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The Construction And Formation Of Chinese Character

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Abstract:

Chinese characters are very unique. As one of the most widely used scripts in the world, its complex forms and large volume of characters make it always daunting for beginners, which is related to the long history of Chinese characters. This paper is divided into five parts, based on a definition of the nature of ancient Chinese characters. In the first part, it is argued that Chinese characters are made up of smaller elements. A single Chinese character, as a morpheme, is the smallest ideographic unit of the Chinese language, but a single character may also be formed by combining smaller component affixes. The second part mainly introduces 11 basic patterns by which Chinese characters can be made up of single or multiple elements. The third part lists different types of the formation of Chinese characters. The fourth part introduces the variants of one character that exist in the same time period. Finally, the evolution of a Chinese character over time is discussed.

THE CONSTRUCTION AND FORMATION OF CHINESE CHARACTER

by

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I.The Nature of Chinese characters

1. Definition of a Pictographic Script

A pictogram is a symbol that has both a pictographic meaning and a definition and can be written according to the definition.

The early written symbols were based on the pictogram and ideogram. The difference between the two is pictograms depict objects with similar meanings to be expressed; ideograms describe the concepts represented by the immediate symbols.

It is widely believed that pictograms preceded ideograms, and that both symbols were used in many civilizations around the world by 9000 B.C., and began to develop into ideograms in 5000 B.C. All currently known phonetic scripts are not limited to pictograms and ideograms but have an epigraphic component.

2.The Nature of Chinese Characters

Chinese characters (simplified Chinese: 汉字; traditional Chinese: 漢字; pinyin: Hànzì) or Hanzi are characters used in the writing of Chinese language. Chinese characters can represent meanings on their own, or form words in cooperation. There are about 3,500 modern Chinese characters in common use, and the total number of Chinese characters that have existed throughout history is even larger.

A pictogram, or an ideogram, is a graphic symbol that represents an idea or concept , independent of any particular language, and specific words or phrases. A pictogram may also be used in subjects such as leisure, tourism, and geography, and in computer usage, is symbol that conveys its meaning through its pictorial resemblance to a physical object. Pictographs

are often used in writing and graphic systems in which the characters are to a considerable extent pictorial in appearance. Some pictograms, are elements of formal languages.

Pictography is also a form of writing which uses representational, pictorial drawings, similarly to cuneiform and, to some extent, hieroglyphic writing, which also uses drawings as phonetic letters or determinative rhymes.

II. The Evolution of Chinese Fonts

1. The History of the Chinese Typography

At the beginning of the development of Chinese characters, the oracle bones were used in primitive religious ritual acts, and later, for practical purposes, some of the characters were simplified in line form. However, the simplification was not uniform. There was a partially regulated omission of simplification, so that the characters

retained a minimum of pictograms and could be distinguished from each other. At the same time, the psychology of seeking simplicity and tendency to use the carving is also prompting the phenomenon of scribble in the imitation of the shape, and the straight line of the carving is constantly prompting its alienation, thus gradually reducing the degree of pictogram and gradually moving away from the "prototype". This simplification comes from the infinite repetition of calligraphic inscriptions, which, when accumulated to a great extent, can strengthen the writing meaning of imitation, produce stroke order, and lead to the evolution of calligraphic style.

Oracle bones of Shang Dynasty
（fromWikipedia）

The Zhou dynasty (1046 B.C.-256 B.C.) was the first in Chinese history to have an official script, and the primitive hieroglyphic script gradually changed. The script of that time we now call bronze inscriptions. Since most of the writing at that time was still engraved on metal vessels, the thickness of the lines of this typeface was even, and the straight and curved writing was like drawn lines.

Scripts of Zhou Dynasty

After the Chunqiu Period (770 B.C.-476 B.C.), the calligraphy of various countries began to highlight their own regional styles and form trends, with various calligraphic styles vying for attention and influencing each other. Among them, there are three main types. The first is a continuation of the ancient official calligraphy style, represented by the Qin state; the second is a style called richly decorative calligraphy, popular in economically developed and culturally strong countries such as Yan and Jin, and Chu, where people often fused images of plants and animals into the script, sometimes to the point of illegibility; and the third is a font in between the two. Since Qin later eliminated all other states, the Qin script, which continued the ancient official script, became the official script, Small Seal Script.

