



Typography and Education

<http://www.typoday.in>

Beyond the Pictorial: Exploring the semiotic layer of typography in Hanzi / Kanji characters

Dr. Mariko Takagi, Academy of Visual Arts, Hong Kong Baptist University, m.takagi@mikan.de

Abstract:

A stereotype exists that Hanzi (Chinese) and Kanji (Sino-Japanese) are mere systems of pictographic or ideographic signs. Some of this misunderstanding is supported through misleading visual presentations by Chinese and Japanese graphic designers alike.

The Hanzi/Kanji system is extraordinarily complex. The composition of a single character can entail as many as 64 strokes, and the character set is extensive, with about 10,000 characters. A single Hanzi/Kanji character is the sophisticated assembly of three distinct layers - the semantic, phonetic and formal. Still research has proven that less than ten percent of Hanzi/Kanji characters have their roots in pictograms or ideograms.

This paper posits that Hanzi/Kanji are not systems of archaic pictographic representations of words, and demonstrates this through several approaches: linguistics of writing, the derivation of Chinese characters, and contemporary typography.

Key words: Hanzi/Kanji, writing system, linguistics and typography, semiotic and semantic, culture and stereotype

1. Introduction: Strategies of writing

There are two main strategies to turn language into writing: one is through the meaning (the semantic layer) of a word and the other is through the sound (phonetics). (Haarmann 1991, 147) Based on this, all existing and actively used writing systems can be classified as phonographic or logographic. In a phonographic writing system, phonemes or syllables represent the basic elements of the language. Latin letters belong to this system, with phonemes, a consonant-vowel script, and visual signs called graphemes; while Japanese Hiragana and Katakana are representatives of syllabic writing, with syllabograms. Yet both writing systems only transcribe the phonetics, not the meaning, and are referred to as *cenemic*, from the Greek, 'empty'. On the contrary, Hanzi and Kanji belong to the logographic writing system, where characters carry both phonetic and semantic information. This writing system is known as *pleremic*, from the Greek, 'full'. (Coulmas 1999, 560)

This distinction of Latin letters as representatives of a phonographic writing system and Hanzi/Kanji as a logographic writing system is the first crucial step to define the two writing systems. To call Latin letters as abstract signs to which phonemes are attached is a short but efficient definition. To find one brief and still accurate description for Chinese characters (Hanzi) and the Sino-Japanese (Kanji) without compromising the system is a major challenge.

2. Not words in pictures – a theoretical approach

For daily written communication in Hong Kong, about 3,000 Hanzi characters are needed, and for such communication in Japan, about 2,100 Kanji characters are needed.¹

In the year 121, the Han Dynasty (25-220) scholar Xu Shèn (許慎, 58-147) published *Shuowen Jiezi* (說文解字), an analysis of Chinese characters that discusses the origins and definitions of 9,353 characters, assigning them into six principles known as *liùshu* (六書).²

¹ Lists of commonly used characters provide a reasonable number required for daily written communication. The "List of Graphemes of Commonly-used Chinese Characters" (常用字字形表), listing 3,171, was published in Hong Kong in 2007. It shows the character a student needs to learn from primary one to six. The Japanese list with 2,136 characters, called 改定常用漢字 (Kaitei-Jouyou-Kanji) "Revision - Kanji of common use" (2010), serves as a reference for the curriculum of a student's first nine school years.

² Almost 1,900 years after its first publication, *Liùshu* still has a strong impact on the education of Chinese characters, whether for native speakers (children) or foreigners (adults). In Hanzi/Kanji dictionaries today, the origin of each character is listed according to these six principles, and the reference is commonly used to explain the origins and the logic of the characters. Japanese

These principles also reflected the influences, derivations and transformations of how the character set is applied to language, with a further division into three categories showing the different stages of evolution and strategies to turn, more or less abstract or complex ideas into writing.

Basic Chinese characters belong to the pictogram (象形 xiàng xíng, form imitation) and ideogram (指事 zhǐ shì, indication) principles, with characters of these two classes deriving from the visual representation of objects or simple ideas.

Through the combination of the basic characters, however, abstract ideas can be turned into writing through ideogrammatic compounds (會意 huì yì, joined meaning) and radical phonetics (形聲 xíng shēng, form and sound). This is the second category which has the function to expand the amount of characters. Firstly by accumulating the meaning of two or three basic characters in a new more complex character and in the second strategy - the radical phonetics - one basic element (also called radical) conveys the semantic while the other will signify the phonetic.

