JTC1/SC2/WG2 N3495
L2/08-335
2008-09-01

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

Doc Type: **Working Group Document**
Title: **Proposal to encode Tangut Radicals and CJK Strokes in the UCS**
Source: **Michael Everson and Andrew West**
Status: **Individual Contribution**
Action: **For consideration by JTC1/SC2/WG2 and UTC**
Date: **2008-09-01**

1. Introduction. Richard Cook's proposal to encode the Tangut script (N3297) explicitly does not propose a set of Tangut radical characters, giving the reason that "the competing systems of Tangut radicals ... are idiosyncratic and partial" and because "[t]he task of enumerating the complete set of Tangut radicals is rather open-ended" (N3297:2). Discussion with Tangut scholars, however, has indicated that there is an *overwhelming* desire to see Tangut radicals encoded *at the same time* as the main body of Tangut characters, both to enable representation of dictionary indexes in electronic form (see Figures 2 through 14) and to facilitate discussion of the structural composition of Tangut characters (see Figure 1). Moreover, because there are various traditions of indexing Tangut characters by radicals, it is important that the set of Tangut radicals encoded is a superset of all the different Tangut radicals used by various authors—and not just the set of radicals upon which the ordering of the characters in the main Tangut block is based.

It should be noted that unlike Chinese radicals, which almost all exist as independent ideographic characters in their own right, the vast majority of Tangut radicals do not exist as independent characters, and so need to be encoded separately from the set of Tangut characters in the main Tangut proposal. Although a minority of the radicals proposed in this document do also exist as independent Tangut characters, we believe that for sake of consistency it is best to encode all the radicals as distinct radical characters in a single block, with the same character properties, regardless of whether they exist as independent Tangut characters or not. Moreover, the glyph form of a Tangut radical and its corresponding Tangut character may not have the same proportions (e.g. R0140 𘍞, which is typically drawn much thinner than the corresponding character, U+1782A 𗊪).

2. Endorsements from Tangut scholars.

- **Guillaume Jacques** (http://xiang.free.fr/)—*First, I agree that radicals (and recurring parts of characters not recognized as radicals) ought to be part of the Unicode proposal.*
- **Marc Miyake** (http://www.amritas.com/)—*I would love radicals to be part of Unicode, as much of my work deals with tangraphic structure ... Needless to say, radicals are an absolute must for typesetting discussions of graphic analyses.*
- **Viacheslav Zaytsev** (Institute of Oriental Manuscripts of the Russian Academy of Sciences)—*I agree that it's neccessary to make superset of Tangut radicals used in different sources. It's a brilliant solution.*

3. Sources. The present document proposes to encode a set of 802 Tangut radicals, which are a superset of the radicals used in the following sources, which are all major works on Tangut lexicography:

1 Kyčanov, E. I. (Е. И. Кычанов). 2006. *Словарь тангутского (Си Ся) языка* (= *Slovarʹ tangutskogo (Si Sja) jazyka*) [Tangut-Russian-English-Chinese Dictionary]. St. Petersburg and Kyoto.
2 Hán Xiǎománg (韓小忙). 2004. 西夏文正字研究 (*Xīxiàwén Zhengzi Yanjiu*).
3 Lǐ Fànwén (李范文). 1997. 夏漢字典 (= *Xià-Han Zidian*). Beijing.
4 Lǐ Fànwén (李范文). 1986. 同音研究 (= *Tóngyīn Yánjiū*). Yinchuan.
5 Shǐ Jīnbō (史金波) et al. 1983. 文海研究 (= *Wénhǎi Yánjiū*). Beijing.
6 Grinstead, Eric. 1972. *Analysis of the Tangut Script* (Scandanavian Institute of Asian Studies Monograph Series No.10.
7 Nishida Tatsuo (西田龍雄). 1966. 西夏文小字典 (= *Seikabun Kojiten*). In 西夏語の研究 (= *Seikago no kenkyū*) [A Study of the Hsi-Hsia Language] (1964-1966) vol.2. Tokyo..
8 Kolokolov, V. S. (В. С. Колоколов) and E. I. Kyčanov (Е. И. Кычанов). 1966. *Китайская классика в тангутском переводе* (= *Kitajskaja klassika v tangutskom perevode*) [Chinese Classics in Tangut Translation]. Moscow.
9 Nevskij N. A. (Н. А. Невский). 1960. *Тангутская филология: Исследования и словарь* (= *Tangutskaja filologija: Issledovanija i slovarʹ*) [Tangut philology: Researches and dictionary]. Moscow.
10 Keping, K. B. (К. Б. Кепинг) *et al*. 1969. *Море письмен* (= *More pisʹmen*) [The Sea of Characters]. Moscow.
11 Sofronov M. V. (М. В. Софронов). 1968. *Грамматика тангутского языка* (= *Grammatika tangutskogo jazyka*). Moscow.

4. Radical systems. As no surviving Tangut dictionaries from the Western Xià period use a system of radicals to index characters, the radical systems used in the above sources have, of necessity, been devised by the particular authors based on their own analyses of Tangut characters. Consequently, the different sets of radicals identified by these authors vary considerably, although there is a core set of radicals that are common to all of them.

It should also be noted that these are not strictly radicals in the sense that CJK radicals are, but are structural elements that have been arbitrarily selected to facilitate character lookup. There are two distinct approaches to radical determination:

- most authors (e.g. Nishida, Sofronov, Shǐ Jīnbō, Lǐ Fànwén, and Hán Xiǎománg) choose the leftmost structural element of a character as its radical where possible, and the top, bottom or surrounding element if not;
- some authors (e.g. Grinstead, Kolokov, and Kyčanov) choose the structural element at the bottom right of a character as its radical.

The set of radicals derived by combining these left-oriented and right-oriented approaches comes close to covering every possible structural element that occurs in Tangut characters.

5. Complex components. In addition to the elements used as radicals that are proposed for encoding here, there is an open-ended set of complex components that scholars may want to refer to when analysing Tangut characters. For example, Nishida Tatsuo analyses the structure of the characters U+173ED and U+186EB as follows (see also Figure 1).

> One “simple character” can be broken down into several elements or clusters or elements. For example, “ear” upon analysis is found to be composed of elements and , and element may in turn be broken down into elements , ; and ; “to see” is made up of elements and , and is itself made up of elements and .
>
> Nishida Tatsuo, *A Study of Hsi-Hsia Language* (Tokyo, 1966) Vol. 2, p. 547.

In this example the simple elements 𗍫, 𗍩, 𗍪, 𗍬, 𗍭, 𗍮, and 𗍯 are all used as radicals, and so are proposed for encoding. On the other hand, the complex components 𗍰 and 𗍱 are not used as radicals in any source, and so are not proposed for encoding. However, there is still a need to be able to represent these and other similar complex components in electronic text. We therefore propose that arbitrary complex components such as these should be represented at the encoding level as Ideographic Description Sequences, and, where possible, rendered as a single glyph using smart font technology such as OpenType. Thus 𗍰 could be represented as ⿲𗍩𗍪𗍬 <2FF2 18802 18830 18822>; and 𗍱 could be represented as ⿰𗍮𗍯 <2FF0 18836 18843>. A smart Tangut font would either compose the desired glyph dynamically or substitute a precomposed glyph for the IDS sequence. In cases where a Tangut font does not support this feature, the fallback would be to display all elements of the IDS sequence visibly.

6. Subsidiary radicals. Both Lǐ Fànwén (1986 and 1997) and Kyčanov have a number of radicals that can be considered to be subsidiary forms of another radical. In these cases, in addition to the main radical, they also include a subsidiary radical made up of a smaller version of the main radical with a rectangular box placed above or below it, indicating that the radical comprises a base radical plus any other structural element above or below it. For example, Kyčanov has both 𗍵 and 𗍶, whereas Lǐ Fànwén 1997 has both 𗍵 and 𗍵□ (the rectangular box on the right is used to indicate that the radical occurs at the top left of a character). In cases such as these, where there is no difference in character shape between the full-sized radical and the small-sized radical under or above a box, we have proposed only a single radical for encoding (R0034 𗍵 in the preceding example). However, in two cases Kyčanov has a radical that surrounds a box, and there is a difference in shape between this radical and the corresponding radical with no box (𗍷 / 𗍸 and 𗍹 / 𗍺), and in these two cases only we have proposed to enocde the two radicals separately as R0009 𗍷 / R0010 𗍸 and R0380 𗍹 / R0381 𗍻 (but with no box).

However, there is still a need to be able to render these subsidiary radicals with a box above or below. We suggest that a simple way of doing this would be by using IDS sequences of Tangut radicals combined with either the character U+25A0 ■ or U+25A1 □ (which are the characters that Unicode recommends to represent black or white boxes in ideographic text). For example 𗍶 could be represented as ⿱■𗍵 <2FF1 25A0 18821>, and 𗍵□ could be represented as ⿰⿱𗍵□□ <2FF0 2FF1 18821 25A1 25A1>. Likewise, 𗍸 could be represented as ⿹𗍸■ <2FFA 18809 25A0>. A Tangut font intended to support Lǐ Fànwén's or Kyčanov's system of radicals could substitute an appropriate precomposed glyph for a given IDS sequence. Note that this solution would require a redefinition of the characters that can make up an IDS sequence, but this would also be very beneficial to CJK textual scholars who frequently represent partially missing or obliterated Han ideographs in manuscripts or inscriptions by means of a combination of a white box and a character element, which currently cannot be represented in plain text Unicode.

7. Glyph variants. Non-sigificant glyph differences for the same radical in different sources have been ignored. In some cases, however, one source treats two glyph forms as separate radicals, even though other sources treat them as glyph variants of the same radical (for example, Kyčanov distinguishes R0088 𗍧 [Kyčanov's B186] from R0114 𗍦 [Kyčanov's B168], but Lǐ Fànwén includes both glyph forms under the same radical). In all such cases the radicals have been encoded separately. On the other hand, where two or more glyph forms of the same element are not differentiated in any source they are not encoded separately. For example, R0028 𗍨 and other radicals that include R0028 may be written with either a short final stroke or an extended stroke, but as no source categorizes the two forms as different radicals, they have not been encoded separately.

8. Naming convention. Although the 5,910 Tangut Ideographs are named by their UCS code position, the much smaller set of Tangut Radicals are best given catalogue numbers so that Tangut scholars can refer to them conveniently. We have prefixed R (for "radical") to a four digit number including leading zeroes.

9. CJK strokes. Several important modern Tangut dictionaries and studies of Tangut characters refer to the stroke types that make up Tangut characters (see Figures 11a and 13). The majority of Tangut stroke types are the same as strokes used in writing Han ideographs, which are already encoded in the **CJK Strokes** block (31C0..31EF). As the Script property of characters in the CJK Strokes block is *Common*, and as other Sinoform scripts to be encoded, such as Jurchen and Khitan, are also written using a subset of strokes encoded in the CJK Strokes block, we believe that most Tangut strokes can be represented using the corresponding character in the existing CJK Strokes block, as shown in the table below.

Code Point	Character Name	Tangut Stroke	Example Tangut Radicals
31C0	CJK STROKE T	𰻝	𱁬
31C7	CJK STROKE HP	𰻞	𱇬 𱈷 𱉂 𱊀
31C8	CJK STROKE HZWG	𰻟	𱉂 𱉼
31CF	CJK STROKE N	𰻦	𱈷 𱋱
31D0	CJK STROKE H	𰻧	𱊈 𱋢
31D1	CJK STROKE S	𰻨	𱌕 𱍏 𱍺
31D2	CJK STROKE P	𰻩	𱎦 𱏛
31D4	CJK STROKE D	𰻫	𱐋 𱐖 𱑓 𱒁 𱒏
31D5	CJK STROKE HZ	𰻬	𱓎 𱓐
31D7	CJK STROKE SZ	𰻮	𱔖
31DB	CJK STROKE PD	𰻲	𱗗
31DC	CJK STROKE PZ	𰻳	𱘫
31DE	CJK STROKE SZZ	𰻵	𱙳
31DF	CJK STROKE SWG	𰻶	𱚕 𱚖
31E1	CJK STROKE HZZZG	𰻸	𱜏

However, there are four strokes used for Tangut that are not currently encoded, and we therefore propose to add them them to the CJK Strokes block at code points 31E4 through 31E7.

Code Point	Character Name	Tangut Stroke	Example Tangut Radicals
31E4	CJK STROKE HPZ	𰻹	𱞭 𱟃 𱟗 𱟠
31E5	CJK STROKE HPDT	𰻺	𱠲
31E6	CJK STROKE HPZP	𰻻	𱡃 𱡤 𱡰
31E7	CJK STROKE PDT	𰻼	𱢤 𱢵

10. Source references. In the table which follows

- **Kyčanov 2006.**
  References are the numbers assigned by Kyčanov on pages 2–7. “A” numbers are radicals that occur at the bottom, “B” numbers are radicals that occur at the right side, “C” numbers are radicals that occur at the left side extending along the bottom, and “D” numbers are radicals that occur at the top extending down both sides.
- **Hán Xiǎománg 2004.**
  References are the four-digit character reference number for the first character with this radical, as given in the table of radicals on pages 11-13 (the character reference numbers are in the last column of Table 1 on pages 14-337).
- **Lǐ Fànwén 1997.**
  References are to the page number, column (A, B, or C) and position in column where the radical starts in the radical index on pages 1091–1166 (e.g. 1096-C3 is the third radical on column C of page 1096). In a few cases the radical is listed in the table of radicals on pages 1088–1090 but has been inadvertently omitted from the actual radical index, and in these cases the position where the

radical occurs is given in brackets. Where two or more forms of the same basic radical are given, they are distinguished by lowercase letters (e.g. 1099-B1a and 1099-B1b).

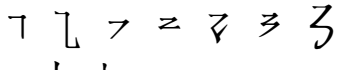
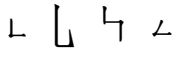
- **Lǐ Fànwén 1986.**
  References are to the page number, column (A, B, or C) and position in column where the radical starts in the radical index on pages 771-845 (e.g. 794-C2 is the second radical on column C of page 794). Where two or more forms of the same basic radical are given, they are distinguished by lowercase letters (e.g. 789-A2a and 789-A2b).
- **Shǐ Jīnbō 1983.**
  References are to the page number and position on the page of this radical in the radical index on pages 674-704 (e.g. 686-17 is the 17th radical on page 686).
- **Grinstead 1972.**
  References are to the page number and relative position on the page of the start of characters with this radical on pages 72-151 (e.g. 150C is the third radical on page 150). Grinstead radicals are the elements that occur at the bottom right-hand corner of a character.
- **Kolokolov & Kyčanov 1966.**
  References are the alphanumeric code indicated in the grid on page 23. These radicals are the bottom right hand components of characters.
- **Nishida 1966.**
  References are the three-digit numbers assigned to the radical by Nishida in his radical indices on pages 305-308 and 506-507.
- **Nevskij 1960.**
  References are to the volume (I or II) and page number where the first character with this radical occurs, as indicated in the radical index on pages 669-677. If two or more radicals share the same page number they are distinguished by lowercase letters (e.g. I-260a and I-260b).

11. Unicode Character Properties.

```
31E4;CJK STROKE HPZ;So;0;ON;;;;;N;;;;;
31E5;CJK STROKE HPDT;So;0;ON;;;;;N;;;;;
31E6;CJK STROKE HPZP;So;0;ON;;;;;N;;;;;
31E7;CJK STROKE PDT;So;0;ON;;;;;N;;;;;

18880;TANGUT RADICAL R0001;So;0;ON;;;;;N;;;;;
..
18B21;TANGUT RADICAL R0802;So;0;ON;;;;;N;;;;;
```

12. Encoding order. The encoding order of characters is based on their stroke count and stroke type according to the table below.

Precedence	Stroke	Type examples
1	Horizontal	
2	Vertical	
3	Slanting	
4	Dot	
5	Horizontal Bend	
6	Vertical Bend	
7	Slanting Bend	

13. Mapping Table

Code Point	Name	Glyph	Kyčanov 2006		HXM 2004	LFW 1997	LFW 1986	Shī Jīnbō 1983		Grinst. 1972		Nishida 1966	K & K 1966		Nevskij 1960
U+18800	R0001				0001	1091-A1 1091-C1	771-A1	674-02				001	A-1		I-176
U+18801	R0002		A001												
U+18802	R0003		B001		0046	1091-C3	771-C2	674-04		73		039	B-1		I-186
U+18803	R0004					1093-B1									
U+18804	R0005												L-1		
U+18805	R0006				0191	1091-C2	771-C1	674-03				040			
U+18806	R0007												W-1		
U+18807	R0008		B147							96					
U+18808	R0009		B255							99A			D-1		
U+18809	R0010		C019												
U+1880A	R0011				0195	1093-C1	773-B1	674-01				180	X-1		I-240
U+1880B	R0012		B345							127B					
U+1880C	R0013				0239	1095-B4 1095-B5	775-B1	676-04				003			I-255
U+1880D	R0014		B002							74B		094			
U+1880E	R0015				0254	1096-C1 1096-C2	775-A1	676-05				002			
U+1880F	R0016		B004												
U+18810	R0017									75C					
U+18811	R0018												D-2		
U+18812	R0019		B033		0264	1097-C2	778-B1	676-10		78B		041	B-2		I-214
U+18813	R0020												K-1		
U+18814	R0021		B067 B085		0415	1099-B1a	780-B1	676-09		82			C-1		I-275
U+18815	R0022									116B			G-1		
U+18816	R0023		C001 C002		0417	1099-B1b	780-B2	676-08				268			I-276
U+18817	R0024				0418	1101-C1	780-B3	677-01				043			I-274
U+18818	R0025												M-1		
U+18819	R0026				0422	1094-B1 1094-B2	774-B1	676-02				005			I-260a
U+1881A	R0027				0435	1094-C4	774-C1	676-03				036			
U+1881B	R0028				0439	1095-C1 1096-B1	775-B2	676-07				009			I-260b
U+1881C	R0029											048			
U+1881D	R0030												M-2		
U+1881E	R0031											052			
U+1881F	R0032		B146												

U+18820	R0033				0553	1096-C3	777-C1	676-06				184			I-582
U+18821	R0034		B151 B160		0510	1097-A1 1097-C1	777-C2	679-02		97		185	V-1		I-354
U+18822	R0035		B256							99B			E-1		
U+18823	R0036				0566							042			
U+18824	R0037				0567	1099-C1	780-B4	675-01				181			I-328
U+18825	R0038					1108-C1		676-01							
U+18826	R0039		B003		0734	1106-A1	785-C1	679-01		74C		095			I-382
U+18827	R0040											004			
U+18828	R0041		C020		0785		785-C2	678-04				282			
U+18829	R0042				0786	1110-B1		679-04							I-273
U+1882A	R0043		B023		0739	1106-A2	785-C3	678-05		75F		098			I-371
U+1882B	R0044		B017							76A					I-381
U+1882C	R0045				0784	1107-B1b		679-08				084			
U+1882D	R0046		B014		0791	1107-B1a	787-A1	679-07		75D		100			I-367
U+1882E	R0047		B015		0814	1107-B2	787-A2			75E		085			I-433
U+1882F	R0048				0789	1110-A1	788-B2	679-06							I-419
U+18830	R0049		B068		0801	1106-C1	786-B1	679-05				103			I-412
U+18831	R0050		D002									038			
U+18832	R0051		B287												
U+18833	R0052		B152 B155		0834	1110-B2	789-A1	682-04				186	V-2		I-427
U+18834	R0053												E-2		
U+18835	R0054				0847	1110-C1	789-C1	680-06		74A		068			
U+18836	R0055		B127 B128		0861	1110-C2	789-C2	680-07		81C		133	K-2		I-412
U+18837	R0056		B328							116A					
U+18838	R0057									80A			B-3		
U+18839	R0058												C-2		
U+1883A	R0059		B300 B313							121			H-1		
U+1883B	R0060												C-4		
U+1883C	R0061												C-5		
U+1883D	R0062		B055		0862	1110-C3	790-A2	680-08		92A					I-384
U+1883E	R0063		B292							119			G-2		
U+1883F	R0064				0867	1111-A1	790-A1	686-07		92B		257			
U+18840	R0065		B034		0868	1111-A3	790-A4	681-01				044			I-364
U+18841	R0066		B005												
U+18842	R0067														I-415

U+18843	R0068		B164 B192		0880	1111-A4	790-A5	680-11		127C		202	N-1		I-392
U+18844	R0069		C012		0925	1111-C1	791-A1	680-09		136A		275			
U+18845	R0070				0932	1112-A1	790-C1	680-10				032			
U+18846	R0071				0878	1111-A2	790-A3	681-02				201	L-2		I-370
U+18847	R0072		B257							106					
U+18848	R0073				0949	1101-C2	785-A1	678-02							
U+18849	R0074				0951	1101-C3	785-A2	678-01				006			
U+1884A	R0075														
U+1884B	R0076												D-3		
U+1884C	R0077				1225	1105-C1	785-B1	678-03				046			I-362
U+1884D	R0078				0961	1102-B3	782-A1	677-03				007			I-277
U+1884E	R0079				1230	1105-C2	785-B2	677-02				037			I-383
U+1884F	R0080									76B					
U+18850	R0081				1237	1108-C2 1109-B1	787-B2	680-01				010			I-320
U+18851	R0082					1109-B2	787-B1								
U+18852	R0083				1279	1107-C1	776-B1	679-11				182	X-2		I-550
U+18853	R0084		B148							94			W-2		
U+18854	R0085				1363	1109-B3	788-A1	680-02				023			I-406
U+18855	R0086		B036		1367	1106-C2	786-C2	680-05		79A		049			I-407
U+18856	R0087						789-A2b					086			I-386
U+18857	R0088		B186 B191		1957	1110-A2	788-C1	684-03		129A		218			II-141
U+18858	R0089							679-10							I-452
U+18859	R0090				1411	1109-C1 1109-C2	788-A2 788-B1	679-09				034			I-456
U+1885A	R0091		B016		1383	1107-A1	786-B2	680-03				073			I-430 II-137
U+1885B	R0092		B038		1404	1107-A2	786-C1	680-04				053			I-600b
U+1885C	R0093		B161										V-6		
U+1885D	R0094				1422	1112-A2	791-A2	679-03				090			II-219
U+1885E	R0095		B258												
U+1885F	R0096									76C					
U+18860	R0097		B027		1423	1121-A2	796-A1	682-03		76F		057			I-451
U+18861	R0098		B035		1427	1115-B1	793-C3	682-06				102			I-538
U+18862	R0099				1480			682-07				016			
U+18863	R0100		B074 B078		1481	1116-A1	794-B1	682-05				104			II-148
U+18864	R0101		B288												
U+18865	R0102		B156		1489	1119-B2	796-A2	691-02				187	V-3		II-270

U+18866	R0103												E-5		
U+18867	R0104		B270 B273												
U+18868	R0105				1503	1123-A2 1126-C1	799-B5 803-B1	683-01				017			I-462
U+18869	R0106		A002			1127-A2	803-B2 803-C1	684-01		72B		017b			
U+1886A	R0107														I-516
U+1886B	R0108		B095 B096		1835	1116-B1	794-C2	682-08		86C		112			I-594
U+1886C	R0109		B301										H-2 H-4		
U+1886D	R0110		B064		1851	1116-C1	795-A1	682-09		91C		154			I-589
U+1886E	R0111		B293										G-3		
U+1886F	R0112		B242		1869	1119-C2	796-B1 797-B1	682-10		93B		255	M-3		I-564
U+18870	R0113		B243										M-4		II-198
U+18871	R0114		B168				788-C2	684-02				219	O-1		
U+18872	R0115		B187 B188		3241	1118-A1		691-09				220			
U+18873	R0116				1992	1123-A1	799-B1					035			
U+18874	R0117		B260							109					
U+18875	R0118		B131		1994	1127-A3	803-C2	686-03				137			I-455
U+18876	R0119		B129		1999	1127-B1	803-C3	686-04		86B		134			I-599
U+18877	R0120					1127-B2	803-C4	686-08							
U+18878	R0121		B029		2004	1127-B5	814-C1	686-13		77B		069			I-432
U+18879	R0122									87E					
U+1887A	R0123												I-1		
U+1887B	R0124		B318												
U+1887C	R0125		B108		2001		804-A1	686-05							
U+1887D	R0126									124					
U+1887E	R0127					1127-B4							C-3		
U+1887F	R0128												J-1		
U+18880	R0129		B031												
U+18881	R0130		D001		2631	1127-C1	804-B1	686-15		75A		031			I-420
U+18882	R0131		B308												
U+18883	R0132						804-A3					045			
U+18884	R0133				2008	1127-B7		686-16							
U+18885	R0134		B079		2037			686-14							II-136
U+18886	R0135		B006		2645	1128-A1	804-B2	686-11		75B		250			II-138
U+18887	R0136		B165		2647	1128-A3	804-C1	686-09		136B		203	N-2		

U+18888	R0137		B149							95A			W-4		
U+18889	R0138				2659	1128-A2	804-B3	686-10				183			II-243
U+1888A	R0139														II-128
U+1888B	R0140		B210		2038	1128-B1	805-B1	686-20		137		204	R-1		II-8
U+1888C	R0141				2623	1134-C1	805-A2	686-19							
U+1888D	R0142		C016		2597	1134-C2	805-A1	686-17		147B		276			
U+1888E	R0143				2629	1135-A1 1135-B1	804-C2	686-18							I-598
U+1888F	R0144		B266												
U+18890	R0145		C021		2678	1127-B6	804-A2	686-12				283			
U+18891	R0146		B012												
U+18892	R0147		B069		2679	1112-B1	791-A3	681-08				105			II-156
U+18893	R0148				2708	1112-C1	791-B1	681-07				270			
U+18894	R0149					1136-A3		681-06							II-274b
U+18895	R0150		B153		2710	1094-C1	793-A4	690-07				191			II-272
U+18896	R0151		B259										E-3		
U+18897	R0152				2715										
U+18898	R0153		B137												
U+18899	R0154						789-A2a	682-01		77C		088			
U+1889A	R0155		B025		2809	1114-C1		682-02		78A		087			
U+1889B	R0156				2844	1115-A1	793-C2	681-11				089			II-197
U+1889C	R0157		B037		2725	1112-C2	791-B2	681-14				047			I-437
U+1889D	R0158		B084		2753	1113-B1	791-C1	681-13							
U+1889E	R0159		C005		2756	1113-B2	791-C2	681-12				269			I-443
U+1889F	R0160		B204		2847	1114-A3	793-A3	681-10				207			I-454
U+188A0	R0161				2883	1095-A1	793-C1	690-11				188			II-269
U+188A1	R0162		B011		2716	1114-A1	792-B1a	681-03				096			I-424
U+188A2	R0163						792-C1 793-A1	681-04				008			
U+188A3	R0164		B010				792-B1b								
U+188A4	R0165				2850	1114-A2	793-A2	681-05				013			I-425
U+188A5	R0166		B158		2856	1114-B1	793-B1	689-03				194	V-4		I-600a II-264 II-494
U+188A6	R0167		B173		3893	1112-A3	816-B5	690-10				233	O-2		II-235
U+188A7	R0168		C013												
U+188A8	R0169				2892		799-B3	685-02							
U+188A9	R0170		B019		2894							092			

U+188AA	R0171		B091		2895	1116-A2	794-B2	685-05		83		107			II-150
U+188AB	R0172		B289 B290												
U+188AC	R0173		C003		2918		794-C1	685-04				271			
U+188AD	R0174		B163		2919	1119-B1	799-B4	685-07				231			
U+188AE	R0175				2921	1122-C2	799-B2	685-03							
U+188AF	R0176				2923	1119-C1	796-A3	692-15				190			II-274a
U+188B0	R0177		B263							110					
U+188B1	R0178				3063	1122-C1	799-A2					024			II-323
U+188B2	R0179		B018		2929	1117-B1	795-C1	684-04		76E		058			I-585
U+188B3	R0180				2951	1121-A3 1122-B1	797-C2 799-A1	685-06				026			I-518
U+188B4	R0181		B049		3067	1117-A1	795-A2	685-09		81A		050			
U+188B5	R0182				3073										
U+188B6	R0183				3081	1127-B3	803-C5	686-06				093			I-597
U+188B7	R0184											143			
U+188B8	R0185							690-13							II-432b
U+188B9	R0186		B224		3083	1117-C1	824-A2	686-01				222			II-161a
U+188BA	R0187				3106	1141-C3	820-A3					163			II-438a
U+188BB	R0188				3130										
U+188BC	R0189		B022		3108	1117-A3	795-B2	685-01				074			II-185
U+188BD	R0190		B050		3119	1117-A2	795-B1	685-10				054			
U+188BE	R0191		B086		3132		797-C1	691-12		85C		198			II-261a
U+188BF	R0192				3135	1135-B2	814-C3	686-02				159			II-439
U+188C0	R0193		B280							113			F-1		
U+188C1	R0194		C023												
U+188C2	R0195						814-C2	681-09							
U+188C3	R0196				3156										
U+188C4	R0197				3167	1143-B4 1144-B1	822-A1 822-C1	691-06				018			II-199
U+188C5	R0198				3234	1139-C1	818-B4	691-03				113			II-221a
U+188C6	R0199												H-3		
U+188C7	R0200		B057		3239	1141-A1	818-B1	691-04				173			II-221b II-283d
U+188C8	R0201		B056		3240	1141-A2	818-B2	691-05				174			II-283c
U+188C9	R0202		B169				824-B3	691-08		130		221	O-5		II-247 II-254
U+188CA	R0203		B272												
U+188CB	R0204		B274												
U+188CC	R0205				3276	1140-B2									

