

The Chinese-based Writing System of the Zhuang Language

Robert S. BAUER*

Hong Kong Polytechnic University

1. Introduction

Generally speaking, scholars of Tai languages do not usually associate the transcription of Tai languages with the logographic Chinese characters, because the majority of Tai languages have typically been written with their own alphabetic writing systems. After coming under the historical influence of Indian civilization in Southeast Asia, the Thai, Lao, and Shan languages, for example, each developed their own alphabetic orthographies which are derived from the Brahmi script (Court 1996:444). The Thai alphabet of Thailand dates from the late 13th century (Diller 1996:458).

On the other hand, various languages of East Asia have been profoundly influenced by the written Chinese language and historically adopted the Chinese characters as their writing system. Such languages as Japanese, Vietnamese, and Korean which are not genetically related to Chinese are three of the well-known, so-called Sinoxenic languages which are or have been written with the Chinese characters. In the process of adapting the Chinese characters to the transcription of these languages, literate speakers were able to exploit the principles of Chinese-character formation (which are listed and described below) for the creation of their own unique characters, e.g. the *kokuji* 國字 of Japanese, the *chữnôm* in Vietnamese, and the *kukja* 國字 in Korean. Therefore, from the linguistic, historical, geographical, and sociocultural perspectives, Zhuang, a northern Tai language spoken in the Guangxi Autonomous Region of southern China, presents a particularly interesting case of a Tai language which has been written with standard Chinese characters and non-standard but Chinese-like – i.e. uniquely-Zhuang – characters (Zhuang has not been the only Tai language with this kind of writing system, either now or in the past; Prof. Wu Wenyi, vice-director of the Guizhou Province Nationalities Research Institute, in a personal communication in July 1998 to the author stated that the Buyi language is being written with Chinese characters and uniquely Buyi characters). In the Zhuang language the Zhuang characters are called [*sau1* ɕu:ŋ6], [*sau1* dip7], or [*sau1* ta:u6] (Wei, Tan 1980:97) [throughout this paper the phonemic transcription of Zhuang words is enclosed within square brackets, and the number following the syllable indicates the tone

*I take this opportunity to express my gratitude to Geoff Wade, Research Officer of the Centre of Asian Studies, University of Hong Kong, for kindly providing me with a photocopy of the <古壯字字典> [ancient Zhuang character dictionary] on which this study has been based.

category]; although Zhuang writing borrows standard Chinese characters to represent Zhuang words, it has also created uniquely Zhuang characters by borrowing components from standard Chinese characters and then recombining them as semantic and phonetic elements. Zhuang writing pushed the principles of character formation to the extreme, however, so that the number of these indigenous Zhuang characters constituted the larger proportion of graphic units in relation to the regular Chinese characters (cf. the discussion of the so-called demotic characters used in Vietnamese by Nguyen 1997:7). Interestingly, a literate Chinese speaker who does not know how to speak or read Zhuang language may still be able to guess the pronunciation of many and the meanings of a few Zhuang characters.

Of the 55 ethnic groups officially recognized by the Chinese government, the Zhuang are the second largest population after the majority Han Chinese and number a little over 13 million according to 1982 figures (Ramsey 1987:165). The Zhuang people are concentrated mainly in the Guangxi Autonomous Region of southern China but are also found in eastern Yunnan and western Guangdong Provinces. The Zhuang people have referred to themselves by a number of different ethnonyms, e.g., [*pou4 tsu:ŋ6*, *pou4 ɕu:ŋ6*, *pu4 jai4*, *pu4 noŋ2*, *bu6 dai2*, *pho6 thai2*, *kun2 tho3*, *pu4 to3*, *pou4 ma:n2*, *pou4 ba:n3*, *pou4 lau2*]; today the officially-designated Zhuang name for the Zhuang people is [*pou4 ɕu:ŋ6*] (Wei, Tan 1980:1). According to Ramsey (1987:235), there was a time when the Zhuang people denied their Zhuang ethnicity and insisted they were ethnic Chinese. This attitude of self-denigration was the result of the racial prejudice that the majority Han Chinese population has traditionally felt toward the Zhuang (as well as to other non-Han ethnic groups).

2. Sources for the study of the Zhuang writing system

The present study of the Chinese-based Zhuang writing system is based primarily upon two sources. The first is an article written by 張元生 Zhang Yuansheng and entitled 壯族人民的文化遺產 — 一方快壯字 [the cultural legacy of the Zhuang people — the square Zhuang characters] which was published in a volume of papers concerned with research on the ancient writing systems of China's minority languages; this volume is entitled <<中國民族古文字研究>> [research on the ancient writing of the nationalities of China] and was edited by the 中國民族古文研究會 [research group on the ancient writing of the nationalities of China]. In this article Zhang has listed 1,008 Zhuang characters which have been in use in the Wuming area of Guangxi along with their pronunciations according to the Wuming dialect and their equivalent meanings in standard Chinese. Also listed are about 100 Zhuang characters whose meanings and pronunciations have not been determined.

