Arakawa Shintaro

The Tangut Dictionary by E.I. Kychanov and the Study of the Shapes of the Tangut Script

Abstract: The late Professor, Dr. Evgeny Ivanovich Kychanov not only created a solid academic foundation for the research on history, society, law, and religion of Xixia, but also made a significant contribution to the study of the Tangut language and script. One of them is the *Tangut Dictionary* (Kyoto University, 2006). The author, as a co-editor of the dictionary, typed Tangut characters in the special font, checked phonetic-reconstruction forms, and worked on the arrangement of the characters in the index. Although the dictionary's method to find the character index is unique, it is useful for the study of the shapes of the Tangut script from the viewpoint of current research. The author discusses some topics from the viewpoint of linguistics.

Key words: Tangut script, Tangut language, Tangut lexicography, Tangut dictionary, E.I. Kychanov

1. Tangut language and script

1.1 Tangut language

The Xixia (Tangut) dynasty[1] occupied a dominant position in the northwestern part of China (1038–1227). Many Tangut documents written in the Tangut script are Buddhist documents.[2] After the extinction of the dynasty, however, the Tangut language and script[3] were in use until the 16th c. Tangut belongs to the Tibeto-Burman language family and is the most northwestern of the Tibeto-Burman languages. Although Tangut seems

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© Arakawa Shintaro (荒川 慎太郎), Research Institute for Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies, Tokyo, Japan (arakawa@aa.tufs.ac.jp), ORCID 0000-0002-5456-6574

[1] See KYCHANOV 1968 and so on for the general history of Xixia.

[2] See KYCHANOV 1982 and so on for the Buddhism of Xixia.

[3] See NISHIDA 1989 and GONG 2003 for Tangut language, and see NISHIDA 2001 for Tangut script. See NIE 2021 for both of them.

to be close to Rgyalrongic, there is no confirmed language that is a direct descendant of Tangut.

Continued research by scholars in Russia, China, Japan, and other countries in the 20th c. revealed phonological and grammatical properties of Tangut. Decoding the language with extremely high accuracy was made possible by the existence of multilingual diacritical materials such as Chinese, Tibetan, and Sanskrit, in addition to the discovery of many kinds of rhyme dictionaries and syllabic tables based on "Tangut phonology" modeled after Chinese phonology. Tangut has interesting grammatical phenomena, directional prefixes, and pronominal suffixes that are not found even in Old Tibetan and Burmese.

1.2. Tangut script

The Tangut script 西夏文字 was created to represent the Tangut language and was promulgated in the name of *Li Yuanhao* 李元昊 in 1036. At this time, various new "Sinoform scripts 疑似漢字" were invented in northern and northwestern China, such as Khitan, Tangut, and Jurchen scripts. These scripts, which were similar to yet different from the Chinese writing system, played an important role in each culture.

Numerous Tangut documents of different kinds were unearthed from the *Khara-Khoto* ruins 黑水城. During the Tangut rule, Buddhist sutras[4] were systematically translated and were circulated by means of a number of printed books and not a few manuscripts.[5] While the Chinese classics were translated, a Tangut-Chinese bilingual glossary, original regal Tangut codes[6], collections of poems, rhyme dictionaries[7] and so on were compiled at the same time. It has been confirmed that approximately 6,000 Tangut characters were produced. This script continued to be used for several hundred years after the fall of the dynasty. The last written material has been confirmed to bear the date of the 15th year of *Hongwu* 洪武 (1502) in the *Ming* period. Later the Tangut script has become extinct.

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[4] See KYCHANOV ed. 1999 for the catalogue of the Tangut Buddhist documents in Russia.

[5] See GORBACHËVA & KYCHANOV 1963 for the catalogue of the Tangut non-Buddhist documents in Russia. And see KYCHANOV 1988 and so on for the Tangut manuscripts.

[6] See KYCHANOV 1987–89 for the Tangut famous codes, *Tiansheng* codex.

[7] See KYCHANOV 1995 for the study on the Tangut rhyme dictionary, *Wenhai baoyun* 文海寶韻.