U+188CD	R0206		B026		3278	1140-B1									
U+188CE	R0207		A003		3281	1144-B2 1144-C1	823-A1 823-B1	692-04		72A		319			II-193
U+188CF	R0208				3303	1144-C1 1145-B1	823-B3	692-05				020			II-188
U+188D0	R0209									127D					
U+188D1	R0210				3335	1139-B1	819-C3	692-03							II-183a
U+188D2	R0211		C007		3343		819-C4	691-13				279	I-2		II-183b
U+188D3	R0212				3347	1139-B3	819-A1	692-02				122			
U+188D4	R0213		B319												
U+188D5	R0214		B109 B111		3364	1139-C2	819-A2	691-14				123			II-176
U+188D6	R0215												J-3		
U+188D7	R0216				3354	[1139-B2a]	819-C1	692-01							II-220a
U+188D8	R0217					1139-B2b	819-C2					278	J-2		II-220b
U+188D9	R0218				4374			699-06		129B					II-476
U+188DA	R0219				3416			692-06							
U+188DB	R0220		B007		3417	1139-A3	818-A2	692-07				252			II-283a
U+188DC	R0221		B150										W-5		
U+188DD	R0222		B217		3403	1141-A3	824-B1	685-11				223	S-1 S-6		II-161b II-352
U+188DE	R0223				3419	1141-B2	820-B4	698-03							II-493
U+188DF	R0224		B092		3422	1139-A4	818-B3	691-10				109			II-170
U+188E0	R0225				3441	1142-A2	820-B2	691-11				051			
U+188E1	R0226				4360	1155-C3	834-C4								
U+188E2	R0227		B276												
U+188E3	R0228		B281										F-3		
U+188E4	R0229				3453		823-B2	691-01							
U+188E5	R0230					1145-C1	826-A2	693-16				076			
U+188E6	R0231				3455	1145-C2	826-B1	693-15				075			
U+188E7	R0232		B130		3470	1145-B2a 1145-B3	826-A1b	694-01		87B		135	K-3		II-354b
U+188E8	R0233		B329 B330			1145-B2b	826-A1a			123					II-354a
U+188E9	R0234		B030		3497	1149-A4	827-C2	694-07				070			II-357
U+188EA	R0235												F-2		
U+188EB	R0236		B124		3493	1145-C4	826-B2			91B					
U+188EC	R0237		B286							1181			G-7		
U+188ED	R0238											272			
U+188EE	R0239		B343												

U+188EF	R0240		B332							126			I-3		
U+188F0	R0241		B246			1145-C3				92C		258			
U+188F1	R0242				3494	1149-B2	827-C4	694-03				060			
U+188F2	R0243		B040		3495	1149-B1	827-C3	694-04							II-284a
U+188F3	R0244		B058												
U+188F4	R0245												O-3		
U+188F5	R0246		B316												
U+188F6	R0247		B201		3736	1149-A3	828-A2	695-02		148C		214	P-1 T-7		II-238a
U+188F7	R0248					1149-A1	827-C1								
U+188F8	R0249		B100		3504	1149-B3	826-B3	695-01		87A		144			
U+188F9	R0250		B087							86A					
U+188FA	R0251		B234 B237		3739	1145-C5	813-B1	694-06		148D		211	U-1		II-303a
U+188FB	R0252		B166										N-3		
U+188FC	R0253				3855	1149-A2	828-A1	694-05							
U+188FD	R0254				3609	[1148-B3]	811-C1	695-03				205			II-262
U+188FE	R0255		B211		3651	1147-B1	812-B1	694-09		147C		210	R-3		
U+188FF	R0256					1148-B1	813-A1	694-08				033			
U+18900	R0257		B222		3602	1148-B2	812-A1	695-04		148A		206	T-5		II-322
U+18901	R0258		B268										E-8		
U+18902	R0259		B075		3858	1135-C3	815-A1	690-08				110			II-172
U+18903	R0260				3881	1094-C2	817-A1	697-01				192			II-448
U+18904	R0261				3890	1136-A1	816-B2	690-09				114			II-224
U+18905	R0262		B302												
U+18906	R0263		B294										G-4		
U+18907	R0264		B171		4470	1135-C2	828-C1	697-03					O-6		II-452
U+18908	R0265		B261										E-6		
U+18909	R0266		B267												
U+1890A	R0267							694-02							
U+1890B	R0268				3062	1139-A1	817-B3	685-08				071			I-453
U+1890C	R0269		B080												
U+1890D	R0270		B291												
U+1890E	R0271				3990	1139-A2	817-B1	697-11				196			II-302 II-425a
U+1890F	R0272		B138		3992	1138-B2	817-B5	690-12		81E		157			II-423a
U+18910	R0273				4030							166			

U+18911	R0274						816-B1					091			
U+18912	R0275				3975	1137-A1	816-B3	690-14				141			II-240
U+18913	R0276		B309												
U+18914	R0277		B299												
U+18915	R0278		B245		3979	1137-B1	816-B4	697-19				260			II-418
U+18916	R0279		B212		4031	1137-C2	816-C2	690-15		148B		208	R-4 T-6		II-296y
U+18917	R0280		B024		3914	1136-B2	815-B1	689-01				099			II-301
U+18918	R0281				3958	1138-B1	818-A1	690-02				025			II-213
U+18919	R0282				3957	1136-A4	815-B3	690-01				101			
U+1891A	R0283		B070		3925	1136-B3	815-B4	689-04		85A		106			II-238b II-275
U+1891B	R0284				3970	1137-B2	816-C1	690-03				232			II-218
U+1891C	R0285		B154		3974	1136-B1	817-B4	695-05				193			
U+1891D	R0286												E-4		
U+1891E	R0287				3966	1137-A2	816-A2	689-02							
U+1891F	R0288											014			
U+18920	R0289				4059	1136-C1	815-B2	690-06				151			II-284c
U+18921	R0290		B189		4558	1137-B3	828-C2	690-05				235			II-256
U+18922	R0291		B039		4063	1136-C2	816-A1	695-06				056			II-397
U+18923	R0292														II-403a
U+18924	R0293		B162												
U+18925	R0294		B277												
U+18926	R0295		B218		4504	1150-C6	828-B2	697-10							
U+18927	R0296				4085	1140-C5	823-C1	692-14				065			
U+18928	R0297		B020		4089	[1140-C4]						066			II-216
U+18929	R0298		B071		4094	1140-B3	818-C2	692-17				108			II-165
U+1892A	R0299				4093	1140-C1	818-A5	692-16		84					II-263
U+1892B	R0300				4119	1141-B1	820-B5 825-C1	698-17							II-450
U+1892C	R0301				4126	1140-C3	818-A4	693-04							II-261b
U+1892D	R0302						818-A3								
U+1892E	R0303		B102 B104		4129	1140-C2	818-C1	693-05				116			II-222
U+1892F	R0304		B305												
U+18930	R0305				4138	1141-C4	820-A4	693-06				155			II-239a
U+18931	R0306														II-239b
U+18932	R0307		B298										G-6		

U+18933	R0308				4145	1142-A1	820-B1	698-23				263			II-417
U+18934	R0309		B180 B183		4146	1118-B1	825-A1	693-09		131		230	O-7		II-225
U+18935	R0310		C014												I-459
U+18936	R0311						825-C2	693-03				012			II-283b
U+18937	R0312											011			
U+18938	R0313				4876	1141-A4		698-20							II-453
U+18939	R0314		B278							115			E-9		
U+1893A	R0315		C022												
U+1893B	R0316				4291	1143-A5	821-C2	693-08							II-215
U+1893C	R0317				4211	1143-A4	821-C1	692-13				059			II-281
U+1893D	R0318				4222	1142-C3	820-C2	693-02							
U+1893E	R0319		A004		4231							288			
U+1893F	R0320					1143-B1	821-C3	693-07							II-187
U+18940	R0321				4235	1143-B2 1143-B3	821-C4	691-07				029			
U+18941	R0322				4240										II-284b
U+18942	R0323		B041		4241	1142-A3	820-C5	693-12		79B		080			II-287
U+18943	R0324				4289										II-295
U+18944	R0325				4296	1143-A1	820-C3								II-353
U+18945	R0326				4300	1142-C2	820-C1	693-01				148			II-360
U+18946	R0327		B121												
U+18947	R0328				4299	1143-A3	824-B2	693-14							II-359
U+18948	R0329		B021		4310	1141-B3	824-A1	692-08		76D		063			II-466
U+18949	R0330		B051 B053		4316	1141-C1	820-A1	692-11		80B		169			II-502
U+1894A	R0331		B135		4321	1141-C2	820-A2	692-10		81D		161			II-438b
U+1894B	R0332							692-09							
U+1894C	R0333											167			II-580a
U+1894D	R0334		B203		4330	1141-B4	820-B6	692-12				239	P-4		II-499
U+1894E	R0335		B088												
U+1894F	R0336		B045		4302	1142-C1	821-B1	693-11				074b			II-481
U+18950	R0337				4305										
U+18951	R0338				4307	1143-A2	820-C4	693-13							II-471
U+18952	R0339											199			
U+18953	R0340							698-10							II-416
U+18954	R0341		B193		4344		820-B3	698-11		135B		200	P-3		II-425b
U+18955	R0342				4345										

U+18956	R0343											019			
U+18957	R0344				4348	1157-B1	834-B1	698-06				021			II-426b II-489a
U+18958	R0345						833-B3								
U+18959	R0346		B114		4353	1155-B2		698-05				124			II-422
U+1895A	R0347		B320										J-6		
U+1895B	R0348		B219					698-07					S-4		II-445
U+1895C	R0349						833-B2								
U+1895D	R0350				4364	1155-B5	833-C4					097			
U+1895E	R0351		B159		4365	1155-C2	834-B3	700-17				195			II-562
U+1895F	R0352		B282												
U+18960	R0353				4370	1155-B6									
U+18961	R0354														II-421
U+18962	R0355		B083												
U+18963	R0356				4379										
U+18964	R0357		B125		4380	1155-B3	833-C3	698-12				123b			II-443
U+18965	R0358		B333 B336										I-4		
U+18966	R0359		B342												
U+18967	R0360		B236		4385	1155-C6	835-A3	698-13				225			II-488
U+18968	R0361				4383	1155-C4		698-14							II-498
U+18969	R0362											224			
U+1896A	R0363				5070	1155-C1	833-C5	698-04							II-550b
U+1896B	R0364		B103		4388	1155-B4	833-B1	698-09				117			II-428a
U+1896C	R0365		B306												
U+1896D	R0366		B182												
U+1896E	R0367		B052		4393	1157-A7	834-B2	698-08				171			II-504
U+1896F	R0368		B065												
U+18970	R0369						835-B2	699-03				077			
U+18971	R0370				4400	1157-B3	835-B4	699-04				138	K-4		II-495
U+18972	R0371		B331										K-5		II-496
U+18973	R0372		B133												
U+18974	R0373		B132		4404	1157-B2	835-B3	699-05				136			
U+18975	R0374				4407	1157-B4	835-B1	699-07				055			II-461
U+18976	R0375				4441	1158-C1	836-A3	699-13							II-444a
U+18977	R0376				4412										
U+18978	R0377		B126												

U+18979	R0378				4414		835-A6								II-485
U+1897A	R0379		B249 B252		4416	1157-C1	835-B5	699-09		93A		259	R-2		II-386
U+1897B	R0380		B254							127A					
U+1897C	R0381		C011		4434	1157-B5	835-C1	699-08				274			II-390
U+1897D	R0382												G-8		
U+1897E	R0383														II-451a
U+1897F	R0384		B060		4436	1158-C4	836-1	699-10				175			II-451b
U+18980	R0385												J-5		
U+18981	R0386												S-3		
U+18982	R0387												F-6		
U+18983	R0388												P-9		
U+18984	R0389				4458	1158-C2	835-C2	699-11							II-429c
U+18985	R0390		B314										H-10		
U+18986	R0391		B008		4459		836-A1					251			II-489b
U+18987	R0392		B205 B207		4460	1157-C2	835-C3	699-12		150C		215			II-303b II-410
U+18988	R0393		B235												
U+18989	R0394				4442	1158-B1	836-A4	699-15							
U+1898A	R0395											150			
U+1898B	R0396				4446	1158-B2		699-14							II-444b
U+1898C	R0397		B244		5082	1158-A2	836-A5	699-16				243			II-467
U+1898D	R0398		B239		4447	1158-A1	836-A2	699-17		150A		217			II-407
U+1898E	R0399														II-429b
U+1898F	R0400		B202										P-7		
U+18990	R0401		B098		4469	1150-C5	828-A6					119			II-429a
U+18991	R0402		B295												
U+18992	R0403		B013		4477	1150-C1	828-A7	697-02				314			II-459
U+18993	R0404				4485	1150-C4	828-A3	697-06							II-424
U+18994	R0405		B174		4486	1102-A1	828-B1	697-08				246	Q-2		II-472
U+18995	R0406				4498	1150-C2	828-A4	697-05				125			II-427
U+18996	R0407		B321												
U+18997	R0408		B110		4503	1150-C3	828-A5	697-04				126			II-420b
U+18998	R0409												J-4		
U+18999	R0410		C018		5134	1102-A2 1151-A1	817-B2	697-07				286			II-462
U+1899A	R0411				4509	1136-A2	828-B3	697-09							
U+1899B	R0412											234	S-2		II-446b

U+1899C	R0413														II-454b
U+1899D	R0414				4224	1155-A1	833-A3	693-10				072			II-241
U+1899E	R0415				4634	1154-C1b	833-A1b	697-14				142			
U+1899F	R0416		B311			1154-C1a	833-A1a								II-497b
U+189A0	R0417		B209												
U+189A1	R0418		B140												
U+189A2	R0419		B081		4517	1154-B1a	832-C1a	697-13				139			II-391
U+189A3	R0420					1154-B1b	832-C1b	697-12				281			II-396
U+189A4	R0421		B157		4510	1095-A2	832-B1	700-09				189			II-521
U+189A5	R0422		B044		4589	1151-B2	831-C5	697-16				078			II-484
U+189A6	R0423		B167		4597	1154-A1	831-A1	697-20		135C		241	Q-1		II-477
U+189A7	R0424		C015		4633		831-C1								
U+189A8	R0425				4639		832-B2	697-18				145			
U+189A9	R0426		B123		4640	1151-A4	832-B3b	697-17							II-490
U+189AA	R0427		C006				832-B3a								
U+189AB	R0428		B323												
U+189AC	R0429		B238		4873	1151-C1	832-A2	698-01		150B		212			
U+189AD	R0430				4650	1095-A3	832-A1	698-02				209			II-385
U+189AE	R0431		B076												
U+189AF	R0432		B271												
U+189B0	R0433		B097		4544	1151-A2	832-A3	696-02				115			II-426a
U+189B1	R0434		B303										H-5		
U+189B2	R0435		B063		4551	1154-C2	833-A2	696-03				176			
U+189B3	R0436		B296										G-5		
U+189B4	R0437		B139					696-01							
U+189B5	R0438		B175					690-04		134			O-4		
U+189B6	R0439												V-7		
U+189B7	R0440		B269							111			E-7		
U+189B8	R0441		B093		4658	1151-B1	832-B4	696-04				111			II-403b
U+189B9	R0442				4674	1155-A2	831-C2	696-05				027			II-463
U+189BA	R0443						831-C4								
U+189BB	R0444				4858	1151-A3	832-A4	696-06				152			II-486
U+189BC	R0445		B310										H-6		
U+189BD	R0446														II-572
U+189BE	R0447		B225		4687	1151-C2	829-A1	696-08		144		236			II-361

U+189BF	R0448				4875	1157-A5	833-C1	698-16				067			II-460
U+189C0	R0449											022			
U+189C1	R0450				4886	1156-A2		698-19							
U+189C2	R0451		B061												
U+189C3	R0452					1155-C7	834-C3					240			II-428b
U+189C4	R0453		B279												
U+189C5	R0454		B307												
U+189C6	R0455		B185		4888	1157-A6	834-C1	698-25				249			II-475
U+189C7	R0456				4891	1156-C2	833-B4								
U+189C8	R0457				4892										II-420a
U+189C9	R0458		B116		4893	1156-C3	833-B5	698-22		90A		128			
U+189CA	R0459		B322												
U+189CB	R0460		C008												
U+189CC	R0461				4915										
U+189CD	R0462		B181		4916	1157-A4	834-C2								
U+189CE	R0463		B226		4900	1156-A1	835-A1	698-26		143A			S-5		II-446a
U+189CF	R0464		C017		4911		835-A2					277			
U+189D0	R0465				4917	1156-C1	833-C2	698-21							II-454a
U+189D1	R0466		B220		5302	1161-A5	839-C2								
U+189D2	R0467		B283										F-5		
U+189D3	R0468				4966	1157-A2	834-A2	698-18							II-497a
U+189D4	R0469				4918	1156-B2	834-A3	698-24							II-455
U+189D5	R0470														II-547
U+189D6	R0471												V-5		
U+189D7	R0472		B197		4946	1155-C5	835-A4								
U+189D8	R0473		B046		4947	1157-A1	833-C6	698-28				081			II-482
U+189D9	R0474		B206												
U+189DA	R0475							699-02							
U+189DB	R0476														II-622a
U+189DC	R0477				4969	1156-B1	842-A3					168			
U+189DD	R0478		B142		4971							164			
U+189DE	R0479		B028												
U+189DF	R0480														II-609
U+189E0	R0481		B227		4983	1161-B4	835-A5								
U+189E1	R0482		B089		4979			698-15							II-501

U+189E2	R0483				4984	1157-A3	834-A1	698-27							II-566
U+189E3	R0484				4988	1158-C3	836-C2	699-01				160			II-613b
U+189E4	R0485		B032		4990	1158-C5		697-15		77A		061			
U+189E5	R0486				5009										
U+189E6	R0487		B134												
U+189E7	R0488				5012	1161-C3	841-B1	700-19				131			II-576b
U+189E8	R0489		B334												
U+189E9	R0490		B101		5013	1161-C2		700-18							II-519
U+189EA	R0491				5015		841-A5	700-25							II-560
U+189EB	R0492		B312										H-8		
U+189EC	R0493												O-8		
U+189ED	R0494		B264												
U+189EE	R0495						841-A1								
U+189EF	R0496				5016	1162-B5	841-A4	700-23							II-526
U+189F0	R0497		B194												
U+189F1	R0498		B253		5017	1162-A1	840-C4	700-24				261			II-505
U+189F2	R0499		B107		5031	1120-C1	842-A5	700-22				256			II-524
U+189F3	R0500		B317										H-9		
U+189F4	R0501												T-1		
U+189F5	R0502				5046	1161-C4	839-B1	700-26				254			II-577c
U+189F6	R0503		B009		5049	1162-B2	839-B2	701-01				253			II-580c
U+189F7	R0504				5051	1161-C5	839-B3	700-27				226			II-539
U+189F8	R0505				5045		841-A2								
U+189F9	R0506				5072	1161-C1	841-B5	700-16							
U+189FA	R0507				5073	1161-B6 1162-B3	842-A1	700-21							II-598b
U+189FB	R0508		B062		5076	1162-B4	841-C3	700-20				179			II-589
U+189FC	R0509				5081		842-A6	702-01							II-574c
U+189FD	R0510												H-7		
U+189FE	R0511		B094												
U+189FF	R0512		B120												
U+18A00	R0513				5131	1163-C4	842-B2	702-02				311			II-561
U+18A01	R0514				5119	1163-C3	842-B1	702-03		151		216	U-4		II-542
U+18A02	R0515		B208		5133										
U+18A03	R0516												U-7		

U+18A04	R0517		B172												
U+18A05	R0518				5137	1159-A1	836-C3	700-04							II-563b
U+18A06	R0519				5138	1102-A3	836-C4	700-06				247b			II-579
U+18A07	R0520		B335										I-5		
U+18A08	R0521				5143	1102-A4		700-05				247			
U+18A09	R0522				5144			700-07							II-548
U+18A0A	R0523				4955	1160-C3	838-A2	701-23				197			II-619
U+18A0B	R0524		B117		5198	1160-C1	839-A4	700-08		90B		146			II-509
U+18A0C	R0525				5212		839-A2					165			
U+18A0D	R0526		B141		5213	1161-A1	839-A3	700-11		87D		158			II-608
U+18A0E	R0527		B262												
U+18A0F	R0528						837-B2								
U+18A10	R0529		B112		5171	1159-A3		700-10				147			II-575
U+18A11	R0530														II-596b
U+18A12	R0531		B047		5193	1159-A5	837-A3	700-12				079			II-549b
U+18A13	R0532				5196										
U+18A14	R0533		B223		5206			700-13		147A		242			II-578
U+18A15	R0534		B338										I-8		
U+18A16	R0535				5216	1095-B3		700-15				213			
U+18A17	R0536				5217	1095-A4									II-523
U+18A18	R0537				5218	1095-B2		700-14							II-576c
U+18A19	R0538		B275												
U+18A1A	R0539		B059		5156	1159-C4	837-C2	699-18				177			II-520a
U+18A1B	R0540											178			II-413
U+18A1C	R0541				5157	1159-B4	836-C5	699-20							
U+18A1D	R0542				5159	1159-C7	837-A1	699-21							
U+18A1E	R0543		B082		5146	1160-C2	839-A1	699-22		85B		140			II-517
U+18A1F	R0544		B304												
U+18A20	R0545		B297												
U+18A21	R0546		B176 B177		5161	1159-B5	837-A2	699-24				248	Q-3		II-573
U+18A22	R0547				5170	1159-A2		699-23				127			
U+18A23	R0548														II-592
U+18A24	R0549		B221										S-8		
U+18A25	R0550					1155-B1		696-07				030			II-463
U+18A26	R0551		B284										F-4		

U+18A27	R0552				5175	1159-C2	838-A1	699-19				284			II-520b II-577b
U+18A28	R0553												I-7		
U+18A29	R0554				5176	1159-C5		699-27							II-563a
U+18A2A	R0555						837-B5								
U+18A2B	R0556		B241					699-28				015			II-574b
U+18A2C	R0557		B105		5177	1159-C6	837-B4	699-29				120			
U+18A2D	R0558				5178	1159-C8	837-C4	702-16				264			II-596a
U+18A2E	R0559				5179	[1153-C1]	837-C6	700-01				238			II-567
U+18A2F	R0560				5219	1159-B1	837-B1	699-25				062			II-545
U+18A30	R0561				5221	1159-C9 1160-B1	838-A3 838-C1	699-30				028			II-527
U+18A31	R0562		A005												
U+18A32	R0563														II-546
U+18A33	R0564		B042		5270	1159-B2	837-A4	700-02				083			II-570
U+18A34	R0565		B122		5282	1159-A4	837-B3	700-03				153			II-552
U+18A35	R0566				5511	1164-C2	837-C5					237			II-614a
U+18A36	R0567				5288	1159-C3	837-C3					064			II-617
U+18A37	R0568				5289	1159-B3	831-C3	699-26				172			II-615b
U+18A38	R0569				5291	1163-C1	841-B4	701-10							II-538
U+18A39	R0570		B170												
U+18A3A	R0571							701-09							
U+18A3B	R0572				5293	1161-A2	841-B3								
U+18A3C	R0573				5294	1161-A3	841-B2	701-08				132			II-564
U+18A3D	R0574							701-11					S-7		II-549a
U+18A3E	R0575														II-576a
U+18A3F	R0576		B341												
U+18A40	R0577				5303			701-21							II-574a
U+18A41	R0578				5304	1161-B1	839-C1	701-20				229	U-2		II-544
U+18A42	R0579														II-615a
U+18A43	R0580				5311		840-C1	701-07							II-605b
U+18A44	R0581				5308		840-C2	701-05							II-550a
U+18A45	R0582				5546		840-B1	701-06							
U+18A46	R0583				5319	1161-A4	841-A6	701-12				118			II-513
U+18A47	R0584		B066		5325	1163-C2	840-C3	701-13				156			II-515
U+18A48	R0585		B285							114		285			
U+18A49	R0586		C024		5314	1161-B2	841-B6	701-14							II-511

U+18A4A	R0587				5333	1162-B6	841-B7	701-15				296			II-522
U+18A4B	R0588		B072		5342	1162-C1	841-C1	701-16				289			II-536
U+18A4C	R0589							701-18					P-2		
U+18A4D	R0590				5549	1164-C5	840-B2					301			II-633
U+18A4E	R0591		B214		5351	1162-C3	839-C3	701-19		143B		297			
U+18A4F	R0592		C004					701-17							
U+18A50	R0593											292			
U+18A51	R0594		B048		5416	1163-B1	841-A3	701-22				082			
U+18A52	R0595				5420										
U+18A53	R0596		B250												
U+18A54	R0597		B054		5422	1161-B3	841-C2	701-04		81B		170			II-581
U+18A55	R0598		B136 B144		5428	1161-B7 1162-B1	842-A2	701-03		87C		162			II-611
U+18A56	R0599					1164-C6 1165-A4									
U+18A57	R0600				5439	1161-B5		701-02							II-607a
U+18A58	R0601		B327												
U+18A59	R0602												S-10		
U+18A5A	R0603		B073												
U+18A5B	R0604				5441			702-27							II-618a
U+18A5C	R0605				5445	1165-A3	843-B3	702-28					O-9		II-585a
U+18A5D	R0606				5450	1165-A1		702-29				228			II-599b
U+18A5E	R0607				5458		844-A3	702-33							II-601a
U+18A5F	R0608		B265												
U+18A60	R0609		B216		5451			702-36				017e			II-606
U+18A61	R0610				5453			702-34							
U+18A62	R0611				5454			703-16							II-631b
U+18A63	R0612				5457			702-35							II-593b
U+18A64	R0613				5462			702-30							II-598a
U+18A65	R0614				5459	1165-A5	844-A1	702-31				308			II-582
U+18A66	R0615				5599	1165-C5	843-B8	703-14				304			
U+18A67	R0616		B190												
U+18A68	R0617				5463										II-601b
U+18A69	R0618				5465	1165-A6	843-B6	702-32				262			II-586
U+18A6A	R0619				5467										
U+18A6B	R0620				5468	1121-A1									II-595a
U+18A6C	R0621				5471		843-A9	702-37							

U+18A6D	R0622				5470	1165-A2	843-A10	702-38				227			II-614b
U+18A6E	R0623		B339												
U+18A6F	R0624		B118		5472	1165-A8	844-A5	702-51				315			II-587
U+18A70	R0625				5489			702-50					T-3		II-599a
U+18A71	R0626		B230			1165-A7	843-B7						T-4		
U+18A72	R0627		B113												
U+18A73	R0628		B043												
U+18A74	R0629				5490		844-B1	703-01		91A		312			II-613a
U+18A75	R0630		B326												
U+18A76	R0631				5492		842-B4								II-601c
U+18A77	R0632				5493	1164-A1	842-B5	702-21				310			II-597
U+18A78	R0633				5496	1102-A5		702-22							II-647b
U+18A79	R0634				5498	1164-A2	842-B3	702-20							II-591
U+18A7A	R0635		B106		5419		842-A4	701-24							II-580b
U+18A7B	R0636				5510	1164-B8	843-A7					147b			
U+18A7C	R0637				5519			702-26				244			
U+18A7D	R0638				5520	1164-B7	843-A5	702-25							II-594
U+18A7E	R0639		B240												II-618b
U+18A7F	R0640				5522	1095-B1		702-24				149			
U+18A80	R0641				5524			702-23							
U+18A81	R0642												E-10		
U+18A82	R0643		B115		5507	1164-A6	842-C5								
U+18A83	R0644							702-06				130			II-600
U+18A84	R0645				5503	1159-C1	837-B6								
U+18A85	R0646		B099												
U+18A86	R0647				5509										
U+18A87	R0648				5506	1164-C3	843-A8	702-10							II-604
U+18A88	R0649				5640	1165-B4		703-04							II-635b
U+18A89	R0650				5516	1164-B9	843-A1	702-12							
U+18A8A	R0651				5514	1164-C1	842-C7	702-09							
U+18A8B	R0652		B337										I-6		
U+18A8C	R0653							702-08							
U+18A8D	R0654		B143			1156-A3		702-07							
U+18A8E	R0655							702-11							
U+18A8F	R0656				5517	1164-B4	837-C1								II-585b

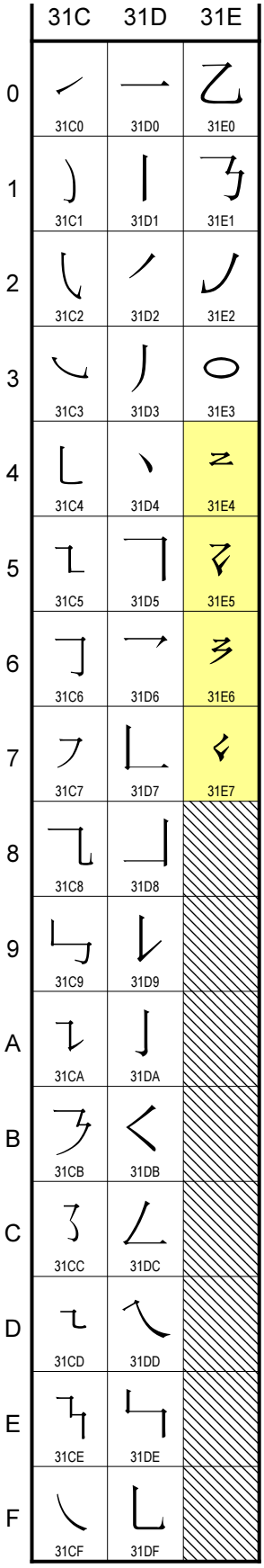
U+18A90	R0657				5512	1164-B10	843-A4	702-05							
U+18A91	R0658				5648	1164-B3	842-C8	702-04							II-616
U+18A92	R0659				5529	1164-B1	842-C4	702-14				121			II-621a
U+18A93	R0660				5525	1164-B6	843-A2	702-17					Q-4		II-577a
U+18A94	R0661						842-C3								II-584
U+18A95	R0662				5531	1164-B5		702-15				129			
U+18A96	R0663				5532	1164-B2	842-C6	702-18				318			II-607b
U+18A97	R0664					1164-A3	842-C2								
U+18A98	R0665				5534		842-C1	702-13							II-595b
U+18A99	R0666						843-A6								
U+18A9A	R0667		B198		5526	1164-A4	843-A3					298			
U+18A9B	R0668					1164-A5							P-5		
U+18A9C	R0669				5541	1164-C8	843-B5	702-42							
U+18A9D	R0670											316			
U+18A9E	R0671				5544	1164-C9	843-B4	702-40							II-620a
U+18A9F	R0672							702-41							
U+18AA0	R0673														II-646b
U+18AA1	R0674		B077												
U+18AA2	R0675						844-A2								
U+18AA3	R0676				5553										
U+18AA4	R0677		B324												
U+18AA5	R0678												W-6		
U+18AA6	R0679				5558	1164-C7		702-47							
U+18AA7	R0680														II-551
U+18AA8	R0681				5561		843-B2	702-43				287			II-602
U+18AA9	R0682				5571			702-45				273			II-621b
U+18AAA	R0683				5547			703-25							
U+18AAB	R0684							702-44							
U+18AAC	R0685				5557	1162-C2		702-46				293			II-593a
U+18AAD	R0686				5572	1164-C4	844-A4	702-48							
U+18AAE	R0687														II-612a
U+18AAF	R0688		B090		5574			702-39							II-623b
U+18AB0	R0689		B213										S-9?		
U+18AB1	R0690				5576	1135-C1		702-49				159b			II-650