Derivative cognate (轉注 zhuàn zhù, reciprocal meaning) and Rebus (假借 jiǎjiè, borrowing; making use of) form the third category and reflect the development and transition of the semantic layer of characters through use. A second meaning with an etymological resemblance to the original meaning can be added to a character of the derivative cognate. While in the case of the Rebus principle there is a phonetic analogy between the new and the former meaning of the character.

This system of the six principles demonstrates that the stereotypical image of Chinese characters being picture-based cannot be sustained, especially when recognising the function of a writing system being to transcribe language. In fact, only characters belonging to the first two principles – pictograms and ideograms – are derived from a pictorial genesis³, and this accounts for the smallest proportion within the entire character set. According to typeface designer Kozuka Masahiko, who acknowledges Xu Shèn in his research, only 7 to 8% of all Hanzi characters are listed as pictograms or ideograms, or 'basic characters'. The two principles of 'compound characters' –

scholar Hayakawa Saki compared the assignment of 1,006 characters (basic ones taught during the first six school years in Japan) to the six principles in four popular dictionaries, finding that the dictionaries showed a consensus of only 154 of the characters, or 15%. With this outcome, Hayakawa questioned the relevance of the classification for the understanding of single characters, concluding that in-depth knowledge of the origins and derivations of single characters is not necessary for the application of Hanzi/Kanji in daily written communication.

³ Even the characters that derived from pictorial genesis went during their application of more than 3,000 years through a process of simplification and standardisation. Only by tracing their roots, the original object becomes recognisable. (Ochiai 2011, 34)

ideogrammatic compounds and radical phonetics – provide the majority (92%) of the Hanzi character set. (Kozuka 2007, 43)

Separated from other writing systems or visual communication systems, the terms pictogram, ideogram and logogram might appear reasonable. Nevertheless, they more commonly refer to visual signs, not writing systems. A missing differentiation towards the naming of the first three principles, or even a confusion of the terms, might be one reason for the error in seeing Hanzi as an archaic pictorial writing system. To illustrate the inherent hazard in the resemblance of the terms of two different communication tools (writing and images), the terms will be defined this time as applied as visual signs.⁴

A pictogram is like an icon, with its visual appearance representing the main attributes of the object that it represents, in a simplified and standardised manner. Well known pictograms are the signs at the airport showing airplanes in different alignments to give the direction for arrival and departure. The semantic layer is defined and internationally conventionalised, while a specific reading or phonetic is not assigned; thus, the signs are independent from language. The downside is the lack of precision when interpreting and conveying them into language.

Ideograms represents ideas. The heart icon (♥), for example, visually represents “like” or “love” and is commonly used, especially among the younger generations. While an ideogram has a strong pictorial characteristic, there is little or no coherence between the visual and the represented idea. Similar to a pictogram, ideograms are not phonetically defined, nor script-based.

A logogram is an abstract sign, with no visual resemblance to the represented matter. It is strongly connected to meaning and unlike the pictogram or ideogram, it can be transcribed into writing, such as numerical figures (0123456789), mathematical symbols (+-x%), and abbreviations (\$&@€).

All three visual signs - pictogram, ideogram and logogram - share the advantage of saving space and time in written communication and being easy to learn and remember. As meaning - but not phonetics - is attached to the signs, they cross language barriers. However, in this independence from language lies the distinction between visual signs and Hanzi/Kanji.

⁴ Christa Dürscheid, a scholar in linguistics of writing, introduces four categories of visual signs in her publication: pictogram, ideogram, logogram and phonogram. (Dürscheid 2012, 64-66)

3. Contemporary typographic design: Are Chinese characters shown as pictorial presentations of ideas?

In typographic design practice, Hanzi/Kanji are often taken out of the context of a given text and made to become a visual that resembles an image. At first glance, these visualisations might reinforce the stereotypical understanding of Hanzi/Kanji as pictographic or ideographic signs.

The following discussion of typographic work by three Hong Kong designers of three generations - Freeman Lau (b. 1958), Hung Lam (b. 1973), Kenneth Szeto (b. 1991) - will demonstrate how the layers of semantics, phonetics and forms of Hanzi/Kanji are used to visualise an idea.

3.1 The construction of new characters, following the logic of Liùshu

Methods of creating new characters and assigning them a meaning as described in Liùshu have for centuries allowed extensions of the character set.

Hanzi was adapted to create the Japanese writing system in the 4th Century, through an intensive process which converted the characters into the Japanese language and vice versa. The result was a unique hybrid writing system: each Chinese character was connected with two ways of reading - Sino-Japanese phonetics (*on-yomi*) and the Japanese semantics (*kun-yomi*) - and two syllabic scripts were developed, Hiragana and Katakana. Another effect of this adaptation, and the application of Liùshu, was the creation of Japan-specific Kanji known as Kokuji (国字, national characters).

