

# WADE–GILES ROMANIZATION SYSTEM

*Karen Steffen Chung*

NATIONAL TAIWAN UNIVERSITY

The Wade–Giles Romanization system for standard Mandarin Chinese held a distinguished place of honor in Sinology and popular usage from the late nineteenth century until the 1970s, when it began losing ground to Hanyu Pinyin. But that is not to say that the Wade–Giles system was not, and is not still, without its problems, and consequently, its sometimes highly vocal detractors.

## **Historical absence of a phonetic alphabet, *fānqiè* and tone marking**

It is surprising that the Chinese did not develop their own phonetic alphabet before the arrival of Western missionaries in China starting in the sixteenth century. The closest they came was the use of the *fānqiè* system, under which

two relatively well-known characters, plus the word *fān* 反 or later mostly *qiè* 切, were given after a lexical item. The reader needed to take the initial of the first and splice it onto the final rhyme and tone of the second, to derive the pronunciation of the item being looked up. A typical entry is *dōng déhóng qiè* 東德紅切, i.e. *dé* plus *hóng* in the *qiè* 切 system make *dōng*. (The second tone had not yet separated from the first at this time, thus the difference in tones.) One big advantage of the system is that the *fānqiè* characters were already familiar to any literate Chinese, so there was no need to learn a new set of symbols. The disadvantage is that there is no way to know with certainty the actual phonetic realizations of the syllables at the time . . .

(*Chung 2013: 216*)

And instead of developing an alphabet or syllabary,

. . . the 10<sup>th</sup>-century monk Shouwen 守溫, who was possibly not an ethnic Han, developed an ‘alphabet’ for phonetic notation of Chinese characters for use in the rhyme books. It is interesting that, in spite of having the Sanskrit Devanāgarī alphabet as a model, he did not develop an alphabet or syllabary, but instead chose

30 existing Chinese characters to represent consonant or vowel initials. They were arranged in an order similar to that of the Sanskrit alphabet, according to, for example, whether a sound was voiced, voiceless, or voiceless aspirated. This set was later expanded to 36. The lack of a set of symbols indicating the values of individual segments is a big drawback of the system, but it does give us valuable categorical information on Middle Chinese.

(Chung 2013: 216)

Chinese scholars were well aware of the different possible phonetic values of *fānqiè* characters according to geographical dialect and historical period. They apparently did not, however, feel the lack of an alphabetic-type phonetic notation system acutely enough to design and adopt one for Chinese, in spite of its potential usefulness in dictionaries, rhyme books, recording dialects, teaching foreigners Chinese, and other applications.

A number of different strategies were adopted over history to indicate the tones of spoken Chinese. Attention to tone in rhyming syllables in early Chinese poetical works like the *Book of Songs* (*Shī Jīng* 詩經, ca. tenth–eighth century BC), is proof of early implicit awareness among the Chinese of the tonal categories. Exposure to Sanskrit in the course of translating the Buddhist sutras made the Chinese more explicitly aware of the tones as a key feature of their language. Shěn Yuē 沈約 (AD 441–513), in his *Sishēngpǔ* 四聲譜 ‘Tables of the Four Tones,’ unfortunately no longer extant, is attributed with being the first to label and describe the tones, as follows: *píng* 平 (‘level’), *shǎng* 上 (‘rising’), *qù* 去 (‘falling’), and *rù* 入 (‘entering’), used to refer to syllables ending with a /-p/, /-t/, /-k/ or a glottal consonant stop final. The word labels and table format continued to be the usual way tones were explicitly categorized in Chinese rhyme books, such as the *Guǎngyùn* 廣韻 ‘Expanded Rhymes’ compiled by Chén Péngnián 陳彭年 (AD 961–1017) (Chung 2013: 215–17). Around the same time, another method, the *sishēng quāndiǎn* 四聲圈點 (‘Four Tone Circle Marking’), came into use. In this method, the four tones were indicated by a circle, semicircle, or other mark written in one of the four corners of a Chinese character, starting with the *píng* being marked in the lower left-hand corner and moving clockwise around the character through the *rù*, which was marked in the lower right-hand corner (Branner 1997: 251; Simmons: forthcoming).

### Early efforts to Latinize Chinese

The first efforts at Romanizing Chinese can be traced back to Portugal’s quest for new lands to colonize and the Vatican’s for souls to win for the Church in the fifteenth and sixteenth centuries. In 1455, Pope Nicholas V issued the *Romanus Pontifex* papal bull in which King Alfonso V of Portugal was given permission, in ‘any of the provinces, islands, harbors, seas, and places whatsoever, acquired or possessed in the name of King Alfonso’, to:

. . . found and [cause to be] founded and built any churches, monasteries, or other pious places whatsoever; and also may send over to them any ecclesiastical persons whatsoever, as volunteers, both seculars, and regulars of any of the mendicant orders (with license, however, from their superiors), and that those persons may abide there as long as they shall live, and hear confessions of all who live in the said parts or who come thither, and after the confessions have been heard they may give due absolution in all cases . . .

(*Romanus Pontifex*: 1455)

Under this Portuguese-directed effort of the Roman Catholic church, European missionaries set out for Goa, India, Japan, and China, among other Asian destinations. A number of them settled in Portuguese-administered Macau, but their effectiveness was limited since they spoke only Portuguese. A request was sent to the Vatican for missionaries who were good at language learning so they could introduce their faith to the local inhabitants in their own tongues. Two linguistically talented Italian Jesuit priests were chosen for this work, Michele Ruggieri (1543–1607), who later went by the Chinese name Luó Míngjiǎn 羅明堅, and Matteo Ricci (1552–1610), called Lì Mǎdòu 利瑪竇 and styled Xī Tàì 西泰 in Chinese. They arrived in Goa in 1578 after an arduous voyage. The next year, Ruggieri, who had already learned Tamil, was sent to Macau to study Mandarin; Ricci followed him in 1582 (Hsia 2010: 41–75).

Both priests found Chinese very difficult to learn, citing its lack of inflection, the tones, the written characters, and the many dialects. Ricci described Chinese as ‘nothing like either Greek or German’, and pronounced it ‘the most ambiguous spoken and written language ever to be found’ (Fontana 2011: 35–7). But Ricci, relying on his systematic ‘Memory Palace’ method of memorization (Spence 1984: 1–4), succeeded in becoming literate in Chinese in just a year.

Ruggieri and Ricci’s goal was to introduce their religion to the people within China proper, so in 1583, after a previous failed attempt, they moved to Zhàoqing 肇慶 in Guangdong province. They remained there until their expulsion in 1588, translating Christian writings into Chinese, among other projects (Fontana 2011: 67–78). In order to help other foreigners desiring to learn Chinese, Ruggieri, with the collaboration of Ricci, compiled a 189-page Portuguese–Chinese word list in manuscript form, with the Chinese pronunciations written out phonetically in Latin letters. For centuries it was believed lost but was then rediscovered in 1934 by Pasquale D’Elia, SJ (Dé Lǐxián 德禮賢, 1890–1963) in the Jesuit archives in Rome (Yin 1994: 1–2). This is the earliest known effort at representing spoken Mandarin Chinese in Latin letters.

The letters chosen for the Ruggieri–Ricci system were based mainly on Portuguese and Italian pronunciation and orthography. The earliest incarnations of this system were far from rigorous. Aspirated vs. non-aspirated initial stops were not distinguished. This certainly can be attributed to the lack of corresponding equivalents in the Romance languages, in which there is a clear distinction between voiced and voiceless stops, but no secondary marking of the voiceless stops with aspiration, as is the case in English. Nor was there any indication of tone at this point; tone marks, along with aspiration marks, were not added until years later. Furthermore, different symbols were often used to represent the same sound, mostly due to the spelling conventions of Portuguese and Italian, for example, ‘c’ was used to represent both /k/ and /k<sup>h</sup>/ before /a/, /o/ and /u/, but ‘ch’ was used before /e/ and /i/, while ‘qu’ was used for /kw/ and /k<sup>h</sup>w/. So at this point the system could only be considered an impressionistic transcription.

Following a failed attempt to gain permission to reside in Peking in the winter of 1598, Ricci, together with Sebastian Fernandes (Zhōng Míngrén 鍾鳴仁) and another Jesuit priest, Lazzaro Cattaneo (Guō Jūjìng 郭居靜, 1560–1640), had to take a boat to Línqīng 臨清, Shandong. The weather was bad, and it took them a whole month to reach their destination. In order to use their time well, they collaborated on a Chinese–Portuguese Dictionary while in transit. Below is the story of how tone and aspiration markings were added to their Romanization system:

And so they spent one month [on the road] before they arrived in Lincin [Linch’ing].  
In order to avoid the wasting of time during this journey, those who were older in

the mission with the help of Brother Sebastian who knows very well the language of China, compiled a beautiful dictionary (*ferero un bello vocabulario*) that according to rule and order dealt with all things concerning this language so that from now everyone could easily learn the language. Since this language is composed of monosyllabic words or characters, it will be very much necessary to listen and pronounce the accent [i.e. tone] and the aspiration whenever these occur in each of the words; with this kind of pronunciation, they distinguish and understand many characters and words; without this, they appear to be identical; this is what makes this language more difficult to learn. And, to distinguish well the words which are aspirated, they devised five types of different accent marks; in this matter, Fr. Cattaneo helped very much with the knowledge he has of music. He observed and distinguished [tones] very well. For this, they decided to use five marks of accent and one mark of aspiration. And they used these marks in writing the sound of a character along with our [Roman] letters. They wrote everything this way so that all were in uniformity. And, Fr. Matteo [Ricci] ordered that from then on all [the Jesuit missionaries] should observe these rules and did not allow any person to write as he pleased; otherwise, there would be great confusion. In this way, one can communicate with this dictionary. Others that they compile later will be very well understood by everybody; and, in the same way, one could serve another with his own writings and notes with much fruit and usefulness of this science among us.