U+18AB2	R0691				5581			703-26				291			
U+18AB3	R0692														II-634c
U+18AB4	R0693				5582			703-13							
U+18AB5	R0694				5587							017d			II-634a
U+18AB6	R0695		B315												
U+18AB7	R0696				5585			703-19							II-635c
U+18AB8	R0697				5694			703-43							
U+18AB9	R0698				5590	1127-A1		703-17				017c			II-643
U+18ABA	R0699				5583			703-18							II-612b
U+18ABB	R0700														II-629
U+18ABC	R0701				5606	1166-A1	843-C1	703-15							II-624
U+18ABD	R0702		B231 B233							146		305			
U+18ABE	R0703														II-649b
U+18ABF	R0704		B145												
U+18AC0	R0705				5627			703-30							
U+18AC1	R0706												P-8		
U+18AC2	R0707				5628			703-31							II-631a
U+18AC3	R0708				5632	1102-B1		703-10							II-632
U+18AC4	R0709														II-622c
U+18AC5	R0710				5660	1138-C1		703-12							
U+18AC6	R0711				5659							245			
U+18AC7	R0712				5639	1165-B3	844-B2	703-03							
U+18AC8	R0713		B325				844-C4								
U+18AC9	R0714		C009		5636	1165-C2	844-C3	703-05				280			II-635a
U+18ACA	R0715														II-642b
U+18ACB	R0716						844-C2								
U+18ACC	R0717		B228		5641	1165-B5	844-B5	702-19				302	T-2		II-583 II-647a
U+18ACD	R0718												U-5		
U+18ACE	R0719				5650	1165-B2		703-02							II-634b
U+18ACF	R0720		B196					703-08							II-636
U+18AD0	R0721		B215												
U+18AD1	R0722		B199		5652			703-07				299			
U+18AD2	R0723		A006		5661	1165-B1	844-C1	703-06				300			II-623a
U+18AD3	R0724							703-20							
U+18AD4	R0725				5663										

U+18AD5	R0726				5665			703-45							II-664
U+18AD6	R0727				5679	1165-C4	845-A2	703-21				266			II-641
U+18AD7	R0728		B251		5681	1165-C3	845-A3	703-29							
U+18AD8	R0729				5684			703-28					U-6		II-639a
U+18AD9	R0730		B340												
U+18ADA	R0731				5670	1166-A2	844-C5	703-22				290			
U+18ADB	R0732														II-646a
U+18ADC	R0733												W-7		
U+18ADD	R0734														II-648b
U+18ADE	R0735												U-3		
U+18ADF	R0736														II-605a
U+18AE0	R0737		B184		5676		843-B1	703-24							
U+18AE1	R0738				5674			703-23							II-620b II-663
U+18AE2	R0739		B179		5667	1166-B1	845-A1								
U+18AE3	R0740		B119		5671		844-C6	703-27				294			II-639b
U+18AE4	R0741				5688										
U+18AE5	R0742				5692			703-38							
U+18AE6	R0743														II-651a
U+18AE7	R0744				5689			703-37							II-659b
U+18AE8	R0745														II-622b
U+18AE9	R0746				5693			703-39							
U+18AEA	R0747							703-42							
U+18AEB	R0748				5695			703-44							
U+18AEC	R0749				5696			703-41				306			II-640
U+18AED	R0750					1166-B4	845-B1								
U+18AEE	R0751		B248		5702	1166-B5	845-B2	703-40							
U+18AEF	R0752				5705	1166-B2	845-A4	703-36							
U+18AF0	R0753		B232									309			
U+18AF1	R0754				5711										
U+18AF2	R0755							703-33							
U+18AF3	R0756				5708			703-34							
U+18AF4	R0757		B195		5713		844-B4	703-09		135A		303			II-638
U+18AF5	R0758														II-642a
U+18AF6	R0759				5720	1166-B3	845-A5	703-32				265			II-653
U+18AF7	R0760				5719										II-657b

U+18AF8	R0761		B200			1165-C1	844-B3								
U+18AF9	R0762							703-35				235b			II-655a
U+18AFA	R0763				5729			704-04							
U+18AFB	R0764				5727			704-05				317			
U+18AFC	R0765				5731			704-02							II-656
U+18AFD	R0766				5733			704-03							II-649a
U+18AFE	R0767				5734			704-01							II-648a
U+18AFF	R0768				5735			703-46							II-652b II-645
U+18B00	R0769														II-666b
U+18B01	R0770				5763			704-13							
U+18B02	R0771							703-11							II-662b
U+18B03	R0772				5749	1166-C3	845-B4	704-14							II-651b
U+18B04	R0773				5738			704-08							
U+18B05	R0774				5742			704-09							II-654
U+18B06	R0775				5745			704-10							
U+18B07	R0776				5747			704-07							
U+18B08	R0777											295			
U+18B09	R0778				5752										
U+18B0A	R0779				5753			704-11				307			II-652a
U+18B0B	R0780					1166-C2	845-B3								
U+18B0C	R0781				5755			704-12							
U+18B0D	R0782				5757	1094-C3		704-06							II-658a
U+18B0E	R0783				5758	1137-C1									
U+18B0F	R0784		B229										P-6		
U+18B10	R0785				5761			704-15							
U+18B11	R0786														II-657a
U+18B12	R0787				5764	1166-C5	845-B5	704-19				267			II-665b
U+18B13	R0788				5766	1102-B2		704-18							II-661b
U+18B14	R0789				5768										
U+18B15	R0790		B344			1166-C1									
U+18B16	R0791		C010					704-17							II-655b
U+18B17	R0792				5771			704-16							II-666a
U+18B18	R0793				5773	1166-C4		704-20							II-658b
U+18B19	R0794				5776			704-21							II-661a
U+18B1A	R0795				5778		845-B6	704-23				313			II-659c

U+18B1B	R0796														II-659a
U+18B1C	R0797				5780			704-22							
U+18B1D	R0798				5781										
U+18B1E	R0799														II-665a
U+18B1F	R0800		B247												
U+18B20	R0801														II-662a
U+18B21	R0802				5782	1166-C6		704-24							II-660



CJK strokes

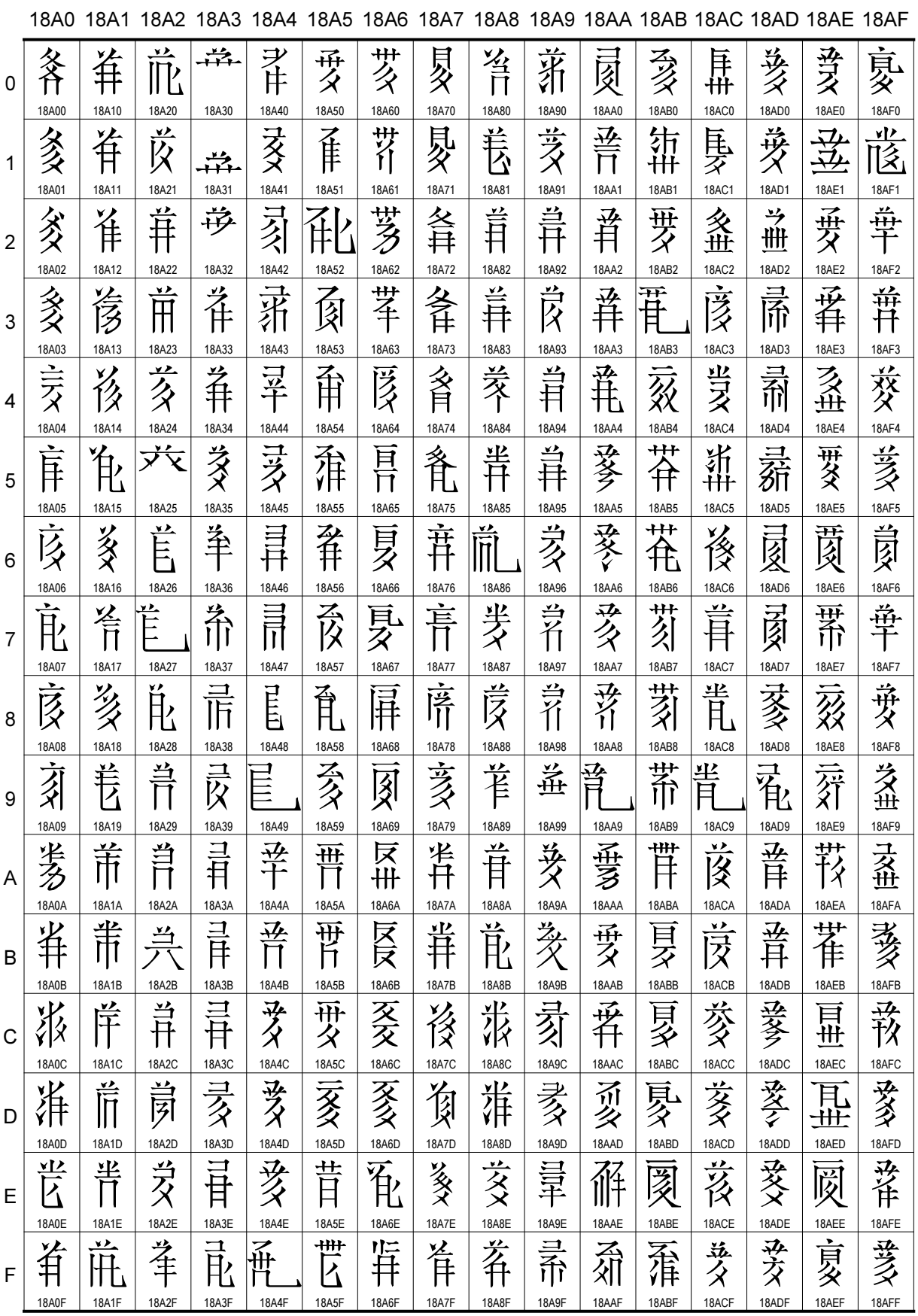
31C0 ㇀ CJK STROKE T
31C1 ㇁ CJK STROKE WG
31C2 ㇂ CJK STROKE XG
31C3 ㇃ CJK STROKE BXG
31C4 ㇄ CJK STROKE SW
31C5 ㇅ CJK STROKE HZZ
31C6 ㇆ CJK STROKE HZG
31C7 ㇇ CJK STROKE HP
31C8 ㇈ CJK STROKE HZWG
31C9 ㇉ CJK STROKE SZWG
31CA ㇊ CJK STROKE HZT
31CB ㇋ CJK STROKE HZZP
31CC ㇌ CJK STROKE HPWG
31CD ㇍ CJK STROKE HZW
31CE ㇎ CJK STROKE HZZZ
31CF ㇏ CJK STROKE N
31D0 ㇐ CJK STROKE H
31D1 ㇑ CJK STROKE S
31D2 ㇒ CJK STROKE P
31D3 ㇓ CJK STROKE SP
31D4 ㇔ CJK STROKE D
31D5 ㇕ CJK STROKE HZ
31D6 ㇖ CJK STROKE HG
31D7 ㇗ CJK STROKE SZ
31D8 ㇘ CJK STROKE SWZ
31D9 ㇙ CJK STROKE ST
31DA ㇚ CJK STROKE SG
31DB ㇛ CJK STROKE PD
31DC ㇜ CJK STROKE PZ
31DD ㇝ CJK STROKE TN
31DE ㇞ CJK STROKE SZZ
31DF ㇟ CJK STROKE SWG
31E0 ㇠ CJK STROKE HXWG
31E1 ㇡ CJK STROKE HZZZG
31E2 ㇢ CJK STROKE PG
31E3 ㇣ CJK STROKE Q

Additions for Tangut

31E4 ㇤ CJK STROKE HPZ
31E5 ㇥ CJK STROKE HPDT
31E6 ㇦ CJK STROKE HPZP
31E7 ㇧ CJK STROKE PDT

1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 188A 188B 188C 188D 188E 188F
0 18800 18810 18820 18830 18840 18850 18860 18870 18880 18890 188A0 188B0 188C0 188D0 188E0 188F0
1 18801 18811 18821 18831 18841 18851 18861 18871 18881 18891 188A1 188B1 188C1 188D1 188E1 188F1
2 18802 18812 18822 18832 18842 18852 18862 18872 18882 18892 188A2 188B2 188C2 188D2 188E2 188F2
3 18803 18813 18823 18833 18843 18853 18863 18873 18883 18893 188A3 188B3 188C3 188D3 188E3 188F3
4 18804 18814 18824 18834 18844 18854 18864 18874 18884 18894 188A4 188B4 188C4 188D4 188E4 188F4
5 18805 18815 18825 18835 18845 18855 18865 18875 18885 18895 188A5 188B5 188C5 188D5 188E5 188F5
6 18806 18816 18826 18836 18846 18856 18866 18876 18886 18896 188A6 188B6 188C6 188D6 188E6 188F6
7 18807 18817 18827 18837 18847 18857 18867 18877 18887 18897 188A7 188B7 188C7 188D7 188E7 188F7
8 18808 18818 18828 18838 18848 18858 18868 18878 18888 18898 188A8 188B8 188C8 188D8 188E8 188F8
9 18809 18819 18829 18839 18849 18859 18869 18879 18889 18899 188A9 188B9 188C9 188D9 188E9 188F9
A 1880A 1881A 1882A 1883A 1884A 1885A 1886A 1887A 1888A 1889A 188AA 188BA 188CA 188DA 188EA 188FA
B 1880B 1881B 1882B 1883B 1884B 1885B 1886B 1887B 1888B 1889B 188AB 188BB 188CB 188DB 188EB 188FB
C 1880C 1881C 1882C 1883C 1884C 1885C 1886C 1887C 1888C 1889C 188AC 188BC 188CC 188DC 188EC 188FC
D 1880D 1881D 1882D 1883D 1884D 1885D 1886D 1887D 1888D 1889D 188AD 188BD 188CD 188DD 188ED 188FD
E 1880E 1881E 1882E 1883E 1884E 1885E 1886E 1887E 1888E 1889E 188AE 188BE 188CE 188DE 188EE 188FE
F 1880F 1881F 1882F 1883F 1884F 1885F 1886F 1887F 1888F 1889F 188AF 188BF 188CF 188DF 188EF 188FF

1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 189A 189B 189C 189D 189E 189F
0 18900 18910 18920 18930 18940 18950 18960 18970 18980 18990 189A0 189B0 189C0 189D0 189E0 189F0
1 18901 18911 18921 18931 18941 18951 18961 18971 18981 18991 189A1 189B1 189C1 189D1 189E1 189F1
2 18902 18912 18922 18932 18942 18952 18962 18972 18982 18992 189A2 189B2 189C2 189D2 189E2 189F2
3 18903 18913 18923 18933 18943 18953 18963 18973 18983 18993 189A3 189B3 189C3 189D3 189E3 189F3
4 18904 18914 18924 18934 18944 18954 18964 18974 18984 18994 189A4 189B4 189C4 189D4 189E4 189F4
5 18905 18915 18925 18935 18945 18955 18965 18975 18985 18995 189A5 189B5 189C5 189D5 189E5 189F5
6 18906 18916 18926 18936 18946 18956 18966 18976 18986 18996 189A6 189B6 189C6 189D6 189E6 189F6
7 18907 18917 18927 18937 18947 18957 18967 18977 18987 18997 189A7 189B7 189C7 189D7 189E7 189F7
8 18908 18918 18928 18938 18948 18958 18968 18978 18988 18998 189A8 189B8 189C8 189D8 189E8 189F8
9 18909 18919 18929 18939 18949 18959 18969 18979 18989 18999 189A9 189B9 189C9 189D9 189E9 189F9
A 1890A 1891A 1892A 1893A 1894A 1895A 1896A 1897A 1898A 1899A 189AA 189BA 189CA 189DA 189EA 189FA
B 1890B 1891B 1892B 1893B 1894B 1895B 1896B 1897B 1898B 1899B 189AB 189BB 189CB 189DB 189EB 189FB
C 1890C 1891C 1892C 1893C 1894C 1895C 1896C 1897C 1898C 1899C 189AC 189BC 189CC 189DC 189EC 189FC
D 1890D 1891D 1892D 1893D 1894D 1895D 1896D 1897D 1898D 1899D 189AD 189BD 189CD 189DD 189ED 189FD
E 1890E 1891E 1892E 1893E 1894E 1895E 1896E 1897E 1898E 1899E 189AE 189BE 189CE 189DE 189EE 189FE
F 1890F 1891F 1892F 1893F 1894F 1895F 1896F 1897F 1898F 1899F 189AF 189BF 189CF 189DF 189EF 189FF


18A0 18A1 18A2 18A3 18A4 18A5 18A6 18A7 18A8 18A9 18AA 18AB 18AC 18AD 18AE 18AF
0 18A00 18A10 18A20 18A30 18A40 18A50 18A60 18A70 18A80 18A90 18AA0 18AB0 18AC0 18AD0 18AE0 18AF0
1 18A01 18A11 18A21 18A31 18A41 18A51 18A61 18A71 18A81 18A91 18AA1 18AB1 18AC1 18AD1 18AE1 18AF1
2 18A02 18A12 18A22 18A32 18A42 18A52 18A62 18A72 18A82 18A92 18AA2 18AB2 18AC2 18AD2 18AE2 18AF2
3 18A03 18A13 18A23 18A33 18A43 18A53 18A63 18A73 18A83 18A93 18AA3 18AB3 18AC3 18AD3 18AE3 18AF3
4 18A04 18A14 18A24 18A34 18A44 18A54 18A64 18A74 18A84 18A94 18AA4 18AB4 18AC4 18AD4 18AE4 18AF4
5 18A05 18A15 18A25 18A35 18A45 18A55 18A65 18A75 18A85 18A95 18AA5 18AB5 18AC5 18AD5 18AE5 18AF5
6 18A06 18A16 18A26 18A36 18A46 18A56 18A66 18A76 18A86 18A96 18AA6 18AB6 18AC6 18AD6 18AE6 18AF6
7 18A07 18A17 18A27 18A37 18A47 18A57 18A67 18A77 18A87 18A97 18AA7 18AB7 18AC7 18AD7 18AE7 18AF7
8 18A08 18A18 18A28 18A38 18A48 18A58 18A68 18A78 18A88 18A98 18AA8 18AB8 18AC8 18AD8 18AE8 18AF8
9 18A09 18A19 18A29 18A39 18A49 18A59 18A69 18A79 18A89 18A99 18AA9 18AB9 18AC9 18AD9 18AE9 18AF9
A 18A0A 18A1A 18A2A 18A3A 18A4A 18A5A 18A6A 18A7A 18A8A 18A9A 18AAA 18ABA 18ACA 18ADA 18AEA 18AFA
B 18A0B 18A1B 18A2B 18A3B 18A4B 18A5B 18A6B 18A7B 18A8B 18A9B 18AAB 18ABB 18ACB 18ADB 18AEB 18AFB
C 18A0C 18A1C 18A2C 18A3C 18A4C 18A5C 18A6C 18A7C 18A8C 18A9C 18AAC 18ABC 18ACC 18ADC 18AEC 18AFC
D 18A0D 18A1D 18A2D 18A3D 18A4D 18A5D 18A6D 18A7D 18A8D 18A9D 18AAD 18ABD 18ACD 18ADD 18AED 18AFD
E 18A0E 18A1E 18A2E 18A3E 18A4E 18A5E 18A6E 18A7E 18A8E 18A9E 18AAE 18ABE 18ACE 18ADE 18AEE 18AFE
F 18A0F 18A1F 18A2F 18A3F 18A4F 18A5F 18A6F 18A7F 18A8F 18A9F 18AAF 18ABF 18ACF 18ADF 18AEF 18AFF

	18B0	18B1	18B2	18B3	18B4	18B5	18B6	18B7	18B8	18B9	18BA	18BB	18BC	18BD	18BE	18BF
0	18B00	18B10	18B20													
1	18B01	18B11	18B21													
2	18B02	18B12														
3	18B03	18B13														
4	18B04	18B14														
5	18B05	18B15														
6	18B06	18B16														
7	18B07	18B17														
8	18B08	18B18														
9	18B09	18B19														
A	18B0A	18B1A														
B	18B0B	18B1B														
C	18B0C	18B1C														
D	18B0D	18B1D														
E	18B0E	18B1E														
F	18B0F	18B1F														

18800 TANGUT RADICAL R0001
18801 TANGUT RADICAL R0002
18802 TANGUT RADICAL R0003
18803 TANGUT RADICAL R0004
18804 TANGUT RADICAL R0005
18805 TANGUT RADICAL R0006
18806 TANGUT RADICAL R0007
18807 TANGUT RADICAL R0008
18808 TANGUT RADICAL R0009
18809 TANGUT RADICAL R0010
1880A TANGUT RADICAL R0011
1880B TANGUT RADICAL R0012
1880C TANGUT RADICAL R0013
1880D TANGUT RADICAL R0014
1880E TANGUT RADICAL R0015
1880F TANGUT RADICAL R0016
18810 TANGUT RADICAL R0017
18811 TANGUT RADICAL R0018
18812 TANGUT RADICAL R0019
18813 TANGUT RADICAL R0020
18814 TANGUT RADICAL R0021
18815 TANGUT RADICAL R0022
18816 TANGUT RADICAL R0023
18817 TANGUT RADICAL R0024
18818 TANGUT RADICAL R0025
18819 TANGUT RADICAL R0026
1881A TANGUT RADICAL R0027
1881B TANGUT RADICAL R0028
1881C TANGUT RADICAL R0029
1881D TANGUT RADICAL R0030
1881E TANGUT RADICAL R0031
1881F TANGUT RADICAL R0032
18820 TANGUT RADICAL R0033
18821 TANGUT RADICAL R0034
18822 TANGUT RADICAL R0035
18823 TANGUT RADICAL R0036
18824 TANGUT RADICAL R0037
18825 TANGUT RADICAL R0038
18826 TANGUT RADICAL R0039
18827 TANGUT RADICAL R0040
18828 TANGUT RADICAL R0041
18829 TANGUT RADICAL R0042
1882A TANGUT RADICAL R0043
1882B TANGUT RADICAL R0044
1882C TANGUT RADICAL R0045
1882D TANGUT RADICAL R0046
1882E TANGUT RADICAL R0047
1882F TANGUT RADICAL R0048
18830 TANGUT RADICAL R0049
18831 TANGUT RADICAL R0050
18832 TANGUT RADICAL R0051
18833 TANGUT RADICAL R0052
18834 TANGUT RADICAL R0053
18835 TANGUT RADICAL R0054
18836 TANGUT RADICAL R0055
18837 TANGUT RADICAL R0056
18838 TANGUT RADICAL R0057
18839 TANGUT RADICAL R0058
1883A TANGUT RADICAL R0059
1883B TANGUT RADICAL R0060
1883C TANGUT RADICAL R0061
1883D TANGUT RADICAL R0062
1883E TANGUT RADICAL R0063
1883F TANGUT RADICAL R0064
18840 TANGUT RADICAL R0065
18841 TANGUT RADICAL R0066
18842 TANGUT RADICAL R0067
18843 TANGUT RADICAL R0068
18844 TANGUT RADICAL R0069
18845 TANGUT RADICAL R0070
18846 TANGUT RADICAL R0071
18847 TANGUT RADICAL R0072
18848 TANGUT RADICAL R0073
18849 TANGUT RADICAL R0074
1884A TANGUT RADICAL R0075
1884B TANGUT RADICAL R0076
1884C TANGUT RADICAL R0077
1884D TANGUT RADICAL R0078
1884E TANGUT RADICAL R0079
1884F TANGUT RADICAL R0080
18850 TANGUT RADICAL R0081
18851 TANGUT RADICAL R0082
18852 TANGUT RADICAL R0083
18853 TANGUT RADICAL R0084
18854 TANGUT RADICAL R0085
18855 TANGUT RADICAL R0086
18856 TANGUT RADICAL R0087
18857 TANGUT RADICAL R0088
18858 TANGUT RADICAL R0089
18859 TANGUT RADICAL R0090
1885A TANGUT RADICAL R0091
1885B TANGUT RADICAL R0092
1885C TANGUT RADICAL R0093
1885D TANGUT RADICAL R0094
1885E TANGUT RADICAL R0095
1885F TANGUT RADICAL R0096
18860 TANGUT RADICAL R0097
18861 TANGUT RADICAL R0098
18862 TANGUT RADICAL R0099
18863 TANGUT RADICAL R0100
18864 TANGUT RADICAL R0101
18865 TANGUT RADICAL R0102
18866 TANGUT RADICAL R0103
18867 TANGUT RADICAL R0104
18868 TANGUT RADICAL R0105
18869 TANGUT RADICAL R0106
1886A TANGUT RADICAL R0107
1886B TANGUT RADICAL R0108
1886C TANGUT RADICAL R0109
1886D TANGUT RADICAL R0110
1886E TANGUT RADICAL R0111
1886F TANGUT RADICAL R0112
18870 TANGUT RADICAL R0113
18871 TANGUT RADICAL R0114
18872 TANGUT RADICAL R0115
18873 TANGUT RADICAL R0116
18874 TANGUT RADICAL R0117
18875 TANGUT RADICAL R0118
18876 TANGUT RADICAL R0119
18877 TANGUT RADICAL R0120

18878 TANGUT RADICAL R0121
18879 TANGUT RADICAL R0122
1887A TANGUT RADICAL R0123
1887B TANGUT RADICAL R0124
1887C TANGUT RADICAL R0125
1887D TANGUT RADICAL R0126
1887E TANGUT RADICAL R0127
1887F TANGUT RADICAL R0128
18880 TANGUT RADICAL R0129
18881 TANGUT RADICAL R0130
18882 TANGUT RADICAL R0131
18883 TANGUT RADICAL R0132
18884 TANGUT RADICAL R0133
18885 TANGUT RADICAL R0134
18886 TANGUT RADICAL R0135
18887 TANGUT RADICAL R0136
18888 TANGUT RADICAL R0137
18889 TANGUT RADICAL R0138
1888A TANGUT RADICAL R0139
1888B TANGUT RADICAL R0140
1888C TANGUT RADICAL R0141
1888D TANGUT RADICAL R0142
1888E TANGUT RADICAL R0143
1888F TANGUT RADICAL R0144
18890 TANGUT RADICAL R0145
18891 TANGUT RADICAL R0146
18892 TANGUT RADICAL R0147
18893 TANGUT RADICAL R0148
18894 TANGUT RADICAL R0149
18895 TANGUT RADICAL R0150
18896 TANGUT RADICAL R0151
18897 TANGUT RADICAL R0152
18898 TANGUT RADICAL R0153
18899 TANGUT RADICAL R0154
1889A TANGUT RADICAL R0155
1889B TANGUT RADICAL R0156
1889C TANGUT RADICAL R0157
1889D TANGUT RADICAL R0158
1889E TANGUT RADICAL R0159
1889F TANGUT RADICAL R0160
188A0 TANGUT RADICAL R0161
188A1 TANGUT RADICAL R0162
188A2 TANGUT RADICAL R0163
188A3 TANGUT RADICAL R0164
188A4 TANGUT RADICAL R0165
188A5 TANGUT RADICAL R0166
188A6 TANGUT RADICAL R0167
188A7 TANGUT RADICAL R0168
188A8 TANGUT RADICAL R0169
188A9 TANGUT RADICAL R0170
188AA TANGUT RADICAL R0171
188AB TANGUT RADICAL R0172
188AC TANGUT RADICAL R0173
188AD TANGUT RADICAL R0174
188AE TANGUT RADICAL R0175
188AF TANGUT RADICAL R0176
188B0 TANGUT RADICAL R0177
188B1 TANGUT RADICAL R0178
188B2 TANGUT RADICAL R0179
188B3 TANGUT RADICAL R0180
188B4 TANGUT RADICAL R0181
188B5 TANGUT RADICAL R0182
188B6 TANGUT RADICAL R0183
188B7 TANGUT RADICAL R0184
188B8 TANGUT RADICAL R0185
188B9 TANGUT RADICAL R0186
188BA TANGUT RADICAL R0187
188BB TANGUT RADICAL R0188
188BC TANGUT RADICAL R0189
188BD TANGUT RADICAL R0190
188BE TANGUT RADICAL R0191
188BF TANGUT RADICAL R0192
188C0 TANGUT RADICAL R0193
188C1 TANGUT RADICAL R0194
188C2 TANGUT RADICAL R0195
188C3 TANGUT RADICAL R0196
188C4 TANGUT RADICAL R0197
188C5 TANGUT RADICAL R0198
188C6 TANGUT RADICAL R0199
188C7 TANGUT RADICAL R0200
188C8 TANGUT RADICAL R0201
188C9 TANGUT RADICAL R0202
188CA TANGUT RADICAL R0203
188CB TANGUT RADICAL R0204
188CC TANGUT RADICAL R0205
188CD TANGUT RADICAL R0206
188CE TANGUT RADICAL R0207
188CF TANGUT RADICAL R0208
188D0 TANGUT RADICAL R0209
188D1 TANGUT RADICAL R0210
188D2 TANGUT RADICAL R0211
188D3 TANGUT RADICAL R0212
188D4 TANGUT RADICAL R0213
188D5 TANGUT RADICAL R0214
188D6 TANGUT RADICAL R0215
188D7 TANGUT RADICAL R0216
188D8 TANGUT RADICAL R0217
188D9 TANGUT RADICAL R0218
188DA TANGUT RADICAL R0219
188DB TANGUT RADICAL R0220
188DC TANGUT RADICAL R0221
188DD TANGUT RADICAL R0222
188DE TANGUT RADICAL R0223
188DF TANGUT RADICAL R0224
188E0 TANGUT RADICAL R0225
188E1 TANGUT RADICAL R0226
188E2 TANGUT RADICAL R0227
188E3 TANGUT RADICAL R0228
188E4 TANGUT RADICAL R0229
188E5 TANGUT RADICAL R0230
188E6 TANGUT RADICAL R0231
188E7 TANGUT RADICAL R0232
188E8 TANGUT RADICAL R0233
188E9 TANGUT RADICAL R0234
188EA TANGUT RADICAL R0235
188EB TANGUT RADICAL R0236
188EC TANGUT RADICAL R0237
188ED TANGUT RADICAL R0238
188EE TANGUT RADICAL R0239
188EF TANGUT RADICAL R0240