The second main source on the Zhuang writing system is the <<古壯字字典>> [ancient Zhuang-character dictionary] and published by the 廣西壯族自治區少數民族古籍整理出版規劃領導小組 [leadership group with the program for arranging the publication of ancient books of ethnic minorities of Guangxi Zhuang Autonomous Region], 南寧: 廣西民族出版社 [Nanning: Guangxi Nationalities Press] (in the following citations of references for which the dictionary is the source it is abbreviated as GZZZD). This dictionary which was published in 1989 has made an invaluable contribution to our research of the Zhuang characters by listing and defining about 10,700 Zhuang characters which have been in popular use in areas inhabited by the Zhuang people. This dictionary has tried to reflect how Zhuang characters have been used by speakers of various Zhuang dialects and so is not based on any one particular geographical area. In a personal communication of July 1998 by Mrs. Margaret E. Milliken who has been teaching in the Guangxi Zhuang Language School in Wuming, the Zhuang dictionary has been helping to revive and encourage the use of Zhuang writing among the Zhuang people.

In its introduction the Zhuang dictionary has stated that the earliest attested text of Zhuang characters is an inscription on a stone tablet that is dated 682 AD during the early Tang Dynasty (GZZZD 1989:5). According to this introduction, the *Zhuang writing system has been used for the transcription of a wide range of literary materials*, including folk myths and fairytales, stories, legends, folk songs, proverbs, play scripts, fables, couplets on walls, stele inscriptions, medical prescriptions, family genealogies, contracts, etc. (GZZZD 1989:1). Holm (1998) has analyzed and interpreted a ritual text written by Zhuang-speaking vernacular priests; his description of this task gives some indication of the complex nature of Zhuang writing. According to Wei and Tan (1980:97), Daoist priests wrote classical texts in Zhuang characters and business people used them for keeping accounts. After the 1949 liberation of China, revolutionary folk songs and communist party propaganda were transcribed in Zhuang characters in the revolutionary guerrilla areas of Guangxi.

Because the Chinese-based writing system of Zhuang has never been standardized, the usage of Zhuang characters seems to have varied considerably from one area to another; indeed, the same word has been written with two or more different characters. In perusing the dictionary, we observe that one morphosyllable may have a half-dozen or even more variant forms or allographs associated with it. The proliferation of variant graphs obviously made the writing system very complicated and placed a heavy burden on the memories of the people who used it; this situation apparently reached the point where it was so unwieldy that some people (Chinese linguists among them) felt it was better to abandon the system altogether and replace it with romanization. At any rate, the Zhuang characters were not adopted for use in official documents or in standard education (Wei, Tan

1980:97). Today the Zhuang language is transcribed with a romanization system that was developed by Chinese linguists in the 1950's; however, according to Mrs. Milliken (1995), this romanization has not been well-received by some Zhuang speakers.

2.1 Principles underlying the creation of Zhuang characters

The Chinese-character-based writing system of Zhuang has used both Chinese characters and specially-created Zhuang characters whose composition was based on principles that are similar or even identical to those that underlie the formation of the standard Chinese characters. Our study of Zhuang graphs reveals four or five main principles from the traditional study of the graphic structure and usage of the Chinese characters that also underlie the structure and usage of the Zhuang graphs. These traditional principles of formation and usage of the Chinese characters are listed below in Table 1 (English translations of the Chinese terms are based on Boltz 1996:197; for the convenience of the reader who is not literate in standard Chinese, the phonemic transcription of the Mandarin pronunciation of the Chinese characters is enclosed within square brackets, and the diacritics over the vowels as in \bar{a} , \acute{a} , \check{a} , \grave{a} indicate the level, rising, dipping, and falling tone contours of Mandarin, respectively):

Table 1. Traditional principles of formation and usage of the Chinese characters.

-
- (1) 象形字 [$\text{ci}\grave{\text{a}}\eta \text{ci}\acute{\eta} \text{t}\grave{\eta}$] 'representing the form': the graph resembles the object it is intended to represent.
 - (2) 指事字 [$\text{t}\check{\text{s}}\check{\eta} \text{s}\check{\eta} \text{t}\check{\eta}$] 'indicating the matter': the graph attempts to represent the idea of the word.
 - (3) 會意字 [$\text{xu}\grave{\text{e}}\grave{\text{i}} \grave{\text{i}} \text{t}\grave{\eta}$] 'conjoining the sense': the graph combines two other graphs whose meanings together equal the meaning of the intended graph.
 - (4) 形聲字 [$\text{ci}\acute{\eta} \text{s}\bar{\eta} \text{t}\grave{\eta}$] 'forming the sound': the graph combines a phonetic component which indicates the graph's pronunciation and a semantic component which bears some relationship to the graph's meaning.
 - (5) 假借字 [$\text{t}\text{ci}\check{\text{a}} \text{t}\text{ci}\grave{\text{e}} \text{t}\grave{\eta}$] 'false borrowing': a standard graph is borrowed for its homophonous or nearly homophonous pronunciation to write another word.
-

Altogether there were actually six traditional principles, i.e., the so-called 六書 [$\text{liou} \text{s}\bar{\text{u}}$] 'six (classes of) scripts', which were first recognized by 許慎 [$\text{c}\check{\text{y}} \text{s}\grave{\text{a}}\eta$] Xu Shen, the author of the dictionary <<說文解字>> [$\text{su}\bar{\text{o}} \text{w}\acute{\text{a}}\eta \text{t}\text{ci}\check{\text{e}} \text{t}\grave{\eta}$] (explaining the characters) from the first century A.D. Although most of these principles still apply to the structure of the Chinese characters today, we should note that the vast majority of Chinese characters have followed the fourth principle of 形聲 (the alternate term 諧聲 $\text{ci}\acute{\text{e}} \text{s}\bar{\eta}$ 'harmonizing the sound' is also sometimes

used), even down to the present day. The sixth principle was the so-called 轉注 [tʂuǎn tʂù] 'redirected characters' but its meaning is not well understood.