(FR II: 32–33) (cited in Ruggieri and Ricci 2001: 185)

Though this volume was unfortunately lost, the Romanization system they settled on survives in Ricci's 1606 collection of religious essays widely known as *Xīzì Qíjī* 西字奇跡 'The Miracle of Western Writing' (Yin 1994: 5). The essays were typeset vertically, from right to left, as was standard for Chinese at the time, with Latinized spelling added to the right of each character. Aspiration of initial stops was indicated by a reversed apostrophe, borrowed from classical Greek, in which it was used to indicate the 'rough breathing' [h] sound before a vowel, diphthong, or *rho* (Porter et al. 2010: 5). The tonal system employed matches that of the Nanjing dialect, the prestige speech form of the time. The five tones were marked thus: (1) The *yinping* 陰平 was marked with a macron over the main vowel, e.g. t'īēn 天 'sky', xīm 聲 'sound'; reconstructed value: 33 (mid level); (2) the *yangping* 陽平 with a circumflex, e.g. gīn 人 'person', yēn 言 'speech'; value: 21 (low falling); (3) the *shǎng* 上 with a grave accent: yù 雨 'rain', xù 水 'water'; value 42 (mid falling); (4) the *qù* 去 with an acute accent: ván 萬 'ten thousand', súi 歲 'year', value: 35 (mid rising); and (5) the *rù* 入, the entering tone, with a breve: pě 百 'a hundred', nhiě 業 'enterprise', value 45 (high rising); (Ruggieri and Ricci 2001: 53). These additional markings rendered the system a much more complete, accurate and usable one.

One interesting quirk of the system: the velar nasal final /ŋ/ is represented as '-m', a choice that is quite confusing to a modern reader. In fact, however, there was by this time apparently no bilabial nasal final in Nanjing Mandarin, so the symbol is unambiguously /ŋ/. This can be fairly easily accounted for – neither Portuguese nor Italian has a phonemic velar nasal, so there was no immediately obvious symbol for the Chinese /ŋ/. '-m' in initial position still represents [m-].

The Flemish Jesuit priest Nicolas Trigault (Jīn Nígé 金尼閣; 1577–1628) further tweaked and refined the Ricci–Ruggieri–Cattaneo system in his 1626 Chinese lexicon for Western learners of Chinese, *Xīrú Ērmù Zī* (西儒耳目資 'Aid to the Eyes and Ears of Western Literati'), mainly by reducing the number of symbols used. The entries were arranged

by rhyme, with Romanization provided for each. In addition to simplifying the spellings, it is notable that Trigault carefully maintained the aspiration and tone markings for each character. This same system was also adopted by later scholars and missionaries, including Martino Martini (1614–61), Francisco Varo (1627–87), Prospero Intorcetta (1626–96), and Joseph Henri-Marie de Prémare (1666–1736), (Yang 1989: 221; Coblin 2006: 26; Klöter 2011: 103, cited in Simmons: forthcoming). The tone markings eventually adopted for use with the Zhùyīn zìmǔ 注音字母 phonetic alphabet in the early twentieth century, and later the Yale and Pinyin Romanization systems, represent a continuation of this approach.

### The Protestant Missionary Period

The nineteenth century was a period of intensive Protestant missionary activity in China, which provided an impetus for the production of several substantial English-language Chinese dictionaries and grammars. Some of the most notable figures in this effort were Joshua Marshman (Mǎ Shìmàn 馬士曼; English; 1768–1837), who very curiously learned his Chinese and published a book on the phonology and grammar of Chinese while living in India; Robert Morrison; Walter Henry Medhurst (Mài Dūsī 麥都思; English; 1796–1857), who published his *English and Chinese Dictionary* in 1848; and Samuel Wells Williams (Branner 1997: 235–6). All relied on native Chinese sources; each based their dictionaries on an existing Chinese rhyme book or lexicon, adding Romanization, English glosses or definitions, plus their own additional material. James Legge did not compile a dictionary, but was highly prolific in his translations of the Chinese Classics.

#### Robert Morrison

Up through the 1840s, missionary work was both difficult and dangerous, since it was forbidden to preach Christianity in China, and Chinese were also forbidden to teach foreigners the Chinese language (Branner 1997: 235). Punishment for violations was harsh. Knowing he would not be allowed to openly preach in China, Robert Morrison (Mǎ Lǐxùn 馬禮遜; Scottish; 1782–1834) set other more attainable goals for himself: producing a new, colloquial translation of the Bible, a Chinese grammar, and a Chinese dictionary to help others learn the language. He based his three-volume *A Dictionary of the Chinese Language*, which took him 16 years to complete, on Chén Jīnmó's 陳蓋謨 Chinese rhyme book *Wūchē Yùnfǔ* 五車韻府 (Xu n.d.: 3), and referred frequently to the *Kāngxī Dictionary* 康熙字典. Morrison had many setbacks to deal with, including the theft of the italic type intended for use in printing the dictionary, from the ship bringing it from England. The work was originally published in 1815; slightly revised editions were reissued in 1819, 1865, 1879, and 1907.

All in this group of writers, including Morrison, drew heavily from the work of the earlier Catholic missionaries, but as native speakers of English, they Anglicized it considerably. Table 42.1, a list of some of the symbols Morrison chose for his own scheme, provides a snapshot of one stage in the process of developing a rigorous, practical system of Romanization for Chinese. Though Morrison's system was not such yet, he certainly made an effort at consistency and to show all the phonetic distinctions of Chinese with unique spellings. In his preface he writes, 'Without assuming that the orthography adopted is the best possible, it is affirmed that to enable a person to judge, it is requisite that he first spell *all* the Chinese words; for to judge of single words only will mislead and subject him to the absurdity of giving the same spelling for different sounds' (Morrison 1865: vi). Some of the examples

Table 42.1 Some of Morrison’s spellings and descriptions of the phonetic values

<i>Morrison</i>	<i>IPA</i>
A, as in <i>hard</i>	[ɑ]
Ā, as in <i>hat</i>	final: [ɑʔ], medial: [ə]
AE, broad A coalescing with E, forming a sound like <i>igh</i> in <i>high</i>	[ai]
AOU, broad A and OU coalescing	[au]
AY, as in <i>may</i>	[ei]
E, final, as in <i>me</i>	[i]
Ē, as in <i>met</i>	final: [ɛʔ], medial: [ɛ]
EU, as the sound of EU in the French word <i>peu</i> [Note: <i>peu</i> is certainly not an accurate example; it is everywhere used here for the rounded high front vowel [y]]	[y]
EW, as in <i>new</i>	[iu]
ĪH, a sound similar to that given by the Letter I, when in pronouncing the word <i>with</i> , the Reader stops short at the I	[iʔ]
G, is hard in <i>Gih</i>	[g]
J, as in French	[ʒ]
Ō, as in <i>hot</i>	[ɔʔ]
OW, as in <i>how</i> [Note: syllables with this spelling are pronounced [ou] in modern Mandarin, e.g. kh'ow 口 kǒu, ch'ow 酬 chóu; written 'eu' by Ricci]	[ou]
U, nearly like EU, as above [Note: final [u] is spelled as 'oo']	medial: [u], [ɔ]
UH, as in <i>hut</i>	final: [əʔ]
ZE, a buzzing sound, which cannot be expressed by the Roman Alphabet [Note: This is used in the <i>zi</i> , <i>ci</i> , <i>si</i> apical-dental series]	Used in: [tsi], [tsʰi], [si]

(Morrison 1815 Ib: xvii).

given to approximate the sounds are less than clear, and often quite misleading, as with the French *peu*. IPA symbols are added to indicate the probable pronunciations he meant to represent, based on an examination of the entries using each respective spelling.

He also uses an unlauded ‘e’ (ĕ) for an [i] onglide. His choice of ‘how’ (in Scottish English, presumably [hɔu]) as an English approximation to represent the [ou] vowel in 口 kǒu is unexpected. Also, his spelling of 口 kǒu is ‘kh’ow’, which has both an ‘h’ and an apostrophe to indicate aspiration; this practice was not followed with the other initial stops, e.g. 多 duō is spelled ‘to’, with 拖 tuō being spelled ‘t’o’ and not ‘th’o’. With ‘t’ and ‘p’, however, there is the risk that readers would interpret and pronounce them as the English digraphs ‘th’ [θ] and ‘ph’ [f]; but then why use the ‘h’ with the ‘k’, or at all? This is apparently one example of the system’s lack of rigor. But the author reminds us in the ‘Advertisement’ of the 1815 edition not to ‘find fault with the errors of the Work, merely for the sake of publishing a piece of smart Criticism . . . The Writer is very far from standing forward with proud pretensions to excellence in his plodding task’. His task was in fact not an easy one.

Morrison mentions that ‘the Europeans say that there are five tones, and generally speak of them by “first, second,” &c. according to the order in which they stand above’, but then goes on to give examples of Romanized Chinese syllables with tones indicated by diacritics (Morrison 1815: 20). So designating tones by number was still mainly an informal oral practice, following the native Chinese order that Ricci adopted.

In part 1, vol. 1 of the 1815 edition, Morrison introduces a system for marking the tones: (1) ‘Ping-shing’ 平聲, is left unmarked (*yín píng* and *yáng píng* are not distinguished here but are described elsewhere); (2) ‘Shang-shing’ 上聲, is denoted by the grave accent (i); (3) ‘Keu-shing’ 去聲, by the acute accent (i); (4) ‘Juh-shing’ 入聲, by the short accent (i); and the aspirate, by (’h.) (Morrison 1815: xvii). In part 2, vol. 1 of an 1819 edition, under ‘Rules for Using the Dictionary’ (p. xiii), he uses a macron for the first tone. The tones are marked in the 1815 edition, but not in the 1865 one, except for the entering tone. One should perhaps allow that his system was still developing and in flux, but it is quite confusing for the reader.