As a contemporary example, let us look at the work of a leading Hong Kong graphic designer Hung Lam (LAM Wai Hung), founder of CoDesign and a partner in 3X. In 2002, during an internship with graphic designer Sugisaki Shinnoske in Osaka, Japan, Lam came across a Japanese-Chinese character dictionary published in 1880 which included the investigation into the Japanese way of applying Chinese characters. The dictionary inspired Lam to rediscover Hanzi/Kanji and over the years, he developed his work "New Chinese Characters", which was presented at the Ink and Design Exhibition at the international conference, Business of Design Week (BODW) 2010. In creating four new

characters meant for social network platforms Facebook, Google, Instagram and Youtube, Lam followed rules established almost 1,900 years ago in the six principles of writing, Liùshu. (Fig. 1)

Looking closer, the four new characters share one radical that is positioned at the bottom. The inner space of the wide rectangle is divided into six parts by a grid and represents a pictographic visualisation of a keyboard. This radical creates a visual base and at the same time functions as an indicator, marking the four characters to become part of a group related to the computer. Two different methods are used for the upper radicals, representing the different ideas of each social network platform. For Facebook and Google, Lam shows the initials F and G. For the character design of Instagram and Youtube, he uses graphic elements that are part of their visual identity: for Youtube, an arrow (a triangle pointing to the right) and for Instagram, four mouth (口)-radicals arranged in a square. All four signs resemble in their outer shape the iconic design of Apple Macintosh SE.

As Lam's new characters are assigned to the social network platforms, their names become the phonetic layers; thus, they can be pronounced. The method of picturing the essential distinguishing marks of the referenced matter is comparable to the first principle in Liùshu, characters based on the idea of the pictogram. With the combination of different elements, the designer makes use of the third principle (ideogrammatic compounds) and the fourth (radical phonetics for Google and Facebook). Interestingly, for the style of the new characters, he chooses a calligraphic stroke referring to Kaishu (or regular style), with a



classic impression.

Figure. 1: Hung Lam (2010) New Chinese Characters.

3.2 Synergies: the composition of existing characters to create new meanings

In 1995, another leading Hong Kong designer, Freeman Lau (LAU Siu Hong), created his New Chinese Characters in a series of posters called Taiwan Image. Each poster carries one character, which is composed of three to eight characters, of 19 to 26 strokes. The strokes of the characters overlap, reaching into the other's white space and becoming a new complex character. In this way, Lau amplifies, joins and overlaps elements of the compound character, allowing room for the imagination of the reader. The newly created Hanzi can be seen both as words (since phonetics are assigned) and as visual codes (based on the semantic layer).

Each poster has a caption in English, giving the phonetics, a narrative phrase on the meaning of the character, and information on the single characters involved in each composition. Comparing Lau's characters to conventional Hanzi characters, his are more elongated in shape. At first glance, the reference to single components in each character seems obvious, yet on closer examination, a certain scope for interpretation becomes visible.



Figure. 2: Freeman Lau (1995) Taiwan Image - Chinese Character, No. 7 - You. Involved characters: 人 (person, people) repeated four times, 自由 (freedom), 太平 (peace).

The “New Chinese Character No. 7” with the phonetic *You* illustrates this matter well. (Fig. 2) The descriptive caption on the poster says: “The greatest joy is for every individual to possess freedom and equality in every corner of the world.” The outer shape has a strong resemblance to the character 樂 (joy), yet Lau’s character is more complex. The upper half is replaced by 自由 (freedom) as the middle vertical axis, with four 人 (person, people) on either side. The lower radical 木 (tree) of the character 樂 (joy) is replaced by 太平 (peace), and instead of setting them vertically, they are merged into one shape. Some details are removed from this overlapping and the orientation of the dots is rotated; nevertheless, the bottom radical in the design could be alternatively interpreted as 来 (to come, next).

Another interesting component of Lau’s work is his chosen style of white shaded outlines on a black background, reminding one of chalk drawings on the old black boards at school. This context seems to return us to our roots, perhaps even to the six principles of writing.

3.3 Redefine: well-known character within a new context

The typographic work 一樣米養「異」樣人 (The Same Kind of Rice Provides for Hundreds of Kinds of People) by Kenneth Szeto (SZETO Chun Hei), initially presented as a book (405 x 500 mm, closed format) in 2015, shows the designer’s involvement with contemporary developments of Hong Kong society.⁵ As a witness to the Umbrella Revolution in 2014, when large areas of Hong Kong were occupied by students and residents, Szeto reflects on social issues of his hometown of Hong Kong.