On the basis of discussions in the introduction to the dictionary and in Wei and Tan (1980:97), we can recognize two main categories of Zhuang characters: (1) uniquely Zhuang characters that have been created by Zhuang speakers, and (2) Chinese characters that have been borrowed from the standard written Chinese language. In addition, some Zhuang characters are also used in the written form of Cantonese, the most prestigious member of the Yue dialect family of Chinese spoken in Guangdong and Hong Kong, but which language was the borrower or donor is a question that awaits further research. With regard to these two broad categories of Zhuang graphs, we can identify at least nine principles of formation and usage of the Zhuang graphs as listed below in Table 2. The use of Chinese and Chinese-like characters by Zhuang speakers to write their language clearly indicates that they have had extensive knowledge of both written and spoken Chinese. Furthermore, down through its long history the Zhuang language has been in close contact with different varieties of Chinese speech and its development has been very much influenced by this contact. Cantonese has been the major Chinese dialect spoken in Guangdong and eastern Guangxi, while Mandarin is widely spoken in the rest of Guangxi. A number of loanwords from these two Chinese varieties or dialects (and very likely other Chinese dialects) have been borrowed into Zhuang. According to my study of colloquial Cantonese vocabulary (Bauer 1996), Cantonese has very likely borrowed words directly from Zhuang or from other languages belonging to the Tai language family.

Table 2. Principles of formation and usage of Zhuang graphs.

-
1. Graphs which do not resemble Chinese characters and very likely have come from some other source than Chinese.
 2. Graphs created by combining standard Chinese characters as semantic components.
 3. Graphs created by combining a semantic component with a phonetic component, both of which are standard Chinese characters.
 4. Graphs which are actually standard Chinese characters and have been borrowed solely for their pronunciations which are similar to the pronunciations of the Zhuang words they represent.
 5. Graphs which vaguely resemble standard Chinese characters but which are not actually used in standard written Chinese.
 6. Graphs which are actually standard Chinese characters and have been borrowed to represent Chinese loanwords. In the process of borrowing the standard Chinese characters, Zhuang *may* also have borrowed their Chinese pronunciations which may vary according to the donor Chinese dialect (such as Cantonese) and which have been adapted to the phonological systems of the borrowing Zhuang dialects.

7. Graphs which are also found in written Cantonese and which may or may not be related in meaning and sound to the Cantonese graphs.
 8. Graphs which are standard Chinese characters but have been borrowed for their meanings; the Chinese characters are read with the semantically-equivalent Zhuang morphosyllable (that is, the character is read for its meaning and not its sound).
 9. Graphs which are created by combining other (typically standard Chinese) characters whose Zhuang readings represent the initial consonants and rhymes for "spelling" the pronunciation of the graphs.
-

In the discussion below we will discover remarkable parallels between the way Zhuang speakers have written Zhuang and the way Cantonese speakers write Cantonese. In both cases neither written language has ever been standardized, yet this has not prevented writers from developing graphical conventions that have been understood by other writers and their readers. According to Prof. David Holm and Mrs. Milliken who both have first-hand experience observing the use of Zhuang writing among Zhuang speakers in Guangxi (personal communications, July 1998), the Zhuang writing system continues to be used, although it is not officially taught in school. In Hong Kong schoolchildren have been traditionally taught to read the standard Chinese characters with Cantonese pronunciation; this knowledge helps them learn how to read Cantonese writing which is widely used in a number of different domains of written language, such as comic books, advertisements, the entertainment pages of newspapers, graffiti, etc., but not in textbooks read in the classroom (cf. Bauer and Cheung 1998).

In the following discussion each of these nine characterizations of Zhuang writing is analyzed in detail and illustrated with example characters from the Zhuang writing system.

3.1 Graphs which do not resemble Chinese characters

The number of graphs belonging to this category appears to be relatively small in comparison to the larger numbers of graphs based on principles associated with Chinese and Chinese-like characters. A graph exemplifying this category is 3 [am5] which is defined as '背 [carry on the back]. [am5 luk8] 背小孩 [carry child on back]' (GZZD:1). It comprises two components: the first component looks like the numeral 3 but is very likely ultimately derived from the same source script as the Dai Le 傣仂 letter 3 [da ɿ55] (Luo 1981:361) and the Burmese letter 3 *da.dwei* with similar pronunciation; the second element is a small dot placed to the right and at mid-height of the first. One can draw a pictographic parallel between the position of the dot with respect to the 3 and the meaning of the graph, that is, the dot is placed at the back of the larger graph. It is interesting to note that the dictionary lists

ten Chinese-like characters that occur as allographs in variation with 𠃉; that is, these variant forms have the same pronunciation and meaning as 𠃉.