Morrison confirms that the form of Mandarin represented in his dictionary was, as was also generally the case thus far starting from Ricci, ‘rather what the Chinese call the Nanking Dialect, than the Peking’. His descriptions of the differences between the Beijing and Nanjing dialects offer elucidation as to which pronunciations were current in the two dialects during this time, adding that the ‘changes are tolerably regular and uniform, so that it is not difficult in speaking to adopt either the one Pronunciation or the other’ (Morrison 1815: xviii). We learn from this that:

1. The ‘k’ initial in syllables like ‘king’ for 京 *jīng* and ‘keang’ for 江 *jiāng* was indeed only a Nanjing pronunciation; in Beijing these would be ‘ching’, and ‘cheang’ or ‘tseang’ in this system, confirming that in Beijing these sounds were already the affricated alveolo-palatal [tʃei], or apical dental [tʃi].
2. Initial [hi] and [he] were in Beijing Mandarin [çi] or [si].
3. ‘chang’ and ‘tsang’, ‘cho’ and ‘tso’, ‘man’ and ‘mwan’, ‘pan’ and ‘pwan’, ‘we’ [wi] and ‘wei’ are often used for each other or ‘confounded’ in some informants. The loss of the labialized onglide of vowels following bilabial initials was subsequently completed with unrounded vowels such as /a/, but it was retained with the rounded /ɔ/, e.g. 波 *bō* [pɔɔ].
4. The final glottal stop of the old entering tone syllables had by this time disappeared from Beijing Mandarin, so ‘müh’ becomes ‘moo’, ‘pih-king’ becomes ‘pei-ching’. Morrison adds an interesting personal comment on the aesthetics and ease of articulation of these respective sounds: ‘The soft and lengthened sounds are more pleasing to the ear; and to a person accustomed to speak English, require less effort than the Short Tones.’
5. The distribution of initial ‘f’ and ‘p’ had not yet fully stabilized; [f] derived historically from /p/, and the sound change seems to have been incomplete – and this is true even today; also, ‘nwan’ and ‘lwan’, ‘sh’ and ‘ch’, ‘ts’ and ‘ch’ are occasionally used for each other.

These rules go a long way toward explaining some of the persistent variation observed in Romanization systems of Mandarin, also the origin of ‘Peking’ and ‘Nanking’ type spellings, especially those used in the French-influenced ‘Postal’ Romanization system – French was the language of the international postal system.

Aspiration marks were not included in first edition of the dictionary, but were added in the 1865 reprint. The author notes: ‘The reprint was commenced on the principle of the original, without a distinctive representation of the aspirates, but from an early period their importance was recognized, and they were accordingly introduced’ (p. ix), more or less retracing the steps of Ruggieri and Ricci. Morrison says further in his 1815 *Grammar*: ‘Another variety in the Chinese syllables is marked by an aspirate placed with the other marks . . . The aspirate the Chinese do not seem to consider a modification of the same

syllable, but a quite different initial sound.’ And regarding the tones: ‘The pronunciation of the Tones can only be learned from a living instructor. They are not absolutely necessary to be understood in speaking Chinese; but are yet essential to *good* speaking. Hence an early attention to them is advisable’ (Morrison 1815: 21). Westerners seemed to find the aspirated–unaspirated distinction a major stumbling block to learning Chinese well, almost as difficult as the tones. The view starting with Ricci that aspiration is ‘something added’ was perpetuated in the Wade–Giles system, and in fact was probably its biggest fatal flaw.

### *Samuel Wells Williams and James Legge*

The problem of designing and popularizing a transparent, consistent system of Romanization was a major concern of Samuel Wells Williams (Wèi Sānwèi 衛三畏; American; 1812–84), a contemporary of Thomas Wade. Williams was born in Utica, New York, and began his career in China in 1833 as a printer for the Canton Mission Press, but later became secretary-interpreter for the US legation to China, in 1856. From 1860 to 1862 he was in the United States but returned in 1862 to the US legation in Peking, where he remained until 1876.

During this period, he compiled his *A Syllabic Dictionary of the Chinese Language*, which was published in 1874. The rhyme book Williams based this work on was the *Wūfāng yuányīn* 五方元音. As described in his preface, he consciously chose a ‘general’ Mandarin pronunciation style not tied to any one specific locality. This brought his Romanization system a giant step closer to the Beijing-based Wade–Giles system soon to follow. It still had some pre-modern features, such as ‘h’ for some syllable types (‘heung’ 兄 xiōng, ‘hew’ 休 xiū; probably pronounced with an initial [x-] at the time) and ‘s’ for others (‘sü’ for 須 xū and 徐 xú) that start with a [ɕ] initial in contemporary standard Chinese. ‘Chia’-type spellings superseded the previous ‘kia’-type spellings for syllables like 加 jiā. He marked the tone of each character using the semicircle method. In addition, Williams hoped that his Romanization system could be easily convertible into China’s many local dialects. To this end, his dictionary features pronunciations for the speech of (in his orthography) Canton, Swatow, Amoy, Fuchau, Shanghai and Chifu, in addition to Mandarin.

Williams sums up his view of the problem thus: ‘If the difficulties of illustrating and analyzing the sounds in their language are almost insurmountable to Chinese philologists, the results of various attempts of foreigners to do so have not the less proved the inherent difficulties of the attempt; and a comparison of their various systems does not encourage the hope that anything like uniformity will ever be attained’ (Williams 1874: xviii). With this dictionary, Williams certainly tried his best to achieve this, though like with Morrison, his system was in constant flux.

James Legge (Lǐ Yǎgè 理雅各; Scottish; 1815–97), another contemporary of Thomas Wade, viewed himself primarily as a missionary, but at the same time also devoted himself whole-heartedly to the translation of the Chinese Classics during his more than 25 years in the Far East, from 1839 to 1867. He continued his translation work full time for 20 more years after assuming the new Chair of Chinese Language and Literature at Oxford in 1876. His goal in this work was to help the rest of the world to ‘really know this great Empire’ and also that ‘our missionary labours among the people should be conducted with sufficient intelligence and so as to secure permanent results’ (Ride 1991: 1).

In his first edition of the Chinese Classics, Legge adopted Morrison’s Romanization system, without tone marks, though he did use the circle method directly by the Chinese character to indicate the tone of characters with an alternate reading. For his *Sacred Books*



of *China* series (1879–91), however, he began using Thomas Wade’s system. Legge’s work thus reflects the historical transition from Morrison’s systems to the next step in the development of a more rigorous Romanization system that received wide public acceptance, Wade–Giles.

### Thomas Francis Wade

We now move into the period of Western – mainly English – learners and interpreters of Chinese language and culture who found themselves in China for secular reasons, government service in particular.

Sir Thomas Francis Wade (Wēi Tuǒmǎ 威妥瑪, occasionally also Wēi Dé 偉德; English; 1818–95) had a multicultural upbringing. He was born in London, and educated in Mauritius, in Cape Colony, South Africa, at Harrow School in London, and at Trinity College, Cambridge. He was known for his excellent memory and love of languages.

Wade’s father cut his university education short in 1838 to enlist him in the military. Wade served in England, Ireland and Greece, where he learned Greek and Italian, before being sent to Hong Kong in June 1842. Wade plunged into his study of Chinese during the long journey to his new post. His knowledge of Chinese, something quite rare among Westerners at the time, led to his being appointed to various positions as interpreter, including as interpreter of Cantonese to the Supreme Court of Hong Kong. He was later appointed assistant Chinese secretary to superintendent of trade Sir John Davis, then as vice-consul at Shanghai, during which time he concurrently helped establish the foreign maritime customs. He served in further appointments in Hong Kong and China, and assisted in the negotiations which led up to the Treaty of Tientsin of 1858. Wade was knighted in 1875. After over 40 years in the British foreign service in China, he returned to England in 1883. Three years later he donated 4,304 Chinese books, mainly literature, to the Cambridge University Library’s Oriental Collection. He served as president of the Royal Asiatic Society from 1887 to 1890. In 1888, he was elected the first Professor of Chinese at the University of Cambridge, a position he held until his death at 77 (Douglas 1899: 420).

Wade produced a number of pedagogical works on the Chinese language for foreigners. Of these, two had a lasting impact. The first was his *Peking Syllabary*, subtitled: *being a collection of the characters representing the dialect of Peking; arranged after a new orthography in syllabic classes, according to the four tones* [emphasis added], designed to accompany his *Hsin Ching Lu* (*Xúnjīnlù* 尋津錄), or, *Book of Experiments, Being the First of a Series of Contributions to the Study of Chinese*, published in Hong Kong in 1859. Wade’s intention in this work was to provide a Chinese reader useful to ‘student interpreters in service of the British government’. It consists of a collection of specially written Chinese phrases and sentences, plus Emperor Kangxi’s *Sacred Edict*, first in English, with notes, and tone and pronunciation exercises; then in the original Chinese, typeset vertically, with the pronunciation of each character given in Romanization, reminiscent of Ricci’s essays. An alphabetically arranged character index is appended at the end. Wade tried in earnest to produce a practical work, useful in learning everyday conversation. But with the 1919 May Fourth vernacular literature movement still a ways into the future, there was little precedent for such. So the content and language of the work are in fact quite stilted and far from colloquial, nor is the subject matter particularly engaging. But it comprised a rare bilingual text potentially useful to anyone of the time wishing to advance their knowledge of Chinese. The influence of the *Syllabary*, however, turned out to be considerably more far-reaching than that of the texts themselves.

The other highly influential and popularly successful work was Wade's *Yü-yen Tzu-erh Chi: A progressive course designed to assist the student of colloquial Chinese*, London, 1867, with a number of subsequent editions. The Chinese title, *Yüyan Zi'erji* 語言自邇集 is based on a quote from chapter 15 of *The Doctrine of the Mean* (*Zhōng Yōng* 中庸): *Pì rú xíng yuǎn bì zì ěr; pì rú dēng gāo bì zì bēi* 辟如行遠必自邇, 辟如登高必自卑 (J. Legge 1991: 396): 'To go to a distant place, you must begin by treading the ground nearby; to ascend a hike peak, you must begin from a lower level.' Starting from the release of the first edition, it was certainly the most often-used text by beginners of Chinese at the time; it was also adapted for use in Japan (Sinclair 2003: 147–74).

Useful as it was, especially in the near-absence of viable alternatives, like the *Hsin Ching Lu*, it contained outdated, naïvely quaint, and impractical material in parts, some of which was edited out in later editions (in the 1903 edition, the sections entitled 'The Hundred Lessons' and the notorious 'Graduate's Wooing' were taken out); it was also criticized for presenting too much material too quickly, as noted by the author himself in his Preface to the 2<sup>nd</sup> edition. It did, however, help uncounted people in the daunting task of learning the Chinese language.

