

COLOUR TERMS IN SHANG ORACLE BONE INSCRIPTIONS¹

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Introduction

Most people are born with the natural ability to see and distinguish the colours of objects and things in everyday life, but to explain in words what colour is, is a more complicated matter. Scientists have generally accepted that, physically, colour is the visual aspect of electromagnetic radiant energy having a spectral composition ranging in wavelength from about 380 to about 720 nanometres. From the psychological point of view, it is a sensation produced on the eye and in the brain by rays of light when resolved by selective reflection. The problems raised by the study of colour use are thus interdisciplinary.²

An investigation of colour may begin by looking at the linguistic expression of colour sensation, or more precisely, the colour terminology employed in different languages. However, the difficulty in studying colour in this way may lie in language itself. We know from the study of language that the colour sensation is independent of its linguistic expression, and that the naming of colour is often arbitrary. As Ludwig Wittgenstein wrote:

When we're asked, 'What do the words "red", "blue", "black", "white", mean?' we can of course immediately point to things which have these colours, — but our ability to explain the meaning of these words goes no further! For the rest, we have either no idea at all of their use, or a very rough and to some extent false one.³

Wittgenstein's philosophical concern was the connection between language, or thought, and reality. He tried to use the study of colour to explain mind, that is, to arrive at the process through which language is able to function. To him, the problem seemed to be partially resolved by the 'language-games' rule which states that an underlying concept must be shared by both a speaker and a hearer on the communicative level.⁴

Based on Wittgenstein's 'language-games' and N. Chomsky's 'deep-structure' theories, many scholars are now trying to reconstruct the underlying model used for colour naming in a particular language. Colour perception is

¹ This paper was originally a section of my doctoral thesis 'Colour symbolism in Late Shang China' (University of London, 1993). During the writing of the thesis I received help from Professor S. Allan, Dr. P. Thompson, Professor Qiu Xigui and Professor Li Xueqin, and two travel grants from the Central Research Fund, University of London and the Sino-British Fellowship Trust. I would like to express my gratitude to all of them.

² For further discussion on this aspect, see H. Zollinger, 'Human color vision: an interdisciplinary research problem', *Palette*, 40, 1972, 1-7.

³ L. Wittgenstein, *Remarks on colour* (G. Anscombe, ed., Oxford, 1978), I, 68.

⁴ For further philosophical discussion on Wittgenstein's theory of colour, see J. Westphal, *Colour: some philosophical problems from Wittgenstein* (Oxford, 1987).

not determined by colour terms; a colour term is a name given to a category of colour presentations which allow a colour to be named.⁵

Moreover, the study of colour inevitably involves the more complicated issue of colour symbolism. The practice of using colours to express and symbolize a person's feelings and emotions is familiar. To a degree, the concept of colour reflects the physical and cultural experience, and in particular, the classification system which man imposes upon nature; as L. Lewis points out: 'The desire to classify and categorize experience, and thus to render it manageable, seems to be present or implied in all schemes of symbolism.'⁶

In his study of the colour symbolism of the Ndembu culture in Zambia, Victor Turner, for example, argues that colour symbolism has (a) an intimate connection with the organic in its early stages; (b) colours represent a heightened physical experience which may transcend the person's normal condition, and are therefore conceived as the sacred; (c) the physical experiences associated with colours are also experiences of social relationships; and (d) they also provide a kind of primordial classification of reality.⁷ Therefore, the study of symbolism needs to be based on human cognitive development as symbolism is not only a kind of conceptual representation but a process of cognitive categorization and symbolization.⁸

The present study focuses not on a further general anthropological discussion of colour symbolism, nor on its linguistic aspects, but on the colour terms identified from a body of ancient inscriptions from Late Shang China. This paper has two aims: (a) to examine the decipherment of colour terms in Shang oracle-bone inscriptions [hereafter: OBI], the aim being not only to identify the colour terms used in OBI but also to investigate the semantic and phonetic processes underlying their etymological development; and (b) to discuss the nature and development of the colour categorization underlying this colour terminology. By examining the colour terms in OBI and the categorization they represent, this study aims to throw a new-light on our understanding of Chinese colour terminology and provide a basis from which further research on later periods may be conducted.

The Late Shang defines a dynastic period dating from approximately the fourteenth to the twelfth century B.C.⁹ It is now generally accepted that Anyang was the royal capital of the Late Shang Dynasty, probably from the reign of King Pan Geng to that of King Zhou, a period of about 270 years which is also known as the Anyang or Yinxu period.¹⁰ Geographically,

⁵ See B. Harrison, *Form and content* (Oxford, 1973), 53–89; and S. Wyler, *Colour and language: colour terms in English* (Tübingen: Narr, 1992), esp. 22–8.

⁶ L. Lewis, *Social anthropology in perspective: the relevance of social anthropology* (Cambridge, 1976), 110.