The introduction to the dictionary lists at least three other graphs which are formed with this same symbol plus a second smaller element as follows:

1. 𠃉 [dum1] 'to stand' (站). In this graph the dot is positioned just above 3. I hesitate to say there is some kind of iconic relationship between the shape of the graph and its meaning, yet there very well may be. The dictionary lists six variant Chinese-like characters that are associated with this morphosyllable.
2. 𠃉 [naŋ6] 'to sit' (坐). Here we observe 3 positioned just above a horizontal line that apparently acts as a base. If 3 is sitting on the base or floor, then I think we can identify an iconic relationship between the graph's shape and its meaning 'to sit'. The dictionary (pp. 342-343) lists 13 allographs in association with this morphosyllable; four of these are also formed with 3, and the remainder are Chinese and Chinese-like characters.
3. 𠃉 [um3] 'to hold or carry in the arms' (抱). In this graph a small stroke (which very much resembles a particular type of stroke used in writing the Chinese characters) is placed inside the lower portion of the figure 3. In association with this morphosyllable, the dictionary lists four allographs which are Chinese-like characters.

3.2 Combination of Chinese characters as semantic components

This category of graph can be aptly illustrated with 𠃉 [yui:4] 'not good' (不好; 劣; 壞) (GZZZD: 435); in analyzing the graph we divide it into its upper half which is the standard Chinese character 不 (Mandarin [pù]) 'no, not' and its lower half which is the standard Chinese character 好 (Mandarin [xǎu]) 'good'. In the creation of this type of graph the main concern is in the selection of two Chinese characters whose Chinese meanings when combined together will match the meaning of the target word in Zhuang. We should note here that the principle of combining two Chinese characters as semantic elements to create a third character is modelled on the same principle of standard Chinese; e.g. standard Chinese 歪 (Mandarin [wāi]) 'askew, crooked' is a combination of 不 [pù] 'no, not' as the upper half of the character and 正 (Mandarin [tʂəŋ]) 'straight, upright, correct' as its lower half. Written Cantonese employs the nonstandard character 𠃉 (Cantonese [ēn]) 'thin and small or small and weak' (Rao et al 1997:138), as in 𠃉仔 Cantonese [ēn-tséj] 'thin, small child'; the upper half of the graph is the standard character 不 (Cantonese [pēl]) and means 'no, not' just as in standard Chinese, and the lower half

is the standard character 大 (Cantonese [táːj]) and means 'large, big' (this paper has followed the phonetic transcription of Cantonese presented in Bauer and Benedict 1997 which marks allophonic vowel length with the colon ":"). Adding the two semantic elements together yields the meaning 'not big' which is near to the meaning of the Cantonese morphosyllable.

3.3 Graphs which combine standard Chinese characters as semantic and phonetic components

In terms of the number of graphs listed in the dictionary, there appear to be more graphs belonging to this subcategory in which semantic and phonetic elements are joined together into one graph than any other. In this respect, the same characterization can be applied to the standard Chinese characters in general: a typical standard Chinese dictionary includes more characters formed on the principle of combining semantic and phonetic components than any other type of character (i.e. 形聲字 [ɕíŋ ɕəŋ t̚ʔ] or 諧聲字 [ɕié ɕəŋ t̚ʔ]).

This subcategory is illustrated with two Zhuang graphs:

(1) 𪗇 [yok8] 'bird' (鳥) (GZZZD: 425-426). This graph comprises a phonetic element on the left, namely, the standard Chinese character 六 which means 'six' in Chinese and is pronounced [lók] in Cantonese; and a semantic element on the right, namely, the standard Chinese character 鳥 which means 'bird' in Chinese and is pronounced [níːw] in Cantonese.

(2) 𪗈 [wan1] 'seed' (種子) (GZZZD: 479). In this graph the phonetic element is on the right, viz., the standard Chinese character 文 which is pronounced [wán] in standard Mandarin and [mɛ̃n] in Cantonese and has the meaning 'writing, script'; on the left is the semantic element, the standard Chinese character 米 (Mandarin [mǐ], Cantonese [mêj]) which means 'rice'. Here the semantic element in the Zhuang graph does not exactly correspond to its meaning but comes close to it, that is, individual grains of rice are seeds. The Chinese graph with the meaning of seed, i.e. 種 (Mandarin [t̚ʂǔŋ]) 'species; race; seed', is made up of the two standard characters 禾 Mandarin [xé] 'standing grain, especially rice' and 重 Mandarin [t̚ʂhúŋ] 'repeat, duplicate'.

In creating characters by combining standard Chinese characters as their semantic and phonetic components, Zhuang speakers have made frequent use of the standard Chinese character 口 (Mandarin [kʰǔ]) 'mouth' which serves as a semantic element in combination with some phonetic element; for example, 𪗉 represents five different Zhuang morphosyllables as follows:

- (1) [lak8] 'extort; blackmail; steal, pilfer' (勒索; 偷盜).
- (2) [lau2] 'where; what' (哪; 甚麼).
- (3) [luk8] 'son, daughter; child' (子女; 孩子).
- (4) [yi2] 'to lick' (舔).
- (5) [yuk8] '(reduplicated final particle that combines with stative verbs)'.

This same practice is also observed in written Cantonese where the use of □ (Cantonese [hɛw]) often (but not always) signifies to the reader that the character is a colloquial Cantonese character to be read for its sound and not for its meaning. For example, the Zhuang character 叻 is also found in written Cantonese and is pronounced [lɛ:k] and means 'smart, clever'; colloquial Cantonese [jɛ:] 'thing' is written with the Cantonese character 嘢 which is a combination of □ 'mouth' and 野 'wild'; the semantic element □ tells the reader to read 野 only as the phonetic element and to ignore its usual meaning.