These works mark two significant developments in the history of Romanization in China. First was the shift from the Nanjing to the Beijing dialect as the standard for Mandarin Chinese. Wade puts it thus in his introduction to the *Hsin Ching Lu*:

'The Dialect of Peking is to China what the Parisian of the salons is to France. It is forty years since Dr. Morrison predicted that it would corrupt the general language of the Empire, and we make bold to say that this prediction has been to a great extent fulfilled. The officials born at a distance from Peking strive generally to catch the Peking accent; it is the fashion to acquire it.'

(Wade 1859: Introduction)

Secondly, it set down the Wade system of Romanization in preliminary form, and helped establish it as the clear winner among all the proposed orthographies up to that time. The Romanization of Mandarin had been in flux for centuries, due to the different language backgrounds of the writers involved in the transcription process, and also on account of some of the particular features of Mandarin, such as aspiration and the tones, that tended to confound Westerners. Wade did not find it easy to satisfactorily sort everything out either. 'The best orthography, doubtless, would be one which conformed exactly to the alphabetic prejudices of the person who had to use it; but the anomalies of English pronunciation make it very difficult indeed to avoid shocking these', Wade observed (Wade 1859: 82).

In Wade's system, aspirated initial stops and affricates were consistently marked with a reversed apostrophe, similar to Williams, who used the symbol ' . The entering tone was now out of the picture, though its loss resulted in some irregular and unstable vowel finals, true even to the present day. And, following Thomas Taylor Meadows (Meadows 1847: 59–66), the four tones were indicated with superscript numbers, whereas Williams used semicircles.

Some other notable features of Wade's system:

1. Wade employs two diacritical marks, in addition to the apostrophe.
  - a. Like Williams, he uses an umlaut over the 'u': 'ü', certainly borrowed from German, to represent the rounded high front vowel /y/; previously it had been written as 'yu', 'iu' and 'iuu', by Ricci, and as 'eu', and sometimes 'ü', by Morrison.

- b. He uses a circumflex over ‘e’ for [ə] as in 很 hěn [hən], writing it as ‘hên’; compare to ‘hân’ in Morrison and Williams.
2. He uses ‘o’ for an open-syllable [ɤ] vowel, e.g. 可 kě is k’o, apparently because that is mainly how it was pronounced at the time, although it probably belongs to the same phoneme as ‘ê’.
3. He has an unexplained aspiration mark before some but not all syllables with a /h-/ initial, e.g. ‘hsia’ for 蝦 xiā, but plain ‘hsiang’ for 鄉 xiāng.
4. Morrison’s ‘hi-’ and ‘si-’ are now ‘hs-’, e.g. ‘hsiang’ 兄 xiōng, ‘hsün’ 訓 xùn; compare to Williams’ ‘hiung’ for 兄 xiōng, ‘siün’ for 訓 xùn.
5. Initial ‘ng-’ is gone, e.g. in ‘ai’ 愛 ài and ‘wo’ 我 wǒ: compare to Williams’ ‘ngai’ and ‘ngo’.
6. He uses ‘hu-’, rather than ‘hw-’ as in Williams.
7. There is no *jiāntuán* 尖團 distinction, i.e. between alveolo-palatal ‘ch-’/‘ch-’ 經/輕 and dental ‘ts-/ts-’ 精/青; both sets are ‘ching’/‘ch’ing’ jīng/qīng.
8. Both ‘yi’ and ‘i’ are used.
9. A final ‘h’ is used in ‘yeh’ yè 葉; compare to ‘yé’ in Williams, with ‘yeh’ for entering tone syllables.
10. There are alternate forms for some of the syllables, mainly the aftermath of lost entering tones, e.g. ‘yo’ (or ‘yao’) for 約, now pronounced ‘yüeh’/yuē; and for 藥 yào, also listed under ‘yao’; and 若 ruò, also under ‘jo’.
11. He reflects the [ə] offglide in /-un/ finals, giving both e.g. ‘kun’ and ‘kuen’ for 滾 gǔn [kʊ̯n].
12. On the other hand, no onglide is given in e.g. ‘to’/‘t’o’ [tuɔ]/[tʰuɔ] 多/拖 duō/tuō, ‘tso’/‘t’o’ [tsuɔ]/[tʰsuɔ] 做/錯 zuò/cuò, as in Williams. This is perhaps defensible in the case of ‘po’, ‘p’o’, ‘mo’, and ‘fo’ because lip rounding was considered to be inherent in labial initials, but it is not immediately clear why it was also done for the dental/alveolar series of initials. Perhaps because it was because omitting it does not cause any ambiguity. ‘u’ is added after the velar initials: ‘kuo’, ‘k’uo’, ‘huo’, where omitting it would cause confusion with ‘ko’, ‘k’o’, ‘ho’.
13. He simplifies triphthongs, as is now done in Pinyin, though inconsistently, e.g. the ‘e’ is included in ‘kuei’ 歸 guī and ‘k’uei’ 虧 kuī, but not in ‘shui’ 水 shuǐ.
14. He uses ‘urh’ instead of ‘êrh’ for 而 ér; this was later modified.

Wade’s system was quite close in many ways to Williams’ scheme, making allowances for their different dialect bases of Nanjing vs. Beijing, which dictated the inclusion vs. omission of the entering tone, and ‘k-/k’-’ vs. ‘ch-/ch’-’ initials. Since the two were contemporaries, it is hard to know from which direction the influence primarily flowed, or if it was bidirectional.

### Herbert Allen Giles

Herbert Allen Giles (Zhái Lǐsī 翟理斯; English; 1845–1935) began his career in the British foreign service in Peking, after having passed the competitive examination for a student interpretership, the usual starting point for junior trainees. Giles served as a British consular official in various parts of China (1867–92). His first post was to Taiwan in 1867, and he also served as British Consul at Tamsui (Danshui) (1885–87). He served as interpreter at Tientsin, Ningpo, Hankow and Canton, then also in various positions in Swatow, Amoy, Pagoda Island, Shanghai, and Ningpo. Giles was apt to express views that did not accord

with official policy or public opinion at home. It probably for this reason he was often transferred to different posts, and did not rise high in the foreign service. This seemed to suit him reasonably well, because by ending up in positions with fewer responsibilities, he won more time to engage in his own ‘real’ work, the translation of major Chinese language works, and his own writing.

Giles resigned his post on health grounds in 1893 after 25 years in the service. He had by then made a name for himself in Sinology, and in 1897, despite his lack of formal qualifications, he succeeded Thomas Wade as Chair of Chinese at Cambridge. He was the only Sinologist at Cambridge and had few students, so he was able to devote himself almost full time to reading the Chinese books donated by Wade, of which he became Honorary Keeper, and translating and publishing what he gleaned from his wide reading. He retired in 1932, and passed away in 1935 at the age of 90.

Giles was curmudgeonly, irascible, and did not ‘suffer fools gladly’, even judging solely from his own memoirs. He was quick to denigrate others, especially their writings, often not content to merely point out errors, but adding a few choice epithets in a personal attack as well, which resulted in more than a few irreparable ruptures with others. Giles was particularly disparaging of Thomas Wade, most of all for his *Tzu-erh Chi*, with which Giles began his own study of Chinese. This may be surprising in view of how closely Giles’ and Wade’s names later came to be associated with each other – some have even assumed that Wade–Giles was the hyphenated name of a single individual (Language Hat 2006) – but is perhaps better viewed as simply a relatively extreme example of ‘literati looking down on one another’ *wénrén xiāngqīng* 文人相輕 in order to shore up their own image and position. At the end of his life, Giles was said to be on speaking terms with only one of his surviving children. His memoirs, however, show him to have been a dedicated family man, and he gave his second wife Elise frequent and profuse thanks for all her careful, painstaking proofreading of his writings (Aylmer 1997: 1–6).

Giles was a highly prolific translator into English of significant Chinese literary works, such as the Confucian *Analects*, *Zhuang Zi*, *The Three Character Classic*, *The Hsi yüan lu*, or, *Instructions to coroners*, and Pu Songling’s *Strange Stories from a Chinese Studio*. These, combined with his own writings on the people, language and culture of China, did much to give English readers a firsthand acquaintance with some of the wealth of Chinese culture. Most influential in further establishing the Romanization scheme first set down by Wade was Giles’ 1,415-page *A Chinese–English Dictionary*, which became a standard reference work soon after its release in 1912. The orthography it employed came to be known as the Wade–Giles system of Romanization, and it was soon adopted by English-language academia, and then by the media and general public.

In fact Giles’ Romanization was only very slightly modified from Wade’s – the differences are miniscule. Tones continued to be marked in the Wade–Giles system with numeral superscripts, with the neutral tone either being unmarked, or occasionally given the number ‘0’ or ‘5’. Giles probably had a greater role in popularizing the system, due to his high output as a scholar, translator, and writer, as compiler of his *Chinese–English Dictionary* in particular, while Wade only wrote a small number of – albeit quite widely used – Chinese language teaching texts.

In addition to his more serious and scholarly works, Giles also wrote a ‘Teach Yourself’ manual, entitled *Chinese Without a Teacher* (1872), for foreign residents in China needing minimum proficiency in Mandarin Chinese for everyday use. It included no written Chinese characters, skipped over any teaching of the tones, but it does use the apostrophe to distinguish aspirated from unaspirated initial stops and affricates. Its fanciful, ad hoc spellings

reflect Giles' awareness that learning Wade–Giles Romanization was not particularly straightforward or intuitive for the average English speaker:

I was naturally a good deal laughed at in a friendly way and exception was given to the absence of Tones. This lack was vigorously defended by a Chinese-speaking captain in the mercantile marine, who quoted Sir Harry Parkes' dictum, 'never trouble yourself about the Tones,' – a most erroneous view, with which I have never been in sympathy. My little book, however, was only a *jeu d'esprit*, in which Tones would have been wholly out of place. My object was to transliterate Chinese strictly according to the values of the English vowels and consonants, so that anyone could pick up the book and read off a simple sentence with a good chance of being understood. Thus, instead of the necessarily arbitrary system for students, which provides 'ni kei wo mai' 你給我買 = you buy it for me, I gave 'nee kay waw mi,' which no one who knows the English alphabet would have to learn to pronounce.