2. The structure of Tangut script and indexes in previous studies

2.1. The structure of Tangut script

Although the Tangut script is influenced by Chinese characters, the glyph shapes are not congruent. However, the principle of glyph creation based on the concept of the main component might be considered an imitation of the "radical 部首" of a Chinese character.

Like Chinese characters, Tangut script characters can be divided into basic components such as the left part 偏 or the right part 旁, and their manner of composition is *huiyi* 會意 (compound ideographs) and *xingsheng* 形聲 (combining semantic and phonetic components). However, the composition *huisheng* 會聲 (combining phonetic components) is also popular.

Type of compounds

huiyi 會意 (compound ideographs)
　　　𗨁 [2]'yiq 2.59 "sound" ＋ 𗼨 [1]me: 1.36 "not to exist" ＝ 𗐩 [1]me: 1.36 "silence"[8]

xingsheng 形聲 (combining semantic and phonetic components)
　　　𗀖 [2]dzi:q 2.60 "to cover" ＋ 𗀭 (radical of "water") ＝ 𗀓 [2]dzi:q 2.60 "to cry"

huisheng 會聲 (combining phonetic components)
　　　𗀤 [2]<u>bi</u>: 2.10 ＋ 𗀬 [1]'o̱ 1.49 ＝ 𗀫 [1]bo 1.49

Tangut script differs from Chinese characters in many respects. For example, "it is extremely rare for the main component to become a single character" and "there is no pictographic nature even at the main component level." Meanwhile, the disposition pattern of the main component matches with the pattern of radicals of Chinese characters such as the left part *pian* 偏 or the right part *pang* 旁.

Chinese characters have "names of parts according to their position" such as the left part *pian* 偏, the right part *pang* 旁, the upper part *guan* 冠, and so on. Although the shapes of the Tangut script are different from those of Chinese characters, this "part by position" can be used to analyze the shapes.

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[8] In this paper, the reconstruction form follows ARAKAWA 2014 (+ rhyme number in Tangut phonology) and meanings of words are given by the author, although the dictionary originally used Sofronov's system (based on SOFRONOV 1968) and word meanings by Kychanov.

Type of disposition patterns

A1. the left part 偏 and other
蒴 "language", 絿 "gatha (poetic verse of a scripture)", 蒴 "to make a statement"

A2. the right part 旁 and other
絹 "not to exist", 耤 "poor"

B.　the upper part 冠 and other
蕤 "tree", 蕤 "language", 彦 "a person who does something", 蔽 "to see"

C.　the upper and left part 垂 and other
鹿 "all", 席 "king", 席 "to seat"

D.　the left and bottom part 繞 and other
絯 "to live", 夗 "you (pronominal suffix)"

E.　the encircling part 構 and other
臽 "silk", 翕 "twill"

F.　the bottom part 脚 and other
舉 "leaf", 彎 "to expose"
(ARAKAWA 2022a: 96)

2.2. Indexes in previous studies

Rhyme dictionaries of the time separated and arranged Tangut characters by phonetic properties. Although it is certain that Tangut radicals were recognized at that time, no material has been found that arranged characters by their radicals. On the other hand, for modern people who find it difficult to search for Tangut characters by pronunciation, an index to search for them by glyph shape is essential. In modern dictionaries, a "glyph index" is added based on a researcher's analysis. The most common is a system in which Tangut characters are categorized by "radical" and "other" and then further arranged according to the number of strokes.

Analysis of the main part and other

蕤 ⇒ ⺾ (4 strokes radical) ＋ 彀 (15 strokes)
The shape and number of strokes of the "radical" do not match among researchers.
彀 ⇒ 隼 (6 strokes radical) ＋ 彡 (4 strokes) in NISHIDA 1966: 366, LI 2008: 1043.
彀 ⇒ 丶 (1 stroke radical) ＋ 彀 (9 strokes) in HAN 2021, vol. 9: 11.

3. The Tangut Dictionary by E.I. Kychanov and the index

3.1. The history of the dictionary's publication

The late Professor, Dr. Evgeny Ivanovich Kychanov not only created an important research foundation in the historical, social, legal, and religious studies of Xixia, but also made a great contribution to the study of the Tangut language and script. Prominent among them is his *Tangut Dictionary* (Kyoto University, 2006). Here, we look again at this dictionary, an important achievement of Kychanov. The author will show that elements of its organization, especially the index, make it useful in current research.