188F0 TANGUT RADICAL R0241
188F1 TANGUT RADICAL R0242
188F2 TANGUT RADICAL R0243
188F3 TANGUT RADICAL R0244
188F4 TANGUT RADICAL R0245
188F5 TANGUT RADICAL R0246
188F6 TANGUT RADICAL R0247
188F7 TANGUT RADICAL R0248
188F8 TANGUT RADICAL R0249
188F9 TANGUT RADICAL R0250
188FA TANGUT RADICAL R0251
188FB TANGUT RADICAL R0252
188FC TANGUT RADICAL R0253
188FD TANGUT RADICAL R0254
188FE TANGUT RADICAL R0255
188FF TANGUT RADICAL R0256
18900 TANGUT RADICAL R0257
18901 TANGUT RADICAL R0258
18902 TANGUT RADICAL R0259
18903 TANGUT RADICAL R0260
18904 TANGUT RADICAL R0261
18905 TANGUT RADICAL R0262
18906 TANGUT RADICAL R0263
18907 TANGUT RADICAL R0264
18908 TANGUT RADICAL R0265
18909 TANGUT RADICAL R0266
1890A TANGUT RADICAL R0267
1890B TANGUT RADICAL R0268
1890C TANGUT RADICAL R0269
1890D TANGUT RADICAL R0270
1890E TANGUT RADICAL R0271
1890F TANGUT RADICAL R0272
18910 TANGUT RADICAL R0273
18911 TANGUT RADICAL R0274
18912 TANGUT RADICAL R0275
18913 TANGUT RADICAL R0276
18914 TANGUT RADICAL R0277
18915 TANGUT RADICAL R0278
18916 TANGUT RADICAL R0279
18917 TANGUT RADICAL R0280
18918 TANGUT RADICAL R0281
18919 TANGUT RADICAL R0282
1891A TANGUT RADICAL R0283
1891B TANGUT RADICAL R0284
1891C TANGUT RADICAL R0285
1891D TANGUT RADICAL R0286
1891E TANGUT RADICAL R0287
1891F TANGUT RADICAL R0288
18920 TANGUT RADICAL R0289
18921 TANGUT RADICAL R0290
18922 TANGUT RADICAL R0291
18923 TANGUT RADICAL R0292
18924 TANGUT RADICAL R0293
18925 TANGUT RADICAL R0294
18926 TANGUT RADICAL R0295
18927 TANGUT RADICAL R0296
18928 TANGUT RADICAL R0297
18929 TANGUT RADICAL R0298
1892A TANGUT RADICAL R0299
1892B TANGUT RADICAL R0300
1892C TANGUT RADICAL R0301
1892D TANGUT RADICAL R0302
1892E TANGUT RADICAL R0303
1892F TANGUT RADICAL R0304
18930 TANGUT RADICAL R0305
18931 TANGUT RADICAL R0306
18932 TANGUT RADICAL R0307
18933 TANGUT RADICAL R0308
18934 TANGUT RADICAL R0309
18935 TANGUT RADICAL R0310
18936 TANGUT RADICAL R0311
18937 TANGUT RADICAL R0312
18938 TANGUT RADICAL R0313
18939 TANGUT RADICAL R0314
1893A TANGUT RADICAL R0315
1893B TANGUT RADICAL R0316
1893C TANGUT RADICAL R0317
1893D TANGUT RADICAL R0318
1893E TANGUT RADICAL R0319
1893F TANGUT RADICAL R0320
18940 TANGUT RADICAL R0321
18941 TANGUT RADICAL R0322
18942 TANGUT RADICAL R0323
18943 TANGUT RADICAL R0324
18944 TANGUT RADICAL R0325
18945 TANGUT RADICAL R0326
18946 TANGUT RADICAL R0327
18947 TANGUT RADICAL R0328
18948 TANGUT RADICAL R0329
18949 TANGUT RADICAL R0330
1894A TANGUT RADICAL R0331
1894B TANGUT RADICAL R0332
1894C TANGUT RADICAL R0333
1894D TANGUT RADICAL R0334
1894E TANGUT RADICAL R0335
1894F TANGUT RADICAL R0336
18950 TANGUT RADICAL R0337
18951 TANGUT RADICAL R0338
18952 TANGUT RADICAL R0339
18953 TANGUT RADICAL R0340
18954 TANGUT RADICAL R0341
18955 TANGUT RADICAL R0342
18956 TANGUT RADICAL R0343
18957 TANGUT RADICAL R0344
18958 TANGUT RADICAL R0345
18959 TANGUT RADICAL R0346
1895A TANGUT RADICAL R0347
1895B TANGUT RADICAL R0348
1895C TANGUT RADICAL R0349
1895D TANGUT RADICAL R0350
1895E TANGUT RADICAL R0351
1895F TANGUT RADICAL R0352
18960 TANGUT RADICAL R0353
18961 TANGUT RADICAL R0354
18962 TANGUT RADICAL R0355
18963 TANGUT RADICAL R0356
18964 TANGUT RADICAL R0357
18965 TANGUT RADICAL R0358
18966 TANGUT RADICAL R0359
18967 TANGUT RADICAL R0360

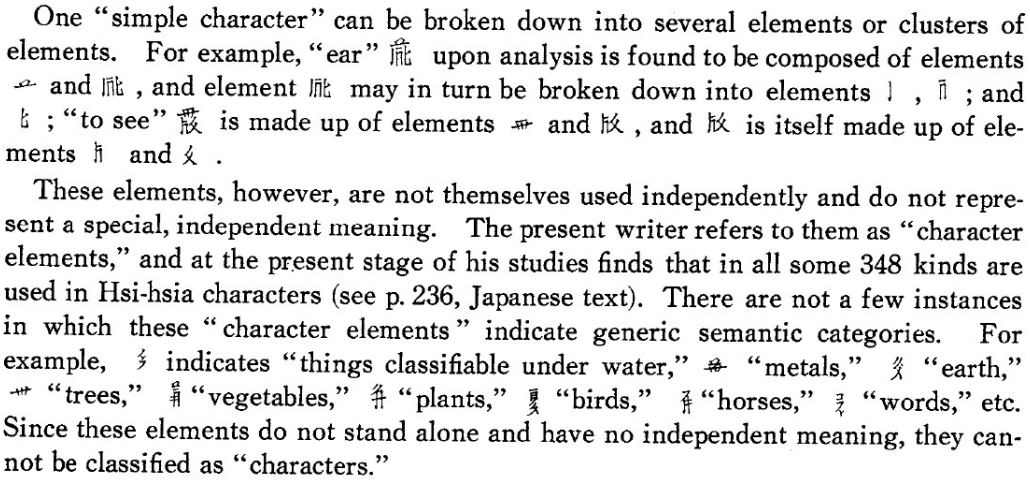
18968 TANGUT RADICAL R0361
18969 TANGUT RADICAL R0362
1896A TANGUT RADICAL R0363
1896B TANGUT RADICAL R0364
1896C TANGUT RADICAL R0365
1896D TANGUT RADICAL R0366
1896E TANGUT RADICAL R0367
1896F TANGUT RADICAL R0368
18970 TANGUT RADICAL R0369
18971 TANGUT RADICAL R0370
18972 TANGUT RADICAL R0371
18973 TANGUT RADICAL R0372
18974 TANGUT RADICAL R0373
18975 TANGUT RADICAL R0374
18976 TANGUT RADICAL R0375
18977 TANGUT RADICAL R0376
18978 TANGUT RADICAL R0377
18979 TANGUT RADICAL R0378
1897A TANGUT RADICAL R0379
1897B TANGUT RADICAL R0380
1897C TANGUT RADICAL R0381
1897D TANGUT RADICAL R0382
1897E TANGUT RADICAL R0383
1897F TANGUT RADICAL R0384
18980 TANGUT RADICAL R0385
18981 TANGUT RADICAL R0386
18982 TANGUT RADICAL R0387
18983 TANGUT RADICAL R0388
18984 TANGUT RADICAL R0389
18985 TANGUT RADICAL R0390
18986 TANGUT RADICAL R0391
18987 TANGUT RADICAL R0392
18988 TANGUT RADICAL R0393
18989 TANGUT RADICAL R0394
1898A TANGUT RADICAL R0395
1898B TANGUT RADICAL R0396
1898C TANGUT RADICAL R0397
1898D TANGUT RADICAL R0398
1898E TANGUT RADICAL R0399
1898F TANGUT RADICAL R0400
18990 TANGUT RADICAL R0401
18991 TANGUT RADICAL R0402
18992 TANGUT RADICAL R0403
18993 TANGUT RADICAL R0404
18994 TANGUT RADICAL R0405
18995 TANGUT RADICAL R0406
18996 TANGUT RADICAL R0407
18997 TANGUT RADICAL R0408
18998 TANGUT RADICAL R0409
18999 TANGUT RADICAL R0410
1899A TANGUT RADICAL R0411
1899B TANGUT RADICAL R0412
1899C TANGUT RADICAL R0413
1899D TANGUT RADICAL R0414
1899E TANGUT RADICAL R0415
1899F TANGUT RADICAL R0416
189A0 TANGUT RADICAL R0417
189A1 TANGUT RADICAL R0418
189A2 TANGUT RADICAL R0419
189A3 TANGUT RADICAL R0420
189A4 TANGUT RADICAL R0421
189A5 TANGUT RADICAL R0422
189A6 TANGUT RADICAL R0423
189A7 TANGUT RADICAL R0424
189A8 TANGUT RADICAL R0425
189A9 TANGUT RADICAL R0426
189AA TANGUT RADICAL R0427
189AB TANGUT RADICAL R0428
189AC TANGUT RADICAL R0429
189AD TANGUT RADICAL R0430
189AE TANGUT RADICAL R0431
189AF TANGUT RADICAL R0432
189B0 TANGUT RADICAL R0433
189B1 TANGUT RADICAL R0434
189B2 TANGUT RADICAL R0435
189B3 TANGUT RADICAL R0436
189B4 TANGUT RADICAL R0437
189B5 TANGUT RADICAL R0438
189B6 TANGUT RADICAL R0439
189B7 TANGUT RADICAL R0440
189B8 TANGUT RADICAL R0441
189B9 TANGUT RADICAL R0442
189BA TANGUT RADICAL R0443
189BB TANGUT RADICAL R0444
189BC TANGUT RADICAL R0445
189BD TANGUT RADICAL R0446
189BE TANGUT RADICAL R0447
189BF TANGUT RADICAL R0448
189C0 TANGUT RADICAL R0449
189C1 TANGUT RADICAL R0450
189C2 TANGUT RADICAL R0451
189C3 TANGUT RADICAL R0452
189C4 TANGUT RADICAL R0453
189C5 TANGUT RADICAL R0454
189C6 TANGUT RADICAL R0455
189C7 TANGUT RADICAL R0456
189C8 TANGUT RADICAL R0457
189C9 TANGUT RADICAL R0458
189CA TANGUT RADICAL R0459
189CB TANGUT RADICAL R0460
189CC TANGUT RADICAL R0461
189CD TANGUT RADICAL R0462
189CE TANGUT RADICAL R0463
189CF TANGUT RADICAL R0464
189D0 TANGUT RADICAL R0465
189D1 TANGUT RADICAL R0466
189D2 TANGUT RADICAL R0467
189D3 TANGUT RADICAL R0468
189D4 TANGUT RADICAL R0469
189D5 TANGUT RADICAL R0470
189D6 TANGUT RADICAL R0471
189D7 TANGUT RADICAL R0472
189D8 TANGUT RADICAL R0473
189D9 TANGUT RADICAL R0474
189DA TANGUT RADICAL R0475
189DB TANGUT RADICAL R0476
189DC TANGUT RADICAL R0477
189DD TANGUT RADICAL R0478
189DE TANGUT RADICAL R0479
189DF TANGUT RADICAL R0480

189E0 TANGUT RADICAL R0481
189E1 TANGUT RADICAL R0482
189E2 TANGUT RADICAL R0483
189E3 TANGUT RADICAL R0484
189E4 TANGUT RADICAL R0485
189E5 TANGUT RADICAL R0486
189E6 TANGUT RADICAL R0487
189E7 TANGUT RADICAL R0488
189E8 TANGUT RADICAL R0489
189E9 TANGUT RADICAL R0490
189EA TANGUT RADICAL R0491
189EB TANGUT RADICAL R0492
189EC TANGUT RADICAL R0493
189ED TANGUT RADICAL R0494
189EE TANGUT RADICAL R0495
189EF TANGUT RADICAL R0496
189F0 TANGUT RADICAL R0497
189F1 TANGUT RADICAL R0498
189F2 TANGUT RADICAL R0499
189F3 TANGUT RADICAL R0500
189F4 TANGUT RADICAL R0501
189F5 TANGUT RADICAL R0502
189F6 TANGUT RADICAL R0503
189F7 TANGUT RADICAL R0504
189F8 TANGUT RADICAL R0505
189F9 TANGUT RADICAL R0506
189FA TANGUT RADICAL R0507
189FB TANGUT RADICAL R0508
189FC TANGUT RADICAL R0509
189FD TANGUT RADICAL R0510
189FE TANGUT RADICAL R0511
189FF TANGUT RADICAL R0512
18A00 TANGUT RADICAL R0513
18A01 TANGUT RADICAL R0514
18A02 TANGUT RADICAL R0515
18A03 TANGUT RADICAL R0516
18A04 TANGUT RADICAL R0517
18A05 TANGUT RADICAL R0518
18A06 TANGUT RADICAL R0519
18A07 TANGUT RADICAL R0520
18A08 TANGUT RADICAL R0521
18A09 TANGUT RADICAL R0522
18A0A TANGUT RADICAL R0523
18A0B TANGUT RADICAL R0524
18A0C TANGUT RADICAL R0525
18A0D TANGUT RADICAL R0526
18A0E TANGUT RADICAL R0527
18A0F TANGUT RADICAL R0528
18A10 TANGUT RADICAL R0529
18A11 TANGUT RADICAL R0530
18A12 TANGUT RADICAL R0531
18A13 TANGUT RADICAL R0532
18A14 TANGUT RADICAL R0533
18A15 TANGUT RADICAL R0534
18A16 TANGUT RADICAL R0535
18A17 TANGUT RADICAL R0536
18A18 TANGUT RADICAL R0537
18A19 TANGUT RADICAL R0538
18A1A TANGUT RADICAL R0539
18A1B TANGUT RADICAL R0540
18A1C TANGUT RADICAL R0541
18A1D TANGUT RADICAL R0542
18A1E TANGUT RADICAL R0543
18A1F TANGUT RADICAL R0544
18A20 TANGUT RADICAL R0545
18A21 TANGUT RADICAL R0546
18A22 TANGUT RADICAL R0547
18A23 TANGUT RADICAL R0548
18A24 TANGUT RADICAL R0549
18A25 TANGUT RADICAL R0550
18A26 TANGUT RADICAL R0551
18A27 TANGUT RADICAL R0552
18A28 TANGUT RADICAL R0553
18A29 TANGUT RADICAL R0554
18A2A TANGUT RADICAL R0555
18A2B TANGUT RADICAL R0556
18A2C TANGUT RADICAL R0557
18A2D TANGUT RADICAL R0558
18A2E TANGUT RADICAL R0559
18A2F TANGUT RADICAL R0560
18A30 TANGUT RADICAL R0561
18A31 TANGUT RADICAL R0562
18A32 TANGUT RADICAL R0563
18A33 TANGUT RADICAL R0564
18A34 TANGUT RADICAL R0565
18A35 TANGUT RADICAL R0566
18A36 TANGUT RADICAL R0567
18A37 TANGUT RADICAL R0568
18A38 TANGUT RADICAL R0569
18A39 TANGUT RADICAL R0570
18A3A TANGUT RADICAL R0571
18A3B TANGUT RADICAL R0572
18A3C TANGUT RADICAL R0573
18A3D TANGUT RADICAL R0574
18A3E TANGUT RADICAL R0575
18A3F TANGUT RADICAL R0576
18A40 TANGUT RADICAL R0577
18A41 TANGUT RADICAL R0578
18A42 TANGUT RADICAL R0579
18A43 TANGUT RADICAL R0580
18A44 TANGUT RADICAL R0581
18A45 TANGUT RADICAL R0582
18A46 TANGUT RADICAL R0583
18A47 TANGUT RADICAL R0584
18A48 TANGUT RADICAL R0585
18A49 TANGUT RADICAL R0586
18A4A TANGUT RADICAL R0587
18A4B TANGUT RADICAL R0588
18A4C TANGUT RADICAL R0589
18A4D TANGUT RADICAL R0590
18A4E TANGUT RADICAL R0591
18A4F TANGUT RADICAL R0592
18A50 TANGUT RADICAL R0593
18A51 TANGUT RADICAL R0594
18A52 TANGUT RADICAL R0595
18A53 TANGUT RADICAL R0596
18A54 TANGUT RADICAL R0597
18A55 TANGUT RADICAL R0598
18A56 TANGUT RADICAL R0599
18A57 TANGUT RADICAL R0600

18A58 TANGUT RADICAL R0601
18A59 TANGUT RADICAL R0602
18A5A TANGUT RADICAL R0603
18A5B TANGUT RADICAL R0604
18A5C TANGUT RADICAL R0605
18A5D TANGUT RADICAL R0606
18A5E TANGUT RADICAL R0607
18A5F TANGUT RADICAL R0608
18A60 TANGUT RADICAL R0609
18A61 TANGUT RADICAL R0610
18A62 TANGUT RADICAL R0611
18A63 TANGUT RADICAL R0612
18A64 TANGUT RADICAL R0613
18A65 TANGUT RADICAL R0614
18A66 TANGUT RADICAL R0615
18A67 TANGUT RADICAL R0616
18A68 TANGUT RADICAL R0617
18A69 TANGUT RADICAL R0618
18A6A TANGUT RADICAL R0619
18A6B TANGUT RADICAL R0620
18A6C TANGUT RADICAL R0621
18A6D TANGUT RADICAL R0622
18A6E TANGUT RADICAL R0623
18A6F TANGUT RADICAL R0624
18A70 TANGUT RADICAL R0625
18A71 TANGUT RADICAL R0626
18A72 TANGUT RADICAL R0627
18A73 TANGUT RADICAL R0628
18A74 TANGUT RADICAL R0629
18A75 TANGUT RADICAL R0630
18A76 TANGUT RADICAL R0631
18A77 TANGUT RADICAL R0632
18A78 TANGUT RADICAL R0633
18A79 TANGUT RADICAL R0634
18A7A TANGUT RADICAL R0635
18A7B TANGUT RADICAL R0636
18A7C TANGUT RADICAL R0637
18A7D TANGUT RADICAL R0638
18A7E TANGUT RADICAL R0639
18A7F TANGUT RADICAL R0640
18A80 TANGUT RADICAL R0641
18A81 TANGUT RADICAL R0642
18A82 TANGUT RADICAL R0643
18A83 TANGUT RADICAL R0644
18A84 TANGUT RADICAL R0645
18A85 TANGUT RADICAL R0646
18A86 TANGUT RADICAL R0647
18A87 TANGUT RADICAL R0648
18A88 TANGUT RADICAL R0649
18A89 TANGUT RADICAL R0650
18A8A TANGUT RADICAL R0651
18A8B TANGUT RADICAL R0652
18A8C TANGUT RADICAL R0653
18A8D TANGUT RADICAL R0654
18A8E TANGUT RADICAL R0655
18A8F TANGUT RADICAL R0656
18A90 TANGUT RADICAL R0657
18A91 TANGUT RADICAL R0658
18A92 TANGUT RADICAL R0659
18A93 TANGUT RADICAL R0660
18A94 TANGUT RADICAL R0661
18A95 TANGUT RADICAL R0662
18A96 TANGUT RADICAL R0663
18A97 TANGUT RADICAL R0664
18A98 TANGUT RADICAL R0665
18A99 TANGUT RADICAL R0666
18A9A TANGUT RADICAL R0667
18A9B TANGUT RADICAL R0668
18A9C TANGUT RADICAL R0669
18A9D TANGUT RADICAL R0670
18A9E TANGUT RADICAL R0671
18A9F TANGUT RADICAL R0672
18AA0 TANGUT RADICAL R0673
18AA1 TANGUT RADICAL R0674
18AA2 TANGUT RADICAL R0675
18AA3 TANGUT RADICAL R0676
18AA4 TANGUT RADICAL R0677
18AA5 TANGUT RADICAL R0678
18AA6 TANGUT RADICAL R0679
18AA7 TANGUT RADICAL R0680
18AA8 TANGUT RADICAL R0681
18AA9 TANGUT RADICAL R0682
18AAA TANGUT RADICAL R0683
18AAB TANGUT RADICAL R0684
18AAC TANGUT RADICAL R0685
18AAD TANGUT RADICAL R0686
18AAE TANGUT RADICAL R0687
18AAF TANGUT RADICAL R0688
18AB0 TANGUT RADICAL R0689
18AB1 TANGUT RADICAL R0690
18AB2 TANGUT RADICAL R0691
18AB3 TANGUT RADICAL R0692
18AB4 TANGUT RADICAL R0693
18AB5 TANGUT RADICAL R0694
18AB6 TANGUT RADICAL R0695
18AB7 TANGUT RADICAL R0696
18AB8 TANGUT RADICAL R0697
18AB9 TANGUT RADICAL R0698
18ABA TANGUT RADICAL R0699
18ABB TANGUT RADICAL R0700
18ABC TANGUT RADICAL R0701
18ABD TANGUT RADICAL R0702
18ABE TANGUT RADICAL R0703
18ABF TANGUT RADICAL R0704
18AC0 TANGUT RADICAL R0705
18AC1 TANGUT RADICAL R0706
18AC2 TANGUT RADICAL R0707
18AC3 TANGUT RADICAL R0708
18AC4 TANGUT RADICAL R0709
18AC5 TANGUT RADICAL R0710
18AC6 TANGUT RADICAL R0711
18AC7 TANGUT RADICAL R0712
18AC8 TANGUT RADICAL R0713
18AC9 TANGUT RADICAL R0714
18ACA TANGUT RADICAL R0715
18ACB TANGUT RADICAL R0716
18ACC TANGUT RADICAL R0717
18ACD TANGUT RADICAL R0718
18ACE TANGUT RADICAL R0719
18ACF TANGUT RADICAL R0720

18AD0 TANGUT RADICAL R0721
18AD1 TANGUT RADICAL R0722
18AD2 TANGUT RADICAL R0723
18AD3 TANGUT RADICAL R0724
18AD4 TANGUT RADICAL R0725
18AD5 TANGUT RADICAL R0726
18AD6 TANGUT RADICAL R0727
18AD7 TANGUT RADICAL R0728
18AD8 TANGUT RADICAL R0729
18AD9 TANGUT RADICAL R0730
18ADA TANGUT RADICAL R0731
18ADB TANGUT RADICAL R0732
18ADC TANGUT RADICAL R0733
18ADD TANGUT RADICAL R0734
18ADE TANGUT RADICAL R0735
18ADF TANGUT RADICAL R0736
18AE0 TANGUT RADICAL R0737
18AE1 TANGUT RADICAL R0738
18AE2 TANGUT RADICAL R0739
18AE3 TANGUT RADICAL R0740
18AE4 TANGUT RADICAL R0741
18AE5 TANGUT RADICAL R0742
18AE6 TANGUT RADICAL R0743
18AE7 TANGUT RADICAL R0744
18AE8 TANGUT RADICAL R0745
18AE9 TANGUT RADICAL R0746
18AEA TANGUT RADICAL R0747
18AEB TANGUT RADICAL R0748
18AEC TANGUT RADICAL R0749
18AED TANGUT RADICAL R0750
18AEE TANGUT RADICAL R0751
18AEF TANGUT RADICAL R0752
18AF0 TANGUT RADICAL R0753
18AF1 TANGUT RADICAL R0754
18AF2 TANGUT RADICAL R0755
18AF3 TANGUT RADICAL R0756
18AF4 TANGUT RADICAL R0757
18AF5 TANGUT RADICAL R0758
18AF6 TANGUT RADICAL R0759
18AF7 TANGUT RADICAL R0760
18AF8 TANGUT RADICAL R0761
18AF9 TANGUT RADICAL R0762
18AFA TANGUT RADICAL R0763
18AFB TANGUT RADICAL R0764
18AFC TANGUT RADICAL R0765
18AFD TANGUT RADICAL R0766
18AFE TANGUT RADICAL R0767
18AFF TANGUT RADICAL R0768
18B00 TANGUT RADICAL R0769
18B01 TANGUT RADICAL R0770
18B02 TANGUT RADICAL R0771
18B03 TANGUT RADICAL R0772
18B04 TANGUT RADICAL R0773
18B05 TANGUT RADICAL R0774
18B06 TANGUT RADICAL R0775
18B07 TANGUT RADICAL R0776
18B08 TANGUT RADICAL R0777
18B09 TANGUT RADICAL R0778
18B0A TANGUT RADICAL R0779
18B0B TANGUT RADICAL R0780
18B0C TANGUT RADICAL R0781
18B0D TANGUT RADICAL R0782
18B0E TANGUT RADICAL R0783
18B0F TANGUT RADICAL R0784
18B10 TANGUT RADICAL R0785
18B11 TANGUT RADICAL R0786
18B12 TANGUT RADICAL R0787
18B13 TANGUT RADICAL R0788
18B14 TANGUT RADICAL R0789
18B15 TANGUT RADICAL R0790
18B16 TANGUT RADICAL R0791
18B17 TANGUT RADICAL R0792
18B18 TANGUT RADICAL R0793
18B19 TANGUT RADICAL R0794
18B1A TANGUT RADICAL R0795
18B1B TANGUT RADICAL R0796
18B1C TANGUT RADICAL R0797
18B1D TANGUT RADICAL R0798
18B1E TANGUT RADICAL R0799
18B1F TANGUT RADICAL R0800
18B20 TANGUT RADICAL R0801
18B21 TANGUT RADICAL R0802

14. Figures.



One "simple character" can be broken down into several elements or clusters of elements. For example, "ear" 𠂢 upon analysis is found to be composed of elements 𠂉 and 𠂢 , and element 𠂢 may in turn be broken down into elements 丨 , 𠂇 ; and 匕 ; "to see" 𠂢 is made up of elements 𠂉 and 𠂢 , and 𠂢 is itself made up of elements 𠂇 and 𠂢 .

These elements, however, are not themselves used independently and do not represent a special, independent meaning. The present writer refers to them as "character elements," and at the present stage of his studies finds that in all some 348 kinds are used in Hsi-hsia characters (see p. 236, Japanese text). There are not a few instances in which these "character elements" indicate generic semantic categories. For example, 彡 indicates "things classifiable under water," 𠂉 "metals," 𠂢 "earth," 𠂉 "trees," 𠂇 "vegetables," 𠂇 "plants," 𠂇 "birds," 𠂇 "horses," 𠂇 "words," etc. Since these elements do not stand alone and have no independent meaning, they cannot be classified as "characters."

Figure 1. Text from Nishida Tatsuo, *A Study of Hsi-Hsia Language* Vol.2 (Tokyo, 1966) p. 547.

Figure 2a. Radicals from Nevskij 1960, p. 669.

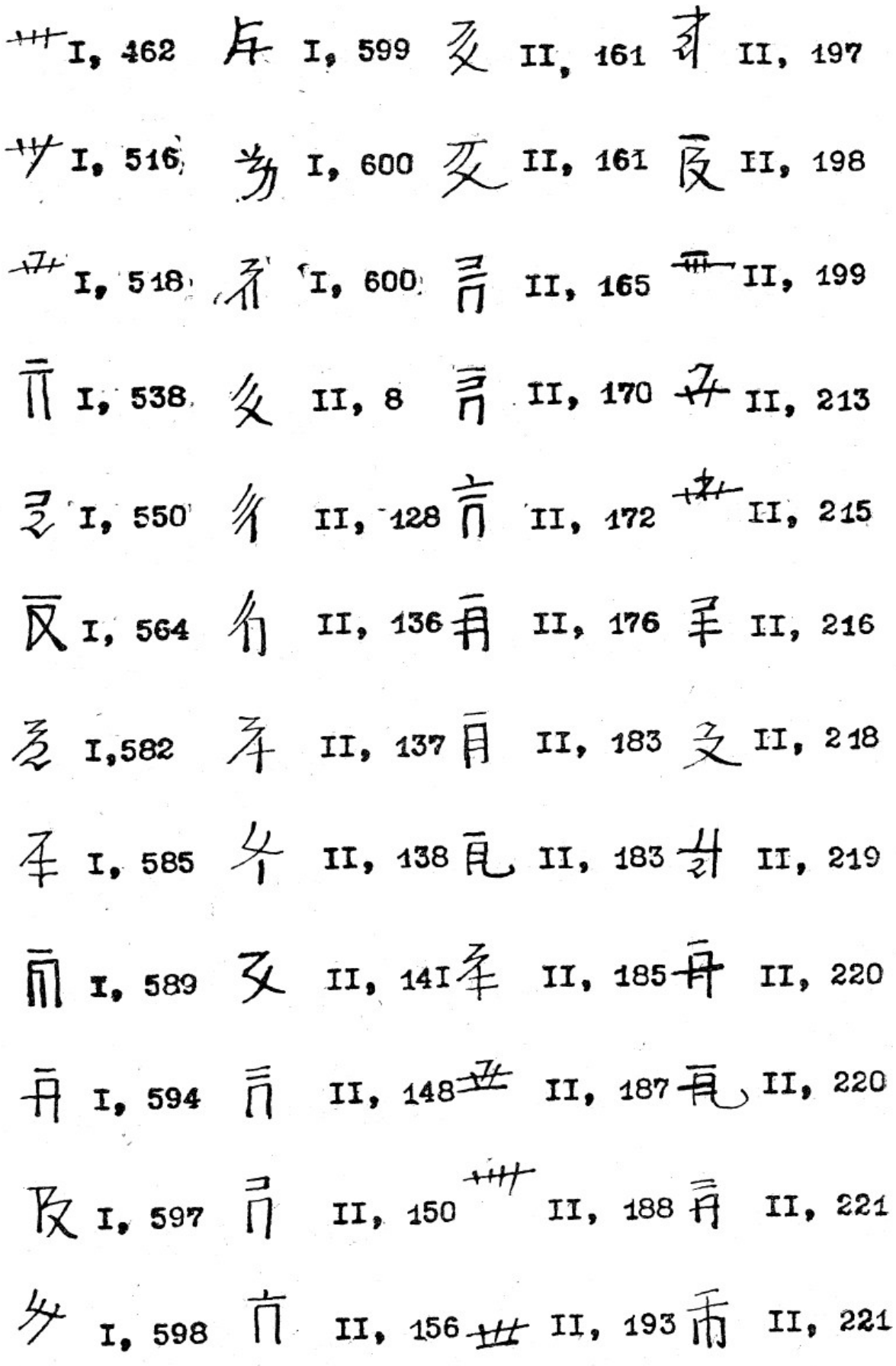


Figure 2b. Radicals from Nevskij 1960, p. 670.

Figure 2c. Radicals from Nevskij 1960, p. 671.

Figure 2d. Radicals from Nevskij 1960, p. 672.

Figure 2e. Radicals from Nevskij 1960, p. 673.

Figure 2f. Radicals from Nevskij 1960, p. 674.

Figure 2g. Radicals from Nevskij 1960, p. 675.

Figure 2h. Radicals from Nevskij 1960, p. 676.

Figure 2i. Radicals from Nevskij 1960, p. 677.