(Aylmer 1997: 13)

The book was quite popular at the time and went into many editions. It is a further illustration of the difficulty of combining native language-based intuitiveness and rigor in the same system.

Wade–Giles was the undisputed standard for Romanization of Chinese in English-language writing until the 1970s, when the People's Republic of China began opening up to the rest of the world. Gradually world news media began replacing Wade–Giles spellings with Pinyin, and academia soon fell into step as well. Wade–Giles is still seen in older publications, in a small number of established Chinese loanwords in English like *Shih-tzu* and *Tai-chi* – though probably more are in Romanized Cantonese than Mandarin – and in some Chinese place names and personal names, now mostly restricted to Taiwan.

### User Feedback on The Wade–Giles Romanization System

If there is one aspect of Wade–Giles Romanization that is apt to lead a litany of complaints about the system, it is certainly the use of the apostrophe (') to mark the aspirated voiceless initial stops and affricates, together with the use of unmarked 'p', 't', and 'k' for the unaspirated voiceless ones. English speakers typically express deep puzzlement over *why* Wade and Giles didn't simply use plain 'p', 't', and 'k' for the aspirated voiceless stops, and 'b', 'd' and 'g' for the unaspirated voiceless ones.

Phonologically, English stops have a voiced-voiceless opposition: /b/ vs. /p/, /d/ vs. /t/, /g/ vs. /k/. *Phonetically*, however, *aspiration* of the voiceless stops is often the only way that the voiceless stops are distinguished from their voiced counterparts *when they are in utterance-initial position*, e.g. in 'Do it', the /d/ is seldom fully voiced. It is because of this allophonic rule in English that the Chinese initial stops /p/ and /p<sup>h</sup>/ and so on, sound pretty much just like initial /b/ and /p/ in English. In fact the Mandarin aspirated stops are more strongly aspirated than the English ones, but the difference is relatively slight. This rule makes it difficult for the average English speaker to get a clear understanding of the differences and relationships between voicing and aspiration at all, since they are so intimately intertwined in English. (For a detailed discussion of the 'aspiration problem' in Western descriptions and transcriptions of Mandarin, please see Branner 1997.)

Most English-speaking learners of Chinese today would in any case be much happier with a 'b' vs. 'p'-type representation. This was the approach adopted by Sinologist George

Kennedy in 1943 in his Yale system of Romanization, probably the most English-user-friendly of any Romanization system ever devised for Mandarin; for example, Pinyin *zi* is written as *dz* in Yale, making it easy for an English speaker to get it about right. Tones are marked with diacritics, which were later adopted in Pinyin as well. One can only think it unfortunate that the Yale system never gained wider currency.

There are inherent problems with the use of both diacritics and numerical superscripts. First, they are more difficult to typeset or input. It is slightly amazing that both survived as long as they did, considering the extra effort required to produce texts with the correct tone marks, particularly in a pre-computer era. English speakers are less accustomed to adding lots of diacritics to printed texts, and often omit them. But at least English has some words that may include diacritics, e.g. French loans such as *naïve*, *façade*, and *déjà vu*, so the markings still blend into a printed page fairly well. The same is not true of numerals. People are understandably not keen to have a name like Ch'en<sup>2</sup> Chih<sup>4</sup>-hao<sup>2</sup> appear on their passport – with the result that the numbers, and all the tonal information they carried, were simply dropped across the board in most situations where Wade–Giles was used. Many decades after the establishment of the Wade–Giles system, Yale and then Pinyin ended up adopting tone marks, basically a reversion to Ricci and Ruggieri's approach, and these tend to be omitted as well. And the aspiration marks were also widely omitted. Such a style of Wade–Giles, denuded of two of the most fundamental phonological features of spoken Mandarin, comes up seriously short.

There was perhaps a good chance to incorporate the tones in a relatively unobtrusive, aesthetic and memorable way into a Chinese Romanization system with the adoption of the *Gwoyue Romatzyh* system (GR) by the Nationalist government in 1928. It was designed by Y. R. Chao 趙元任 (Zhào Yuánrèn), though the idea of using tonal spelling apparently originated with Lin Yūtáng 林語堂. It was officially referred to as *Zhùyīn Dì'èrshì* 注音第二式 in Chinese. But this effort was a popular failure, for two big reasons: (i) the system was only an auxiliary system that existed in parallel to the Mandarin Phonetic Symbols 注音符號, the system universally adopted for teaching reading in schools, and GR was never widely taught or promoted – people can't use something they haven't learned, or don't even know exists; (ii) The tonal spelling rules were so complex, with different rules applying to different syllable types, that they were deemed too difficult to be practicable. Too ambitious an agenda seems to have been taken on in designing the GR system – rather than merely Latinizing Mandarin, it strove at the same time to teach Mandarin syllable distribution patterns. For example, GR has separate rules for marking the first tone of syllables with an initial sonorant (m-, n-, l-, r-), since these are relatively rare in Mandarin, due to historical reasons. So the GR tonal spellings were later completely dropped in Taiwan, meeting with the same fate as the Wade–Giles numerical superscripts. This, along with the failure of the Yale system to catch on, were probably the biggest missed opportunities in the history of Chinese Romanization efforts.

The Pinyin system is now nearly universal in the world, mostly for political reasons. It satisfactorily solved some problems, such as how to best represent for English speakers the aspirated vs. unaspirated voiceless stops; left some issues as they were, e.g. easy-to-ignore diacritics to mark the tones; and it introduced some new problems, e.g. how to pronounce the sounds represented by the 'leftover letters' c, q, x, and z ('v' is the only letter of the Latin alphabet left unused, so it is employed in some input systems to call up the character + diacritic 'ü'). Some good choices still ended up causing confusion, such as the now nearly universal pronunciation of the Pinyin 'j' as in 'Beijing' as [ʒ] instead of [dʒ] as in *jingle*, which would be a very close approximation of the correct [tɕ]. Yet somehow the media

usually manage to pronounce the much less transparent ‘x’ more or less correctly as ‘sh’, e.g. as in Xi Jinping 习近平.

Each Romanization system has its own historical context, strengths, and logic, and is viable as long as it is comprehensive and consistent, and both the transcriber and reader are adequately trained in it. Each system also has its irremediable weirdnesses and inconveniences, which users must, with a bit of indulgence, simply take in their stride. If the same message that was encoded in the system emerges intact when decoded by someone familiar with the system, without overly much effort, it has done its job.

## Appendix

<i>WG</i>	<i>Morrison</i>	<i>MPS</i>	<i>Pinyin</i>	<i>WG</i>	<i>Morrison</i>	<i>MPS</i>	<i>Pinyin</i>
a	a	ㄚ	a	ch'in	kh'in	ㄔ ㄣ ㄣ	qin
ai	ngae	ㄞ	ai	ching	king	ㄎ ㄣ ㄥ	jing
an	an	ㄢ	an	ch'ing	kh'ing	ㄔ ㄣ ㄥ	qing
ang	ang	ㄤ	ang	chiu	kew	ㄔ ㄣ ㄨ	jiu
ao	aou	ㄠ	ao	ch'iu	kh'ew	ㄔ ㄣ ㄨ	qiu
cha	cha	ㄔ ㄚ	zha	chiung	keung	ㄔ ㄣ ㄨ ㄥ	jiong
ch'a	ch'a	ㄔ ㄚ	cha	ch' iung	kh'eung	ㄔ ㄣ ㄨ ㄥ	qiong
chai	chae	ㄔ ㄞ	zhai	cho	chō	ㄔ ㄠ	zhuo
ch'ai	ch'ae	ㄔ ㄞ	chai	ch'o	ch'ō	ㄔ ㄠ	chuo
chan	chan	ㄔ ㄢ	zhan	chou	chow	ㄔ ㄨ	zhou
ch'an	ch'an	ㄔ ㄢ	chan	ch'ou	ch'ow	ㄔ ㄨ	chou
chang	chang	ㄔ ㄤ	zhang	chu	choo	ㄔ ㄨ	zhu
ch'ang	ch'ang	ㄔ ㄤ	chang	ch'u	ch'oo	ㄔ ㄨ	chu
chao	chaou	ㄔ ㄠ	zhao	chua	chwa	ㄔ ㄨ ㄚ	zhua
ch'ao	ch'aou	ㄔ ㄠ	chao	ch'ua	ch'wa	ㄔ ㄨ ㄚ	chua
chê	chay	ㄔ ㄞ	zhe	chuai	chūh	ㄔ ㄨ ㄞ	zhuai
ch'ê	ch'ay	ㄔ ㄞ	che	ch'uai	ch'ūh	ㄔ ㄨ ㄞ	chuai
chei	chay	ㄔ ㄞ	zhei	chuan	chuen	ㄔ ㄨ ㄢ	zhuang
chên	chin	ㄔ ㄣ	zhen	ch'uan	ch'uen	ㄔ ㄨ ㄢ	chuan
ch'ên	ch'in	ㄔ ㄣ	chen	chuang	chwang	ㄔ ㄨ ㄤ	zhuang
chêng	ching	ㄔ ㄥ	zheng	ch'uang	ch'wang	ㄔ ㄨ ㄤ	chuang
ch'êng	ch'ing	ㄔ ㄥ	cheng	chui	chuy	ㄔ ㄨ ㄣ	zhui
chi	ke	ㄔ ㄣ	ji	ch'ui	ch'uy	ㄔ ㄨ ㄣ	chui
ch'i	kh'e	ㄔ ㄣ	qi	chun	chun	ㄔ ㄨ ㄣ	zhun
chia	kĕa	ㄔ ㄣ ㄚ	jia	ch'un	ch'un	ㄔ ㄨ ㄣ	chun
ch'ia	kh'ĕa	ㄔ ㄣ ㄚ	qia	chung	chung	ㄔ ㄨ ㄥ	zhong
chiang	kĕang	ㄔ ㄣ ㄤ	jiang	ch'ung	ch'ung	ㄔ ㄨ ㄥ	chong
ch'iang	kh'ĕang	ㄔ ㄣ ㄤ	qiang	chū	keu	ㄔ ㄨ	ju
chiao	keau	ㄔ ㄣ ㄠ	jiao	ch'ü	kh'eu	ㄔ ㄨ	qu
ch'iao	kh'eaou	ㄔ ㄣ ㄠ	qiao	chüan	keuen	ㄔ ㄨ ㄢ	juan
chieh	keae	ㄔ ㄣ ㄞ	jie	ch'üan	kh'euen	ㄔ ㄨ ㄢ	quan
ch'ieh	k'ĕae	ㄔ ㄣ ㄞ	qie	chüeh	kĕō	ㄔ ㄨ ㄞ	jue
chien	kĕen	ㄔ ㄣ ㄢ	jian	ch'üeh	kh'ĕō	ㄔ ㄨ ㄞ	que
ch'ien	kh'ĕen	ㄔ ㄣ ㄢ	qian	chün	keun	ㄔ ㄨ ㄣ	jun
chih	che	ㄔ ㄣ	zhi	ch'ün	kh'eun	ㄔ ㄨ ㄣ	qun
ch'ih	ch'e	ㄔ ㄣ	chi	ê	ngeh	ㄔ ㄣ	e
chin	kin	ㄔ ㄣ ㄣ	jin	ei		ㄔ ㄣ	ei