Here is a brief history of the publication of the Tangut dictionary. In the 1990s, Kychanov and the late Professor Dr. Nishida Tatsuo came up with a plan to edit and publish the *Catalogue of Tangut Buddhist documents in the Institute of Oriental Studies of the Russian Academy of Sciences*. At the time, the author participated in the project as an "academic reviewer" ("издание подготовлено", i.e. "подготовка издания", lit. "preparation of the publication"). Actually, the author was in charge of assisting in the input of handwritten glyphs by Kychanov, checking Russian reconstructed forms of Tangut, and writing fair Tangut characters. At that time, there was no practical Tangut font in Japan, so writing by hand was the only option.

In 1999 and 2000, the author stayed in Saint Petersburg to research the Tangut versions of the *Vajracchedikā-prajñāpāramitā sūtra* and wrote his doctoral dissertation. After that, the author entered the Research Institute for Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies and began research career in Tokyo. At that time, a joint research project was launched again between Russia and Japan. This is Kychanov's *Tangut Dictionary*.

Just like in cataloging, he asked the author to input text in his manuscript, check the reconstructed forms, and "write all Tangut characters by hand." However, the handwritten version was expected to be very difficult, so the author instead used the Japanese-made "Konjaku Mojikyo" Tangut font. This dictionary was highly appreciated in Japan and received the 2nd Ritsumeikan University "East Asian Characters and Culture" Award in memory of the late Professor Shirakawa Shizuka (September 2007).

3.2. Index of the dictionary

In this dictionary, the index and method for arranging Tangut characters are very unique. In short, the characters are arrayed "from the last element of a character back to the first element." Tangut characters can be analyzed by elements, as in these examples. For example, in his index, the elements in boxes become heads.

This dictionary consists of a preface, a description of the dictionary entries, a list of abbreviations, indexes, and the main part. The index consists of a "parts index" and an "index of all characters." The former index divides all character parts into four parts: A the bottom part, B the right part, C the left and bottom part[9] and D the encircling part.

A: ⬛, B: ⬛, C: ⬛, D: ⬛

Within each section, parts are roughly arranged from simple to structurally complex glyphs. Each part is assigned a three-digit classification number.

In B series,

B001 ⬛, B002 ⬛, B003 ⬛…

B001: 0097-0 𗧎, 0098-0 𗧏, 0099-0 𗧐…

B002: 0213-0 𗧑, 0214-0 𗧒, 0215-0 𗧓…

B003: 0218-0 𗧔, 0219-0 𗧕, 0220-0 𗧖…

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[9] It is a rare index for searching Tangut characters in which C type is a stand-alone headline (ARAKAWA 2022b: 24).

4. Study of the Tangut script shapes using Kychanov's index

4.1. Derivations of the Tangut characters

New forms of Tangut characters are derived from "parent forms" with different elements.

Structure of the Tangut characters

𗧁 **"deep"**   𗧄 **"mud"**

Derived form	
Parent form	
Element	
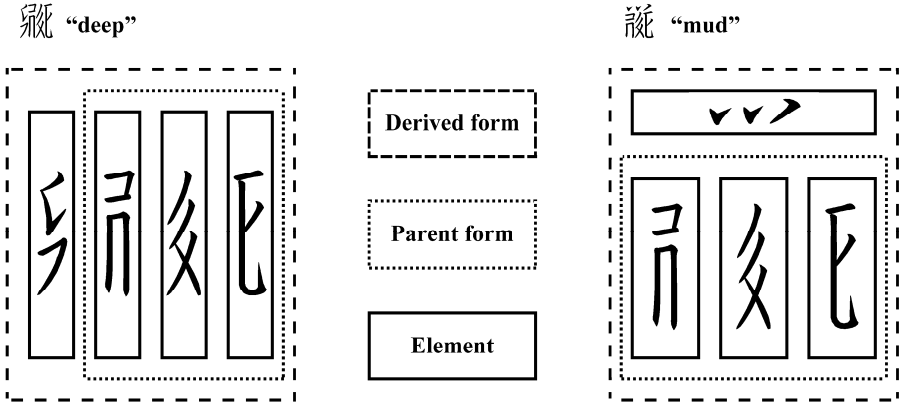
(ARAKAWA 2022b: 21)

As far as the author can see, there still seems to be a little figurative study of the derivation of the Tangut characters.