⁷ V. Turner, *The forest of symbols: aspects of Ndembu ritual* (Ithaca and London, 1967), 69–71, 89–90.

⁸ See D. Sperber, *Rethinking symbolism* (Cambridge, 1975), esp. preface, 110–13.

⁹ Absolute chronologies reconstructed by scholars vary enormously; for a brief guide, see D. Keightley, *Sources of Shang history: the oracle-bone inscriptions of Bronze Age China* (Berkeley and Los Angeles, 1978, paperback ed., 1985), 227–8.

¹⁰ According to the *Zhushi jinian* 竹書紀年: 'From the time Pan Geng moved to Yin till the Zhou's annihilation, there were altogether 273 years; during this period the Shang did not again move their capital.' However, the time varies in the different versions of the book; see Fang Shiming 方詩銘 and Wang Xiuling 王修齡, ed. *Guben zhushu jinian jizheng* 古本竹書紀年輯證 (Shanghai, 1981), 30. The name 'Yinxu' (Ruins of Yin) came into use soon after the Zhou conquered the Shang,

the archaeological remains of the Late Shang capital are located on both north and south banks of the River Huan and include more than twenty sites. Although the functions of some of these sites are not clear, identified sites include the royal palace, royal tombs, temples, sacrificial ground, workshops, residential areas and cemeteries.¹¹ From these sites, especially Xiaotun, a large number of cracked and inscribed animal bones have been unearthed, most of which are identified as divinatory records from the reigns of King Wu Ding to King Di Xin.¹² These inscriptions cover a broad range of subjects: agriculture, military affairs, building work, hunting, weather and occasionally domestic matters. Because these subjects are mostly mentioned in a ritual divinatory context, Western scholars conventionally call them 'oracle-bone inscriptions'. Chinese scholars generally call them *jiaguwen* 甲骨文 or 'writings on shells and bones'.

For the classification and periodization of OBI, several factors have to be taken into account: (1) the Shang genealogy, (2) ritual titles of the ancestors, (3) diviners, (4) pit locations in which the inscribed bones were found, (5) foreign statelets, (6) known persons, such as officials, (7) divination topics, (8) grammar and word usage, (9) forms of characters and (10) style of calligraphy. Previous scholars have tried to attribute the inscriptions to the different royal reigns which are usually divided into five periods:

Period I = King Wu Ding 武丁

Period II = King Zu Geng 祖庚, King Zu Jia 祖甲

Period III = King Lin Xin 廩辛, King Kang Ding 康丁

Period IV = King Wu Yi 武乙, King Wen King 文丁

Period V = King Di Yi 帝乙, King Di Xin 帝辛

Of all the criteria mentioned, one of the most convenient for dating purposes is that of the names of the diviners found in the inscriptions. The diviners are interrelated and can therefore be divided into groups and attributed to the different reigns. In recent years, a new theory of classification and

and it is still conventional to use this name today. For an introduction to the place, see Dong Zuobin 董作賓, 'Yinxu yanke 殷虛延革', in *Zhongyang yanjiuyan lishi yuyan yanjiusuo jikan* 中央研究院歷史語言研究所集刊 (*Bulletin of the Institute of History and Philology, Academia Sinica*, abb. *BIHP*), no. 2, 1930, 224–40. (Repr. in *Dong Zuobin xueshu lunzhu* 董作賓學術論著, Taipei, 1962, 199–215.)

¹¹ For a basic introduction to Shang archaeology, see Li Ji, *Anyang* (Seattle, 1977); K. C. Chang, *Shang civilization* (New Haven, 1980) and *Archaeology of China* (4th ed., New Haven and London, 1989), 295–367.

¹² The inscriptions on the 'dragon bones' first began to attract scholarly attention in about 1899, nearly 100 years ago, with the first collection of the bone inscriptions *Tieyun cang gui* 鐵雲藏龜 compiled and published by Liu Er 劉鵬 (1850–1909) in 1903. Within two years, Sun Yirang 孫詒讓 (1848–1908), an excellent scholar of the Chinese classics and ancient inscriptions, had written the first book on the decipherment of the inscriptions *Qiwen juli* 契文舉例. Although Sun's decipherment had many mistakes, his basic method became the starting-point for the study of oracle bone inscriptions by all later scholars. For almost a decade in the 1920s, before the scientific excavations at Yinxu started, Luo Zhenyu 羅振玉 (1868–1940) and Wang Guowei 王國維 (1877–1927) made remarkable progress in both the publishing and research of oracle bone inscriptions. Due to their efforts, the inscriptions became one of the most important sources of Shang history. For further information on the history of oracle bones studies, see Wang Yuxin 王宇信, *Jiaguxue tonglun* 甲骨文通論 (Beijing, 1989), 320–67.