WG	Morrison	MPS	Pinyin	WG	Morrison	MPS	Pinyin
ên	ngăn	ㄣ	en	jêng	jing	ㄍㄥ	reng
êrh, 'rh	urh	ㄌ	er	jih	jih	ㄍ	ri
fā	fā	ㄉㄚ	fa	jo	jō	ㄍㄨㄛ	ruo
fan	fan	ㄉㄞ	fan	jou	jow	ㄍㄨ	rou
fang	fang	ㄉㄨ	fang	ju	joo	ㄍㄨ	ru
fei	fei	ㄉㄟ	fei	juan	juen	ㄍㄨㄢ	ruan
fên	fün	ㄉㄞ	fen	jui	juy	ㄍㄨㄟ	rui
fêng	fung	ㄉㄥ	feng	jun	jun	ㄍㄨㄢ	run
fo	fũh	ㄉㄛ	fo	jung	jung	ㄍㄨㄥ	rong
fou	fow	ㄉㄨ	fou	ka		ㄍㄨ	ga
fu	foo	ㄉㄨ	fu	k'a		ㄍㄨ	ka
ha		ㄉㄨ	ha	kai	kae	ㄍㄨ	gai
hai	hae	ㄉㄨ	hai	k'ai	kh'ae	ㄍㄨ	kai
han	han	ㄉㄞ	han	kan	kan	ㄍㄨ	gan
hang	hang	ㄉㄨ	hang	k'an	kh'an	ㄍㄨ	kan
hao	haou	ㄉㄨ	hao	kang	kang	ㄍㄨ	gang
hei		ㄉㄨ	hei	k'ang	kh'ang	ㄍㄨ	kang
hên	hăn	ㄉㄞ	hen	kao	kaou	ㄍㄨ	gao
hêng	hăng	ㄉㄥ	heng	k'ao	kh'aou	ㄍㄨ	kao
ho	hih, heh	ㄉㄛ	he	kei		ㄍㄨ	gei
hou	how	ㄉㄨ	hou	kên	kăn	ㄍㄨ	gen
hsi	he	ㄉㄟ	xi	k'ên	kh'ăn	ㄍㄨ	ken
hsia	hëa	ㄉㄟ	xia	kêng	kăng	ㄍㄨ	geng
hsiang	hëang	ㄉㄟ	xiang	k'êng	kh'ăng	ㄍㄨ	keng
hsiao	hëaou	ㄉㄟ	xiao	ko	keh	ㄍㄨ	ge
hsieh	hëě	ㄉㄟ	xie	k'o	kh'eh	ㄍㄨ	ke
hsien	hëên	ㄉㄟ	xian	kou	kow	ㄍㄨ	gou
hsin	hin	ㄉㄟ	xin	k'ou	kh'ow	ㄍㄨ	kou
hsing	hing	ㄉㄟ	xing	ku	koo	ㄍㄨ	gu
hsiu	hew	ㄉㄟ	xiu	k'u	kh'oo	ㄍㄨ	ku
hsiung	heung	ㄉㄟ	xiong	kua	kwa	ㄍㄨ	gua
hsü	heu, sū, süh	ㄉㄟ	xu	k'ua	kh'wa	ㄍㄨ	kua
hsüan	heuen	ㄉㄟ	xuan	kuai	kwae	ㄍㄨ	guai
hsüeh	hëö, süh	ㄉㄟ	xue	k'uai	kh'wae	ㄍㄨ	kuai
hsün	heun, süen	ㄉㄟ	xun	kuan	kwan	ㄍㄨ	guan
hu	hoo	ㄉㄨ	hu	k'uan	kh'wan	ㄍㄨ	kuan
hua	hwa	ㄉㄨ	hua	kuang	kwang	ㄍㄨ	guang
huai	hwae	ㄉㄨ	huai	k'uang	kh'wang	ㄍㄨ	kuang
huan	hwan	ㄉㄨ	huan	kuei	kwei	ㄍㄨ	gui
huang	hwang	ㄉㄨ	huang	k'uei	kh'wei	ㄍㄨ	kui
hui	hwuy	ㄉㄨ	hui	kun	kwăn	ㄍㄨ	gun
hun	hwăn	ㄉㄨ	hun	k'un	kh'wăn	ㄍㄨ	kun
hung	hung	ㄉㄨ	hong	kung	kung	ㄍㄨ	gong
huo	ho	ㄉㄨ	huo	k'ung	kh'ung	ㄍㄨ	kong
i, yi	yih	ㄉ	yi	kuo	kwo	ㄍㄨ	guo
jan	jen	ㄉㄞ	ran	k'uo	kh'wo	ㄍㄨ	kuo
jang	jang	ㄉㄨ	rang	la	la	ㄍㄨ	la
jao	jaou	ㄉㄨ	rao	lai	lae	ㄍㄨ	lai
jê	jě	ㄉㄨ	re	lan	lan	ㄍㄨ	lan
jên	jin	ㄉㄨ	ren	lang	lang	ㄍㄨ	lang



<i>WG</i>	<i>Morrison</i>	<i>MPS</i>	<i>Pinyin</i>	<i>WG</i>	<i>Morrison</i>	<i>MPS</i>	<i>Pinyin</i>
lao	laou	ㄌㄠ	lao	nêng	nǎng	ㄋㄥ	neng
lo, le	leh	ㄌㄛ	le	ni	ne	ㄋㄧ	ni
lei	lei	ㄌㄟ	lei	nia		ㄋㄧㄚ	nia
lêng	lǎng	ㄌㄥ	leng	niang	něang	ㄋㄧㄤ	niang
li	le	ㄌㄧ	li	niao	neaou	ㄋㄧㄠ	niao
lia	lĕa	ㄌㄧㄚ	lia	nieh	nĕĕ	ㄋㄧㄝ	nie
liang	lĕang	ㄌㄧㄤ	liang	nien	nĕĕn	ㄋㄧㄢ	nian
liao	leaou	ㄌㄧㄠ	liao	nin		ㄋㄧㄢ	nin
lieh	lĕĕ	ㄌㄧㄝ	lie	ning	ning	ㄋㄧㄥ	ning
lien	lĕen	ㄌㄧㄢ	lian	niu	new	ㄋㄧㄨ	niu
lin	lin	ㄌㄧㄢ	lin	no	no	ㄋㄨㄛ	nuo
ling	ling	ㄌㄧㄥ	ling	nou	now	ㄋㄨ	nou
liu	lew	ㄌㄧㄨ	liu	nu	noo	ㄋㄨ	nu
lo	lo	ㄌㄛ	lo	nuan	nwan	ㄋㄨㄢ	nuan
lo	lo	ㄌㄛㄛ	luo	nun	nun	ㄋㄨㄢ	nun
lou	low	ㄌㄨ	lou	nung	nung	ㄋㄨㄥ	nong
lu	lu	ㄌㄨ	lu	nü	neu	ㄋㄨ	nü
luan	lwan	ㄌㄨㄢ	luan	nüeh	nĕĕ	ㄋㄨㄝ	nüe
lun	lun	ㄌㄨㄢ	lun	ou	ngow	ㄨ	ou
lung	lung	ㄌㄨㄥ	long	pa	pa	ㄅㄚ	ba
lũ	leu	ㄌㄨ	lũ	p'a	p'a	ㄅㄚ	pa
lüeh	lĕĕ	ㄌㄨㄝ	lüe	pai	pae	ㄅㄞ	bai
lün				p'ai	p'ae	ㄅㄞ	pai
ma	ma	ㄇㄚ	ma	pan	pan	ㄅㄢ	ban
mai	mae	ㄇㄞ	mai	p'an	p'an	ㄅㄢ	pan
man	man	ㄇㄢ	man	pang	pang	ㄅㄤ	bang
mang	mang	ㄇㄤ	mang	p'ang	p'ang	ㄅㄤ	pang
mao	maou	ㄇㄠ	mao	pao	paou	ㄅㄠ	bao
me		ㄇㄛ	me	p'ao	p'aou	ㄅㄠ	pao
mei	mei	ㄇㄟ	mei	pei	pei	ㄅㄟ	bei
mên	mun	ㄇㄢ	men	p'ei	p'ei	ㄅㄟ	pei
mêng	mǎng	ㄇㄥ	meng	pên	pun	ㄅㄢ	ben
mi	me	ㄇㄧ	mi	p'ên	p'un	ㄅㄢ	pen
miao	meaou	ㄇㄧㄠ	miao	pêng	pǎng	ㄅㄤ	beng
mieh	mĕĕ	ㄇㄧㄝ	mie	p'êng	p'ǎng	ㄅㄤ	peng
mien	mĕĕn	ㄇㄧㄢ	mian	pi	pe	ㄅㄧ	bi
min	min	ㄇㄧㄢ	min	p'i	p'e	ㄅㄧ	pi
míng	míng	ㄇㄧㄥ	míng	piao	peaou	ㄅㄧㄠ	biao
miu	mew	ㄇㄧㄨ	miu	p'iao	p'eaou	ㄅㄧㄠ	piao
mo	mo	ㄇㄛ	mo	pieh	pĕĕ	ㄅㄟ	bie
mou	mũh	ㄇㄨ	mou	p'ieh	p'ĕĕ	ㄅㄟ	pie
mu	moo	ㄇㄨ	mu	pien	pĕĕn	ㄅㄢ	bian
na	na	ㄋㄚ	na	p'ien	p'ĕĕn	ㄅㄢ	pian
nai	nae	ㄋㄞ	nai	pin	pin	ㄅㄢ	bin
nan	nan	ㄋㄢ	nan	p'in	p'in	ㄅㄢ	pin
nang	nang	ㄋㄤ	nang	ping	ping	ㄅㄢ	bing
nao	naou	ㄋㄠ	nao	p'ing	p'ing	ㄅㄢ	ping
ne	nũh	ㄋㄛ	ne	po	po	ㄅㄛ	bo
nei	nǎ	ㄋㄟ	nei	p'o	p'o	ㄅㄛ	po
nên	nun	ㄋㄢ	nen	p'ou	p'ow	ㄅㄨ	pou