In Tangut, different syllables are usually written in different characters, even though the syllables are derived from the same word.

𗤛 ²byi 2.8 "to release (Vi)"   𗤜 ²phyi 2.8 "to release (Vt)"

On the other hand, sometimes the derived forms are clearly shown by "derivational" elements.

𗤝 ¹jo:n 1.56 "to part (Vi)"   𗤞 ¹cho:n 1.56 "to part (Vt)"

In a very rare case, we can also confirm an example showing inflection of a verb stem in a glyph derivation.

e.g. "to get"

	verb stemA	verb stemB
Level tone	𗧅 ¹ri:r 1.79	𗧆 ¹ryor 1.90
Raising tone	𗧇 ²ri:r 2.72	𗧈 ²ryor 2.81

(NISHIDA 2012: 422 etc.)

We distinguish two types of derivative elements:

Type A: What were originally "semantic components 意符" of something were diverted for derivation.

Type B: They were created specifically for derivation, neither "semantic" nor "phonetic" components.

Some representative examples are,

A1: 艹, A2: 彳 and B1: ⼧, B2: ⼇

A1: originally a radical of "plant"

□ [1]shi: 1.11 "tree", □ [1]tsiq' 1.68 "tea", □ [2]ga:' 2.21 "pole"

Sometimes it functions as a derivative part without the meaning "plants"

□ [1]lhwi: 1.11 "to take" ⇒ □ [2]che: 2.32 "to hold"

The element makes synonyms but is essentially unrelated to the derivation of words, such as inflection.

A2: originally a radical of "act of a person"
It functions as various types of derivations.

a. Word derivation type: Initial alternation

□ [2]ba: 2.17 "to cut off (Vi)"	□ [1]pha: 1.20 "to cut off (Vt)"
□ [1]jo:n 1.56 "to part (Vi)"	□ [1]cho:n 1.56 "to part (Vt)"

b. Word derivation type: Lax-tense alternation?

□ [1]ku: 1.4 "to loose (Vt?)"	□ [1]kuq 1.58 "to loose (CAUS?)"

B1 functions as just a derivative element
This is the most productive of the elements considered derivative-only.

a. Word derivation type: Lax-tense alternation

□ [1]lwu 1.1 "to get mixed (Vt)"	□ [1]lwuq 1.58 "to mix (Vi)"

b. Word derivation type: Tone alternation

□ [1]li:' 1.14 "trouser (n)"	□ [2]li:' 2.14 "to put on trouser (v)"
□ [1]zi:q 1.67 "shoes (n)"	□ [2]zi:q 2.60 "to put on shoes (v)"

B2 also makes many derivative characters.

□ [2]mir "to deceive" ⇒ □ [2]lha:q "to deceive"

However, there are few examples of phonological relationships between basic characters and derived characters.

4.2. Study of the shapes of the Tangut script using Kychanov's index

When conducting research on derived forms, it is actually useful to be able to search by the parent form rather than by the element for derivation.

A great dictionary published recently by the Chinese scholar, Han Xiaoman, has several different indexes.[10] In one of them, Tangut characters are classified by the part on the "right" and arranged in stroke order. First, the rightmost part becomes a head, and the characters are arranged in the order of the number of strokes including it.

RR361[11]

RR361 牂部

猜（12） Ⅰ 4 2.68 mjijr ④298

裙（13） Ⅴ -77 2.42 ɣo ⑤240

猜（13） Ⅶ68 2.2 dʑju ⑤329

裤（13） Ⅷ141 1.60 śiej ⑥458

熸（14） Ⅲ -96 1.33 dwej ①143

猜（14） Ⅰ 4 2.68 mjijr ④435

㸚（16） Ⅴ 70 2.33 gjij ⑧352 (HAN 2021, vol. 9: 185)

In fact, the rightmost element may not correspond to a radical, but may be an element of a radical. For example, in the following characters, although the part 彡 is a radical, the part ｜ is the headline.