periodization has been proposed, dividing the inscriptions into two main diviner schools and numerous subgroups. The key to understanding OBI and the Shang divination system lies in the relationship and development of the inscriptions of the various groups. The present study has adopted the new method and the examples cited from OBI are usually referred to by their diviner group rather than by the Five Periods.¹³

There are some difficulties in interpreting OBI. Although the pictorial element in the inscriptions on shells and bones is unmistakable, the Shang script is a writing system already in its maturity and the direct ancestor of modern Chinese writing. Traditionally, the Chinese writing system is explained according to the *liushu* 六書 or 'Six Principles of Writing': the *xiangxing* 象形 ('imitating-forms'), *zhishi* 指事 ('pointing-things') and *huiyi* 會意 ('joining-meanings') are basically word-writing, derived from depicting or indicating things. The forms of characters correspond to the drawing of objects and, more importantly, the meanings of characters are suggested by their graphic forms. The *jiajie* 假借 is based on a rebus principle: an existing character is borrowed to represent another word purely because they may share the same or a similar sound. It is difficult to explain the *zhuanzhu* 轉注 principle, but essentially it meant extending a word-family along both semantic and phonetic tracks, whereby new words could share a relationship with old ones.

At a very early stage, the Chinese script began to develop in a specific direction: frequent use came to be made of the principle of *xingsheng* 形聲 (also known as *xiangsheng* 象聲 or *xiesheng* 諧聲), whereby a character usually comprises two elements, one indicating the meaning and the other the sound. The *xingsheng* characters retain the element of word-writing and combine it with rebus writing. This occurs in four ways: (a) by adding phonetic signs to ideographs; (b) by changing a part of the original ideograph into a phonetic element; (c) by adding semantic elements or radicals to those which were used as phonetic borrowing; and (d) by creating a new semantic-phonetic compound from an old one by replacing its elements.¹⁴ The *xingsheng* principle gradually became dominant, and the majority of Chinese characters are formed in this way.

In the Chinese writing system, symbols and signs representing a semantic classifier or phonetic indicator may have become stylized and reduced to a certain degree, but not enough to qualify as an alphabet. The reasons for this must be complex. The racial and geographical diversity of Chinese society may have hindered any further codification of the language based purely on a phonetic system; and, linguistically speaking, the monosyllabic feature of Chinese made it much easier to use a 'meaning-plus-sound' writing system.

The inscriptions on Shang oracle bones have all the basic features mentioned above.¹⁵ However, as an early form, they may also have some distinguishing features not found in the modern writing system. By comparison to the modern Chinese script, the relationship between meaning and graphic structure of Shang inscriptions presents some even more complex problems.

¹³ For a detailed introduction of the new method, cf. my thesis, 'Colour symbolism', 47a-56.

¹⁴ See Qiu Xigui 裘錫圭, *Wenzixue gaiyao* 文字學概要 (Beijing, 1988), 151-6.

¹⁵ See Li Xiaoding 李孝定, 'Cong liushu de guandian kan jiaguwenzi 從六書的觀點看甲骨文字', *Nanyang daxue xuebao* 南洋大學學報, no. 2, 1968, 529-60. A table given by Li counts a total of 1226 oracle bone graphs, of which 27% are radical-phonetic compounds, 11% are loanwords, 23% are pictographs, 32% are compound ideographs, 2% are abstract symbols, and 6% are difficult to classify.

First, although the pictorial element in the Shang script is unmistakable, it has not always been noticed that many Shang pictographs or ideographs in fact bear a phonetic element. For example, the character *qiang* 羌 in the Shang inscriptions depicts a man with a sheep element on his head. This represents an ancient custom of a pastoral tribal people which involved the wearing of sheep skins, but the sheep-element here may also act as the sign indicating the sound of the character.¹⁶ In the Shang writing system, phonetic elements, as well as semantic elements, have a key function in the creation and application of characters. For this reason, it is apparent that a basic knowledge of Chinese phonology is very necessary before one can successfully decipher and interpret Shang inscriptions.

Furthermore, by looking at a large number of phonetic-compound characters in the Shang inscriptions, which themselves often derived from pictographs with phonetics, further clues can be found to explicate the interaction among forms, sounds and meanings in the writing system. For instance, the character *deng* 登 is usually written in OBI as consisting of the elements for food vessel and hands, meaning 'to offer'; but, when the offering is not food but wine, the element for food vessel is then replaced by an element of a wine vessel; in this case these graphs could originally be read as two words.¹⁷

In most cases, bone characters are read as single syllables; this is because the characters are monosyllabic in modern Chinese. However, this assumption cannot always be successfully applied to Shang inscriptions. The most particular problem is that in Shang inscriptions there exists a special type of character, which Chinese scholars call *hewen* 合文 or 'joined characters'. Most *hewen* are special names, numbers, months, dates and common phrases for ritual offerings; they usually consist of two or more characters joined as though they were a single character, yet which are also characters in their own right. This same principle of *hewen* is found, for example, in the word for 'multi-coloured ox', where it consists of the element of *wu* 勿 and element of *niu* 牛, written as 物 or 犴. It is a later *xingsheng* character, but originally it would have been read as a polysyllabic word.