西夏文字小字典目次

001 ····· 309
002 ····· 310
003 ····· 311
004 ····· 311
005 ····· 312
006 ····· 312
007 ····· 313
008 ····· 319
009 ····· 320
010 ····· 322
011 ····· 324
012 ····· 324
013 ····· 324
014 ····· 324
015 ····· 324
016 ····· 324
017 ····· 324
018 ····· 334
019 ····· 337
020 ····· 338
021 ····· 339
022 ····· 340
023 ····· 340
024 ····· 340
025 ····· 340
026 ····· 340
027 ····· 343
028 ····· 344
029 ····· 346
030 ····· 346
031 ····· 346
032 ····· 347
033 ····· 347
034 ····· 348
035 ····· 348
036 ····· 348
037 ····· 348
038 ····· 349
039 ····· 349
040 ····· 353
041 ····· 353
042 ····· 359
043 ····· 359
044 ····· 359
045 ····· 359
046 ····· 360
047 ····· 360
048 ····· 361
049 ····· 361
050 ····· 362
051 ····· 362
052 ····· 363
053 ····· 363
054 ····· 363
055 ····· 365
056 ····· 364
057 ····· 365
058 ····· 365
059 ····· 365
060 ····· 366
061 ····· 366
062 ····· 367
063 ····· 367
064 ····· 367
065 ····· 367
066 ····· 367
067 ····· 367
068 ····· 367
069 ····· 368
070 ····· 368
071 ····· 369
072 ····· 369
073 ····· 369
074 ····· 370
074b ····· 370
075 ····· 370
076 ····· 371
077 ····· 371
078 ····· 371
079 ····· 372
080 ····· 372

— 305 —

Figure 3a. Radicals from Nishida 1964, p. 305.

081 ····· 373
082 ····· 374
083 ····· 374
084 ····· 374
085 ····· 374
086 ····· 375
087 ····· 375
088 ····· 376
089 ····· 376
090 ····· 377
091 ····· 377
092 ····· 377
093 ····· 377
094 ····· 377
095 ····· 377
096 ····· 377
097 ····· 378
098 ····· 378
099 ····· 379
100 ····· 380
101 ····· 380
102 ····· 380
103 ····· 382
104 ····· 383
105 ····· 383
106 ····· 384
107 ····· 385
108 ····· 386
109 ····· 387
110 ····· 388
111 ····· 389
112 ····· 389
113 ····· 390
114 ····· 390
115 ····· 390
116 ····· 390
117 ····· 391
118 ····· 391
119 ····· 391
120 ····· 391
121 ····· 391
122 ····· 392
123 ····· 392
123b ····· 394
124 ····· 394
125 ····· 394
126 ····· 394
127 ····· 394
128 ····· 394
129 ····· 395
130 ····· 395
131 ····· 395
132 ····· 395
133 ····· 395
134 ····· 396
135 ····· 396
136 ····· 397
137 ····· 397
138 ····· 397
139 ····· 397
140 ····· 398
141 ····· 399
142 ····· 993
143 ····· 993
144 ····· 399
145 ····· 401
146 ····· 401
147 ····· 401
147b ····· 402
148 ····· 402
149 ····· 402
150 ····· 402
151 ····· 402
152 ····· 402
153 ····· 403
154 ····· 403
155 ····· 403
156 ····· 404
157 ····· 404
158 ····· 405
159 ····· 405
159b ····· 406
160 ····· 406
161 ····· 406
162 ····· 407
163 ····· 407
164 ····· 407
165 ····· 408
166 ····· 408
167 ····· 498

Figure 3b. Radicals from Nishida 1964, p. 306.

168 ····· 408
169 ····· 408
170 ····· 408
171 ····· 408
172 ····· 409
173 ····· 409
174 ····· 409
175 ····· 409
176 ····· 409
177 ····· 410
178 ····· 410
179 ····· 410
180 ····· 410
181 ····· 412
182 ····· 418
183 ····· 421
184 ····· 421
185 ····· 422
186 ····· 423
187 ····· 424
188 ····· 424
189 ····· 425
190 ····· 425
191 ····· 425
192 ····· 425
193 ····· 426
194 ····· 426
195 ····· 427
196 ····· 427
197 ····· 427
198 ····· 428
199 ····· 438
200 ····· 428
201 ····· 428
202 ····· 429
203 ····· 430
204 ····· 431
205 ····· 449
206 ····· 451
207 ····· 451
208 ····· 451
209 ····· 452
210 ····· 452
211 ····· 455
212 ····· 459
213 ····· 459
214 ····· 459
215 ····· 459
216 ····· 459
217 ····· 460
218 ····· 460
219 ····· 461
220 ····· 461
221 ····· 462
222 ····· 463
223 ····· 464
224 ····· 464
225 ····· 464
226 ····· 465
227 ····· 465
228 ····· 465
229 ····· 466
230 ····· 466
231 ····· 468
232 ····· 468
233 ····· 469
234 ····· 469
235 ····· 469
235b ····· 470
236 ····· 471
237 ····· 476
238 ····· 476
239 ····· 477
240 ····· 477
241 ····· 477
242 ····· 478
243 ····· 479
244 ····· 480
245 ····· 480
246 ····· 480
247 ····· 481
247b ····· 481
248 ····· 481
249 ····· 481
250 ····· 481
251 ····· 482
252 ····· 482
253 ····· 482
254 ····· 482
255 ····· 482

Figure 3c. Radicals from Nishida 1964, p. 307.

256 485
257 486
258 486
259 486
260 487
261 488
262 488
263 489
264 489
265 489
266 489
267 489
268 489
269 489
270 491
271 491
272 491
273 491
274 491
275 491
276 492
277 492
278 492
279 493
280 493
281 493
282 493
283 493
284 493
285 493
286 494
287 494
288 494
289 494
290 495
291 495
292 495
293 495
294 495
295 495
296 496
297 496
298 498
299 498
300 499
301 499
302 499
303 499
304 500
305 500
306 501
307 501
308 501
309 501
310 501
311 501
312 502
313 502
314 502
315 502
316 503
317 503
318 503
319 503
017b 504
017c 504
017d 504
017e 505

Figure 3d. Radicals from Nishida 1964, p. 308.

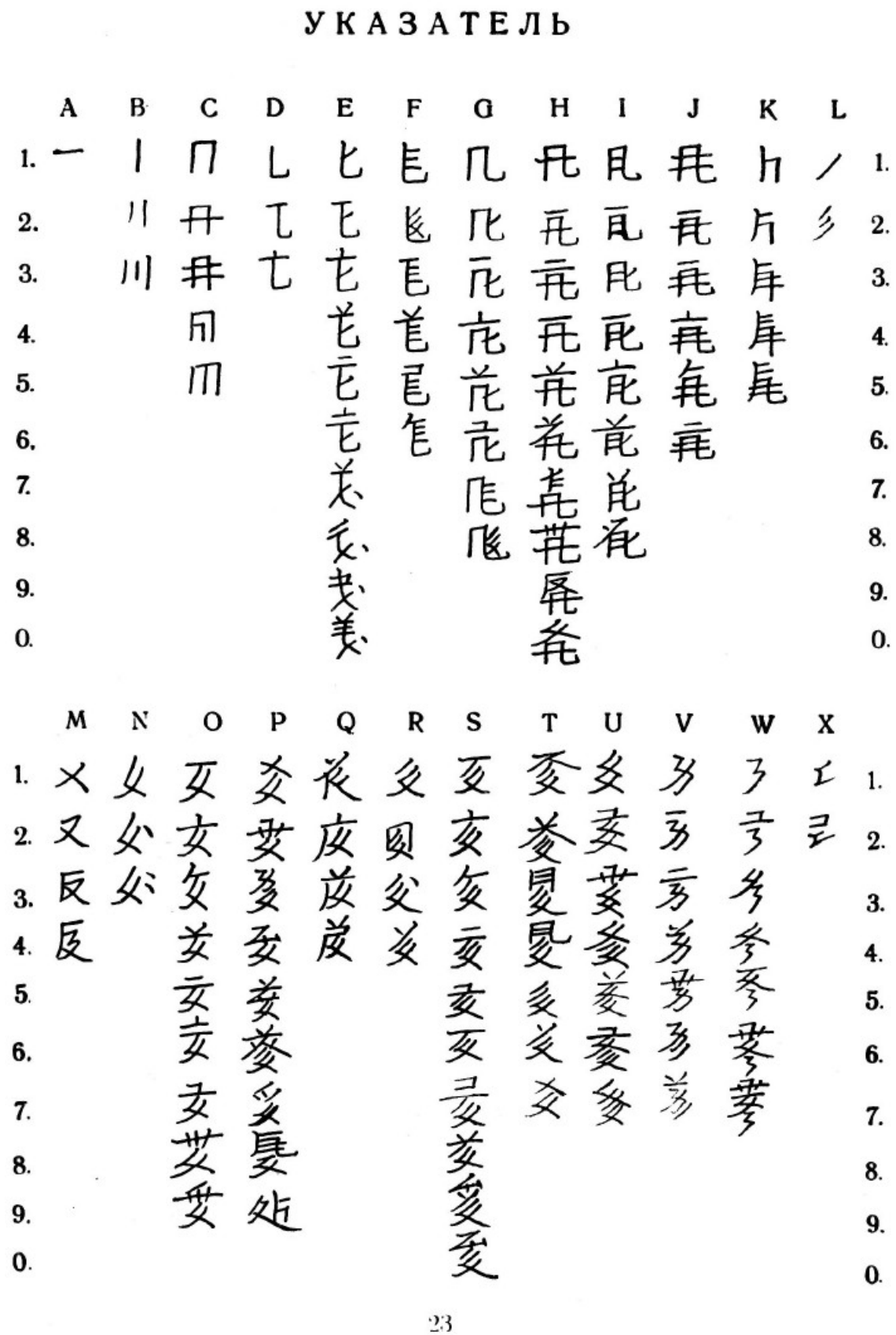


Figure 4. Radicals from Kolokolov & Kyčanov 1966, p. 23.

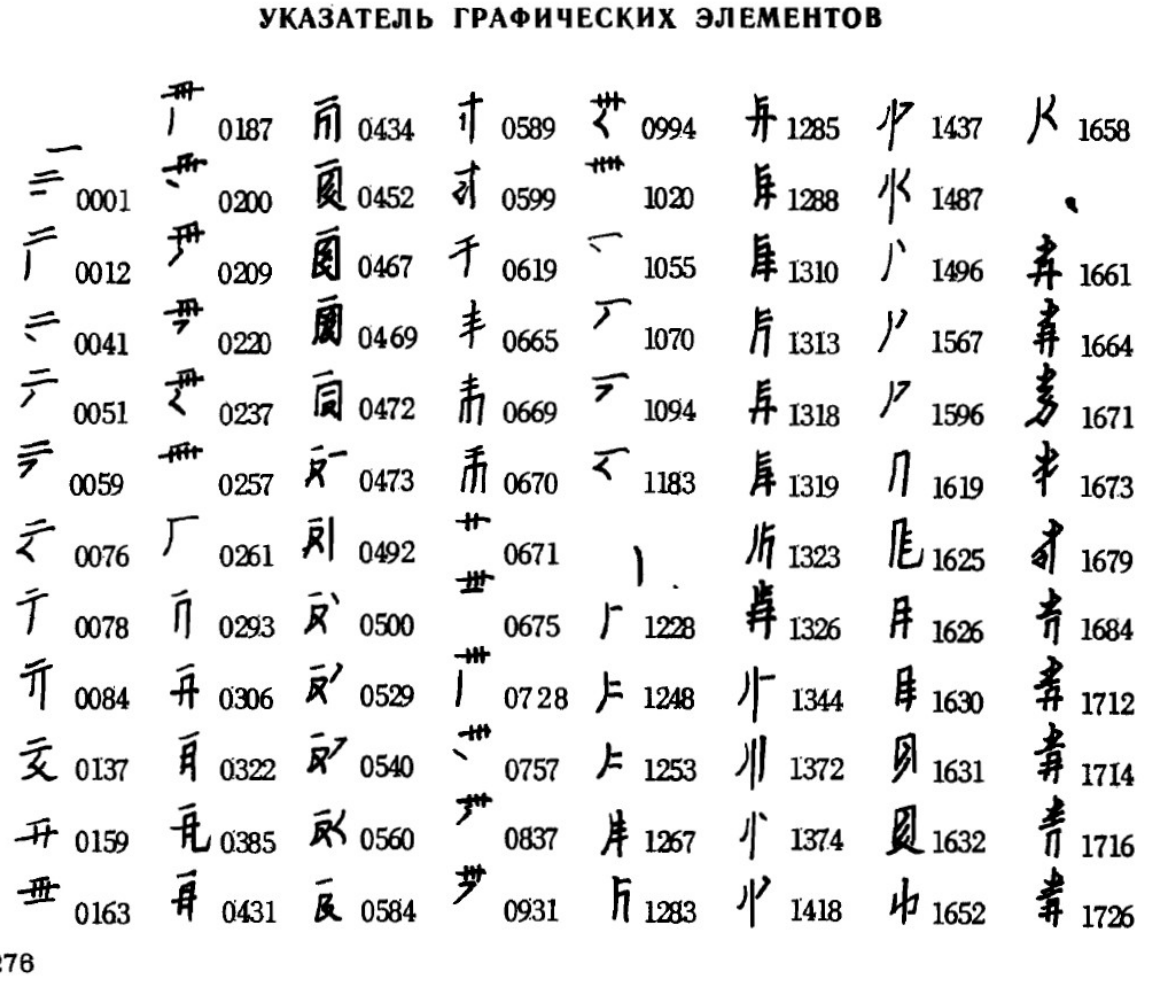


Figure 5a. Radicals from Sofronov 1968, p. 276.

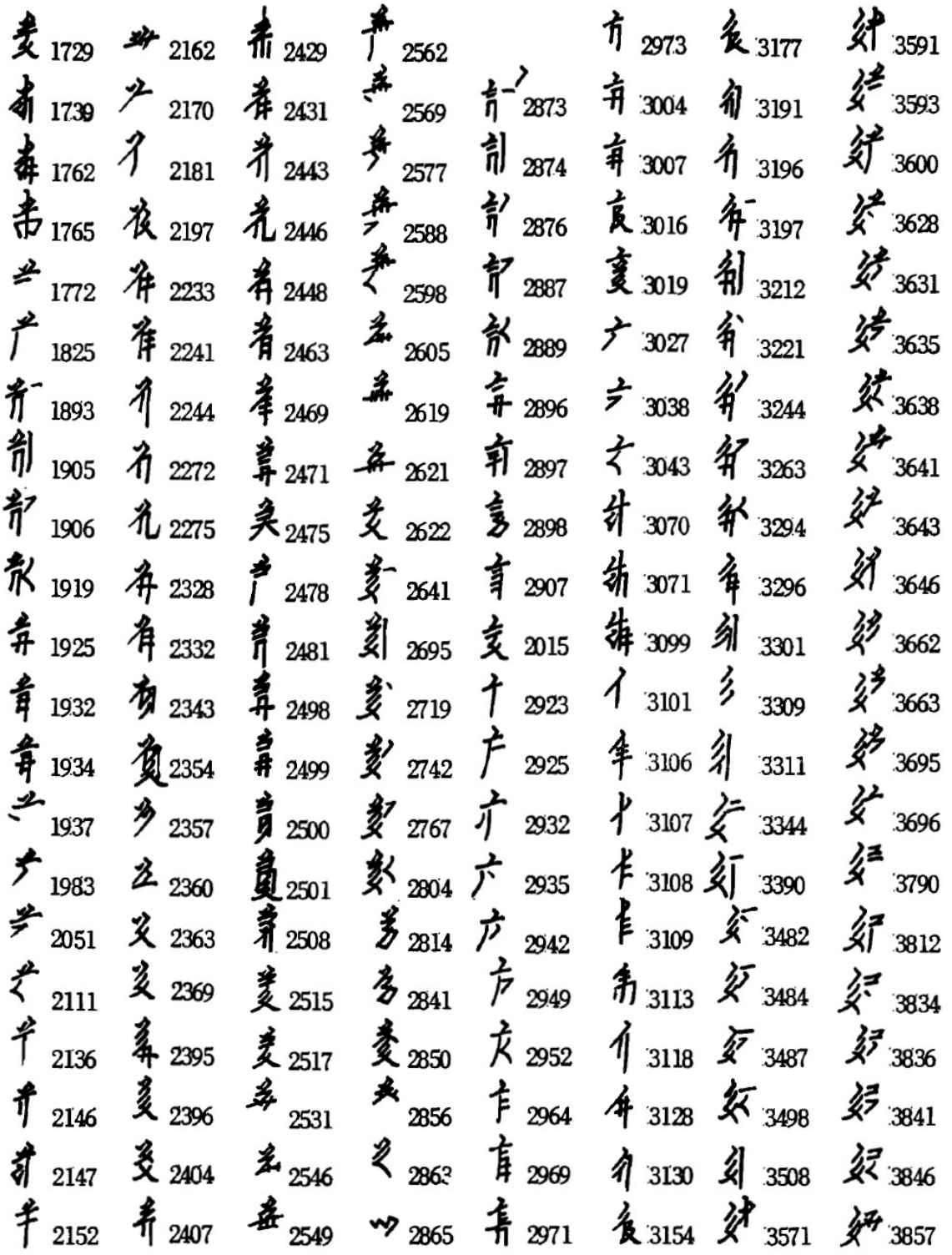


Figure 5b. Radicals from Sofronov 1968, p. 277.

Figure 5c. Radicals from Sofronov 1968, p. 278.

УКАЗАТЕЛЬ

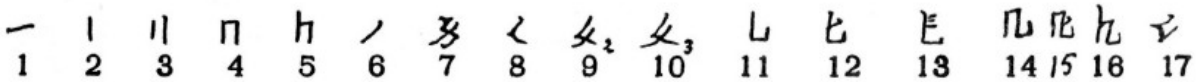
по графической системе к словарю

" МОРЕ ПИСЬМЕН"

Своеобразие графики тангутской письменности обусловливает при расположении ее знаков по графической системе существенные изменения в сравнении с той, которая разработана и принята для китайской письменности, на основе классификаций В.П.Васильева и О.Розенберга.

Сохраняя в общем ту же последовательность в направлении основных черт, которая характерна для деления иероглифов по пяти отделам

для классификации тангутских знаков предлагаем не 24 раздела, а семнадцать, которые группируются в таком порядке:



Разделы 8, 9 и 10 нуждаются в следующих пояснениях.

Направление откидной черты вправо (╲) наблюдается в подавляющем большинстве всех тангутских знаков. Особенно разветвлен производными знаками раздел 8, в который входит также и графема 𐤀 , производная от 𐤀 . Поэтому производные этой графемы пришлось подразделить на три части (𐤀₁ 𐤀₂ 𐤀₃).

Figure 6a. Strokes from Keping 1969, p. 190.

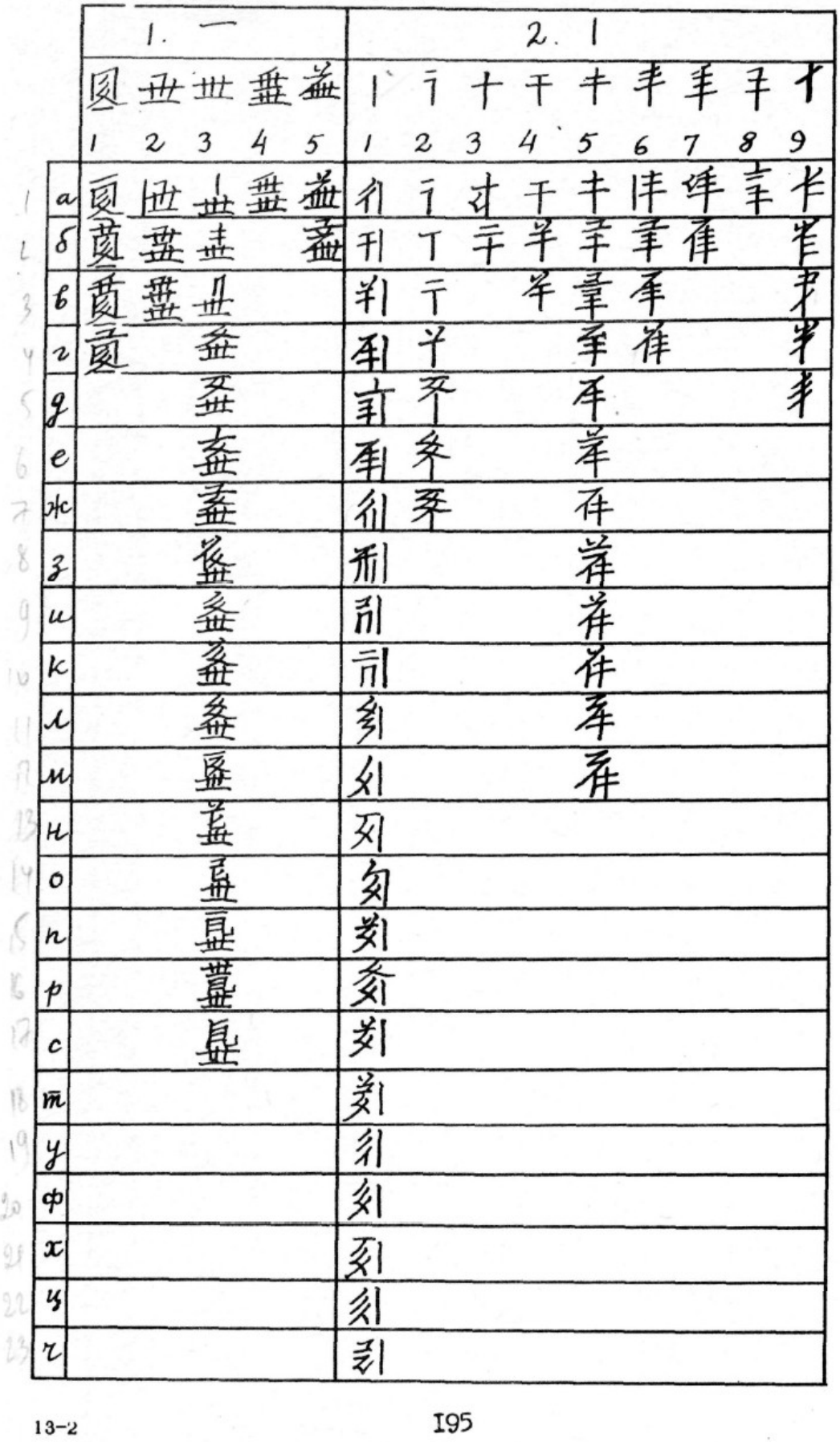
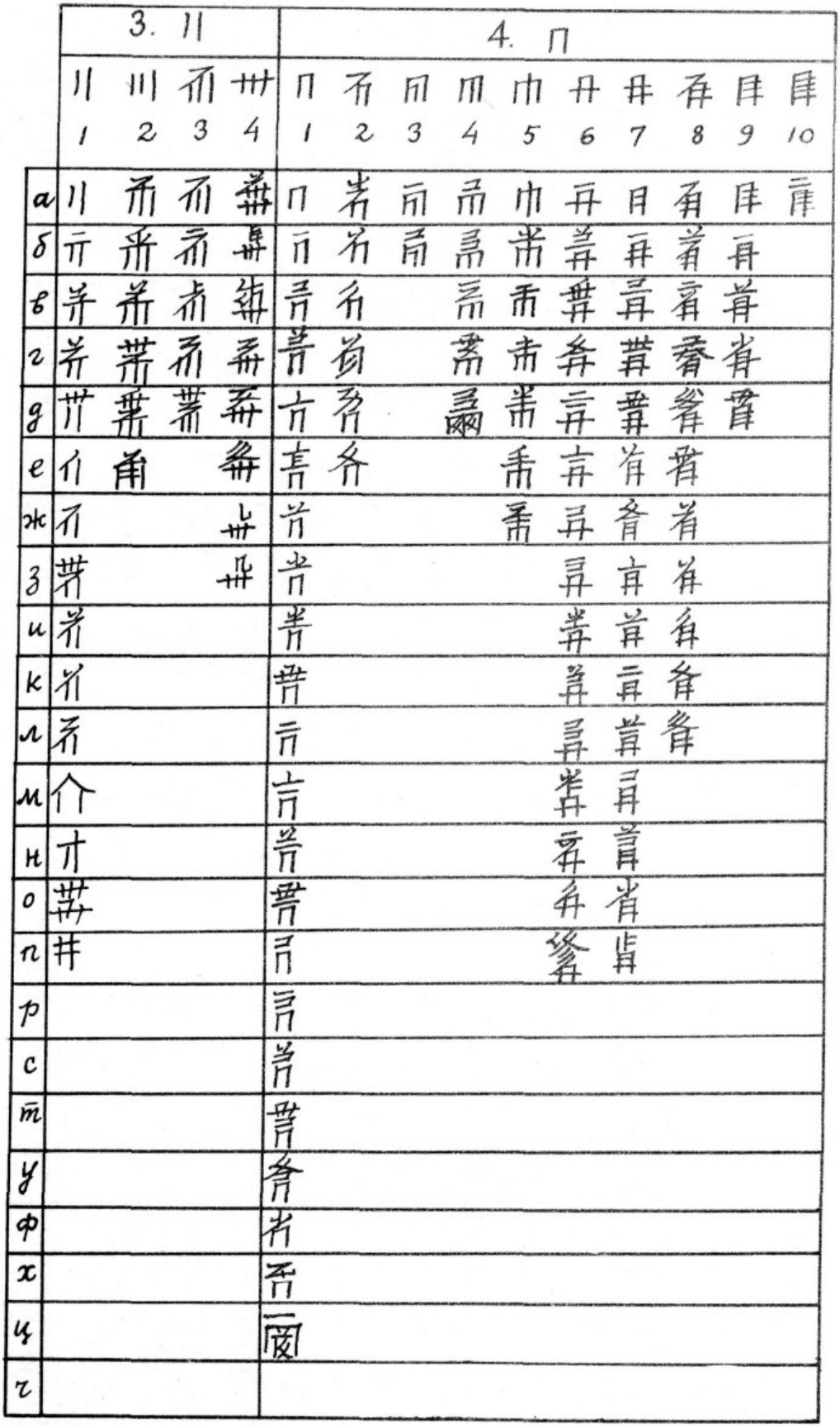


Figure 6b. Radicals from Keping 1969, p. 195.



I96

Figure 6c. Radicals from Keping 1969, p. 196.

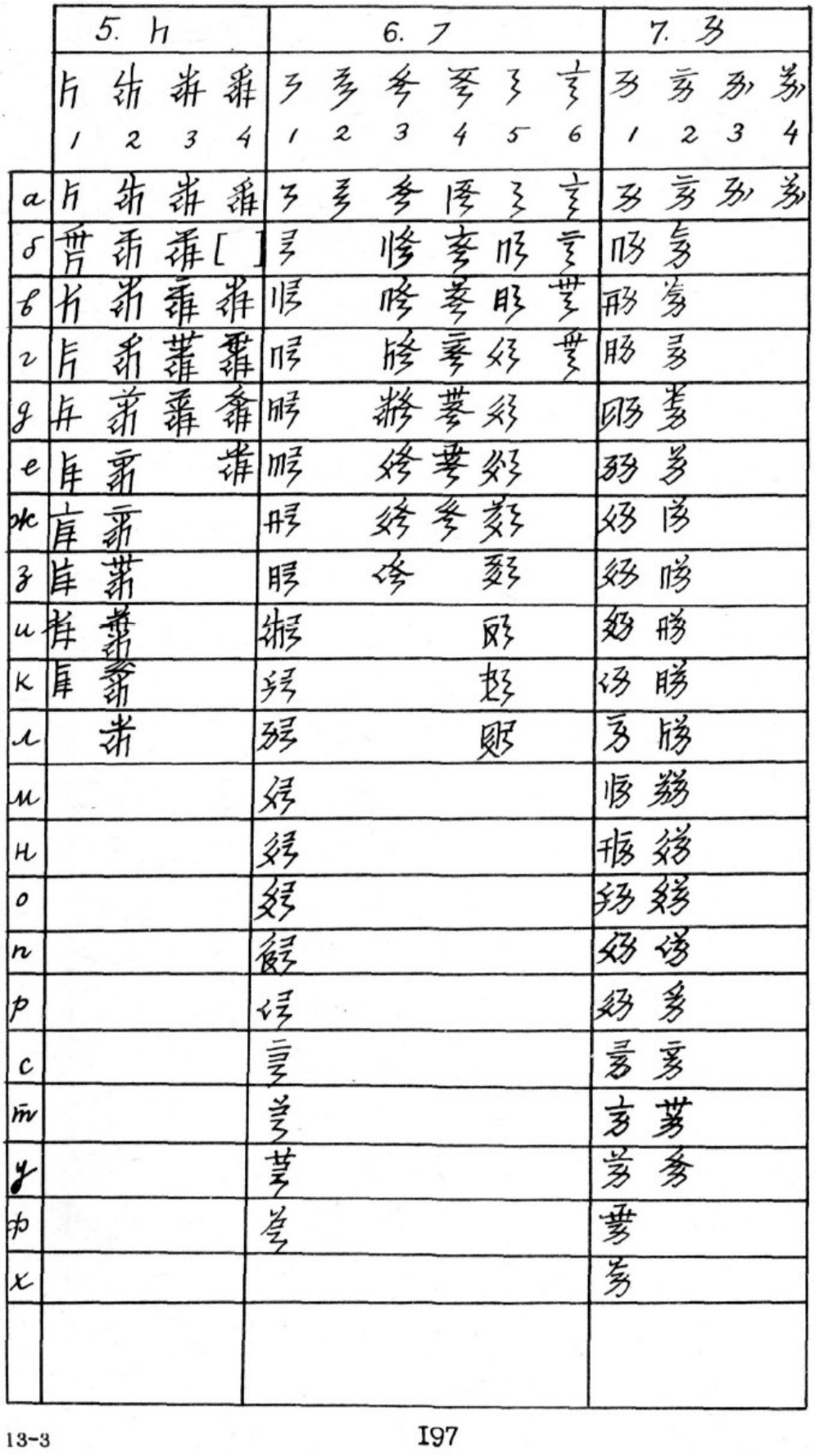


Figure 6d. Radicals from Keping 1969, p. 197.