綴, 裀, 甌, 祠, 絧, 氎 …

For more complex glyphs, parent forms are less likely to be the headline. For example, the following characters which are all glyphically correlated, are arranged in completely different places because the total number of strokes is different in Han's dictionary.

殊 thin → 蒜 thorn → 蒜 pierce
　　　　　→ 蒜 needle
　　　　　→ 蒜 pointed

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[10] HAN 2021 is a great book in nine volumes and the last volume is an index of several different kinds. See the review on the volume: ARAKAWA 2022c.

[11] For example, (12) means "12 strokes including the radical".

大 （14） Ⅲ-41 2.74 -jar ①672

大 （14） Ⅲ-41 2.74 -jar

（大之异体字） ①672

大 （15） Ⅲ91 2.77 djir ③152

大 （18） Ⅰ28 2.33 mjij ⑦530

RR158 米 部

米 （05） Ⅵ86 1.30 tsji ⑥169

𠄌↓𡭔——𠄌↓𡭔

米 （07） Ⅴ73 1.54 khow ⑧248

米 （08） Ⅸ-? 1.8 ze ⑧383

米 （09） Ⅶ-29 1.26 dźjwa ③51

米 （12） Ⅰ-41 1.86 bjir ⑧593

𠄌口𠃊𡿨——𠄌口𠃊𡿨

米 （06） Ⅸ15 1.11 zji ①44

米 （07） Ⅰ50 1.23 mjaa ①213

米 （07） Ⅵ36 1.42 tshjij ①530

米 （08） Ⅰ29 1.49 po ②7

米 （08） Ⅶ96 1.28 dźiə ②565

米 （08） Ⅷ33 1.4 γu ①544

米 （09） Ⅲ31 1.61 tjij ③216

米 （09） Ⅴ81 2.61 kji ③259

米 （10） Ⅶ70 2.12 tśjii ③409

米 （10） Ⅰ142 1.68 mə ⑥137

米 （10） Ⅵ35 1.36 tshjij ⑥228

米 （11） Ⅲ34 1.20 tja ⑦35

米 （11） Ⅴ切韻 1.23 kjaa

（米之异体字） ⑤316

米 （11） Ⅴ-133 2.48 kjow

⑦123

米 （11） Ⅲ111 2.63 niə ⑦217

米 （11） Ⅷ92 2.42 ·o

（米之异体字） ⑦243

米 （11） Ⅷ92 2.42 ·o ⑦254

米 （11） Ⅲ-148 2.55 tjij ⑦368

米 （12） Ⅴ切韻 1.23 kjaa ⑤324

米 （12） Ⅲ95 1.24 tā ⑧86

米 （13） Ⅴ187 2.56 khạ ③27

米 （13） Ⅸ192 1.24 lā ⑧336

米 （13） Ⅸ40 2.27 lji ⑧355

米 （13） Ⅰ-4 2.46 bioo ④406

米 （14） Ⅰ29 1.49 po ⑦111

米 （14） Ⅵ-100 1.12 tswee

⑧484

𠄌下↘——𠄌下↘

米 （07） Ⅱ32 1.69 wji ①203

米 （10） Ⅶ切韻 1.82 tsjar ①182

米 （11） Ⅸ78 1.6 źjuu ③67

米 （11） Ⅸ57 2.9 lji ④184

米 （12） Ⅵ-108 1.24 tshā ③70

米 （12） Ⅵ-59 1.17 tshwa

（米之异体字） ③75

米 （12） Ⅸ-? 2.81 -jor ①205

米 （12） Ⅵ-59 1.17 tshwa

①102

米 （12） Ⅵ112 2.1 dzu ⑤394

米 （12） Ⅵ86 1.30 tsji ②266

米 （13） Ⅸ8 2.14 la ③94

米 （13） Ⅴ123 2.28 kji ④420

米 （14） Ⅶ-28 2.43 -io ③133

米 （14） Ⅵ34 2.33 tshjij ③139

米 （14） Ⅷ19 1.17 γa ⑧190

米 （14） Ⅲ-4 2.22 thwa ①672

米 （17） Ⅶ161 1.21 dźjwaa

②450

(HAN 2021, vol. 9: 152–153)

In Kychanov's index, on the other hand, these characters are placed consecutively.