The clerical change was the beginning of the change in the form of the Qin system of ancient scripts. After Qin conquered the other states and established a unified empire, the rulers of the empire tried to unify the scripts of various places. We now call the unified script the clerical script, which is characterized by a change in the direction of strokes, stroke order, and the way strokes are linked. The simplification of some character shapes or parts and radicals. The most basic motivation is the simplification of writing. The characters of the clerical script are neat and easy to read, but still have some traces of the seal script.

Scripts of Qin Dynasty

After the fall of the Qin empire, the Han empire rose in the land of China (202 A.D.-220 A.D.). During the Han dynasty, a strict system of writing examinations and supervision was established, and the script was further standardized. The traces of seal script in clerical script were completely eliminated and the characters were reorganized with more abstract dotted symbols, and a new stroke order and ways of joining strokes were established, making it more suitable for writing with a brush.

III. Construction of Chinese Characters

1. Chinese characters are constructed by morphemes

As previously analyzed, most Chinese characters did not evolve from pictograms, but were artificially constructed to record language. So, how exactly are Chinese characters constructed? What are they built on?

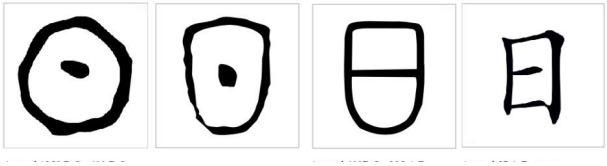
If we compare Chinese characters side by side, we can gradually see that some of them have the same components. Take the Chinese character 萌 (meaning sprouts or growing), for example. First, it has the same element "艹" (meaning grass) as some other characters 草 (meaning grass) and 芽 (meaning bud)； Second， it also shares the element 日(meaning sun) with some characters like 昨(meaning how) and曜 (meaning dazzle) ; Thirdly, the rest part of it, 月 (meaning moon), can be recognized in such characters as阴 (meaning shade) ,钥 (meaning key). Therefore, we can see that the character 萌 is made up of three parts: 艹, 日 and 月.Is it possible to further break down these three parts? To answer this, we need to dig up the history of the three components 艹 (meaning grass) , 日(meaning sun) and 月(meaning moon). If they are pictograms that are derived from ancient drawings, then it's safe to say that these three components are the smallest unit that forms the character 萌 ; if they are not, then they can be broken down further.

The history of the character "萌" is shown down below：

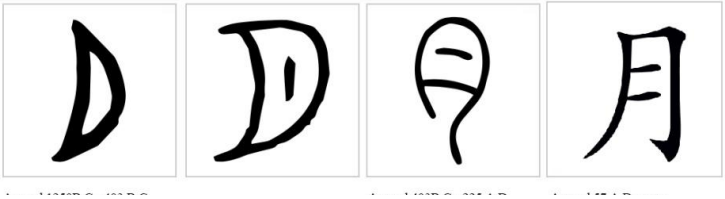
Evolution of the character “萌“

As we can see that composition of "萌" has always been relatively stable throughout history. The change of appearance mainly comes from the three individual components. In fact, "艹," "日," and "月" are very commonly used elements in all Chinese characters. From the oracle scripts that were carved onto turtle plastrons and buffalo scapulars back to 1250 B.C., to the bamboo slips that were used around 475 to 238 BC, and then the later invented paper books, all have documented their evolution.

"Sun" is derived from the depiction of the image of the sun, which is the meaning of this Chinese character in Chinese.



Evolution of the character “日“



Evolution of the character “月“

The word "moon" evolved from the depiction of the image of the moon, which is the meaning of this Chinese character in Chinese.

The word "艹" evolved from the depiction of herbaceous plants. To distinguish from other similar words, the word "艸", which consists of two abreast "屮", gradually became the most common form of the word "herb". When used to construct other Chinese characters, "艸" is often simplified to “艹".