Empirical research on colour terminology from different parts of world shows that colour categorization is indeed an evolutionary process. The research project on colour terminology conducted by Brent Berlin and Paul Kay in Berkeley in 1967 is probably the most comprehensive study in this field so far.¹⁸ They worked on as many as 98 languages or dialects, including Chinese, and drew some interesting conclusions on the general development of colour terms.

Berlin and Kay argued that (a) there exist universally 11 basic perceptual colour categories for humans; (b) in the history of a given language, the encoding of perceptual categories into basic colour terms follows a fixed partial order; and (c) the overall temporal order is properly considered an evolutionary one; colour lexicons with fewer terms tend to occur in association with

¹⁶ Yu Xingwu 于省吾, *Jiagu wenzi shilin* 甲骨文字釋林 (Beijing, 1979), 435–43. [This is a revised version of *Shuangjianchi Yinqi pianzhi* 雙劍謄殷契駢枝, 3 vols., Beijing, 1940–43.]

¹⁷ See Qiu Xigui, 'Hanzi xingcheng wenti de chubu tansuo' 漢字形成問題的初步探索, *Zhongguo yuwen* 中國語文, 1978, no. 3, 168–9.

¹⁸ B. Berlin and P. Kay, *Basic color terms: their universality and evolution* (Berkeley, 1969). In their appendix, they have also provided an outline of previous studies.

relatively simple cultures and simple technologies, while colour lexicons with many terms tend to occur in association with complex cultures and complex technologies.¹⁹

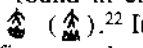
An examination of the colour terms in OBI against this universal theory shows that although many basic Shang colour terms are still used in later times, the modern perception of the colour defined by the colour terms is not entirely the same as it was for the Shang people. Therefore, a hypothetical reconstruction of the Shang colour categorization is necessary.

Colour symbolism played an important role in Chinese intellectual development. If we look at the context in which Shang colour terms were used, then it is clear that colour was part of the Shang ritual system. Shang diviners made specific divinatory charges asking which colour should be chosen for sacrifices to certain ancestors and spirits; with very few exceptions, the use of colour always relates to the specific context and purpose. For instance, white, red and multi-coloured animals were frequently sacrificed in the ancestral cult: black sheep were used in the rain-making ritual; yellow animals were particularly addressed to the spirits of the directions, or earthly gods. The presence of colour in various Shang rituals reveals that colour was not an accidental phenomenon, but acted as an important symbol.

Shang colour symbolism also influenced the later systems such as the *Wuxingshuo* 五行說 or 'Fives Phases' cosmological theory, in which the development of colour categorization and symbolism can be traced. However, as this study is primarily concerned with the colour terms found in OBI, the question of colour symbolism will not be covered in the following discussion.²⁰

The decipherment of the colour terms in OBI

Chi 赤

There are a number of words referring to the colour red in Chinese, yet *chi* is probably the character most commonly found in classical Chinese literature.²¹ The character is written in OBI as: .²² It consists of two pictorial elements: a frontal view of a human figure and a second element representing fire.

In later Zhou bronze inscriptions this character is more or less identical to its earlier form in Shang inscriptions, consisting of the same elements, with moderately stylized strokes:²³



¹⁹ *ibid.*, esp. 134–51.

²⁰ In my thesis I examined the inscriptions containing evidence of the use of colour in Shang ritual and discussed the problems in interpreting the colour symbolism in relation to the later Wuxing theory; cf. T. Wang, 'Colour symbolism', in particular pp. 135–265.

²¹ Because of a semantic shift, this word usually means 'naked' in Modern Chinese (cf. *Xiandai hanyu cidian* 現代漢語詞典, Beijing, 1988, 145), but it also remains a colour term throughout the classical ages to the present.

²² cf. *Jiaguwenbian* 甲骨文編 (ed. Sun Haibo 孫海波, Beijing, 1965), 1238.

²³ cf. *Jinwenbian* 金文編 (ed. Rong Geng 容庚, Zhang Zhenlin 張振林 and Ma Guoquan 馬國權, Beijing, 1985), 1664.

As the writing system developed, the two elements were later stylized as *da* 大 'big' and *huo* 火 'fire', both standing as independent characters.