As a signifier and visual bracket for his entire character set, Szeto chooses the radical 宀 roof, composed of three strokes, positioned at the top of each character. He uses 30 existing characters in all, classifying them with three topics: government, society and living conditions. By each of the 30 characters, he discusses one term by a graphically interpreted character on the left facing page, and the original and altered reading of the character together with an interpretive and bilingual Chinese and English text on the right page. Szeto’s layout reminds one of an oversized Hanzi-dictionary.

⁵ 一樣米養「異」樣人 (The Same Kind of Rice Provides for Hundreds of Kinds of People) by Kenneth Szeto was an a Bachelor’s Degree Honours Project at the Academy of Visual Arts, Hong Kong Baptist University in 2015. Mariko Takagi served as Supervisor.



Szeto chooses various methods for the graphic interpretations of Hanzi characters. For some characters, strokes are altered, and for others, he creates new ideogrammatic compounds, joining two to three characters into one. He also replaces strokes and radicals with photographed objects. The different design methods applied in this work opens up new ways of reading characters. For example, the character 宰 (shown in the word 主宰, to rule) is graphically separated into two parts - the typographic radical 宀 roof (for home) in black and 辛 (toil, laborious life) composed by cuts of bitter melon in green - and each part can be read individually. This opens up the freedom of interpretation by the reader. His finishing aesthetic has a deliberate rough touch, as he does not want to please the readers, but challenge them with his content.

Figure. 3: Kenneth Szeto (2015) The Same Kind of Rice Provides for Hundreds of Kinds of People. P. 44/45

4. Conclusion

With Hanzi's/Kanji's sophisticated structures, there can be many different interpretations in typographic design. In addition to the defined phonetics, one can read the semantics of the entire composition, and of each individual element that constructs the character. The form also leaves space for interpretation.

The work by the three Hong Kong designers of different generations demonstrate ways that the semantic, phonetic and formal layers interact in typography, even in a single Hanzi character visual - whether in an existing character (Kenneth Szeto), in a newly created character (Hung Lam) or in a newly composed one (Freeman Lau). The designs are all connected to phonetics and thus transcribe language.

The work of the three designers also demonstrate that Hanzi is a very living language. It may have ancient roots, but these roots are still alive. Hanzi typography can be seen as a

living interaction between designer and audience, and as an intellectual and emotional act of seeing and reading and interpreting. People's varying interpretations can be understood as expressions of culture.

References

Coulmas, Florian (1999) *The Blackwell Encyclopedia of Writing Systems*. Wiley-Blackwell, United States.

Dürscheid, Christa (2012) *Introduction to linguistic of writing*. [Einführung in die Schriftlinguistik.] UTB, Germany.

Haarmann, Harald (1991) [Universalggeschichte der Schrift.] Campus, Germany.

De Francis, John (1984) *The Chinese Language - Facts and Fantasy*. University of Hawaii Press, Hawaii.

Kato Ichiro (2012) *Introduction to Hieroglyphic Script*. [加藤一朗: 象形文字入門.] Koudansha, Tokyo.

Kozuka Masahiko (2007) *To design a typeface*. In: Mori Kei: *The present of Typography • Typeface*. [小塚昌彦: ひとつの書体をつくること In: 森啓: タイポグラフィ・タイポフェイスの現在.] Joshibi University of Art and Design, Japan. P. 24-53.

Lam, Hung (2002) *elementism2: creative journey on Shinnoske's works*. mccm creations, Hong Kong.

Ochiai Atsushi (2011) *Dictionary for Oracle Bone Script*. [加藤一朗: 甲骨文字小字典.] Chikumasensho, Tokyo.

Takagi, Mariko (2014) *Hanzi Graphy - A typographic translation between Latin letters and Chinese characters*. mccm creations, Hong Kong.

Wolf, Maryanne (2008) *Proust and the squid - the story and science of the reading brain*. Icon Books Ltd., United Kingdom.

Hayakawa, Saki (2011) *On the 'six principles of writing'*. [早川咲 (2011) 「六書」について。] [Online PDF] Available at http://www.kanken.or.jp/project/data/investigation_incentive_award_2011_hayakawa.pdf (Accessed 2016.02.02.)

Posters by Freeman Lau: <http://sammlungen-archive.zhdk.ch/view/objects/asitem/Objects@87216/1> (Accessed 2016.02.05.)