B Exemplar B3 (one of the exemplars making up ECHW Edition B). Institute of Oriental Manuscripts of the Russian Academy of Sciences (Saint Petersburg, Russia). Tangut fond. Pressmark Tang 18/7, old inventory № 4775. Published as Edition B (乙種本) in: ECHW 7. p. 29–55.

Tongyin C. *·ẹi leu* 乢毹 [*Homophones = Tóngyīn* 同音]. Edition B Exemplar C (corresponding to ECHW Edition C). Institute of Oriental Manuscripts of the Russian Academy of Sciences (Saint Petersburg, Russia). Tangut fond. Pressmark Tang 18/4, old inventory № 2619. Published as Edition C (丙種本) in: ECHW 7. p. 55–57.

Tongyin D. *·ẹi leu* 乢毹 [*Homophones = Tóngyīn* 同音]. Edition B Exemplar D (corresponding to ECHW Edition D) with explanatory notes on the verso side [同音背隱音義]. Institute of Oriental Manuscripts of the Russian Academy of Sciences (Saint Petersburg, Russia). Tangut fond. Pressmark Tang 18/15, old inventory № 8365. Published as Edition D (丁種本) in: ECHW 7. p. 58–121.

Vajrayana. *mi ngwu ·iạ nın ·u tśhịe* 級穊蘺靀薐衐 [*Root* [*downfalls*] *of Vajrayana in Tangut Language = Fānyán Jīngāngwáng chénggēn* 番言金剛王乘根]. Institute of Oriental Manuscripts of the Russian Academy of Sciences (Saint Petersburg, Russia). Tangut fond. Pressmark Tang 293, old inventory № 4900.

Wenhai 1. *·iwạ ngôn* 莈脩 [*Sea of Characters = Wénhǎi* 文海]. Institute of Oriental Manuscripts of the Russian Academy of Sciences (Saint Petersburg, Russia). Tangut fond. Pressmark Tang 14/1, old inventory № 211.

Wenhai 3. *·iwạ ngôn ndza ndịe* 莈脩赦羉 [*Sea of Characters. Mixed Category = Wénhǎi zálèi* 文海雜類]. Institute of Oriental Manuscripts of the Russian Academy of Sciences (Saint Petersburg, Russia). Tangut fond. Pressmark Tang 15, old inventory № 213. In: ECHW 7. p. 166–176.

Note on *Tongyin* editions

There are two xylographic editions of *Tongyin*, A and B. Edition A is only preserved as a single copy, but there are several different exemplars of Edition B printed from the same or different woodblocks (i.e. original or recarved woodblocks for the same edition). However, Chinese researchers divide *Tongyin* into four editions, A, B, C and D (Chinese 甲種本, 乙種本, 丙種本, 丁種本), where Chinese Edition A corresponds to actual Edition A, and Chinese Editions B, C and D are different exemplars of actual Edition B. For compatibility with the Chinese scheme we refer to the exemplars of Edition B as Editions B, C and D. As the Chinese Edition B is actually a composite of three different exemplars (with different inventory numbers), we specify the exemplars corresponding to Chinese Edition B as B1, B2 and B3.

Note on Tangut readings

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