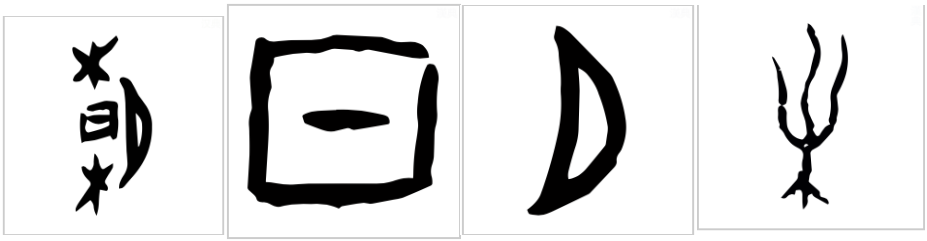
Evolution of the character “草“

After the above examination, we can conclude that the Chinese character "萌" has three basic components: "艹", "日" and "月". They are similar to morphemes in European languages, but unlike morphemes, which are units to construct words, the elements of Chinese characters are put together like building blocks. They also play slightly different roles in constructing the Chinese characters.

2. Types of elements

Elements play a certain role in the construction of words. Take the previous Chinese character "萌" as an example, "萌"means “plant sprouts” or “to grow”. Its three components 艹 (grass), 日 (meaning sun) and 月(meaning moon) mean 草本植物", (meaning herb) 太阳 and 月亮 (meaning moon) respectively. We have found before that there are many other

Chinese characters with the same component of 艹 (grass) as 萌(meaning germination) , such as 草 (meaning grass) and 花 (meaning flower), which mean 草 (meaning grass) and 花 (meaning flower) respectively. It can be concluded from this that the meaning of the element 艹 (grass) is related to the meaning of these Chinese characters it participates in the construction, and it plays a role in expressing the meaning of the characters when constructing these Chinese characters.



The character “萌”“日”“月”and“草”

The remaining two parts, 日(meaning sun) and 月 (meaning moon), are hardly related to "萌", which means "植物发芽". Meanwhile, some studies have found that in some ancient documents, the word "萌" is used as several other Chinese characters such as 民 (meaning people), 氓 (meaning hooligan) and 甿 (meaning hooligan).

The meaning of these Chinese characters has nothing to do with “Plant sprout”, but they have one thing in common, that is, their pronunciation is /məŋ˥ /. Meanwhile, we also know that there is another Chinese character with the pronunciation of /məŋ˥ /, which means 盟 (union) in 联盟 (alliance) , and it has the same components of 日 (meaning sun) and 月 (meaning moon) as 萌 (meaning germination). From these clues, we can infer that "日" and "月" play a role in pronuncing the Chinese character "萌"means "plant sprout” and its three

components 艹 (grass), 日 (meaning sun) and 月 (meaning moon). We have found before that there are many other Chinese characters with the same component of 艹 (grass) as 萌 (meaning germination) , such as 草 (meaning grass) and 花 (meaning flower), which mean 青草 (meaning grass) and 花朵 (meaning flower) respectively. It can be concluded from this that the meaning of the element 艹 (grass) is related to the meaning of these Chinese characters it participates in the construction, and it plays a role in expressing the meaning of the characters when constructing these Chinese characters.

In this category, perhaps better examples are some Chinese characters representing a single tree or animal, such as“松”（pine tree）,“梨”（pear tree）etc. These Chinese characters are all composed of the meaning "木" plus one other element representing pronunciation.

There is a noteworthy phenomenon, that is, when an element plays a pictographic role in Chinese characters, the position of this element in Chinese characters is generally fixed, while the element expressing pronunciation and meaning often changes its position in Chinese characters, as a result, some Chinese characters with the same pronunciation and meaning but different element positions are formed, such as 群 (meaning group)and "羣", 峰 (meaning group) and 峯 (meaning peak), 稿 (meaning draft)and "藁". These characters will be discussed in the following chapters.