It was not a difficult task for Luo Zhenyu to decipher this character,²⁴ for the graphic form of the character *chi* in ancient inscriptions is almost identical to the *xiaozhuan* 小篆 or 'Small Seal Script' form that is found in the *Shuowen jiezi* 說文解字, the etymological dictionary compiled by Xu Shen 許慎 (c. A.D. 58–148) in the second century. It explains: '*chi*, the colour of the south; derived from the elements "big" and "fire".'²⁵ Following the popular trend of the *Wuxing* 五行 or Five Phases Theory at that time, Xu Shen defined the meaning of the character as 'the colour of the south' by relating it to a cardinal direction; and identified the character *chi* as a *huiyizi*, that is, a character in which the combination of the graphic elements alludes to its semantic meaning.

Xu Shen's definition may, however, mislead us into overlooking any possibility of the existence of a phonetic relationship in its development. Several later variations of the character provide us with clues to its etymological association with other characters.

According to the traditional rhyme classification, the character *chi* has the *chang* 昌 initial, *duo* 鐸 final, and so it is probably reconstructed as <*khjiak in Old Chinese.²⁶ In several other *xingsheng* characters, the *chi* element is employed as the phonetic sign; for example: *he* 赫 <*hrak ('fire-red', 'angry'); *she* 赦 <*skhjiak ('let off', 'pardon'). These two characters containing the same element show a similar initial and final; the *he* is also semantically related to the *chi*.

Two other characters may also bear witness to this phonetic relationship: *xia* 緹 <*grag; and *zhe* 赭 <*tjag. They both mean 'red colour', and the *chi*-element is here employed as the semantic sign.²⁷ However, phonologically, each of these two characters has a dental or velar initial and their finals are very close to the character *chi*. These words may originally have derived from the same Tibeto-Burman root.²⁸

²⁴ cf. *Jiaguwen jishi* 甲骨文集釋 (ed. Li Xiaoding 李孝定, Taipei, 1965, hereafter: *Jishi*), 3197. *Jishi* collected the decipherments by different scholars (before 1965) of each bone character and has served as a major reference for the study of OBI.

²⁵ *Shuowen jiezi* (Beijing, 1963, hereafter: *Shuowen*), 212.

²⁶ Several scholarly reconstructed systems of Old Chinese are available now, and among them, the system of Li Fankuei (Li Fanggui) 李方桂 is most widely accepted for its internal coherence. Li's system will be used throughout this study unless otherwise indicated. For Li's theory of Old Chinese, see 'Shangyuyin yanjiu 上古音研究', *Qinghua xuebao* 清華學報, no. 9, 1–2, 1971, 1–61; and 'Jige shanggu shengmu wenti 幾個上古聲母問題', *Zongtong Jiangong shishi jinian lunwenji* 總統蔣公逝世紀念論文集 (Taipei, 1976), 1143–50; and 'Archaic Chinese', in *Origins of Chinese civilization* (ed. D. Keightley, Berkeley, 1983), 393–408. The traditional method, that is, using Chinese characters to indicate the initial and final categories, will be used in this paper. For a brief introduction to the history of Chinese phonology, see Wang Li 王力, *Hanyu yuyinshi* 漢語語音史 (Beijing, 1985), esp. 17–81.

²⁷ *Shuowen*, 213.

²⁸ See P. Benedict, *Sino-Tibetan: a conspectus* (ed. by J. Matisoff, Cambridge, 1972), who has reconstructed the word 'red' in proto-Tibeto-Burman as *tsyak (no. 184, 46); see also Zhou Fagao's 周法高 review article in *Zhongguo yinyunxue lunwen ji* 中國音韻學論文集 (Hong Kong, 1984), esp. Appendix I, 292, where Zhou provides his own reconstruction of Old Chinese for comparison.

Let us now look at the occurrence and usage of the character *chi* in OBI. In several inscriptions, it is used attributively as a word modifying the hair colour of animals; namely, that of horses:

Heji: 28195

(a) 乙未...長...不...

yiwei/...Zhang/.../not ...

'...*yiwei* (day 32)...Zhang...not...'

(b) 乙未卜，貴，貞：舊，左駛，其駟不爾

yiwei/crack/Xian/divine/old/X(?)/left/chariot-horse/*qi*/good/not/wild²⁹

'Cracking made on *yiwei*, Xian, divining: Old X the left chariot horse will be tame, not wild.'

(c) 乙未卜，貴貞：狄入嬖，其駟不爾

yiwei/crack/Xian/divine/Shi/enter/male-chariot-horse³⁰/*qi*/good/not/wild

'Cracking made on *yiwei*, Xian, divining: Shi sends in a male chariot horse, it will be tame, not wild.'

(d) 乙未卜，貴，貞：...子入嬖，其駟

yiwei/crack/Xian/divine/.../prince/enter/male-chariot-horse/X(?)/good

'Cracking made on *yiwei*, Xian, divining: ...prince sends in a male chariot horse, X, it will be tame.'