3.4 Graphs which are standard Chinese characters borrowed solely for their homophonous or nearly homophonous pronunciations with the Zhuang morphosyllables they represent

On pages 342-343 of the dictionary we observe that the standard Chinese character 能 (Mandarin [nɛŋ], Cantonese [nɛŋ]) which means 'to be able' has been borrowed to transcribe the following three different Zhuang morphosyllables:

- (1) 能 [naŋ1] 'to make a sound' (響).
- (2) 能 [naŋ1] 'skin' (皮).
- (3) 能 [naŋ6] 'to sit' (坐).

As we can see, the meanings of these Zhuang morphosyllables have nothing to do with the Chinese meaning of the standard Chinese character; the Chinese character has been borrowed solely for its Chinese pronunciation which is almost the same as the Zhuang morphosyllables which are homophonous or nearly so with each other (the tone differs for the third item). One presumes that the Zhuang reader and writer relied on context to distinguish among the three different meanings associated with the same Chinese character. Another example of this category is listed below:

安 [*o:n5*] 'to snuggle up to (of children)' (依偎: 指小孩對自己的父母親) (GZZZD: 402); cf. standard Chinese 安 (Mandarin [*ān*], Cantonese [*ɔ̃:n*]) 'peace'.

3.5 Graphs which vaguely resemble standard Chinese characters but are not actually found in standard written Chinese

This category includes graphs which look a bit like standard Chinese characters but they do not have any identifiable phonetic or semantic element; there is simply the one graph which is not found in either standard Chinese or Cantonese. The following two items exemplify this category:

- (1) 𠃉 [*θi:t7*] 'snow' (雪) (GZZZD:459); the Zhuang graph resembles the lower part of standard Chinese 雪 (Mandarin [*çyě*], Cantonese [*çy:t*]) 'snow'.
- (2) 𠃊 [*nij5*] 'penis' (陰莖) (GZZZD:383); the Zhuang graph resembles standard Chinese 且 (Mandarin [*tçhiě*]) 'moreover' minus the two horizontal lines.

3.6 Graphs which are standard Chinese characters representing Chinese loanwords

Through its contact with different varieties of Chinese Zhuang has borrowed many Chinese loanwords. A few of these will be listed here to illustrate this subcategory. For example, the dictionary includes the following graphs and glosses:

- (1) 污 [*u5*] 'dirty' (骯; 骯髒) (GZZZD: 477); cf. standard Chinese 污 (Mandarin [*ū*], Cantonese [*wū*]) 'dirty' (骯髒).
- (2) 盎 [*a:n6*] 'basin, pot' (盆子) (GZZZD:4); cf. standard Chinese 盎 (Mandarin [*àng*], Cantonese [*ɔ̃:n*]) 'basin, pot' (盆子).
- (3) 牙 [*ŋa2*] 'teeth of cow or horse' (牛馬的牙齒) (GZZZD:394); cf. standard Chinese 牙 (Mandarin [*iá*], Cantonese [*ŋá*]) 'tooth'.

3.7 Graphs which are also found in written Cantonese and which may or may not be related in meaning and sound to the Cantonese graphs

We observe that a few Zhuang characters are identical to those used in written Cantonese; however, given the fact that the Cantonese lexical items belong to the colloquial layer and may have been borrowed from Zhuang or some other Tai variety, it is difficult to decide at this point whether Zhuang has borrowed these characters from Cantonese or Cantonese has borrowed them from Zhuang. As mentioned earlier, the written form of Cantonese has never been officially standardized, and there are many words in Cantonese which are etymologically unrelated to their semantic equivalents in standard Chinese and are probably loanwords from non-Han languages which have been in contact with Cantonese. As a consequence, Cantonese speakers have had to create graphs to transcribe many of these colloquial Cantonese words, and so the borrowing could have been in either direction. At any rate, the Cantonese graphs are considered non-standard or dialectal characters.

- (1) 𠵹 [ŋa:m5] 'just now' (剛; 剛剛) (GZZZD:371); cf. Cantonese [ŋā:m] 'just now; suitable; luckily; just right' (剛; 合適; 湊巧, 剛好) (Rao et al 1997:195). This graph has the same meaning and almost identical pronunciations in the two languages (the syllables are the same but the tone contours differ). The Cantonese word is not etymologically related to any standard Chinese morphosyllable, but whether both the word and the character were borrowed from Cantonese into Zhuang or *vice versa* is difficult to determine.
- (2) 𠵹 [yum3] 'plentiful, well-developed, full-grown; crowd around; cover, overspread' (豐滿; 圍攏; 遮蓋) (GZZZD:433); cf. Cantonese [lēm] 'bud of flower' (花蕾) and [lēm] 'collapse' (倒塌).
- (3) 冇 [du:il] 'empty' (空) (GZZZD:365), Wuming Zhuang [bau3] 'no' (不) (Zhang 1984:460); cf. Cantonese [mōw] 'not have' (沒有).