1407·0 米

1408·0 米

1409·0 米

1410·0 米 (→米)

1411·0 米

1412·0 米

(KYCHANOV 2006: 30)

There are many other examples like this in Kychanov's index.

訣 to collect, gather → 韻 to collect, gather
　　　　　　→ 儞 scattered
　　　　　　→ 飜 volume
　　　　　　→ 劀 to extract butter

蘠　（16）　Ⅸ181　1.20　ljwa　⑥399

蘠　（17）　Ⅴ-22　2.5　khuu　⑦459

蘠　（18）　Ⅶ24（声调不详）dʑɨ
　　　　　　　　　　　　　⑧181

處　（15）　Ⅸ-?　1.14　lhjii　②448

爐　（16）　Ⅶ127　1.28　tɕhiə
　　　　　　　　　　　　　①409

矗　（19）　Ⅸ21　1.49　lo　①477

RR2　｜部

刎　（06）　Ⅲ104　1.64　tja　⑤397

刻　（06）　Ⅲ137　1.52　noo　⑥225

㑉　（07）　Ⅰ46　1.36　pjij　①213

刪　（07）　Ⅰ112　2.56　bạ　⑦64

刻　（07）　Ⅲ116　1.17　ta　⑦319

刿　（07）　Ⅴ114　2.28　khjwɨ
　　　　　　　　　　　　　⑦473

殉　（08）　Ⅶ151　1.29　tɕhjɨ　①549

刪　（09）　Ⅰ60　2.17　bja　⑤286

㸬　（09）　Ⅶ52　1.69　sjɨ　②158

烱　（09）　Ⅲ137　1.52　noo　②158

訒　（09）　Ⅶ-157　1.53　ɕioo
　　　　　　　　　　　　　③527

訅　（10）　Ⅲ-137　2.64　tjọ　⑦2

絅　（10）　Ⅶ70　2.12　tɕjii　⑤312

刻　（10）　Ⅴ-49　1.44　khiew
　　　　　　　　　　　　　⑦350

韌　（10）　Ⅰ-103　1.32　phjɨɨ
　　　　　　　　　　　　　⑦550

訮　（11）　Ⅶ-5　1.34　ɕiwej　⑤186

儞　（11）　Ⅵ148　1.24　sạ　①369

絴　（11）　Ⅰ111　2.56　pạ　⑤322

絢　（11）　Ⅱ8　1.67　wjɨ　⑥213

劀　（11）　Ⅶ-182（声韵不详）
　　　　　　　　　　　　　①635

絅　（12）　Ⅴ131　1.16　kjwi　⑤324

訅　（12）　Ⅶ-134　1.38　ɕieej
　　　　　　　　　　　　　⑧274

儞　（13）　Ⅴ-101　2.44　gjo　③428

絅　（13）　Ⅸ92　2.70　rjur　③469

絅　（13）　Ⅷ84　1.19　xja　⑧446

絅　（15）　Ⅱ9　2.32　wjij　⑧384

劀　（15）　Ⅸ-?　2.27　ljɨ　⑦449

　　　　　※　※　※

刻　（08）　Ⅴ140　1.78　kier　④586

舭　（08）　Ⅸ142　2.60　lji　③457

絅　（09）　Ⅲ10　1.39　njiij　④70

儞　（10）　Ⅴ159　2.40　khjiw
　　　　　　　　　　　　　①337

㓨　（11）　Ⅲ44　1.36　njij　⑧38

緲　（12）　Ⅸ146　2.35　ljiij　③358

緲　（12）　Ⅸ146　2.35　ljiij
（緲之异体字）　　　　③370

緲　（13）　Ⅴ-53　1.79　gjir　④379

刻　（08）　Ⅲ182　1.11　njwi　②468

刧　（08）　Ⅸ140　1.20　lhja　②586

刧　（09）　Ⅶ-46　1.79　·jir　③237

儞　（09）　Ⅲ-168　2.34　neej
　　　　　　　　　　　　　①163

緲　（10）　Ⅰ52　2.7　be　⑥10

緲　（10）　Ⅲ-6　1.26　dja　⑥178

訮　（11）　Ⅰ97　1.86　mjɨr　⑦4

緲　（11）　Ⅲ142　2.29　njɨɨ　⑥18

刻　（11）　Ⅸ69　2.47　zow　⑦473

訹　（11）　Ⅸ100　2.41　zeew
　　　　　　　　　　　　　⑦559

刻　（11）　Ⅴ70　2.33　gjij　⑦583

訹　（12）　Ⅴ13　2.51　kụ　⑧147

緲　（12）　Ⅵ62　1.20　tsja　①519

鄹　（16）　Ⅱ10　1.35　wjij　⑧561

絅　（09）　Ⅶ切韵　1.56　tɕjwow
　　　　　　　　　　　　　①182

苅　（09）　Ⅴ72　1.75　ŋur　⑧450

夏　（09）　Ⅸ27　2.38　lhew　①422

絡　（09）　Ⅵ134　1.69　sjɨ
（绪之异体字）　　　　③740

絅　（11）　Ⅰ113　2.35　mjiij　④224

訥　（11）　Ⅶ37　1.19　ɕjwa　②236

葤　（12）　Ⅸ74　2.40　ljiw　③71

繍　（12）　Ⅲ18　2.12　njii　④315