Finally, after a Chinese character is broken down, there may be some small parts such as dots, horizontal lines and vertical lines left. If some Chinese characters with simple glyphs and similar shapes are compared, it is easy to find that in many cases, the difference between them is only a small dot rather than the Chinese characters 大 (meaning big) and 太 (meaning

too). These two Chinese characters were originally the same character, which can be used as an adjective to mean “big size” or as an adverb to mean “excessive”, around the Song Dynasty. In order to distinguish the two usages, people added a little to "大" as an adverb and created the word "太". Here, this dot has no meaning in itself, but only exists to show the difference.

The elements that make up Chinese characters are classified by function, and there are the following four types:

1.Pictographic Element

Components use shapes similar to objects to embody the meaning of Chinese characters. For example, the component representing that a person has a protruded head in word 天 (meaning day) in oracle bone inscriptions. The component representing the full stock in the word 福 (meaning blessing), etc. These words have the function of bearing the pictographic.

2.Phonetic Element

Components embody the pronunciation of Chinese characters when constructing characters, such as 公 gong (meaning public)in 松 song (meaning loose).

3.Affixes

Components reflect the meaning of construction by the meaning of words recorded when they are used alone, which is the semantic function of components. The component "扌" in the word 打 (hit)indicates that 打击(hit) is an act performed by hand, the component "氵" in the word "海" indicates that the meaning of 海(sea) is related to 水 (water), and the three “木" in the word "森" indicates that "森" is a gathering of many trees. The above components all undertake semantic functions.

The character “末”“本”and“木”

4.Indicator

Indicators do not exist independently and have no independent meaning. They are usually simple dots, horizontal lines, vertical lines, etc., which are attached to other components to distinguish and indicate things. Indicators have two different functions:

(1) For Distinguishing Purposes Such As:

The difference between "少" (few) and "小" (small) in oracle bone inscriptions is that the added dots have the function of differentiate between these two similar words.

The difference between 旬 (ten days) and 云（cloud）in oracle bone inscriptions is that the added oblique lines has the function of marking.

The position of this kind of symbol only starts from the beauty and symmetry of the construction of characters, and has no effect on the construction of meaning.

(2) It has both distinguishing and referential functions. For instance:

The horizontal line above the "末" indicates the position of the treetops, while "本" places a horizontal line under "本" because it indicates the position of the roots of the trees, which are all indicating components that serve as indicators.

The position of this **indicator** is related to what it is intended to mark, that is to say, it is not only used to distinguish from words without signs, but also to reflect the meaning of the structure with the added position.

The components with the above four functions are called pictographic element, phonetic element, affixes and indicator respectively.

IV. Formation of Chinese Characters

The first monograph on the study of Chinese characters in Chinese history, written in Han Dynasty, (202 BC – 220 AD). Chinese characters are divided into six types(*liùshū* "six graphs"): (*zhǐshì*), pictograms (*xiàngxíng*), phono-semantic combined characters (*xíngshēng*), combined indicatives (*huìyì*), borrowed characters (aka phonetic loan, *jiǎjiè*) and derived characters (*zhuǎnzhù*). However, after the analysis of scholars, this classification is not comprehensive and accurate enough. In the previous chapter, we have concluded that there are four kinds of elements that can construct Chinese characters: pictographic elements, phonetic elements, affixes and indicators. Based on this classification standard, we can divide Chinese characters into 11 types.

1.One single pictogram

It consists of a pictographic element, or, in other words, it cannot be broken down from the beginning.

It is similar to that zero-morpheme, which is a type of morpheme that carries semantic meaning but is not represented by auditory phonemes. They are often represented by /Ø/ within glosses in linguistics.[5]

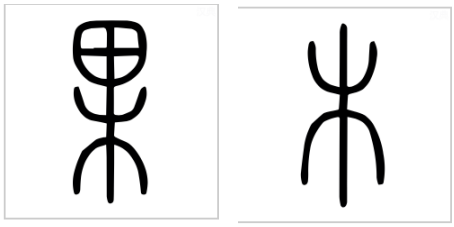
Generally, these types of morphemes have no visible changes. For instance, *sheep* is both the singular and the plural form. The intended meaning is thus derived from the Co-occurrence determiner (in this case, "some-" or “a-").