3.8 Graphs which are standard Chinese characters but are read with the semantically-equivalent Zhuang morphosyllables

As we have already observed above, Zhuang writing has shown a strong tendency to borrow standard Chinese characters for their similar pronunciations in order to represent semantically-unrelated Zhuang words. At the same time and to a lesser extent, Zhuang writing borrows standard Chinese characters solely for their meanings and the characters are read with the semantically-equivalent Zhuang morphosyllables as indicated in the following examples:

- (1) 鴨: Wuming Zhuang [pit7] 'duck' (Ramsey 1987:242; Zhang 1984:498); cf. the Chinese pronunciations of the character: Mandarin [iǎ], Cantonese [a:p] or [a:p*] 'duck'.
- (2) 豬: Wuming Zhuang [mau1] 'pig' (Zhang 1984:497); cf. the Chinese pronunciations of the character: Mandarin [tʂū] and Cantonese [tʂȳ] 'pig'.
- (3) 死: Wuming Zhuang [ya:i2] 'die, dead' (Zhang 1984:497); cf. the Chinese pronunciations of the character: Mandarin [sǐ] and Cantonese [séj] 'die, dead'.
- (4) 衣: Wuming Zhuang [pu6] 'clothes' (Zhang 1984:497); cf. the Chinese pronunciations of the character: Mandarin [ī] and Cantonese [jī] 'clothes'.
- (5) 酒: Wuming Zhuang [lau3] 'wine (alcoholic beverage)' (Zhang 1984:499); cf. the Chinese pronunciations of the character: Mandarin [tʂiǒu] and Cantonese [tséw] 'wine, liquor'.
- (6) 風: Wuming Zhuang [yum2] 'wind' (Zhang 1984:499); cf. the Chinese pronunciations of the character: Mandarin [fēng] and Cantonese [fōŋ] 'wind'.

The Chinese term for reading a Chinese character for its meaning but not its regular pronunciation is 訓讀 [ɕȳn tú]. Japanese exhibits this same phenomenon in which the Chinese character is read with the semantically-corresponding native Japanese word, and the term is 訓讀 *kunyomi*; cf. the native Japanese *hana* for 花 'flower' and the borrowed Chinese reading of the Chinese character (or 音讀 *onyomi*) *ha*.

3.9 Graphs which are constructed by combining components of standard Chinese characters and Zhuang characters which represent the initial consonants and rhymes associated with the Zhuang reading pronunciations of the graphs

According to Zhang (1984:506-507), the composition of some Zhuang graphs is based on the process of "spelling" their pronunciation by combining standard Chinese characters or parts of them (and Zhuang graphs) which represent the initial consonants and rhymes of the graphs being spelled according to the Zhuang readings of the Chinese characters. The following examples will illustrate this process:

- (1) 笑: Wuming Zhuang [yat7] 'mushroom' (蘑菇) (Zhang 1984:506); the Zhuang graph comprises two standard Chinese characters as its upper and lower parts: (a) 竹 'bamboo' has the Zhuang reading [yuk7], and (b) 失 'lose' has the Zhuang reading [sat7]. In the creation of 笑 the upper element 竹 has contributed its initial consonant [y-] and the lower element 失 has contributed its rhyme [-at7].
- (2) 笄: Wuming Zhuang [yɔŋ5] '(bird) cage' ((鳥)籠) (Zhang 1984:507); the Zhuang graph comprises two standard Chinese characters as its upper and lower parts: (a) 竹 'bamboo' has the Zhuang reading [yuk7], and (b) 下 'lower, descend' has the Zhuang reading [yɔŋ1]. 竹 contributes its initial consonant [y-] and 下 its rhyme [-ɔŋ]. We note that the tone of the spelled word is different from both of the tones of its two components.

This method of spelling the pronunciation of a character with other characters which represent the initial consonant and rhyme resembles the traditional Chinese method of 反切 [fǎn tǎn] *fanqie* which was employed in the ancient Chinese rhyme books to indicate the pronunciation of the Chinese characters. However, I do not know if the ancient *fanqie* method was employed in the creation of Chinese characters.

4. Comparison of Zhuang writing with written Cantonese

The study of the phonetic elements used in the Zhuang characters reveals information about the varieties of Chinese dialects that the creators of the Zhuang characters were familiar with. Because Cantonese and Zhuang have both been in close contact in Guangxi and Guangdong, the two languages have been influencing the development of each other. As for whether or not they have had some kind of historical genetic relationship, that is a matter which lies outside the scope of this paper and we will not say anymore about it. However, we will note that the comparison of the vocabularies of Zhuang and Cantonese leads one to believe that they have very likely borrowed words from each other. The point of interest here is that this borrowing includes not only the phonetic shape of words but also their graphical representation. Although most Cantonese-speakers have traditionally written in standard Chinese which is based on northern Mandarin, at the same time, some Cantonese-speakers have also developed an unofficial, informal, non-standard orthography for writing Cantonese dialect, and the principles they have followed in creating graphs resemble those for Zhuang.

Some standard Chinese characters are borrowed into written Cantonese to represent Cantonese words which are etymologically-unrelated to the corresponding standard Chinese morphosyllables that are associated with the standard Chinese characters as their reading pronunciation. These standard Chinese characters also appear in Zhuang writing; while there seems to be no semantic relationship between their usage in the two languages, there may be a phonetic connection with Zhuang borrowing the character for its Cantonese pronunciation which is homophonous or nearly so with the Zhuang word. Examples are listed below:

- (1) 乜: Wuming Zhuang [*motʃ*] 'ant' (螞蟻) (Zhang 1984:512); cf. Cantonese [*mēi*] 'what' (甚麼), standard Chinese 乜斜 Mandarin [*miē-çié*] 'slit eyes because of tiredness', 乜 Mandarin [*nìè*] 'surname'.
- (2) 咪: Wuming Zhuang [*maiʃ*] 'vinegar' (醋) (Zhang 1984:512); cf. Mandarin [*mī*] 'sound made by a cat', Cantonese [*mēj*] 'mile' (English loanword) and [*mêj*] 'don't' (不要).
- (3) 叻: Zhuang [*lakʃ*] 'extort; blackmail; steal, pilfer' (勒索; 偷盜) (the Zhuang word is a borrowing of Cantonese [*lɛ́k*] 勒 with the same meaning); cf. Cantonese [*lɛ:k*] 叻 'smart, clever', Mandarin [*lò*] as in 石叻 [*ʃí lò*] and 叻埠 [*lò pù*] 'names for Singapore used among overseas Chinese'.