(e) 乙未卜，貴，貞：目賈入赤駟，其駟不爾，吉

yiwei/crack/Xian/divine/ShiGu/enter/*chi*-red/*bi*-(sturdy-horse)³¹/*qi*/good/not/wild/auspicious

'Cracking made on *yiwei*, Xian, divining: Officer Gu sends in a red sturdy horse, it will be tame, not wild. Auspicious.'

Heji: 28196

(a) 乙未卜...貞：左...其駟不(爾)，不用

yiwei/crack/.../divine/left/.../*qi*/good/not/use

'Cracking made on *yiwei*, ...divining: The left... it will be tame, not wild. Not used.'

(b) 乙未卜，貴，貞：在灣田，黃，左赤馬，其駟...

yiwei/crack/Xian/divine/at/Lin/hunt/Huang/right/*chi*-red/horse/*qi*/good/...

'Cracking made on *yiwei*, Xian, divining: Hunting at Lin, Huang, the red horse on the right side will be tame...'

(c) 乙未卜，貴，貞：辰入駛，其駟

yiwei/crack/Xian/divine/Zhen/enter/chariot-horse/*qi*/good

'Cracking made on *yiwei*, Xian, divining: Zhen sends in a chariot horse, it will be tame.'

Heji: 29418

(a) 癸丑...貞：右...馬

guichou/.../divine/right/.../horse/...

'...*guichou* (day 50)...divining: The right... horse...'

²⁹ The meanings of the phrase *qi li bu er* 其駟不爾 in the inscription are not yet entirely clear, and here Yu Xingwu's interpretation has been followed and a tentative translation is provided; see Yu Xingwu, *Shilin*, 328–9.

³⁰ It is written as a *hewen* 𠂔, with an indication of the sex of the horse.

³¹ This character is found in the *Shijing* 詩經 (*Maoshi* 毛詩: 298), where Mao Heng's (c. first century B.C.) commentary says that it means 'a sturdy-looking horse'; *Maoshi zhengyi* 毛詩正義, *juan* 20.1 (*Shisanjing zhushu* 十三經注疏, Beijing, 1980 [hereafter *SSJZS*], 610).

(b) 癸丑卜，𠄎，貞：左赤馬，其𠄎不爾

guichou/crack/Xian/divine/left/chi-red/horse/qi/good/not/wild

'Cracking made on *guichou*, Xian divining: The red horse on the left side (of chariot) will be tame, not wild.'

These inscriptions belong to the He-group, which probably dates from the period between the reigns of King Lin Xin and Kang Ding, after Zu Geng and Zu Jia in the Shang royal chronology. They are related and are probably from the same divination set; that is, they were divined by the same diviner on the same topic at the same time.

In these inscriptions, the phrase *chi ma* 赤馬 and *chi bi* 赤駟 undoubtedly refers to 'red horses'. The colour of the horses seems to have attracted the special attention of the Shang kings.³² The Shang king and his diviner wanted to ensure that the red horses sent in to drive chariots were auspicious. But since the examples do not indicate that the red horses were used as sacrifice, it is therefore difficult to judge what significance a red horse might have had in Shang ritual.³³

Apart from denoting the colour of horses, the appearance of the character *chi* in the rest of OBI is rare. Other inscriptions are, unfortunately, unclear or too fragmentary to be put forward as hard evidence. I found two examples where the character *chi* may or may not refer to colour:

Heji: 10198.f

戊午卜，𠄎，貞：我狩𧑦，擒。之日狩，允擒，獲虎一，鹿卅... 犴百六十四，麋百五十九，³⁴赤兕友三，赤小... 四...

wuwu/crack/Que/divine/we/hunt/X/capture/that/day/hunt/indeed/capture/gain/tiger/one/deer/forty/.../fox(or wolf)/hundred/sixty-four/river-deer/hundred/fifty-nine/X/chi/you³⁴/you/three/chi/small/.../four/...

'Cracking made on *wuwu* (day 55), Que, divining: "We are hunting at X and will make a capture". That day the hunt took place, and indeed captured many animals, including one tiger, forty deer... one hundred and sixty four foxes (or wolves), one hundred and fifty nine river-deer, X three red *you you* (?), and four small red...'

This inscription is from the Bin-group of the reign of King Wu Ding. It records a hunting expedition and provides a detailed list of captured animals. Here, whether the character *chi* can be read as the colour term 'red' is uncertain,

³² In Shang inscriptions, there are a number of words referring to the colour of horses' coats, such as *bai mai* 白馬 (white horses), *li ma* 驪馬 (black horses) and *bo ma* 駮馬 (striped horses); for a further discussion, see Wang Yuxin 王宇信, 'Shangdai de ma he yangmaye 商代的馬和養馬業', *Zhongguoshi yanjiu* 中國史研究, 1980, no. 1, 99–108. A later reference can also be found in the *Shijing* (*Maoshi*: 298), where we read that in Zhou royal horse farms there were many horses of various colours; cf. *SSJZS*, 609–10.