Most of this kind of Chinese characters are single-style characters directly evolved from the single-style pictographic characters of ancient characters, such as "羊" (example A) of oracle bone inscriptions, "网" (example B) of oracle bone inscriptions, etc.; But there are some exceptions, such as words "并", "兼", "更" and "西" originally belonged to the type of

combined characters to be mentioned below in ancient times, but they were already completely glued into a Chinese character at a very early stage and have been used as a single Chinese character since then. Only in the remains of ancient documents can their initial appearance be seen.

2. Combination of Multiple Pictographic Components

More than two pictographic elements are combined to represent a new meaning. This kind of combined words not only embodies the meaning of the component by the object, but also often places the component according to the actual state of the object. Such as the Chinese character 果 (fruit) mentioned earlier is composed of a "田" shaped character symbolizing fruit placed above the 木 (wood) symbolizing trees, at this moment, the positions of the two elements are fixed. If the 田 (field) shaped character (fruit) is placed under the "木" (tree and wood), it is difficult to express the meaning of “fruit”. Other examples include:



The character“果”and“木”

3. Pictographic Element + Indicators

It consists of one or more pictographic elements plus indicators, which are used to indicate the position of an object or add information related to the body, such as:

Lesser seal character " (刃)" is composed of " pictographic component" and "marking symbols”

4. Affix + Indicators

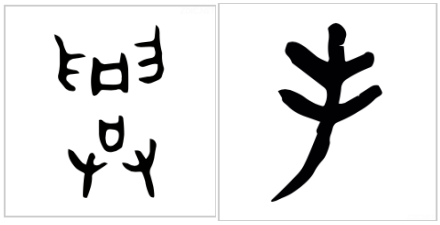
Consists of one or more affixes plus indicators, usually to distinguish synonyms, such as:

Lesser seal characters "(小)" are divided into "八" represents separate, separation is then small, “” separates "八" on both sides to play a marking role;

5. Pictographic Element+Affix

Pictographic element and affix are combined together to represent a new meaning, and this kind of combined word usually takes pictographic element as the main body, and affix adds–meaning to it. For example:

Lesser seal character " (兴)" has four hands facing each other, which is a morphological component.



The character “兴”（raising）and“手”（hand）

6. Multiple Affixes

Combine with multiple affixes to represent a new meaning. For instance:

The word "匠" (carpenter) comes from "斤" (a unit of weight) and indicates the tools of craftsmen; From the toolbox or utensils of the craftsman by “匚”, the two semantic components provide meaning information related to the craftsman.

7. A Pictographic Element+Affix+Indicators

It is composed of pictographic element, affix and indicators, but without phonetic element. For example:

Lesser seal character "葬" is composed of the morphological component representing grass, the semantic component representing "死" and the marking component "一".

8. phonetic element + indicators

Phonetic element is added with indicators to distinguish homophones. For instance:

The above-mentioned oracle bone inscriptions "少", “旬”, “千”, “百” are all phonetic combined words.

9. Pictographic Element + Phonetic Element

Combine pictographic element with phonetic element. This pattern is a very important one in the primitive oracle bone inscriptions. Some pictographic characters in oracle bone inscriptions are used for reasons of distinction or easier identification, and a phonetic component is added to increase the information of the pronunciation of the characters, thus becoming morphological and phonetic combined characters. For example:

“凤（凰）”(phoenix), "鸡（鷄）" (chicken) in oracle bone inscriptions were originally pictographic characters or morphological components, and later phonetic components such as "凡", "奚", "生" and "止" were added to enrich the literal information.

Example A "" (pictographic character "凤") "" (added with phonetic component “凡");

Example B "" (pictographic character "鸡") "" (added with phonetic component “奚”);

10. Affix + Phonetic Element

Combine affix with phonetic element. The phono-semantic combined characters (*xíngshēng*) in “说文解字” is basically equivalent to this type. It uses affix to reflect the meaning and phonetic element to prompt the pronunciation, which forms a rule in the construction of Chinese characters: words with the same meaning are often distinguished by pronunciation, while words with similar pronunciation are distinguished by meaning. For instance:

The "贞" in oracle bone inscription shows the meaning of "贞 卜" from the sound of " 卜" and “鼎".