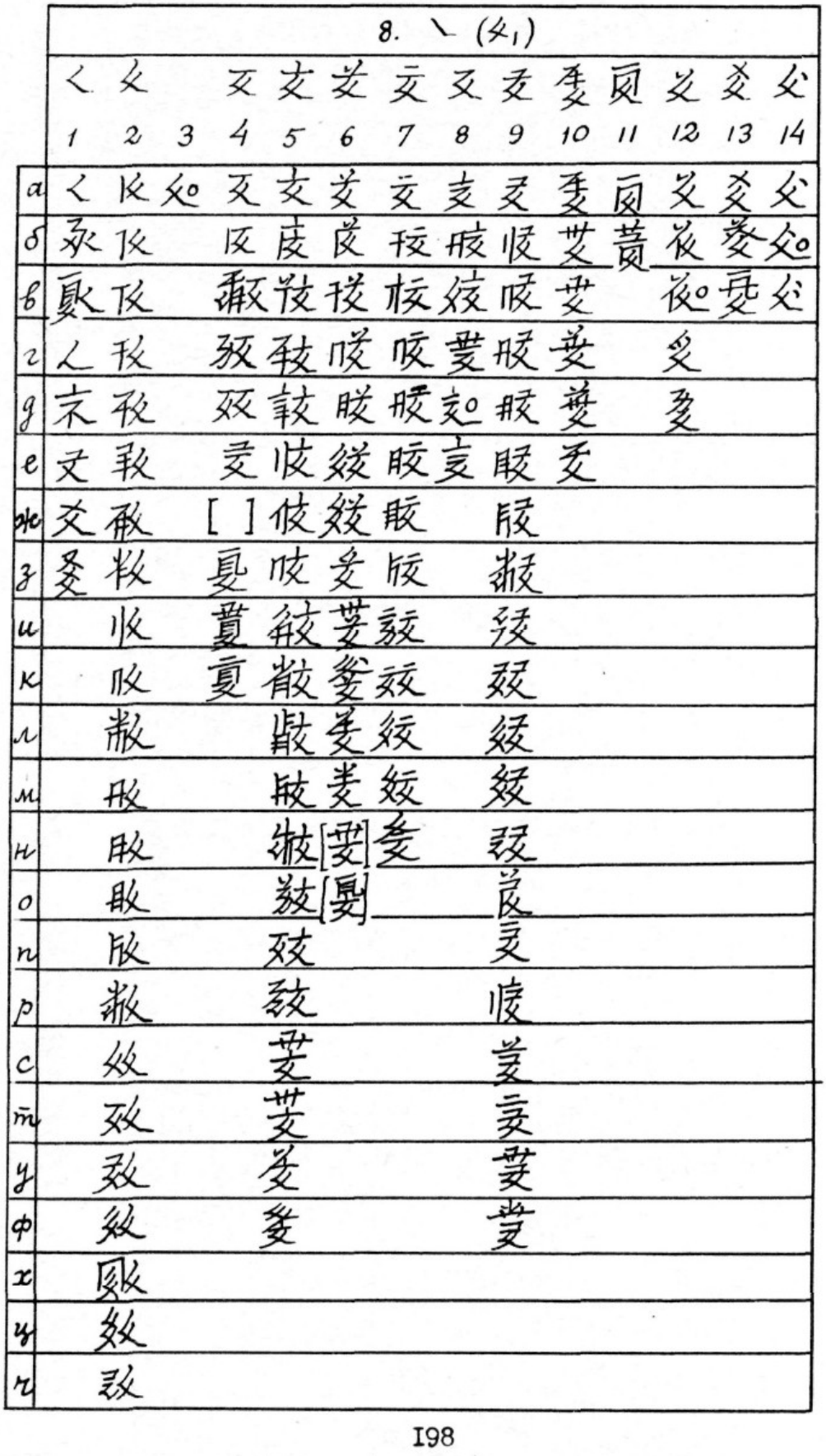


Figure 6e. Radicals from Keping 1969, p. 198.

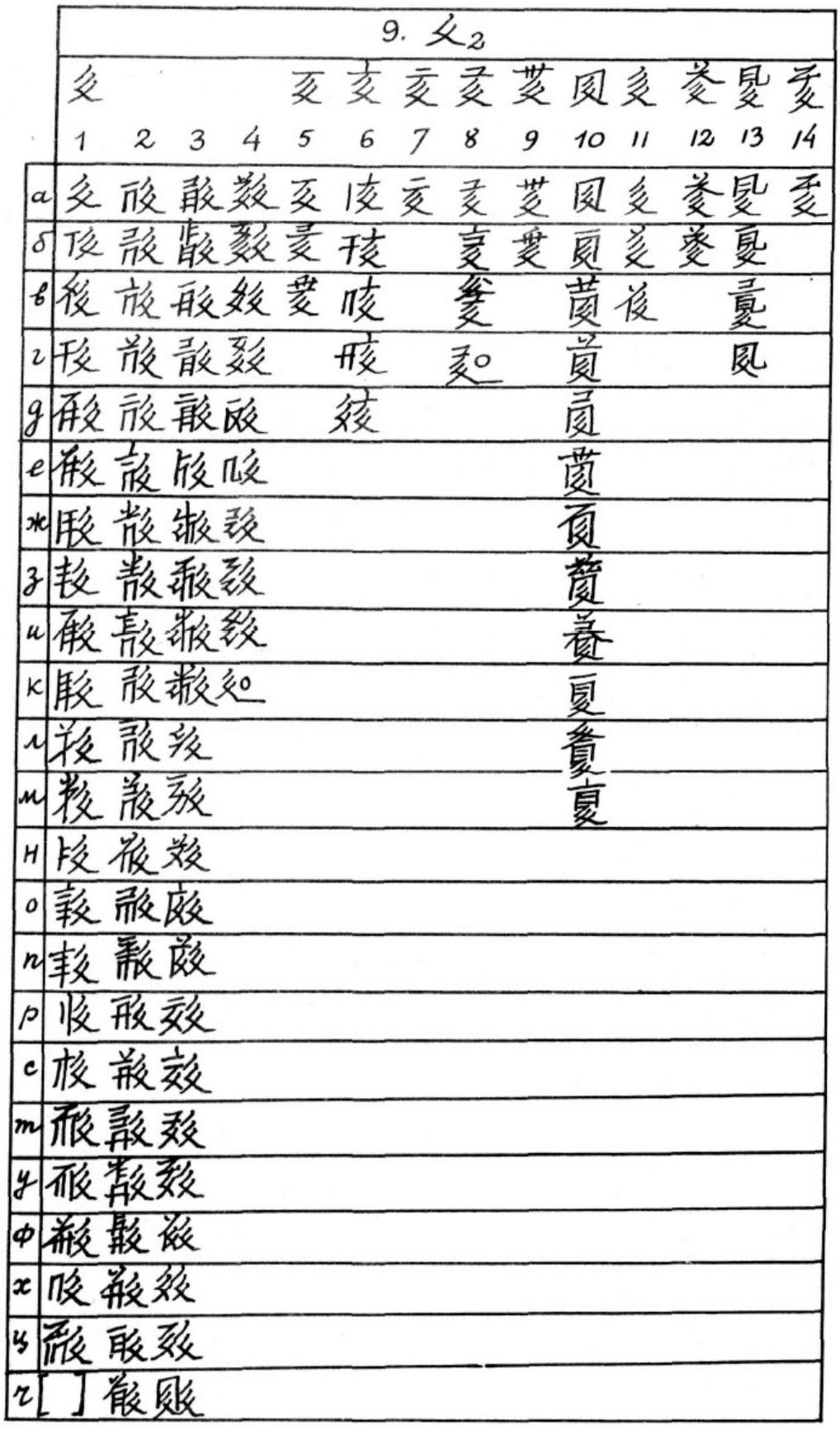


Figure 6f. Radicals from Keping 1969, p. 199.

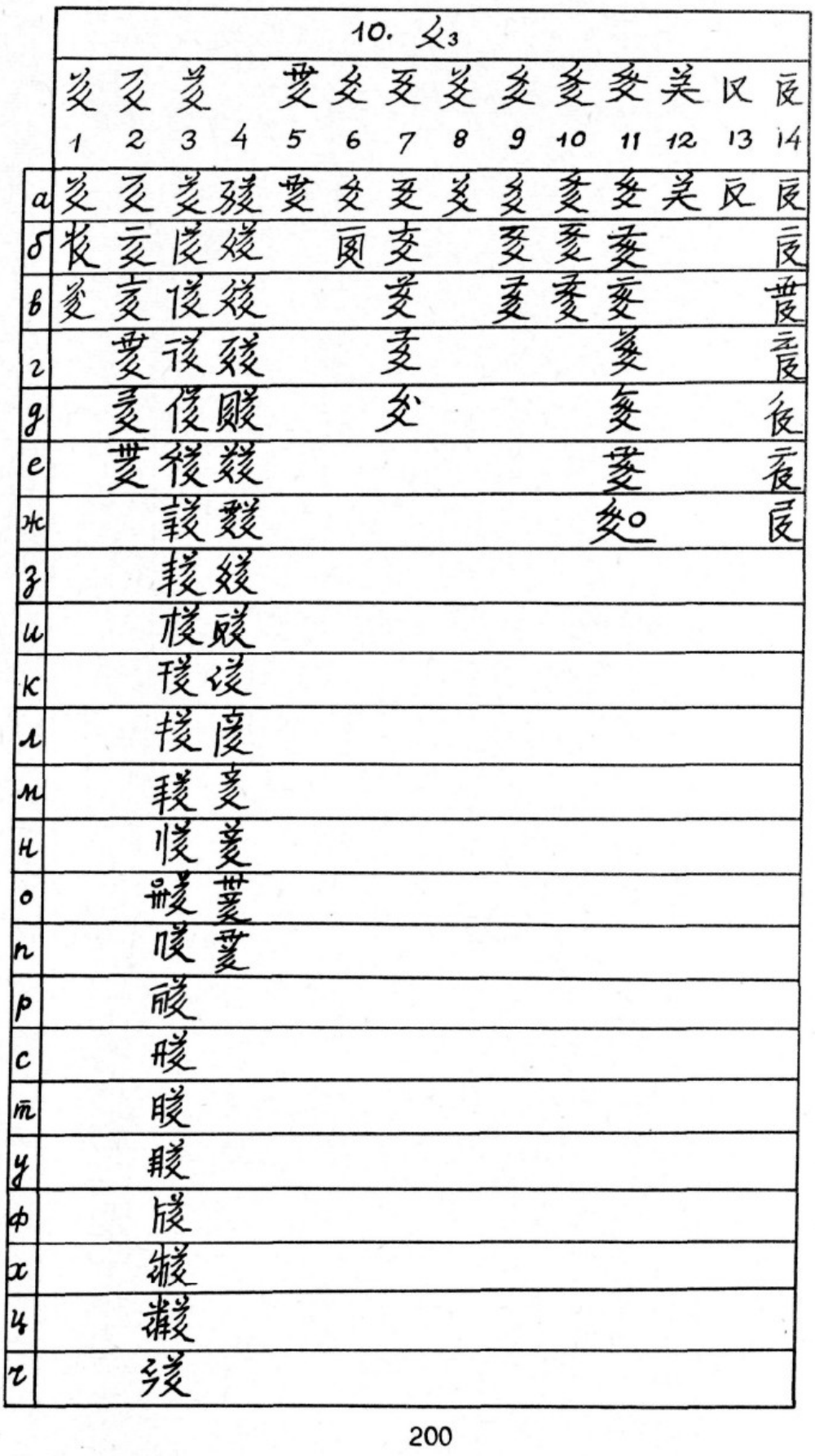
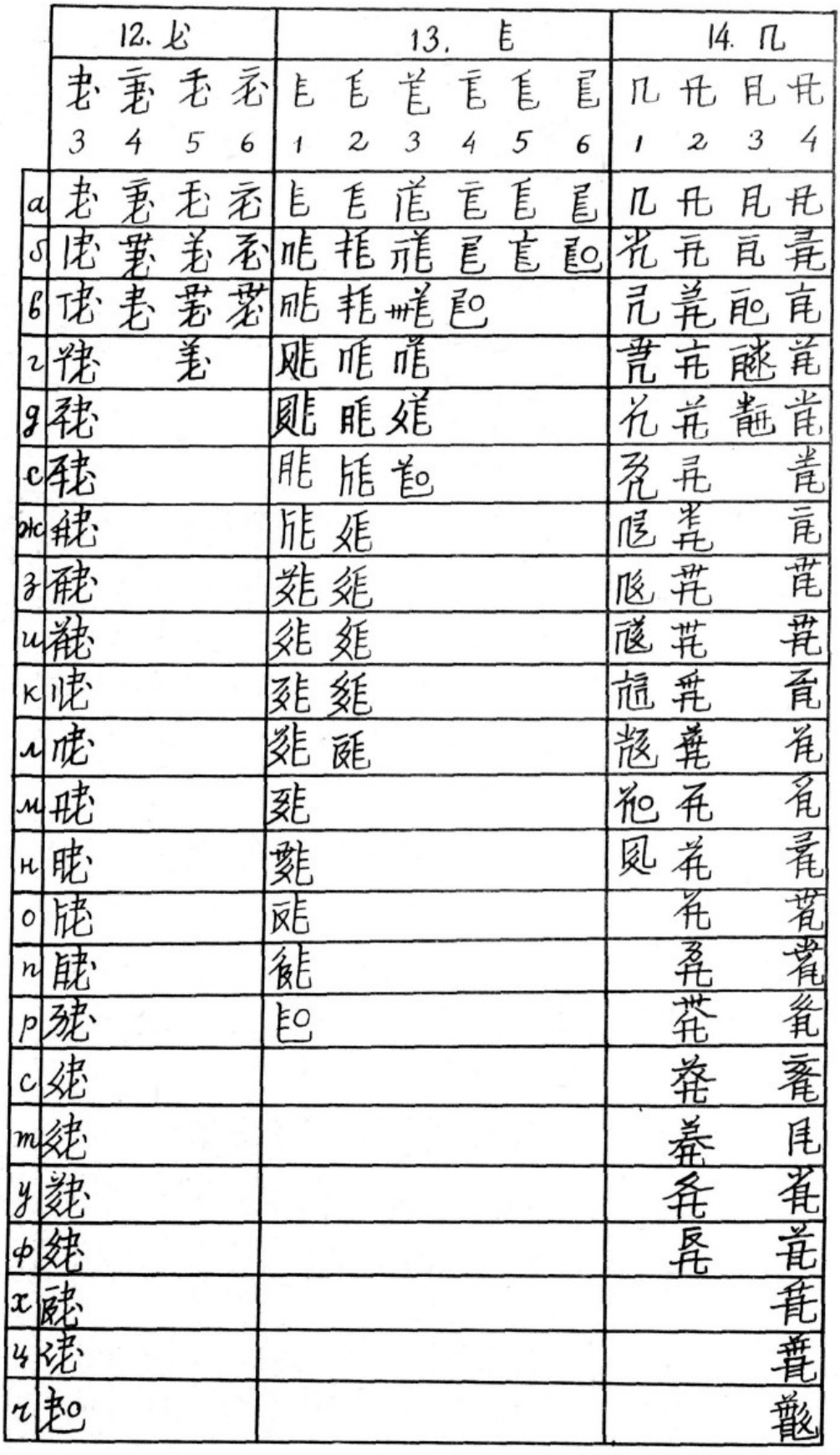


Figure 6g. Radicals from Keping 1969, p. 200.

	11. 乚												12.𠂉	
	乚	匕			匕		匸	匸		𠂆	已	老	毛	耂
	1	2	3	4	5	6	7	8	9	10	11	12	1.	2
a	乚	匕	𠮛	𠯿	𠮛	𠯿	𠂤	匸	𠯿	𠂆	已	老	毛	耄
б	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸	𠯿	𠂆			耂	耄
в	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸	𠯿	𠂆			耂	耄
г	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
д	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
е	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
ж	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
з	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
и	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
к	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
л	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
м	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
н	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
о	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
п	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
р	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
с	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
т	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
у	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						耄
ф	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						
х	𠃌	匕	𠮛	𠯿	𠮛	𠯿	匸	匸						
ц	𠃌	匕		𠯿		𠯿		匸						
ч	𠃌	匕		𠯿		𠯿		匸						

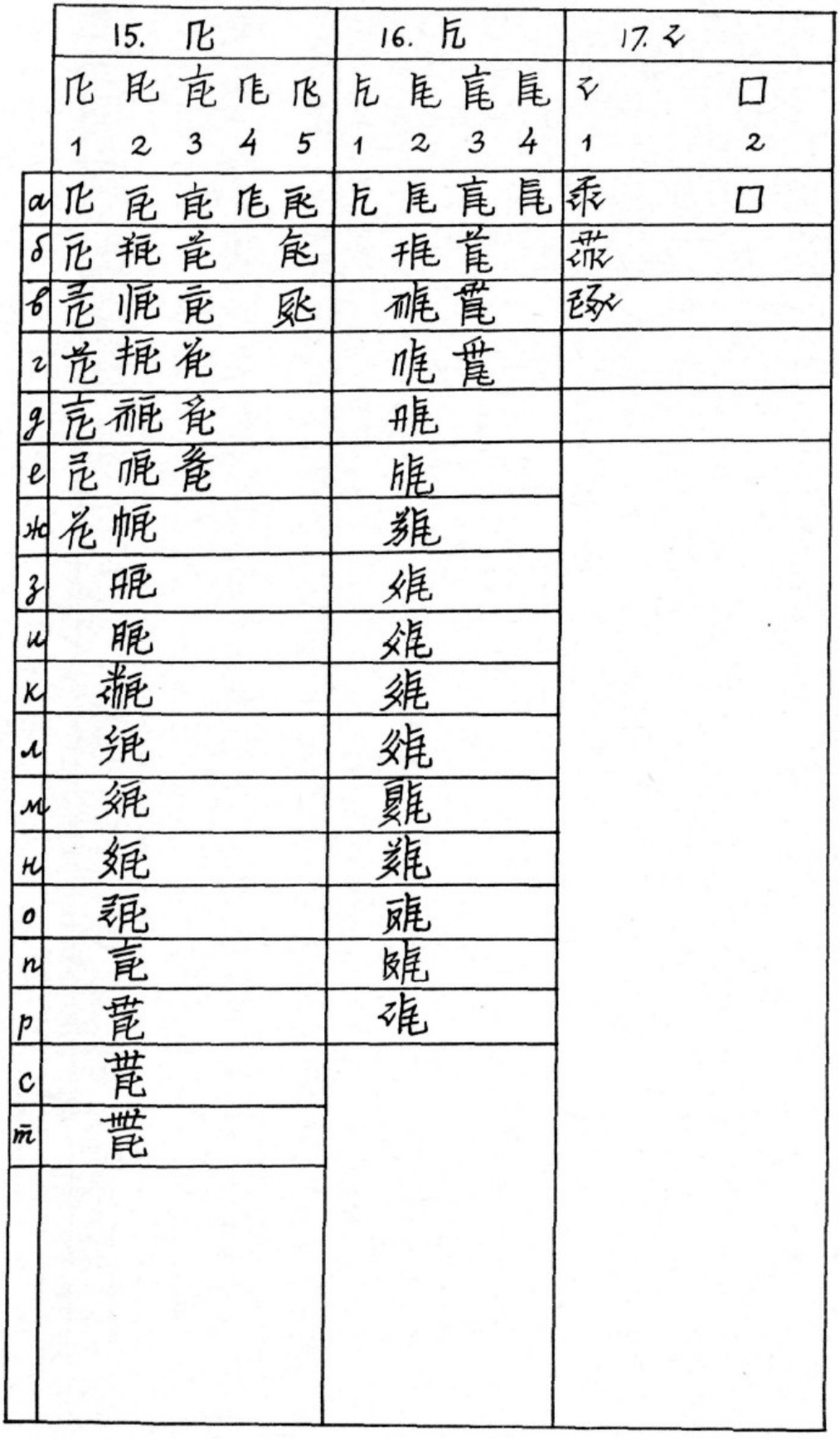
201

Figure 6h. Radicals from Keping 1969, p. 201.



202

Figure 6i. Radicals from Keping 1969, p. 202.



203

Figure 6j. Radicals from Keping 1969, p. 203.

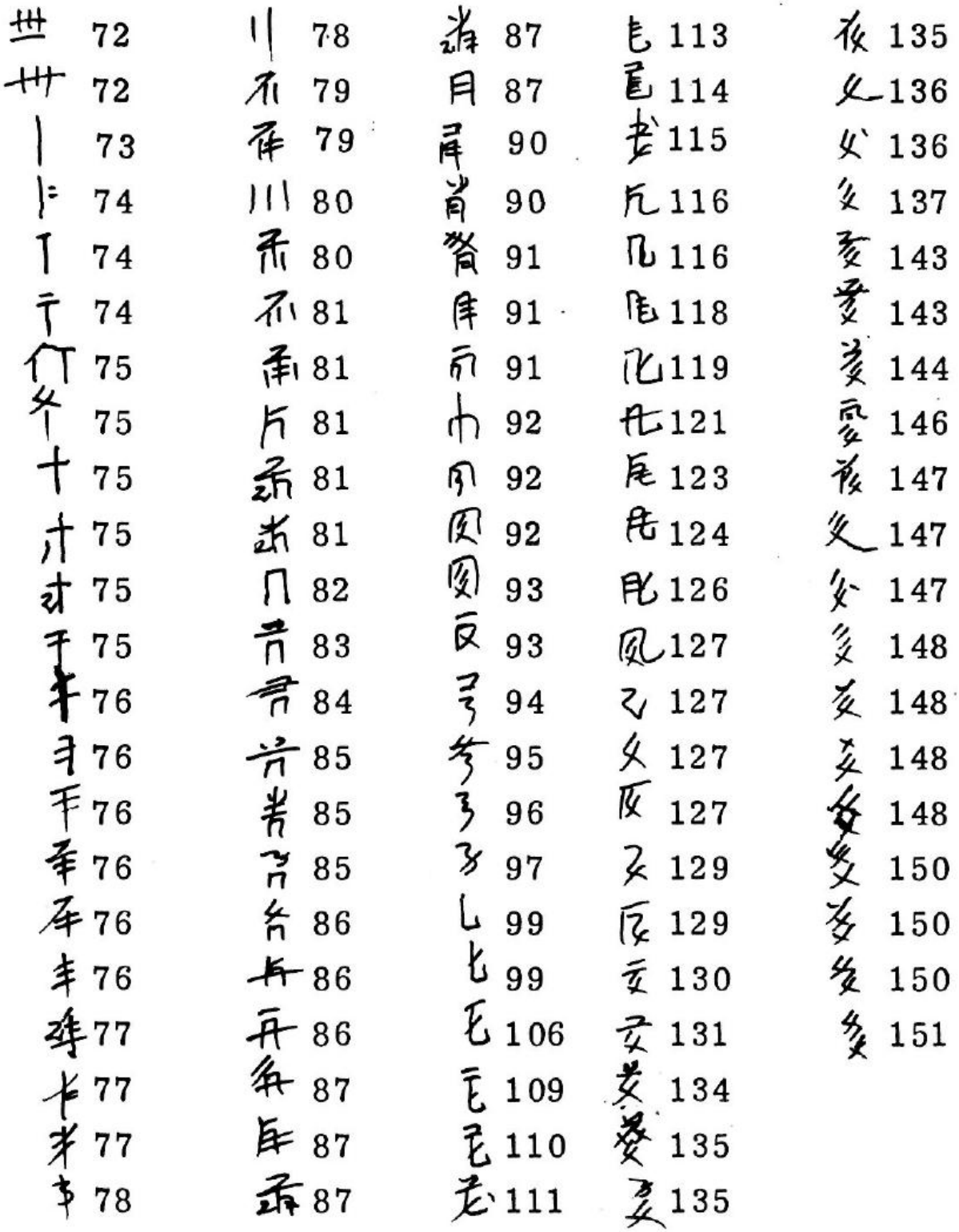


Figure 7. Radicals from Grinstead 1972.

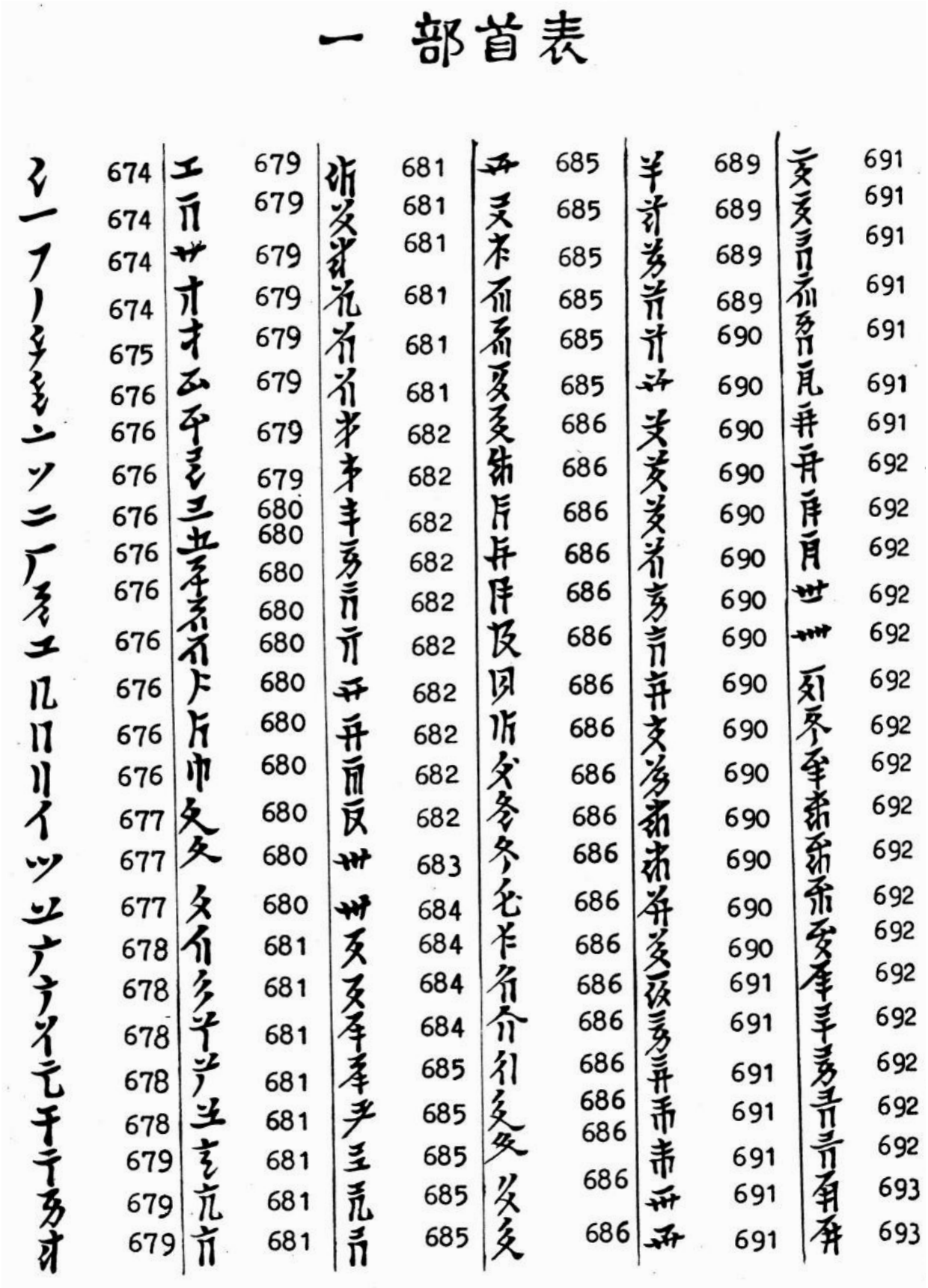


Figure 8a. Radicals from Shǐ Jīnbō 1983, p. 671.

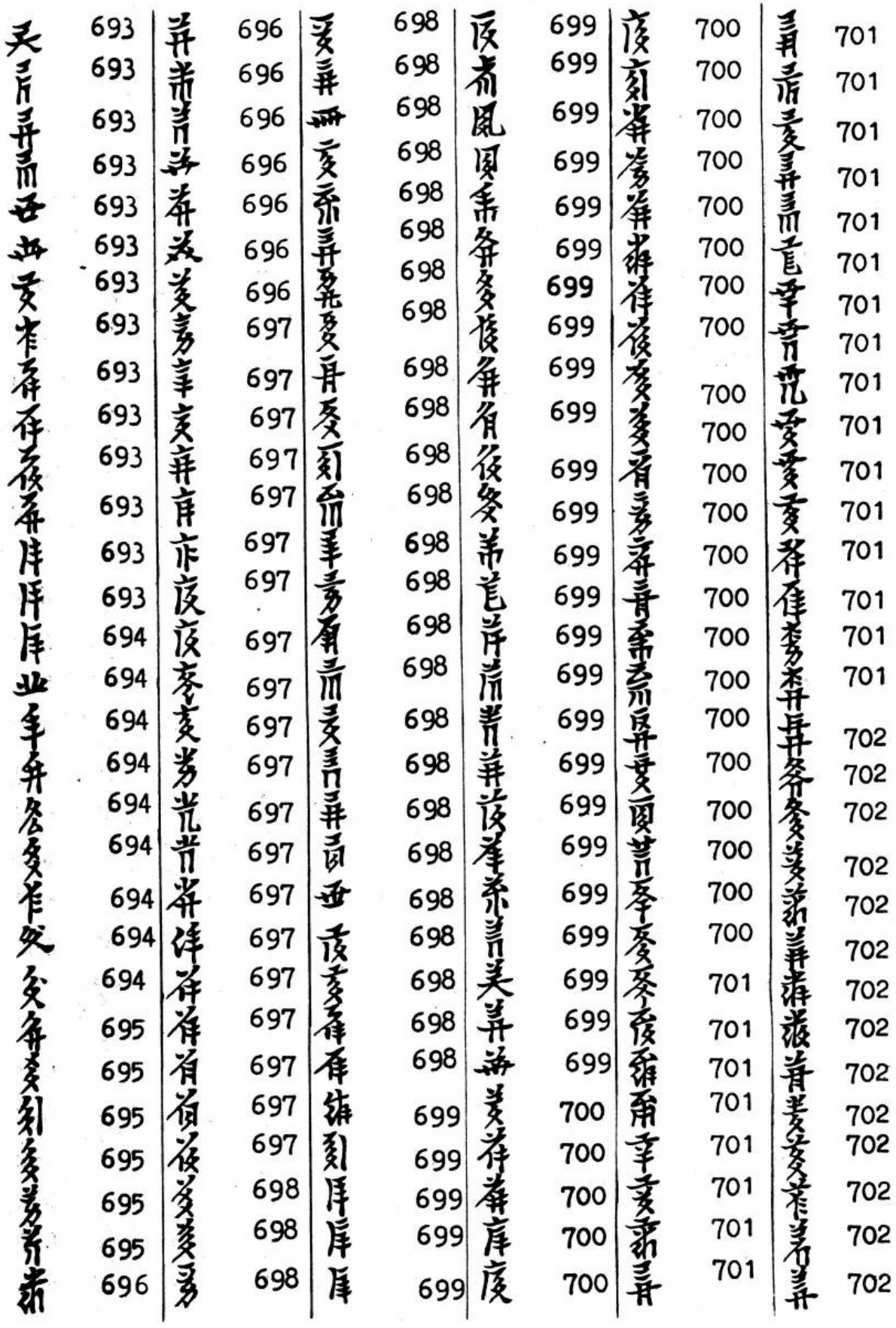


Figure 8b. Radicals from Shǐ Jīnbō 1983, p. 672.