<i>WG</i>	<i>Morrison</i>	<i>MPS</i>	<i>Pinyin</i>	<i>WG</i>	<i>Morrison</i>	<i>MPS</i>	<i>Pinyin</i>
pu	poo	ㄅㄨ	bu	tên		ㄉㄣ	den
p'u	p'oo	ㄅㄨˊ	pu	têng	tǎng	ㄉㄥ	deng
sa	sã	ㄙㄚˊ	sa	t'êng	t'ǎng	ㄊㄥ	teng
sai	sae	ㄙㄞ	sai	tí	te	ㄉㄟ	dí
san	san	ㄙㄢ	san	t'i	t'e	ㄉㄟ	tí
sang	sang	ㄙㄤ	sang	tiao	teaou	ㄉㄟ ㄩ	diao
sao	saou	ㄙㄠ	sao	t'iao	t'eaou	ㄉㄟ ㄩ	tiao
sê	she	ㄙㄝ	se	tieh	têē	ㄉㄟ ㄟ	diē
sên	sãn	ㄙㄢˊ	sen	t'ieh	t'êē	ㄉㄟ ㄟ	tíē
sêng		ㄙㄥ	seng	tien	têēn	ㄉㄟ ㄩ	dian
sha	sha	ㄕㄚ	sha	t'ien	t'êēn	ㄉㄟ ㄩ	tian
shai	shae	ㄕㄞ	shai	ting	ting	ㄉㄟ ㄩ	ding
shan	shan	ㄕㄢ	shan	t'ing	t'ing	ㄉㄟ ㄩ	ting
shang	shang	ㄕㄤ	shang	tiu	tew	ㄉㄟ ㄩ	diu
shao	shaou	ㄕㄠ	shao	to	to	ㄉㄟ ㄨ	duo
shê	shay	ㄕㄝ	she	t'o	t'o	ㄉㄟ ㄨ	tuo
shei		ㄕㄟ	shei	tou	tow	ㄉㄟ ㄨ	dou
shên	shin	ㄕㄢˊ	shen	t'ou	t'ow	ㄉㄟ ㄨ	tou
shêng	shing	ㄕㄥ	sheng	tsa	tsã	ㄉㄟ ㄩ	za
shih	shih	ㄕ	shi	ts'a	ts'ã	ㄉㄟ ㄩ	ca
shou	show	ㄕㄨ	shou	tsai	chae	ㄉㄟ ㄨ	zai
shu	shoo	ㄕㄨ	shu	ts'ai	chae	ㄉㄟ ㄨ	cai
shua	shwa	ㄕㄨㄚ	shua	tsan	tsan	ㄉㄟ ㄨ	zan
shuai	shwae	ㄕㄨㄞ	shuai	ts'an	ts'an	ㄉㄟ ㄨ	can
shuan		ㄕㄨㄢ	shuan	tsang	tsang	ㄉㄟ ㄨ	zang
shuang	shwang	ㄕㄨㄤ	shuang	ts'ang	ts'ang	ㄉㄟ ㄨ	cang
shui	shwuy	ㄕㄨㄟ	shui	tsao	tsaou	ㄉㄟ ㄨ	zao
shun	shun	ㄕㄨㄢ	shun	ts'ao	ts'aou	ㄉㄟ ㄨ	cao
shuo	shǒ	ㄕㄨㄨ	shuo	tsê	tseh	ㄉㄟ ㄨ	ze
so	so, sho	ㄙㄨㄨ	suo	ts'ê	ts'eh	ㄉㄟ ㄨ	ce
sou	sow	ㄙㄨ	sou	tsei		ㄉㄟ ㄨ	zei
su	su	ㄙㄨ	su	tsên		ㄉㄟ ㄨ	zen
suan	swan	ㄙㄨㄢ	suan	ts'ên		ㄉㄟ ㄨ	cen
sui	suy	ㄙㄨㄟ	sui	tsêng	tsǎng	ㄉㄟ ㄨ	zeng
sun	sun	ㄙㄨㄢ	sun	ts'êng	ts'ǎng	ㄉㄟ ㄨ	ceng
sung	sung	ㄙㄨㄥ	song	tso	tso	ㄉㄟ ㄨ	zuo
szũ, ssũ	sz', se	ㄙ	si	ts'o	ts'o	ㄉㄟ ㄨ	cuo
ta	ta	ㄊㄚ	da	tsou	tsow	ㄉㄟ ㄨ	zou
t'a	t'a	ㄊㄚˊ	ta	ts'ou	ts'ow	ㄉㄟ ㄨ	cou
tai	tai	ㄊㄞ	dai	tsu	tsũh	ㄉㄟ ㄨ	zu
t'ai	t'ai	ㄊㄞˊ	tai	ts'u	ts'ũh	ㄉㄟ ㄨ	cu
tan	tan	ㄊㄢ	dan	tsuan	tswan	ㄉㄟ ㄨ	zuan
t'an	t'an	ㄊㄢˊ	tan	ts'uan	ts'wan	ㄉㄟ ㄨ	cuan
tang	tang	ㄊㄤ	dang	tsui	tsuy	ㄉㄟ ㄨ	zui
t'ang	t'ang	ㄊㄤˊ	tang	ts'ui	ts'uy	ㄉㄟ ㄨ	cui
tao	taou	ㄊㄠ	dao	tsun	tsun	ㄉㄟ ㄨ	zun
t'ao	t'aou	ㄊㄠˊ	tao	ts'un	ts'un	ㄉㄟ ㄨ	cun
tê	the	ㄊㄝ	de	tsung	tsung	ㄉㄟ ㄨ	zong
t'ê	t'eh	ㄊㄝˊ	te	ts'ung	ts'ung	ㄉㄟ ㄨ	cong
tei		ㄊㄟ	dei	tu	too	ㄉㄟ ㄨ	du

WG	Morrison	MPS	Pinyin	WG	Morrison	MPS	Pinyin
t'u	t'oo	ㄊㄨ	tu	wêng	ung	ㄨㄥ	weng
tuan	twan	ㄊㄨㄢ	duan	wo	wo	ㄨㄛ	wo
t'uan	tw'an	ㄊㄨㄢ	tuan	wu	woo	ㄨ	wu
tui	tuy	ㄊㄨㄟ	dui	ya	ya	ㄧㄚ	ya
t'ui	t'uy	ㄊㄨㄟ	tui	yai	yae	ㄧㄞ	yai
tun	tun	ㄊㄨㄣ	dun	yang	yang	ㄧㄤ	yang
t'un	t'un	ㄊㄨㄣ	tun	yao	yaou	ㄧㄠ	yao
tung	tung	ㄊㄨㄥ	dong	yeh	yay	ㄧㄝ	ye
t'ung	t'ung	ㄊㄨㄥ	tong	yen	yen	ㄧㄢ	yan
tzũ	tsze	ㄊㄩ	zi	yin	yin	ㄧㄣ	yin
tz'ũ	ts'ze	ㄊㄩ	ci	ying	ying	ㄧㄥ	ying
wa	wa	ㄨㄚ	wa	yu	yew	ㄩ	you
wai	wae	ㄨㄞ	wai	yung	yung	ㄩㄥ	yong
wan	wan	ㄨㄢ	wan	yü	yu	ㄩ	yu
wang	wang	ㄨㄤ	wang	yüan	yuen	ㄩㄢ	yuan
wei	wei	ㄨㄟ	wei	yüeh	yuě	ㄩㄝ	yue
wên	wăn	ㄨㄣ	wen	yün	yun	ㄩㄣ	yun