11. pictographic element+affixes+phonetic elements+affixes

This pattern is composed of several pictographic elements, phonetic elements, affixes and affixes. For instance:

"春"comes from grass or wood, the sun and with the same pronunciation of “villages”.

V. The Differentiation of Chinese Characters in the Same Time Period

We have analyzed the different functions of elements that construct Chinese characters in Chinese characters. In this chapter, we will discuss that these elements have Chinese characters with the same meaning but different appearance. These Chinese characters may exist at the same time, or they may be the relationship between inheritance and evolution, and this chapter mainly discusses the situation where different Chinese characters express the same meaning at the same time.

1. Variant Chinese Characters

The components that construct Chinese characters are the same, and the difference in appearance of Chinese characters is only caused by the difference in component form or placement position.

-Differences in component form

-Differences in placement position

The difference between variant Chinese characters can be regarded as only the difference between fonts, which is still the same Chinese character in essence.

Heterographic characters are the same character with the same function, which is formed by different writing methods. Such as in the Han tablet, there are many ways to write the word "刻" in official script:

These five forms are all the character "刻", with "亥" on the left, an independent phonetic component, and "刀" on the right, just "亥" and "刀" are written in different ways. In other words, the difference of these five forms is not the difference of structural elements, structural patterns and structural distribution, so their structural attributes are completely the same,

what differs is the difference of internal strokes of each structural element, that is, the difference of writing attributes. Of course, this difference will not affect their construction. It can be said that these forms are actually different ways of writing the same word.

In the early days of the occurrence of heterographic writing, the phenomenon of different writing existed in large quantities due to its unstable forms and arbitrariness, such as in oracle bone inscriptions, a simple "酉" character can have dozens of writing methods:

These three types of heterographic characters, (1)adopts 酉 (wine vessel) adopts both hands; (2) adopts 示and 酉; (3) adopts 酉, both hands, and then 示. Since each component has different writings, there are more different writings after combination.

After the use of Chinese characters became quite widespread, at the level of personal use of Chinese characters, due to the different personal habits of the writer, some different characters were formed.

These are all unavoidable phenomena in the use of handwritten Chinese characters. The differences between heterographic writing are only in writing, and there is no substantial difference in configuration at the level of strokes.

2. Heterogeneous characters

For various reasons, there are Chinese characters composed of different components that express the same meaning at the same time.

-Composed of different phenotypic components

-Composed of different semantic components

-Composed of different phonetic components

-Different patterns of Chinese characters

The causes of heterogeneous characters are very complicated and each is different. In fact, many originally heterogeneous characters with the same meaning gradually produced functional differentiation in the later period and truly became different Chinese characters.

Heterogeneous characters are also commonly referred to as variant characters. It is called heterogeneous characters here to distinguish them from heterographic characters. Heterogeneous characters have the same function in recording Chinese, that is to say, the sound and meaning are absolutely the same, and they can be replaced with each other in any context when writing and recording speech works. However, at least one of the configuration attributes of heterogeneous characters is different, so it is called heterogeneous characters.

Some heterogeneous characters have different basic components of pronunciation, such as the heterogeneous form of “綫（线) " and the heterogeneous form of “嫻".

From the above examples, it can be seen that although the character memorizing functions of heterogeneous characters are completely consistent, they cannot be recognized because of their different configuration attributes. They are different words, not different forms of the same word. Since their differences occur in components, configuration modes and configuration layout, they are bound to be different from each other in terms of configuration meaning. Thus, heterogeneous characters are repeated in character creation, but each has its own function in character analysis, which can help us enrich our understanding of the original meaning of the character s recorded by this character.