We also observe another very interesting correspondence between Cantonese and Zhuang writing in their use of the standard Chinese character 的. In standard Chinese 的 (Mandarin [*tə̀*] with neutral tone, Cantonese [*tɛ́k*]) functions as a marker of the genitive or possessive case; that is, a possessor noun is shown to possess a following object through the intervening functor 的 (it is somewhat similar to English 's, i.e. apostrophe s); e.g. standard Chinese 這個人的書 (Mandarin [*tʂèi kə zɔ́n tə̀ ʂū*]) 'this man's book'. However, in both written Zhuang and written Cantonese the character 的 has been borrowed to transcribe two morphemes: (1) the plural marker, and (2) the marker of comparative degree which is pronounced [*tɪl*] in Zhuang and [*tī:*] in Cantonese; cf. Zhuang [*aul tɪl nei4 hau3 muŋ2*] which is literally 'take + plural marker + this (= these) + give + you' (GZZZD:122), that is, 'take these (and) give (to) you'. The same sentence can be translated into Cantonese with only one change as follows: [*ná: nī:-tī: péj nêj*] which in written Cantonese is 拿呢的俾你. The one change is in the ordering of the morphemes for the Zhuang word 'these' [*tɪl + nei4*] = 'plural marker' + 'this'; in Cantonese the order is reversed to 呢的 [*nī:-tī:*] = 'this' + 'plural marker' (we note here that written Cantonese also makes use of two other graphs to represent this morpheme, viz., 啲 and D, fourth letter of the English alphabet, cf. Bauer 1982).

Let us also consider an example of the use of 的 to mark the comparative degree in both languages; this morpheme is similar to 'adjective + -er' in English, e.g. 'fast' + '-er' = 'faster'. Cf. Zhuang: [pja:i3 wa:i5 ti1] which is literally 'walk fast + -er', that is, 'walk faster', Cantonese [há:ŋ t̃a:j t̃i:] 行快的. In standard Chinese the corresponding sentence is 走快些 [tsõu khuài ciē] 'walk fast + -er' with standard Chinese 些 (Mandarin [ciē]) corresponding to Zhuang [ti1] and Cantonese [t̃i:]. In the three example sentences the markers of comparative degree [t̃i:] and [ciē] all follow the stative verb in the three languages. In view of the fact that Cantonese [t̃i:] is not cognate to the semantically equivalent standard Chinese morpheme 些 which is pronounced [sē:] in Cantonese, and given what we know about the intimate contact between Zhuang and Cantonese, it is possible that Cantonese [t̃i:] may have been borrowed from Zhuang or some other related Tai language.

Another standard Chinese character which is shared by both Zhuang and Cantonese is 蛤 (this character is not listed in the GZZZD but is given in Zhang 1984:484, 516). In the Longzhou dialect of Zhuang 蛤 is pronounced [kop7] and means 'frog' (standard Chinese 青蛙 Mandarin [tʃhīŋ wā]); in Cantonese it is pronounced [kəp] and has the same meaning; it is also used in the transcription of two Cantonese words meaning frog or kind of frog, 蛤𩶛 [kəp-ná:] 'frog; large frog' 田鷄; 大青蛙 and 蛤蚧 [kəp-kwá:] 'frog' 青蛙 (Rao et al 1997:330-331). It is possible that Zhuang or a related language is the ultimate source of Cantonese [kəp]. The morphosyllables [kəp] and [kəp-na] with the meaning 'frog' (but different tones) occur in a number of dialects of the Yue dialect family which are found in the Pearl River Delta of south central Guangdong (Zhan, Cheung 1987:123, #367) and of northern Guangdong (Zhan, Cheung 1994:534, #348). As for the origin of the character itself, it occurs in standard Chinese with two different meanings and pronunciations; cf. 蛤蜊 (Mandarin [kə-li]) 'clam' and 蛤蟆 (Mandarin [há-ma]) 'frog; toad'. On the basis of its occurrence in Karlgren's *Grammata Serica Recensa* as item #675h (1957:179-180) for which Karlgren has reconstructed Archaic Chinese *kəp and Ancient Chinese *kəp 'oyster, mussel', we conclude that this is a very old Chinese character which very likely has been borrowed for its pronunciation to represent the corresponding syllable in words for 'frog' in some Chinese and Zhuang dialects.

5. Conclusion

The use of Zhuang characters to transcribe the Zhuang language reflects the ingenuity of the Zhuang people to make use of the writing system used by the majority Han Chinese population with which they have been in long historical contact. It is ample proof, if any were needed, that Tai languages can be written with non-alphabetic symbols.