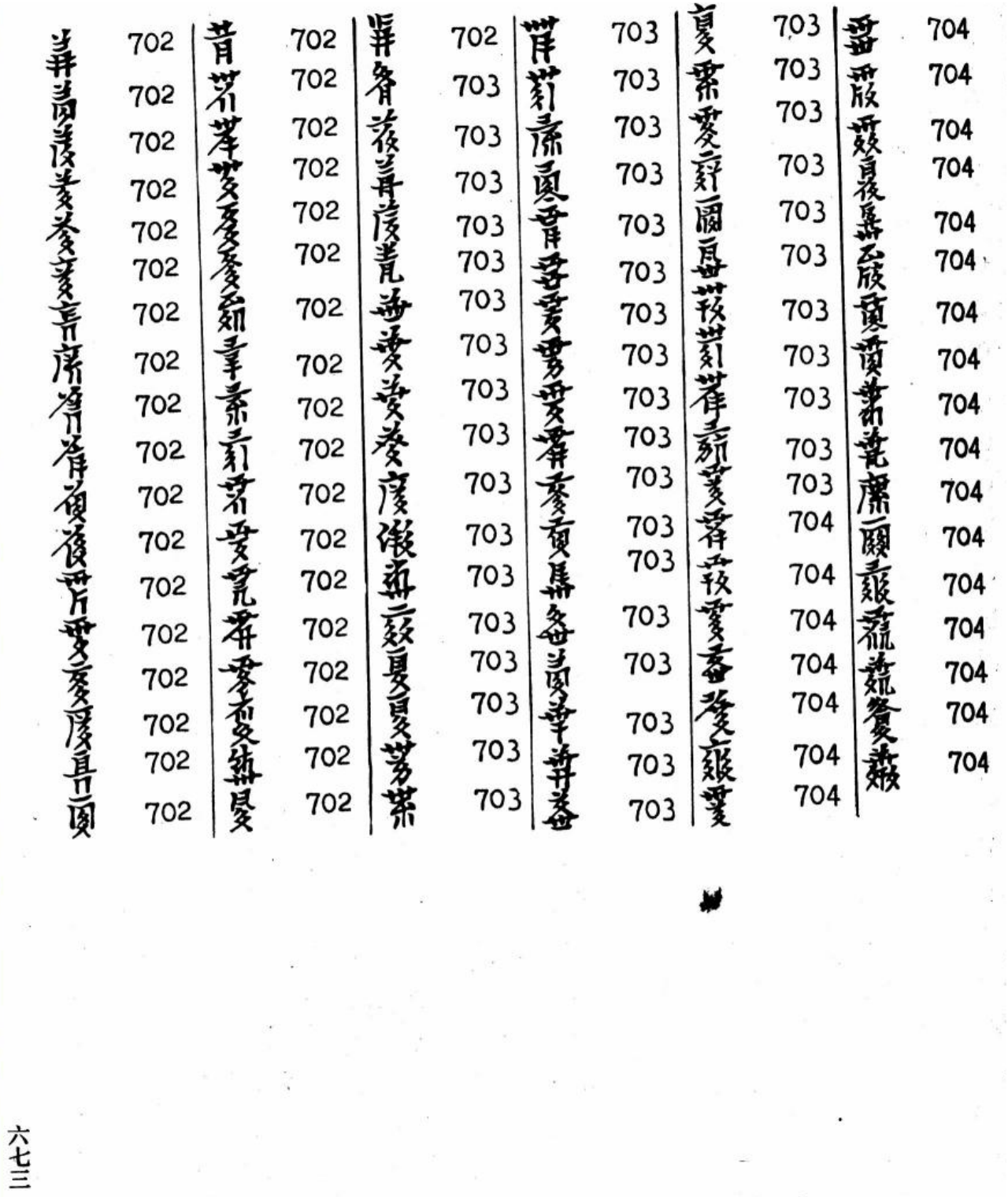
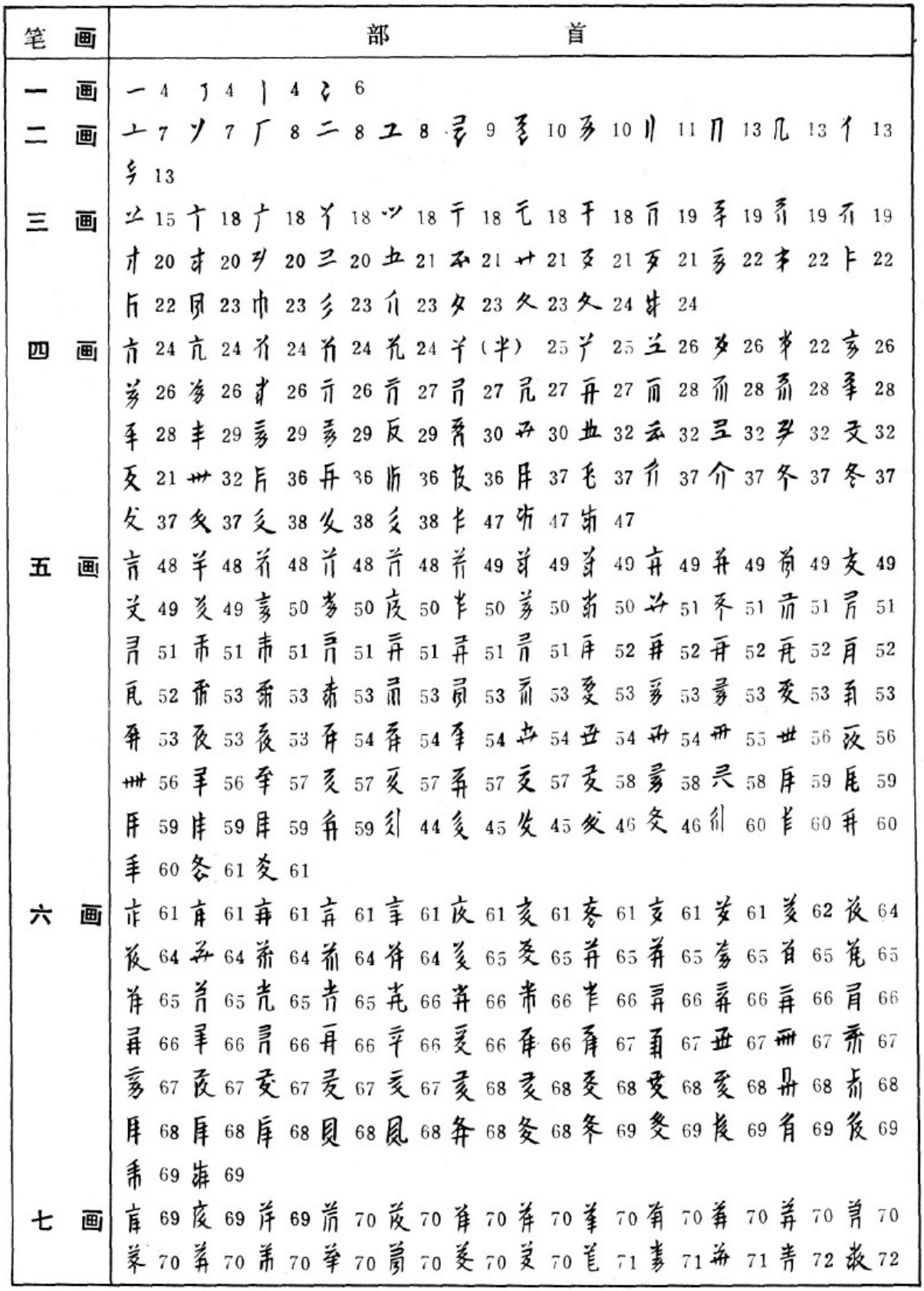


Figure 8c. Radicals from Shǐ Jīnbō 1983, p. 673.



笔画	部首
一画	一 4 丿 4 丨 4 乙 6
二画	十 7 丿 7 厂 8 二 8 工 8 𠂇 9 𠂆 10 多 10 刂 11 冂 13 几 13 亻 13
	𠂉 13
三画	𠂤 15 亍 18 广 18 𠂒 18 𠂢 18 干 18 弋 18 干 18 冇 19 𠂔 19 𠂓 19 𠂇 19
	才 20 寸 20 𠂉 20 三 20 土 21 𠂎 21 艹 21 𠂇 21 𠂇 21 多 22 𠂉 22 卜 22
	𠂉 22 囗 23 巾 23 彡 23 𠂉 23 夕 23 久 23 久 24 𠂉 24
四画	𠂉 24 亢 24 𠂉 24 𠂉 24 𠂉 24 𠂉 24 半（半） 25 𠂉 25 𠂉 26 多 26 𠂉 22 𠂉 26
	𠂉 26 𠂉 26 𠂉 26 𠂉 26 𠂉 27 𠂉 27 𠂉 27 𠂉 27 𠂉 28 𠂉 28 𠂉 28 𠂉 28
	𠂉 28 𠂉 29 𠂉 29 𠂉 29 反 29 𠂉 30 𠂉 30 𠂉 32 𠂉 32 𠂉 32 𠂉 32 𠂉 32
	𠂉 21 𠂉 32 𠂉 36 𠂉 36 𠂉 36 𠂉 36 𠂉 37 𠂉 37 𠂉 37 介 37 𠂉 37 𠂉 37
	𠂉 37 𠂉 37 𠂉 38 𠂉 38 𠂉 38 𠂉 47 𠂉 47 𠂉 47
五画	𠂉 48 𠂉 48 𠂉 48 𠂉 48 𠂉 48 𠂉 49 𠂉 49 𠂉 49 𠂉 49 𠂉 49 𠂉 49 𠂉 49
	𠂉 49 𠂉 49 𠂉 50 𠂉 50 𠂉 50 𠂉 50 𠂉 50 𠂉 50 𠂉 51 𠂉 51 𠂉 51 𠂉 51
	𠂉 51 𠂉 51 𠂉 51 𠂉 51 𠂉 51 𠂉 51 𠂉 52 𠂉 52 𠂉 52 𠂉 52 𠂉 52
	𠂉 52 𠂉 53 𠂉 53 𠂉 53 𠂉 53 𠂉 53 𠂉 53 𠂉 53 𠂉 53 𠂉 53 𠂉 53
	𠂉 53 𠂉 53 𠂉 53 𠂉 54 𠂉 54 𠂉 54 𠂉 54 𠂉 54 𠂉 54 𠂉 54 𠂉 55 𠂉 56 𠂉 56
	𠂉 56 𠂉 56 𠂉 57 𠂉 57 𠂉 57 𠂉 57 𠂉 57 𠂉 58 𠂉 58 𠂉 58 𠂉 59 𠂉 59
	𠂉 59 𠂉 59 𠂉 59 𠂉 59 𠂉 44 𠂉 45 𠂉 45 𠂉 46 𠂉 46 𠂉 60 𠂉 60 𠂉 60
	𠂉 60 𠂉 61 𠂉 61
六画	𠂉 61 𠂉 61 𠂉 61 𠂉 61 𠂉 61 𠂉 61 𠂉 61 𠂉 61 𠂉 61 𠂉 61 𠂉 62 𠂉 64
	𠂉 64 𠂉 64 𠂉 64 𠂉 64 𠂉 64 𠂉 65 𠂉 65 𠂉 65 𠂉 65 𠂉 65 𠂉 65
	𠂉 65 𠂉 65 𠂉 65 𠂉 65 𠂉 66 𠂉 66 𠂉 66 𠂉 66 𠂉 66 𠂉 66 𠂉 66
	𠂉 66 𠂉 66 𠂉 66 𠂉 66 𠂉 66 𠂉 66 𠂉 67 𠂉 67 𠂉 67 𠂉 67
	𠂉 67 𠂉 67 𠂉 67 𠂉 67 𠂉 67 𠂉 68 𠂉 68 𠂉 68 𠂉 68 𠂉 68 𠂉 68
	𠂉 68 𠂉 68 𠂉 68 𠂉 68 𠂉 68 𠂉 68 𠂉 69 𠂉 69 𠂉 69 𠂉 69
	𠂉 69 𠂉 69
七画	𠂉 69 𠂉 69 𠂉 69 𠂉 70 𠂉 70 𠂉 70 𠂉 70 𠂉 70 𠂉 70 𠂉 70 𠂉 70 𠂉 70
	𠂉 70 𠂉 70 𠂉 70 𠂉 70 𠂉 70 𠂉 70 𠂉 71 𠂉 71 𠂉 71 𠂉 72 𠂉 72

Figure 9a. Radicals from Lǐ Fànwén 1986, p. 769.

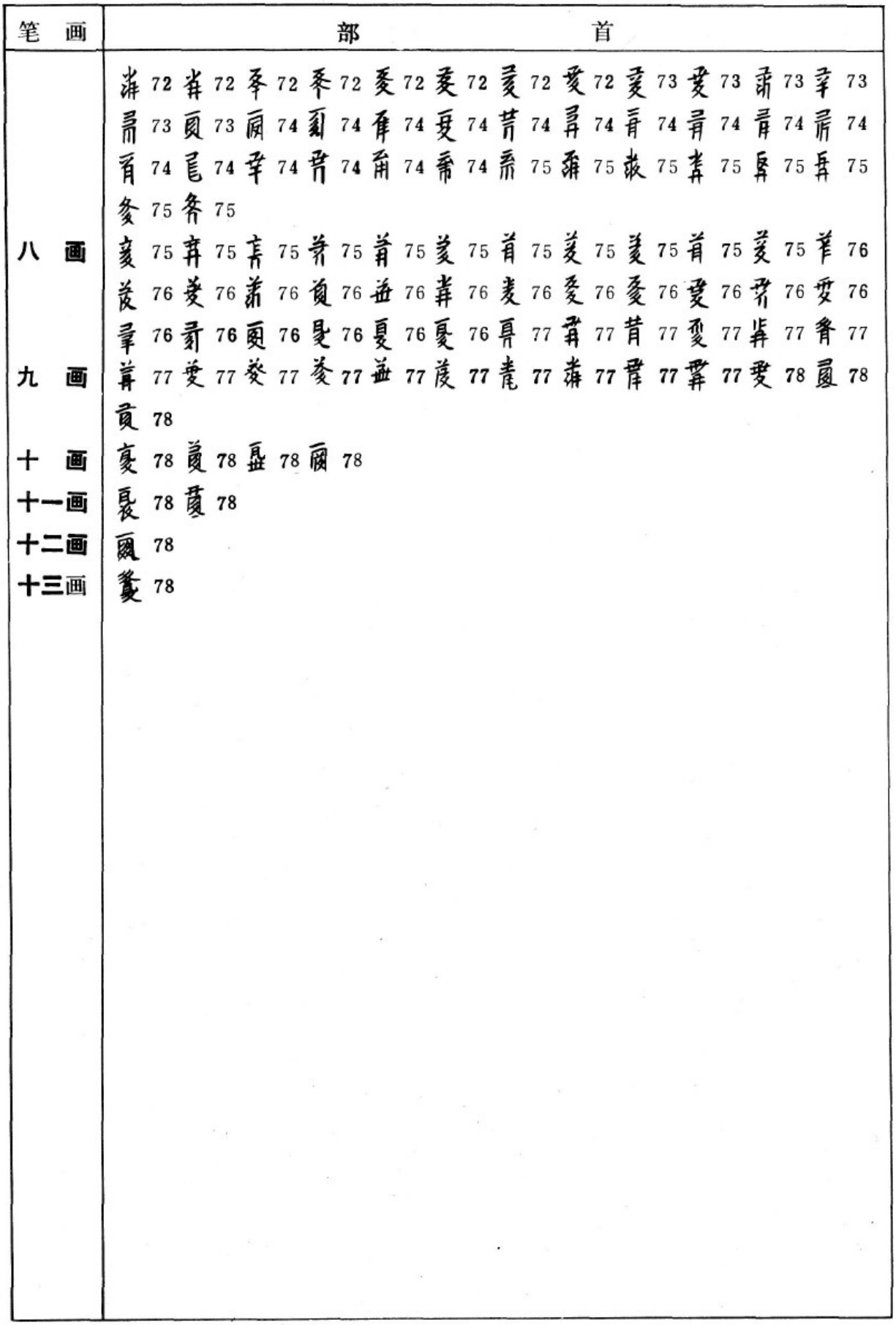


Figure 9b. Radicals from Lǐ Fànwén 1986, p. 770.

夏漢檢字索引

〔說　明〕

(一)本索引按西夏字的筆畫部首分類。有的字,因部首相同而讀音亦同,例如 tsa 1.17 與 ɣjɨr 1.86 等,爲了讀者便于對比研究,特此將擬音、聲調一并注上,供讀者參考。聲調後的數字,即該字在本字典中的順序號,例如 ɣjɨr 1.86 0230 即可在 0230 號查出該字的詳細讀音、英譯、漢義、詞性、例證等。

(二)本索引以西夏字第一筆的點(丶)、横(一)、竪(丨)、撇(丿)四筆爲序,按筆畫多少編排,部首分類亦然。

(三)有的部首差别甚微,很難分辨。例如 與 、 與 、 與 等,爲了使讀者檢索方便,我們把宅歸爲一類,不再區分。

(四)檢字分兩步驟:第一步按筆畫部首查出該字部首的頁碼,然後按筆畫查你所查的字。例如 字,先查部首 ,知 在四畫撇部, 第 38 頁,12 畫,即可查出 的編號爲 3119。再查 3119,即可查出。

(五)部首的派生字,不列爲新部首,派生部分用□表示,例如 的派生字 ,則用 表示,不再把 作爲新部首。派生字列在該部首之後。 在 部即可查出。

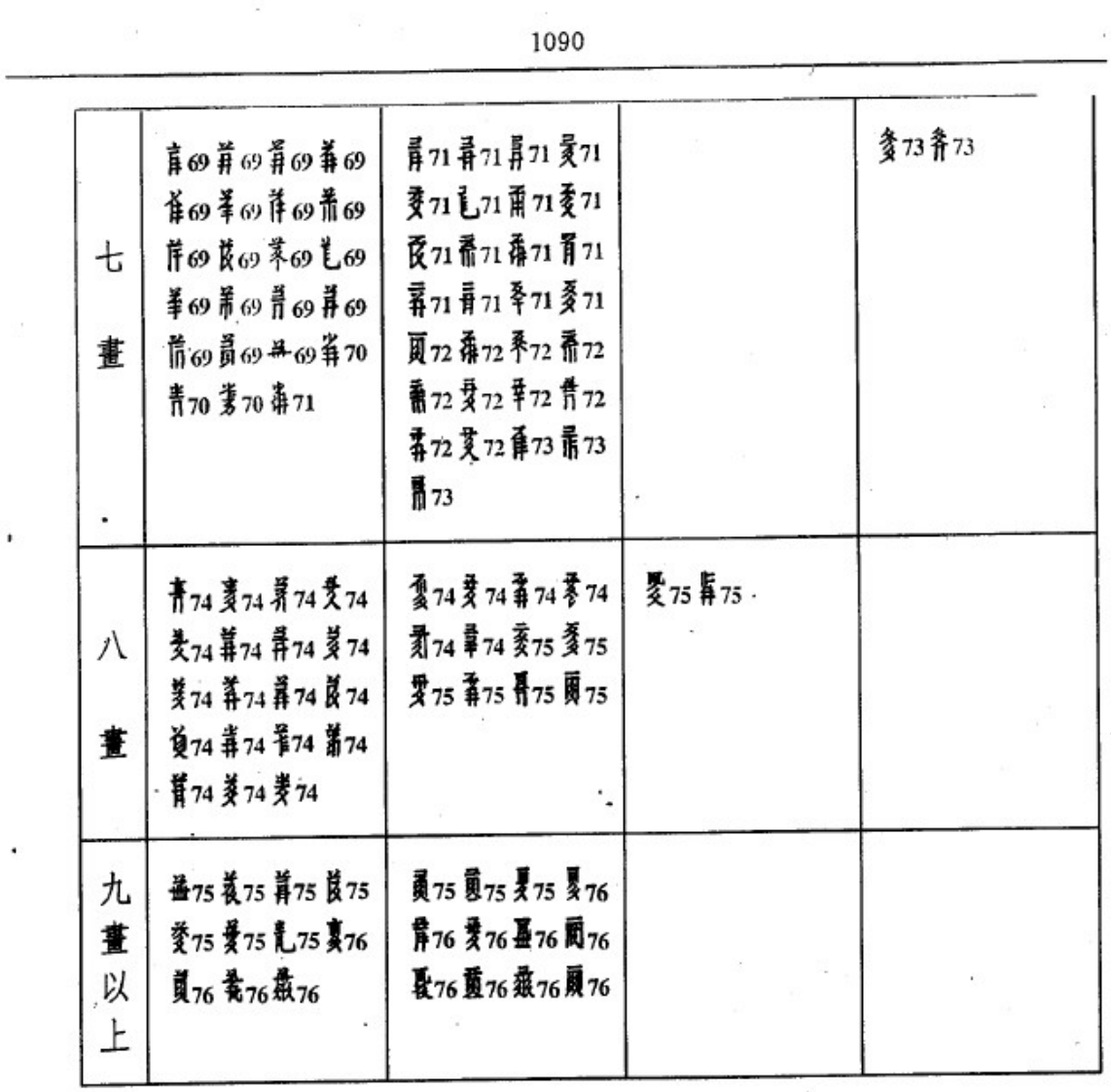
(一)　筆畫部首

筆畫	部首			
	、點	一横	丨竪	丿撇
一畫		1 1	1	3 3
二畫	4 4	5 5 6 6 7	7 9 9	9 11

Figure 10a. Radicals from Lǐ Fànwén 1997, p. 1088.

三畫	叮11 广11 屮12 疒15 丷15	于16 干16 冃16 冇16 幸17 肴17 才17 寸17 彡17 彐18 彑19 土19 巫19 艹20 爻20 工20 豸20	卢20 斥20 巾20 毋21	乡18 彡21 爿21 夂21 夂21 夂22 廾22
四畫	攴22 冃22 亢22 犯22 芹23 犯23 丫24 屮24 爻24 豸24 犬24 寸25	冗25 言26 冒26 冉26 冊26 冏26 冎27 冄27 幸27 幸27 爻27 攴28 爻28 灵29 豸29 豸29 辰29 丰31 爫31 丗32 彐32 云33 卅33	肩37 肯37 肺37 衣37 册37	卡37 毛37 引37 介37 冬38 多38 攵38 爻38 爻44 夂44 爻45 雨45
五畫	攴45 言45 弄46 孝46 享46 芹46 豸46 羊46 芹46 肴46 弄46 耳47 芽47 鸦47 爻47 爻47 爻47 爫48 雨48 半49 豸49	矛49 冒49 冒49 冉49 冉49 冒49 冓49 冉49 所50 言50 冒50 冒50 冒50 冒50 肃51 爻51 灵51 豸51 豸51 幸51 爻51 帝51 帝51 肃51 冒51 冕52 冄52 肴52 肴52 肴52 爻53 爻53 肴53 幸53 爫53 丞53 帀53 帀53 丗53 帀54	肩55 肱55 肝55 肯55 贝55 肯55	灸55 爻57 爻58 爻58 引58 冏59 爻59 爻59 卡59 肝59 手59 肴59
六畫	享60 肩60 弄60 亦60 肯60 爻61 皮61 芹61 弄61 肩61 冒61 肴61 爻61 爻63 爻64 青64 先64 雨64 半65 弄65	彝65 肩65 冒65 幸65 肝65 爻65 豸65 爻65 刻65 爻65 爻65 爻65 爻66 雨66 雨66 森66 丗66 冒66 肩66 彝66 彝67 肴67 彝67 爻67 幸67 爻67 帝67 帀67	肩67 肩67 肃67 鬼67 贝67	爻67 爻68 爻68 肩68 肴68 爻68 爻68 肴68 雨68 帀68 俸68

Figure 10b. Radicals from Lǐ Fànwén 1997, p. 1089.



1090

七畫	69 69 69 69 69 69 69 69 69 69 69 69 69 69 69 69 69 69 70 70 70 71	71 71 71 71 71 71 71 71 71 71 71 71 71 71 71 71 72 72 72 72 72 72 72 72 72 72 72 72 73 73 73		73 73
八畫	74 74 74 74 74 74 74 74 74 74 74 74 74 74 74 74 74 74 74 74 74	74 74 74 74 74 74 74 75 75 75 75 75 75	75 75	
九畫以上	75 75 75 75 75 75 75 76 76 76 76	75 75 75 76 76 76 76 76 76 76 76		

Figure 10c. Radicals from Lǐ Fànwén 1997, p. 1090.

(1)为了大家阅读方便，我们在正字表之前列出了检字部首，《正字表一》共 474 部。为了检索便利，凡是难于分辨其部首的字，我们均以其左部或上、下部为检索的部首，故部首偏多。部首次序按部首笔画数目多少排列，同画数的，按起笔（即书写时的第一笔）横（一）、竖（丨）、撇（丿）、点（丶）、折（𠃌）的顺序排列。同一部首的字，除去部首外，按剩余部分的笔画数多少排列，同画数的，仍按起笔横（一）、竖（丨）、撇（丿）、点（丶）、折（𠃌）的顺序排列。

由于西夏字笔画较多，难于检索，故我们仿照汉字的检索方法，拟订了西夏字的主、附笔形。主笔形先于附笔形，附笔形较多的，亦有先后顺序。主、附笔形及其先后顺序（"——→"箭头前为主笔形，后为附笔形，多种附笔形的，其在主笔形之后的排列顺序即其检字时的先后顺序笔形）：

横（一）——→𠂉（ ）

竖（丨）——→丨、丿（ 等中的竖笔）

撇（丿）——→𠂉、丿（等中的撇笔）

点（丶）——→丷（ 等中的点笔）

折（𠃌）——→横折𠃌（ ）、𠂆（ ）、乙（ ）、𠃍（ ）、𠃌（ ）

竖折𠃌（ ）、乚（ ）、𠄌（ ）

撇折𠂇（）

(2)正字表各字先后的排列顺序以字种为纲，别体、讹体附于正字之后。

(3)有成字作偏旁者，成字入该部（查找成字偏旁时，不论上、下，以笔画少者为准）。

(4)部首之后的数码，指该部首字在正字表中第一个字种的编号。

部首索引目录

一画(04)
 0001
 0046
 0191
0195
二画(13)
0239
0254
0264
 0415
 0417
0418
 0422
0435
0439
 0510
 0553
 0566
 0567
三画(32)
 0734
 0739
 0784
 0785
 0786
 0789
 0791
 0801
 0814
 0834
 0847
 0861
 0862
 0867
 0868
 0878
 0880
 0925
 0932
 0949
 0951
 0961
 1225
 1230
 1237
 1279
 1363
 1367
 1383
 1404
 1411
 1422
四画(62)
 1423
 1427
 1480
 1481
 1489
 1503
 1835
 1851
 1869
 1957
 1992
 1994
 1999
 2001
 2004
 2008
 2037
 2038
 2597
 2623
 2629
 2631
 2645
 2647
 2659
 2678
 2679
 2708
 2710
 2715
 2716
 2725
 2753
 2756
 2809
 2844
 2847
 2850
 2856
 2883
 2892
 2894
 2895

Figure 11a. Strokes and radicals from Hán Xiǎománg 2004, p. 11.