³³ A reference found in the *Shanhaijing*. *Dahuang nanjing* 山海經·大荒南經 says that a 'red horse' lived in a mythical mountain; cf. Yuan Ke 袁珂, *Shanhaijing jiao zhu* 山海經校注 (Shanghai, 1980), 384.

³⁴ This bone graph has multi-functions. In many inscriptions, it is transcribed as *you* 有 ('to have'), but in others it is broadly understood as *you* 侑 'to sacrifice', 'to offer'. For further discussions of the character, see *Jishi*, 2259–63, and D. Nivison, 'The pronominal use of the verb *yu* (GIUG): 兕'. *Early China*, no. 3, 1977, 1–17; and K. Takashima, 'Decipherment of the word *yu* 兕/兕有 in the Shang oracle bone inscriptions and in pre-classical Chinese', *Early China*, no. 4, 1980, 19–29.

and scholars' renderings vary.³⁵ Judging by its graphic form, the character 𤝵 before the *chi* may possibly refer to a hunting method such as using nets to capture animals; in which case, it is possible that the character *chi* refers to *you you* which is likely to be the name of an animal.

Another inscription is from the Li-group, in which the function of the character *chi* is clearer; it stands for a personal name rather than a colour:

Heji: 33003

甲寅·貞：...射比赤...

jiayin/divine/.../archer/follow/Chi/...

'On *jiayin* day (51), divining:... Chi is followed by archers...'

It is not uncommon in Shang inscriptions for characters representing colour terms to be used as proper names of people or places.³⁶ The reason for this may be purely a phonetic borrowing. However, it may also have something to do with a primitive classification system. In late texts, tribal names such as Chi yi 赤夷 ('the Red Yi'), Xuan Yi 玄夷 ('the Black Yi'), Huang Yi 黃夷 ('the Yellow Yi') and Bai Yi 白夷 ('the White Yi') can be read.³⁷

Xing 羴

Although we have seen that the character *chi* is used as the colour term for 'red', there may be more than one word referring to 'red' in Shang inscriptions. Another bone character appears in Shang inscriptions as: 𤝵.³⁸ Its graphic structure consists of two elements: the upper representing a sheep (*yang* 羊), the lower an ox (*niu* 牛). Luo Zhenyu first deciphered this bone graph as the original form or *chuwen* 初文 of the later character *xing* 羴, also written as 𤝵; and Luo pointed out that in Shang inscriptions the character *xing* is understood as referring to reddish oxen, one of the common sacrificial animals in Shang rituals. Luo's decipherment was based on sound textual evidence and has been universally accepted.³⁹

In the Zhou rituals, reddish animals were one of the most preferred sacrificial animals. In the *Shijing* (*Maoshi*: 300) we read: *xiang yi xing xi* 享以騂犧 and *bai mu xing gang* 白牡騂剛; and most commentators agree that the phrases such as *xing xi* and *xing gang* are better understood as referring to 'red bulls'.⁴⁰

³⁵ For example, Li Pu 李圃 discussed this inscription and claimed that *chi* is a method of hunting by setting fire to the forest to drive animals out; cf. Li, *Jiaguwen xuan zhu* 甲骨文選注 (Shanghai, 1989), 188–94.

³⁶ For a further discussion of this aspect, see Zhang Bingquan 張丙權, 'Jiaguwen zhong suojian rendi tongming kao 甲骨文中所見人地同名考', *Qingzhu Li Ji xiansheng qi shi sui lunwenji* 慶祝李濟先生七十歲論文集, vol. 2, (Taipei, 1967), 687–776. *Chi* is also to be seen in early Zhou bronze inscriptions as a personal name; see *Xue zhong Chu fu* 薛仲赤董; cf. Ma Chengyuan 馬承源 (ed. in chief), *Shang Zhou qingtongqi mingwenxuan* 商周青銅器銘文選 (Beijing, 1986–, hereafter *Mingwenxuan*), no. 823.

³⁷ These four names are mentioned in *The Bamboo Annals*, which record that the Nine Yi 九夷 tribes came to the Xia dynasty for worship; cf. Fang's and Wang's *Zhushu jinian*, 9.

³⁸ *Jiaguwenbian*: 1155.

³⁹ *Jishi*, 3047.

⁴⁰ *Maoshi zhengyi*, *juan*. 22; (*SSJZS*, 615). However, in the *Zhouli* 周禮, a different usage 'xing gang yong niu 騂剛用牛' is found, where the phrase *xing gang* probably refers not to animals but to a kind of reddish hard soil; cf. Sun Yirang, *Zhouli zhengyi* 周禮正義, *juan* 30 (Beijing, 1987), 1184, where the *xing*, as Sun pointed out, is perhaps as a loan character for the original character with the 'earth' radical.