Here, we also need to explain the question of "what is a character". In the traditional concept, a character that records the same word is a character. We think statement is not comprehensive enough. Firstly, when discussing the configuration of Chinese characters, it can affect the strictness of the system to determine whether it is a character only from the perspective of function. As mentioned earlier, form is the ontology of Chinese characters. To

determine whether two characters can be recognized, we must first determine them according to their ontological attributes, that is, configuration attributes. If we do not do so, when discussing specific issues, we often have problems of replacing words with characters. For instance, the purpose of counting how many characters there are in a text file is not exactly the same as that of counting how many words there are in this text. The purpose of counting characters is often to convert the characters used in the text into character lists so as to check the amount of characters used or carry out information processing on these characters. In this kind of work, the structural difference between the two characters cannot be ignored, if ignored, information can be lost. Secondly, heterogeneous characters are a very complicated concept in the history of Chinese characters. Generally speaking, if the two heterogeneous characters are completely synchronic, the situation is relatively simple; But in fact, most heterogeneous characters have been stored in character books, which looks as if they are on a synchronic plane, actually they are not completely synchronic, in history, there has often been a phenomenon of one in two characters being discarded while another one being used, including heterogeneous characters. For example:

"熔" and "鎔（镕）" and "鎔" prevailed earlier than "熔" and "溶剂" are the later handwritten characters, but the prevailing era of "鎔" also ended earlier, at least in modern times, in the era of writing modern vernacular, it has been replaced by "熔". Thus, in some character books, the meanings of the two characters are not exactly the same. According to the principle that heterogeneous characters must have the same sound and meaning and can be replaced by each other at any time, some people will simply conclude that the two are not heterogeneous characters with the same function, which is precisely the problem of determining whether the functions are the same only according to the character book.

Heterogeneous characters often have functional differentiation in different times, that is to say, in the long river of history, the time when they can become heterogeneous characters is only in a certain period.

Heterogeneous characters have such a complicated situation that various analysis and synthesis are needed to determine their relationship, and it is obviously unrealistic and illogical to call them the same word in general.Heterogeneous characters refer to character groups with the same functions in Chinese character configuration, which is the description of Chinese characters, that is, these characters are on an equal footing. If we change the perspective, in orthography, which is in the field of social standardization of characters, we must choose one of the multiple heterogeneous characters as the common character, which can also be called orthography. In this case, orthographic characters and heterogeneous characters construct an opposite relationship. However, because of the above-mentioned complexity of heterogeneous characters, other forms can only be recognized in the function of memorizing words and can be restricted in certain occasions, but it is not appropriate to cancel them rashly so as not to lose necessary information.

Conclusion

Chinese characters are a kind of pictograms which combines simple pictograms and phonetic letters. Chinese characters are constructed by elements that serve different purposes. There are (1)pictographic elements that use shapes similar to objects to embody the meaning of Chinese characters. (2) phonetic elements that embody the pronunciation of Chinese characters when constructing characters (3)affixes that reflect the meaning of construction by the meaning of words recorded when they are used alone (4) indicators that simple signs to differentiate similar characters. These four kinds of elements can be used together or on their own (except indicators) to compose characters.

Biblography

Gu, Y, K. (2008). 汉字源流字典 [Chinese Character Source Dictionary]. 语文出版社:北京,50-60.

Lin, Y (2012). 古文字学简论 [A Brief Comment on Paleo Graphology]. 中华书局:北京, 73-80

Qiu, X, G. (1996). 文字学概要 [Outline of Philology]. 商务印书馆:上海, 13

Tang, L (1981). 古文字学导论[Introduction to Paleo Graphology]. 齐鲁书社:山东潍坊,102

Wang, L. (1982). 同源字典 [Homologous dictionary]. 新华书店北京发行所:北京,110-112.

Wang, N. (2002). 汉字构形学讲座[Lecture on Chinese Character Configuration]. 上海教育出版社: 上海.39-40.

Zeng, X, T., Lin, Z, Q. (2011). 汉字源流 [Origin of Chinese Characters].中山大学出版社: 广州,150.

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Master of Fine Art, 2021, Syracuse University
Bachelor of Fine Art and Design, 2018, East China Normal University