Zhuang writing pushed the principles of character formation to the extreme so that the number of the uniquely Zhuang characters constituted the larger proportion of graphic units in relation to the regular Chinese characters. However, the Zhuang writing system is not truly Sinoxenic since so many graphs are uniquely Zhuang; yet it also does not really belong to the category of Siniform script (cf. Boltz 1997:189: "[scripts which] take the outward form of the Chinese script as their basis, but are otherwise unrelated to it") as do the writing systems of two extinct Altaic languages, Kitan (10th century) and Jurchin (12th century). This is because even if we did not know the Zhuang language but only knew how to read the standard Chinese characters, we would still be able to pronounce many Zhuang characters, or at least approximate their pronunciations, and to guess at the meanings of some of them. This is due to the way in which Zhuang has created characters by taking components of standard Chinese characters and combining them together as semantic and phonetic elements.

REFERENCES

- Bauer, Robert S. 1982. D for two in Cantonese. *Journal of Chinese Linguistics* 10.2:277-281.
- Bauer, Robert S. 1996. Identifying the Tai substratum in Cantonese. *Proceedings of the Fourth International Symposium on Languages and Linguistics, Pan-Asiatic Linguistics V:1806-1844*. Bangkok: Institute of Language and Culture for Rural Development, Mahidol University at Salaya, Thailand.
- Bauer, Robert S., Paul K. Benedict. 1997. *Modern Cantonese Phonology*. Berlin: Mouton de Gruyter.
- Bauer, Robert S., Cheung Kwan-hin. 1998. The Graphical representation of Cantonese. Unpublished ms. with three appendices of Cantonese characters.
- Boltz, William G. 1996. Early Chinese writing. In Peter T. Daniels and William Bright, eds., *The World's Writing Systems*. New York and Oxford: Oxford University Press. Pp. 191-199.
- Court, Christopher. 1996. Part VII: Southeast Asian writing systems. In Peter T. Daniels, William Bright, eds., *The World's Writing Systems*. New York and Oxford: Oxford University Press. Pp. 443-444.
- Diller, Anthony. 1996. Thai and Lao writing. In Peter T. Daniels, William Bright, eds., *The World's Writing Systems*. New York and Oxford: Oxford University Press. Pp. 457-466.
- Guangxi Zhuang Zizhiqu shaoshu minzu guji zhengli chuban gui Hua lingdao xiaozu 广西壮族自治区少数民族古籍整理出版规划领导小组, 主编. 1989. <古壮字字典> [dictionary of ancient Zhuang characters]. 南宁: 广西民族出版社.
- Guangxi Zhuang Zizhiqu shaoshu minzu yuyan wenzi gongzuo weiyuanhui yanjiushi 广西壮族自治区少数民族语言文字工作委员会研究

- 室編. 1984. <壯漢詞匯> [Zhuang-Chinese vocabulary]. 南宁: 广西民族出版社.
- Holm, David. 1998. A Cosmogonic text from Donglan (Guangxi Province). Paper presented at the First International Conference on Tai Studies, Institute of Language and Culture for Rural Development, Mahidol University, Bangkok, Thailand. July 29, 1998.
- Karlgren, Bernhard. 1957. *Grammata Serica Recensa*. Stockholm: The Museum of Far Eastern Antiquities, Bulletin 29.
- Luo Meizhen 羅美珍. 1981. 西雙版納傣文 [the Dai script of Xishuangbanna]. In <民族語文> 編輯部編, <民族語文論集> [collected papers on nationalities' languages]. 中國社會科學出版社.
- Milliken, Margaret E. (白丽珠). 1995. 双语教学对中国少数民族的便利和希望 [the convenience and hope of bilingual education for China's minority nationalities]. <广西民族研究> [Guangxi nationalities research]. 4:69-74. (Translated from English into Chinese by 卢岱 Lu Dai).
- Nguyen Dinh-Hoa. 1997. *Vietnamese*. Amsterdam/Philadelphia: John Benjamins Publishing Co.
- Ramsey, S. Robert. 1987. *The Languages of China*. Princeton: Princeton Univ. Press.
- Rao Bingcai, Ouyang Jueya, Zhou Wuji 饒秉才, 歐陽覺亞, 周無忌. 1981. <廣州話方言詞典> [Cantonese dialect dictionary]. 香港: 商務印書館.
- Rao Bingcai, Ouyang Jueya, Zhou Wuji 饒秉才, 歐陽覺亞, 周無忌. 1997. <廣州話詞典> [dictionary of Cantonese]. 惠阳: 广东人民出版社.
- Wei Qingwen, Tan Guosheng 韦庆稳, 覃国生, 编. 1980. <壮语简志> [sketch of the Zhuang language]. 北京: 民族出版社.
- Zhan Bohui, Cheung Yat-shing, eds. 1987. <珠江三角洲方言字音對照>, *A Survey of Dialects in the Pearl River Delta, Comparative Morpheme – Syllabary*. Volume 1. Hong Kong: New Century Publishing House.
- Zhan Bohui, Cheung Yat-shing, eds. 1994. <粵北十縣市粵方言調查報告>, *A Survey of Yue Dialects in North Guangdong*. 廣州: 暨南大學出版社.
- Zhang Yuansheng 張元生. 1984. 壯族人民的文化遺產 – 方快壯字 [the cultural legacy of the Zhuang nationality – the square Zhuang characters] In 中國民族古文字研究會編, <中國民族古文字研究> [research on the ancient scripts of China's nationalities]. 北京: 中國社會科學出版社. Pp. 455-521.