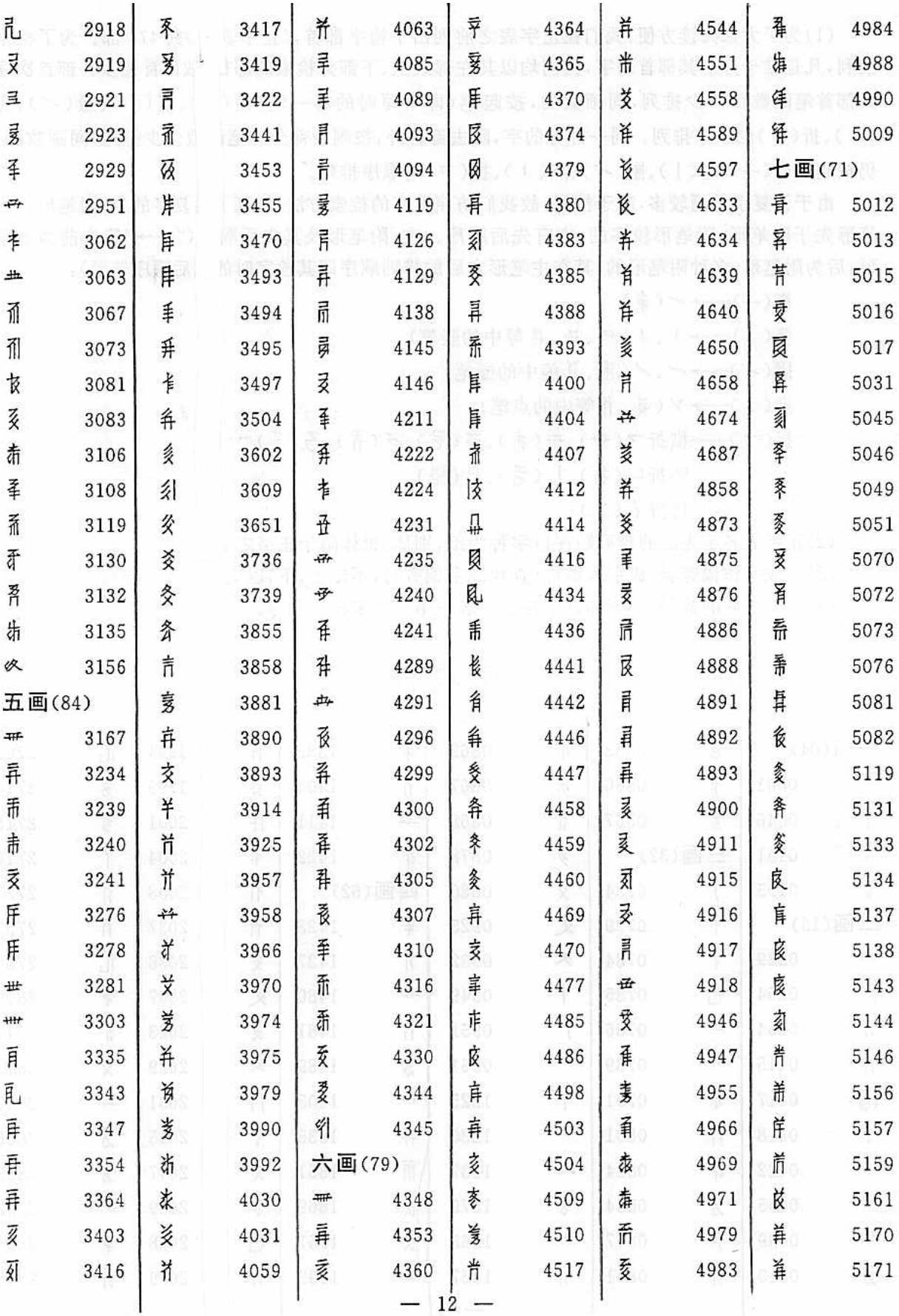
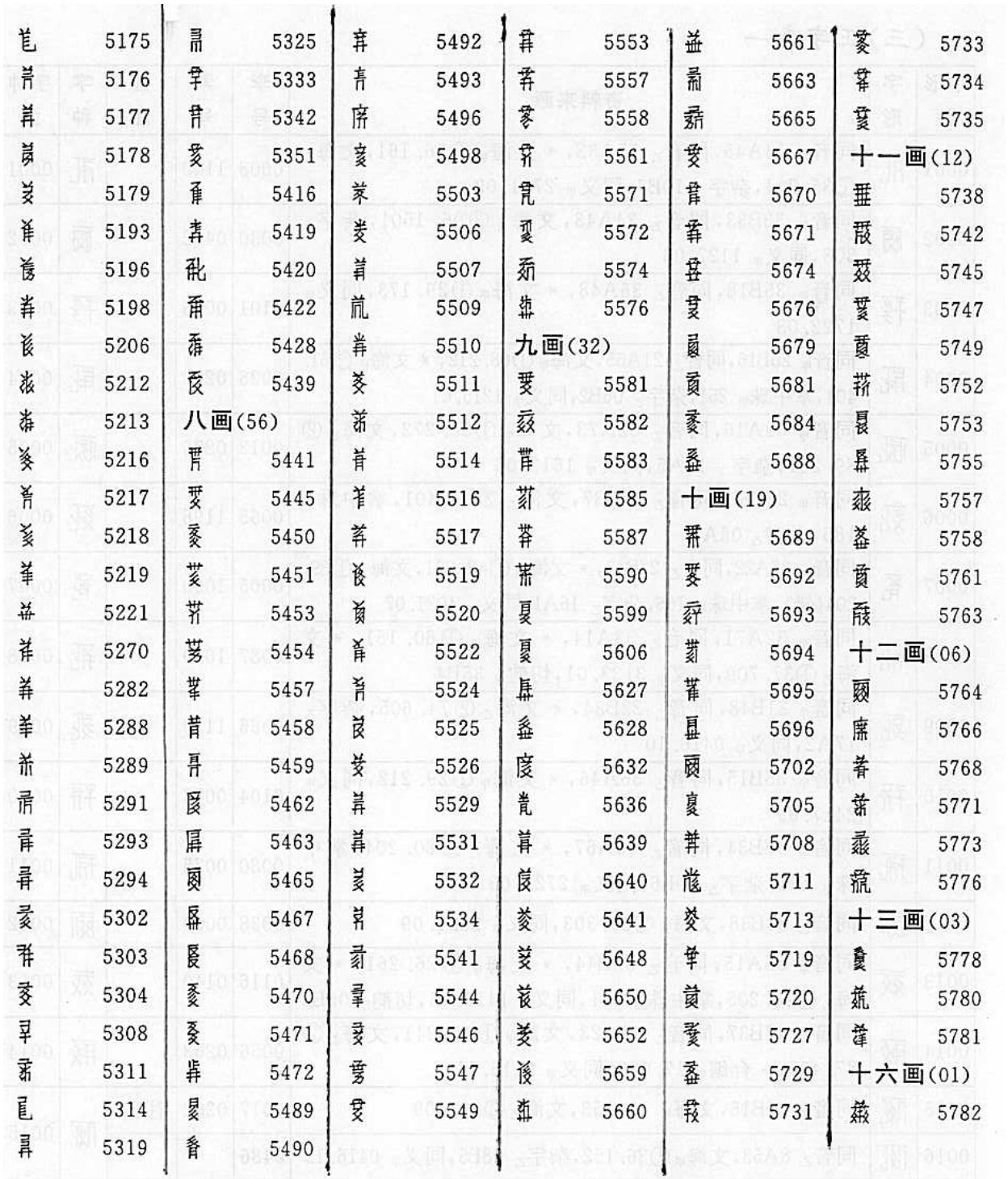


Figure 11b. Radicals from Hán Xiǎománg 2004, p. 12.



5175 5325 5492 5553 5661 5733
5176 5333 5493 5557 5663 5734
5177 5342 5496 5558 5665 5735
5178 5351 5498 5561 5667 十一画(12)
5179 5416 5503 5571 5670 5738
5193 5419 5506 5572 5671 5742
5196 5420 5507 5574 5674 5745
5198 5422 5509 5576 5676 5747
5206 5428 5510 九画(32) 5679 5749
5212 5439 5511 5581 5681 5752
5213 八画(56) 5512 5582 5684 5753
5216 5441 5514 5583 5688 5755
5217 5445 5516 5585 十画(19) 5757
5218 5450 5517 5587 5689 5758
5219 5451 5519 5590 5692 5761
5221 5453 5520 5599 5693 5763
5270 5454 5522 5606 5694 十二画(06)
5282 5457 5524 5627 5695 5764
5288 5458 5525 5628 5696 5766
5289 5459 5526 5632 5702 5768
5291 5462 5529 5636 5705 5771
5293 5463 5531 5639 5708 5773
5294 5465 5532 5640 5711 5776
5302 5467 5534 5641 5713 十三画(03)
5303 5468 5541 5648 5719 5778
5304 5470 5544 5650 5720 5780
5308 5471 5546 5652 5727 5781
5311 5472 5547 5659 5729 十六画(01)
5314 5489 5549 5660 5731 5782
5319 5490

Figure 11c. Radicals from Hán Xiǎománg 2004, p. 13.

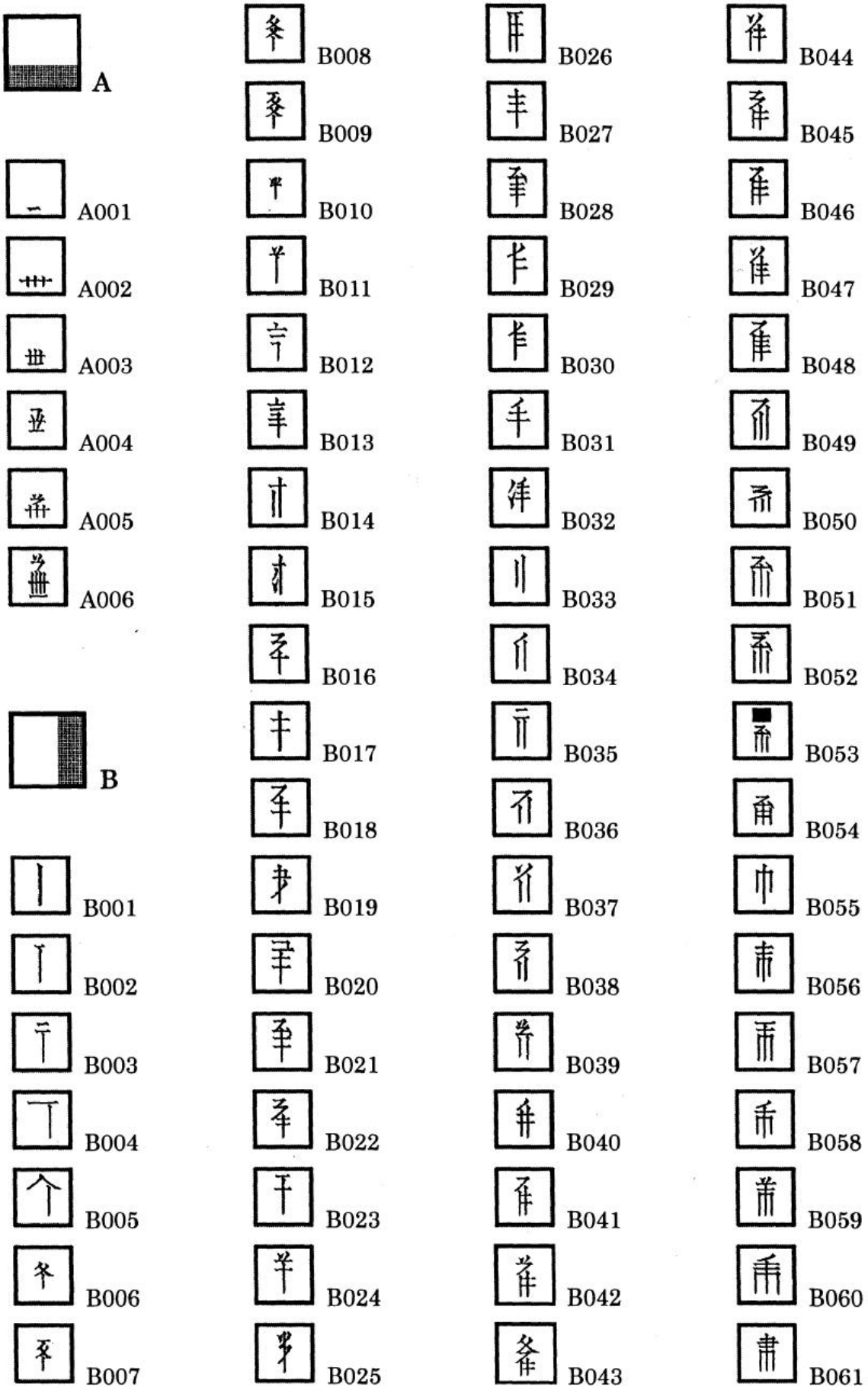


Figure 12a. Radicals from Kyčanov 2006, p. 2.

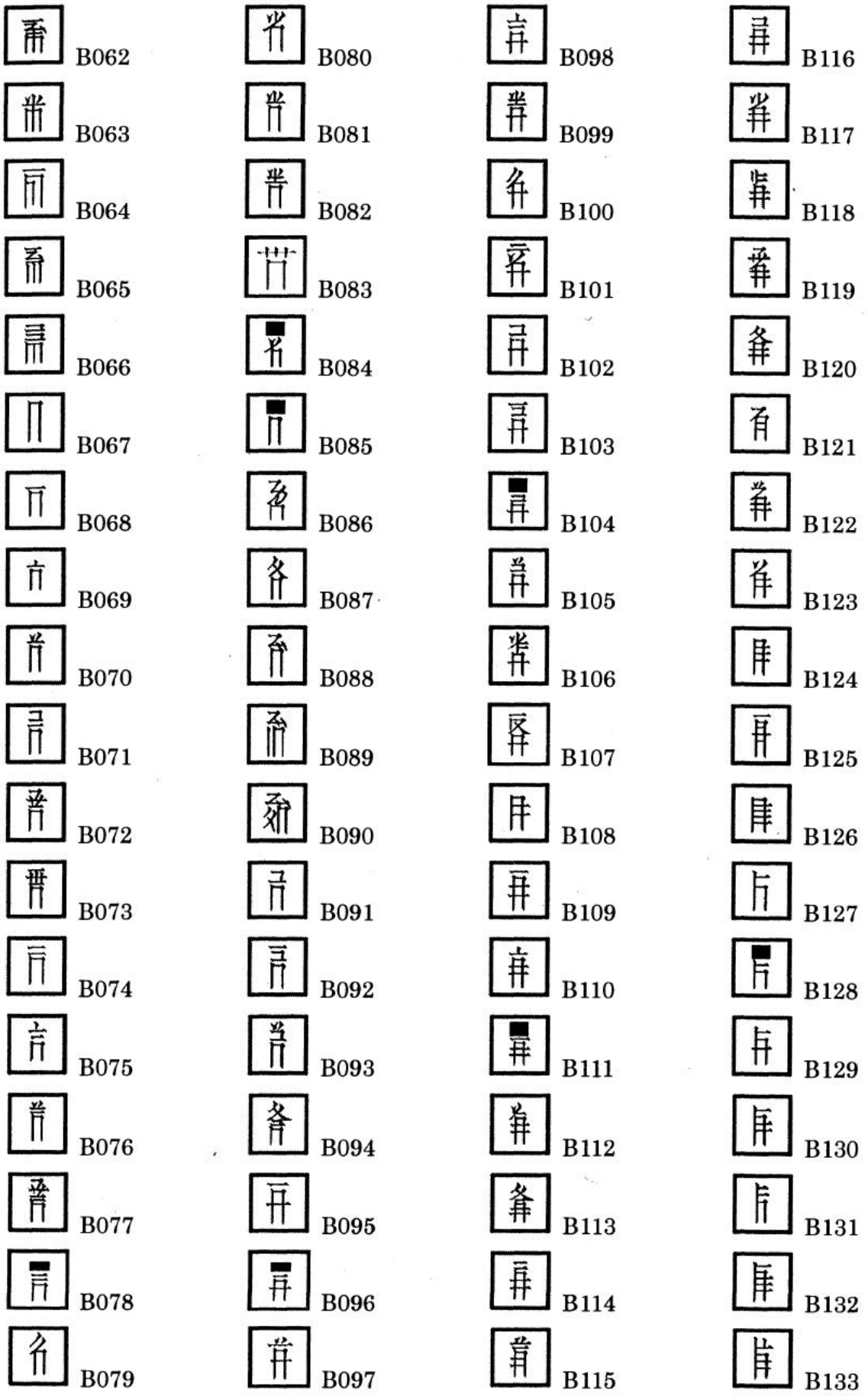


Figure 12b. Radicals from Kyčanov 2006, p. 3.

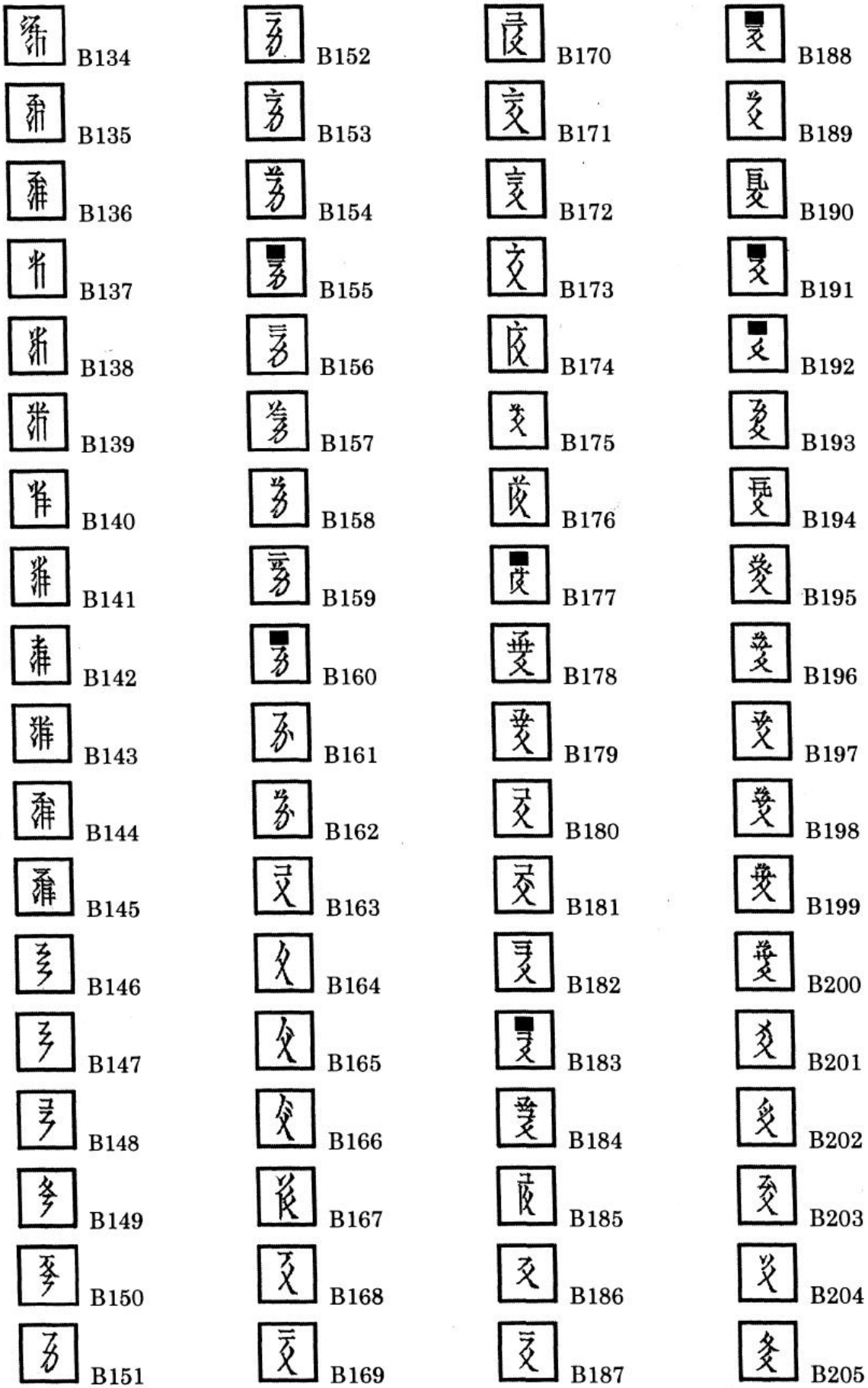


Figure 12c. Radicals from Kyčanov 2006, p. 4.

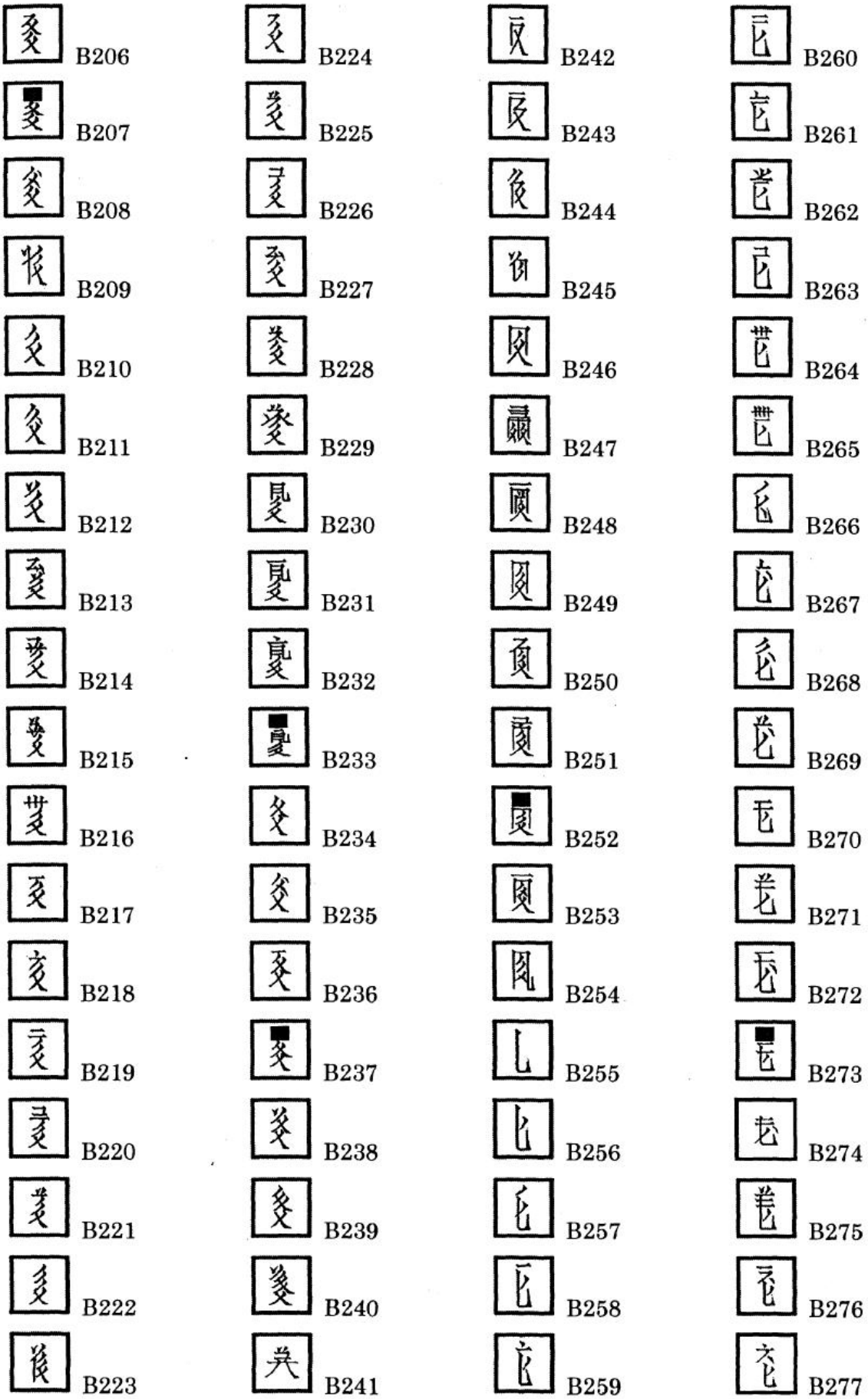


Figure 12d. Radicals from Kyčanov 2006, p. 5.

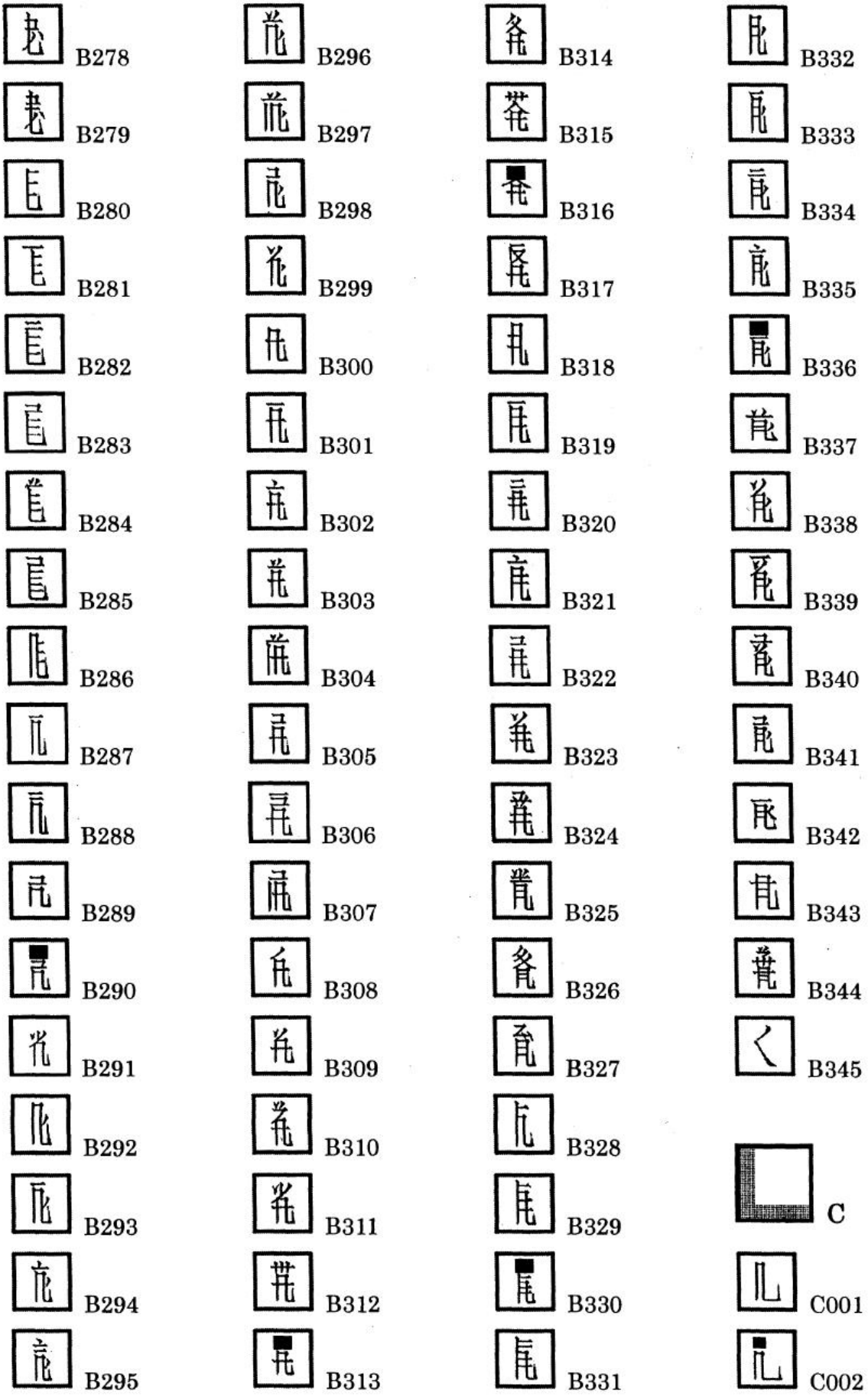


Figure 12e. Radicals from Kyčanov 2006, p. 6.

указателя классификаторов

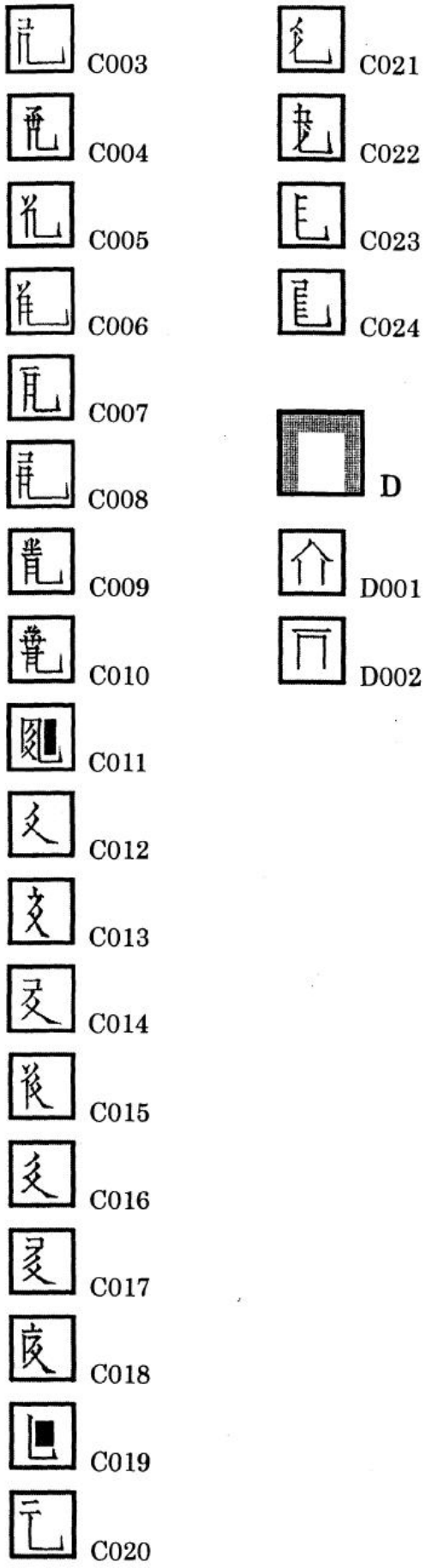


Figure 12f. Radicals from Kyčanov 2006, p. 7.

甲　筆形和代號：

筆名		號碼	筆形	字例	說明
單筆	橫	1	一 ㇀ ㇄	[illegible]	橫和橫上下鈎
	垂	2	丨 ㇒ ㇒	[illegible]	直和撇
	點	3	丶 ㇏	[illegible]	點和捺
復筆	叉	4	乂 ㇇ ㇉	[illegible]	兩筆交叉和橫穿一筆
	卌	5	扌 丰 卌	[illegible]	一筆橫穿三筆，直穿二至三筆
	卌	6	丰 卌	[illegible]	一筆橫、直穿四筆
	角	7	厂 ㇕ ㇛	[illegible]	一筆轉折和兩筆相接而成的角
	八	8	㇗ ㇘	[illegible]	類似漢字八和八的變形
	小	9	⺌ ⺍ ⺍	[illegible]	類似漢字小和小的變形

Figure 13. Strokes from Lǐ Fànwén 1997.

A. Administrative

1. Title

Proposal to encode Tangut Radicals and CJK Strokes in the UCS

2. Requester's name

Michael Everson and Andrew West

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

Individual contribution.

4. Submission date

2008-09-01

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

No.

6b. More information will be provided later

Yes.

B. Technical – General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

Yes.

1b. Proposed name of script

Tangut Radicals.

1c. The proposal is for addition of character(s) to an existing block

1d. Name of the existing block

2. Number of characters in proposal

806 (802 + 4).

3. Proposed category (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; D-Attested extinct; E-Minor extinct; F-Archaic Hieroglyphic or Ideographic; G-Obscure or questionable usage symbols)

Category F.

4a. Is a repertoire including character names provided?

Yes.

4b. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?

Yes.

4c. Are the character shapes attached in a legible form suitable for review?

Yes.

5a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?

Michael Everson.

5b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

Michael Everson, Fontographer.

6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

Yes.

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?

Yes.

7. Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?

Yes.

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

See above.

C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? If YES, explain.

No.

2a. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?

Yes.

2b. If YES, with whom?

Guillaume Jacques, Marc Miyake, Viacheslav Zaytsev

2c. If YES, available relevant documents

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?

Scholars.

4a. The context of use for the proposed characters (type of use; common or rare)
Rare.
4b. Reference
5a. Are the proposed characters in current use by the user community?
Yes.
5b. If YES, where?
In scholarly publications.
6a. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?
No.
6b. If YES, is a rationale provided?
6c. If YES, reference
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?
Yes.
8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?
No, since they are Radicals any similarities are to be expected.
8b. If YES, is a rationale for its inclusion provided?
8c. If YES, reference
9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?
No.
9b. If YES, is a rationale for its inclusion provided?
9c. If YES, reference
10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?
Yes.
10b. If YES, is a rationale for its inclusion provided?
Yes.
10c. If YES, reference
Radicals are normallydisunified from the base characters.
11a. Does the proposal include use of combining characters and/or use of composite sequences (see clauses 4.12 and 4.14 in ISO/IEC 10646-1: 2000)?
No.
11b. If YES, is a rationale for such use provided?
11c. If YES, reference
11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?
No.
11e. If YES, reference
12a. Does the proposal contain characters with any special properties such as control function or similar semantics?
No.
12b. If YES, describe in detail (include attachment if necessary)
13a. Does the proposal contain any Ideographic compatibility character(s)?
No.
13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?