## Bibliography

- Aylmer, Charles (1997) 'The Memoirs of H. A. Giles'. *East Asian History* 13/14: 1–90.
- Biographical Dictionary of Chinese Christianity*: Samuel Wells Williams, 1812–1884 (web page). Accessed June 28, 2013 at: <http://www.bdcconline.net/en/stories/w/williams-samuel-wells.php>.
- Branner, David Prager (1997) 'Notes on the beginnings of systematic dialect description and comparison in Chinese'. *Historiographia Linguistica* 24(3): 235–66.
- Branner, David Prager (1999) 'A study of Edward Harper Parker, an early Western dialect fieldworker in China'. *Journal of the American Oriental Society* 119(1): 12–34.
- Carrington Goodrich, Luther and Fang Chaoying (eds) (1976) 'Cattaneo, Lazzaro', in *Dictionary of Ming Biography, 1368–1644*, vol. 1, New York: Columbia University Press, 32.
- Casacchia, Giorgio and Mariarosaria Gianninoto (2013) 'Matteo Ricci e la lingua cinese'. Ms. Accessed May 17, 2013 at: [http://www.associazionematteoricci.org/drupal/sites/default/files/documenti/12\\_G\\_CASACCHIAeM.GIANNINOTO\\_Matteo Ricci e la lingua cinese.pdf](http://www.associazionematteoricci.org/drupal/sites/default/files/documenti/12_G_CASACCHIAeM.GIANNINOTO_Matteo Ricci e la lingua cinese.pdf)
- Chung, Karen Steffen (1989) 'Language', in *Republic of China Yearbook 1989*, Taipei: Kwang Hwa Publishing, Ch. 5.
- Chung, Karen Steffen (2013) 'East Asian Linguistics', in Keith Allan (ed) *The Oxford Handbook of the History of Linguistics*. New York: Oxford University Press, Ch. 10.
- Cordier, Henri (1985) Nécrologie: 'Thomas Francis Wade'. *T'oung Pao* 6(4): 407–12.
- Criveller, Gianni (2010) 'The Missionary Method of Matteo Ricci'. *Tripod* 30(158): 400<sup>th</sup> Anniversary of Matteo Ricci 1552–1610.
- Douglas, Robert Kennaway (1899) 'Wade, Thomas Francis', in Leslie Stephen and Stephen Lee (eds) *Dictionary of National Biography, 1885–1900*, vol. 58, London: Smith, Elder & Co.
- Fontana, Michela (2011) *Matteo Ricci: A Jesuit in the Ming Court*. Lanham, MD: Rowman & Littlefield.
- Giles, Herbert Allen (1879) *On some translations and mistranslations in Dr. Williams' Syllabic dictionary of the Chinese language*. Amoy: A. A. Marcal.
- Giles, Herbert Allen (1901) *Chinese Without a Teacher; being a collection of easy and useful sentences in the Mandarin dialect, with a vocabulary*. (5<sup>th</sup> and rev. ed.) Shanghai: Kelly & Walsh.
- Giles, Herbert Allen (1912) *A Chinese–English dictionary*. Shanghai: Kelly & Walsh.
- Hsia, R. Po-chia (2010) *A Jesuit in the Forbidden City: Matteo Ricci 1552–1610*. Oxford: Oxford University Press.
- Killingley, Siew-Yue (1998) *Learning to Read Pinyin Romanization and its Equivalent in Wade–Giles: A Practical Course for Students of Chinese*. Lincom Studies in Asian Linguistics 05. München: Lincom Europa.

- Language Hat (blog): ‘Wade vs. Giles’, October 5, 2006. Accessed on July 8, 2013 at: <http://www.languagehat.com/archives/002507.php>.
- Legge, Helen Edith (1905) ‘James Legge, Missionary and Scholar’. Web page. Accessed on July 4, 2013 at: <http://www.electricscotland.com/history/legge/index.htm>.
- Legge, James (1991) *The Chinese Classics, with a translation, critical and exegetical notes, prolegomena, and copious indexes*; vols 1 and 2: *Confucian Analects, The Great Learning, The Doctrine of the Mean; The Works of Mencius*. Taipei: SMC Publishing; reprint of last editions of Oxford University Press.
- Luo, Chang-pei 羅常培 (1940) *Yēsūhuìshì zài yīnyùnxuéshàng de gòngxiàn, Bū* 耶穌會士在音韻學上的貢獻, 補. (‘*The Contributions of the Jesuits in Chinese Phonology, addendum*’). Addendum issued ten years after original publication in *Beijing Jikan* 北京季刊 (‘*Beijing University Quarterly*’) 7(2), 1930.
- Marshman, Joshua (1814) *Elements of Chinese Grammar*. Serampore: Mission Press.
- Meadows, Thomas Taylor (1847) *Desultory Notes on the Government and People of China*. London: Wm. H. Allen and Co.
- Medhurst, Walter Henry (1848) *English and Chinese Dictionary*. Shanghai: Mission Press.
- Morrison, Robert (1815) *Tōngyòng Hànyán zhī fǎ* 通用漢言之法 (‘*A Grammar of the Chinese Language*’). Serampore: Mission Press.
- Morrison, Robert (1865) *A Dictionary of the Chinese Language in Three Parts*, vol. 3, English and Chinese. Macao: P. P. Thoms, The East India Company Press.
- Moule, A. C. (1935) Obituary notice: ‘Herbert Allen Giles’. *The Journal of the Royal Asiatic Society of Great Britain and Ireland* 3: 578.
- Porter, Stanley E., Jeffrey T. Reed, Matthew Brook O’Donnell (2010) *Fundamentals of New Testament Greek*. Grand Rapids, MI: Wm. B. Eerdmans.
- Ricci, Matteo (1606) ‘Xīzì qíjī’ 西字奇蹟 (‘Remarkable examples of Western writing’), in *Chéng Shì Mò Yuàn* 程氏墨苑 (‘The Ink Garden of the Cheng Family’). Beijing. Photocopy.
- The Ricci 21<sup>st</sup> Century Roundtable on the History of Christianity in China database 點睛論壇. Page on *Xiru ermu zi* 西儒耳目資. Ricci Institute, University of San Francisco. <http://ricci.rt.usfca.edu/bibliography/view.aspx?bibliographyID=1868>
- Ride, Lindsay (1991) ‘Biographical Note’, in James Legge *The Chinese Classics; with a translation, critical and exegetical notes, prolegomena and copious indexes*, Vol 1, 3<sup>rd</sup> ed.: *Confucian Analects, The Great Learning, The Doctrine of the Mean*. Taipei: SMC Publishing, 1–29.
- The Bull *Romanus Pontifex* (Nicholas V), January 8, 1455, in English translation. Accessed on May 17, 2013 at: <http://www.nativeweb.org/pages/legal/indig-romanus-pontifex.html>.
- Ruggieri, Michele and Matteo Ricci (2001) *Dicionário Português–Chinês (Pǔ Hànn Cídiǎn* 葡漢辭典, 1585); intro. by John W. Witek; historical linguistic introduction by Paul Fu-mien Yang. Lisbon: Biblioteca Nacional de Portugal, Macau: Instituto Português do Oriente (IPOR), and San Francisco: Ricci Institute for Chinese–Western Cultural History.
- Simmons, Richard VanNess (forthcoming) ‘Pre-modern tonal notation for Chinese’ 早期漢語標調的方法, in Rint Sybesma, Wolfgang Behr, Yueguo Gu, Zev Handel, C.-T. James Huang and James Myers (eds) *Encyclopedia of Chinese Language and Linguistics*. Leiden and Boston: Brill.
- Sinclair, Paul (2003) ‘Thomas Wade’s *Yü yen tzü êrh chi* and the Chinese Language Textbooks of Meiji-Era Japan’. *Asia Major: A British Journal of Far Eastern Studies*. Third Series, Academia Sinica 16 (1): 147–74.
- Spence, Jonathan D. (1983) *The Memory Palace of Matteo Ricci*. New York: Penguin.
- Trigault, Nicolas *Xīrú ěrmù zī* (1626) 西儒耳目資 (‘*Aid to the Eyes and Ears of Western Literati*’), vol. 3. Hangzhou: Wang Zheng. Facsimile reprint: Beijing: National Beijing University (1933), and in *Pīnyīn wénzì shīliào cóngshū* 拼音文字史料叢書 (1957), Beijing: Wenzi gaige chubanshe. Scanned manuscript. <http://archive.org/details/02077327.cn>.
- Wade, Thomas Francis (1859) *The Hsin Ching Lu* 尋津錄, or, *Book of Experiments; Being the First of a Series of Contributions to the Study of Chinese*, Hong Kong: n.p.
- Wade, Thomas Francis and Walter Caine Hillier (1867) *Yü-yen Tzu-erh Chi: A progressive course designed to assist the student of colloquial Chinese as spoken in the capital and the metropolitan department*. In three volumes. Shanghai: The Statistical Department of the Inspectorate General of Customs.
- Wade, Thomas Francis (2002) *Yǔyán Zì’ěrjī: shíjìyǔshíjì zhōngqī de Běijīnghuà* 語言自邇集: 19世紀中期的北京話. Zhang Weidong 張衛東, trans., with introduction and commentary. Beijing: Beijing University.

- Wellisch, Hans H. (1978) *The conversion of scripts, its nature, history, and utilization*. New York: John Wiley & Sons.
- Williams, Samuel Wells (1874) *A Syllabic Dictionary of the Chinese Language; arranged according to the Wu-Fang Yuen Yin, with the pronunciation of the characters as heard in Peking, Canton, Amoy, and Shanghai. Hà Yīng Yùn fǔ 漢英韻府*. Shanghai: American Mission Press.
- Xu, Wenkan 徐文堪 (n.d.) 'Robert Morrison and His Researches on Chinese Language'. 馬禮遜及其漢語研究簡論. Studies on Traditional China 傳統中國研究 site. Accessed on June 22, 2013 at: <http://www.historicalchina.net/admin/WebEdit/UploadFile/MorrisonWK.pdf>.
- Xue, Zhixia 薛志霞 (2008) 明末傳教士漢語羅馬字注音方案性質考 ('Study on the Source Language of the Roman Transcription of Chinese Words by Western Missionaries in the Late Ming Dynasty') 晉中學院學報 ('*Journal of Jin Zhong University*') 25(4). Accessed on June 13, 2013 at: [http://d.wanfangdata.com.cn/periodical\\_jzsfgdzkxxxb200804001.aspx](http://d.wanfangdata.com.cn/periodical_jzsfgdzkxxxb200804001.aspx).
- Yin, Binyong 尹斌庸 (1994) 'How Was the First Romanized Spelling System for Sinitic Produced?' (*Dì yī ge Lā dīng zì mǔ de Hànyǔ Pīnyīn Fāng'àn Shì Zēnyāng Chānshēng de?* 第一個拉丁字母的漢語拼音方案是怎樣產生的?) *Sino-Platonic Papers* 50: 1–7.
- Zhang, Xiping (2006) *Following the Steps of Matteo Ricci to China*. Ding Deshu and Ye Jinping, trans. Beijing: China Intercontinental Press.
- Zhao, Jianmin (2010) 'Matteo Ricci: The Pioneer of 'Renaissance' in China'. Purple Kwong, trans. Paper presented at the *International Symposium in Commemoration of the 400<sup>th</sup> Anniversary of Matteo Ricci 1552–1610*, Fu Jen Catholic University, Taiwan, April 19–22, 2010.