絅　（12）　Ⅰ113　2.35　mjiij　④317

訒　（12）　Ⅶ-70　1.55　ɕiow　②277

豫　（12）　Ⅴ15　2.76　ŋwər　②584

蘁　（13）　Ⅱ25　2.30　wej　⑤18

繍　（13）　Ⅸ112　2.14　la　④395

蘁　（13）　Ⅴ-85　2.20　kiaa　②314

窻　（13）　Ⅴ192　1.85　kiər　⑧189

罪　（14）　Ⅸ13　2.52　ljụ　⑤26

蘪　（15）　Ⅰ152　2.12　phjii　⑤129

繍　（15）　Ⅶ81　1.56　dʑjwow
　　　　　　　　　　　　　④508

劉　（16）　Ⅲ45　2.33　njij　⑧47

翻　（16）　Ⅸ117　1.18　lia　⑧516

　　　　　※　※　※

0154-0 㒼

0155-0 䛃

0156-0 𢙢

0157-0 𦀗

0158-0 𦂅

(KYCHANOV 2006: 12)

The dictionary is useful not only due to the index showing correlations of components, but also due to the explanation of the characters whether the correlation is by "meaning" or "pronunciation." We can immediately see the derivation by meaning and the derivation by pronunciation. Just by looking at the same page and knowing the pronunciation and meaning, we can understand the derivation of characters as follows:

0053-0 𗣼 vi̯e 2.9 "низ; дно; основание", "bottom; base", "底".

0055-0 𗣽 tho 2.42 "подошва (у обуви)", "sole of the boot (of shoes)", "靴底".

0056-0 𗤀 vi̯e 2.9 "хозяин", "master; owner", "主人".

(KYCHANOV 2006: 99)

4311-0 𗥑 ·a 2.14 "служебное слово; на; у; в; с;", "grammatical word; in; from", "虛詞; 中; 於; 從".

4313-0 𗥒 ngi̱n 1.36 "горный поток; ущелье", "valley; mountain stream gorge; ravin", "川; 岩; 谷".

4314-0 𗥓 ·i̯ei 2.60 "вытягивать; растягивать", "stretch", "張".

4315-0 𗥔 ? ? "удлинять; растягивать; долгие гласные", "stretch; widen; make longer; long vowel", "長; 引; 延".

4317-0 𗥕 ngiwe 1.14 "знамя", "banner", "旗".

4318-0 𗥖 ngi 2.10 "знамя", "banner", "旗".

(KYCHANOV 2006: 608–609)

The dictionary is useful for investigating the function of the derivation-only elements shown earlier.

In conclusion, the index is still useful for investigating and studying derivation relationships for Tangut characters.

Unfortunately, this dictionary has been neither put into an electronic platform nor revised as the second edition. However, ideas such as the arrangement of Tangut script components will continue to be useful. In the future, research focusing on the derivation of Tangut characters and the index for searching characters are expected.

Acknowledgements

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