In most pre-Han lexicography, *xing* only means 'red'; it is used as a noun or an adjective, referring to any kind of reddish animal of no matter what species. However, the understanding of the character sometimes varies slightly. Also in the *Shijing* (*Maoshi*: 297), the phrase *you xing you ji* 有騂有騂 can be read. Of this Mao's commentary says: 'red-yellow is called *xing*', and Kong Yingda 孔穎達 (574–648 A.D.), a commentator of the Tang dynasty, explains: 'the so-called red-yellow is a red colour, but slightly yellowish; this colour is bright and clear'.⁴¹ They seem to suggest that the *xing*-colour is a bright red-yellow, or orange colour; and the *xing niu* probably refers to a russet ox.

Some examples from OBI are:

Heji: 29514

𠄎 羴 ... 吉

hui/xing-ox/.../auspicious

'We should sacrifice red-yellow oxen... Auspicious.'

Heji: 36003

丙午卜，貞：康祖丁飭，其𠄎

bingwu/crack/divine/Kang/grandfather/Ding/beng-rite/qi/pinned-ox/xing-ox

'Cracking made on *bingwu* (day 43), divining: In performing the *beng*-rite to Grandfather Kang Ding, we shall perhaps sacrifice pinned oxen and red-yellow oxen.'

Sometimes, the *xing*-red-yellow ox was used in contrast to the *wu*-multi-coloured or *hei*-black ox:

Tunnan: 2710

(a) 妣辛歲，𠄎 羴，吉

ancestress/Xin/slaughter/*hui/xing* (red-yellow-ox)/auspicious

'Unto Ancestress Xin we will perform the slaughtering sacrifice, it should be a red-yellow ox.'

(b) 𠄎 勿牛

hui/wu-(multi-colour)-ox

'It should be a *wu*-multi-coloured ox.'

Heji: 29508

(a) 𠄎 黑牛

hui/hei-(black)/ox

'We should sacrifice a black ox.'

(b) 羴

...*xing*-(red-yellow-ox).

However, the phonetic interaction and the structure of this bone character remains unexplained. It is not known why the combination of the sheep and ox elements implied the meaning of 'red oxen'. A new interpretation may clarify this point, namely, that the bone graph is probably an original *hewen*, read as two independent words rather than one.⁴²

This hypothesis is supported by evidence to be found in OBI. Two examples are found in the Li-group:

⁴¹ *Maoshi zhengyi*, juan 20.1; (SSJZS, 609–10).

⁴² Qiu Xigui has noted the possibility that *xing* might be read as a *hewen* in OBI; cf. Qiu Xigui, *Guwenzi lunji* 古文字論集 (Beijing, 1992), 84.

Heji: 27122

... 登滌牛，大乙白牛，夷元...

.../offer/X/ox/Da Yi/white/ox/hui/first/...

'...make an offering of x-oxen to Da Yi, and white oxen; it should be the first...'

Heji: 29512

丁丑卜：王其彳滌牛于...五牢

*dingchou/crack/king/qi/sheng-ascend*⁴³/X/ox/to/.../five/penned-ox⁴⁴

'Cracking made on *dingchou* (day 14): The king will perhaps perform the ascending sacrifice of x-oxen to... five penned oxen.'

Here, the phrase 滌牛 is probably the original form of *xing* 羴 'red-yellow oxen',⁴⁵ where the first character is understood as an adjective rather than a noun.⁴⁶ Therefore, this *hewen* might originally have been read as two syllables *xing-niu*. Later, when it appears in the Wuming and Huang groups, it is simplified, and is written as closely as possible to the character *niu*, as a *hewen*, in order to avoid confusion with 'ox' and 'sheep'.⁴⁷

Is there any phonetic basis for such a graphic transformation? The character *xing* belongs to the *xin* 心 initial *geng* 耕 final categories; *yang* is *yu* 余 initial and *yang* 陽 final; both of the initials are close but, in Li Fangkuei's system, their reconstructed vowels are rather different: *xing* 駢 < *hrjing; *yang* 羊 < *rjang. However, according to Pulleyblank's reconstruction these two categories are very similar: *geng* final < *-an; *yang* final < *-ang,⁴⁸ and we know from many *xiasheng* characters and from rhymed sets, particularly of the *Shijing*, that the *geng* and *yang* final categories are likely to be interrelated in Old Chinese. So, phonologically, the sheep-element was probably employed at an early stage, that is, in Shang inscriptions, as the phonetic in the combination of the joined character *xing*, indicating the sound.⁴⁹

In Zhou inscriptions, *xing* 羴 remained in its original form and was continuously used as a colour term, predictively of ritual animals. On the *Da gui* 大簋, a bronze food vessel of the Western Zhou period, we read:

⁴³ This graph is understood as *sheng* 升 ('to ascend'), which probably refers to a sort of ritual; cf. *Jishi*, 4019–110. However, in his article 'Shi jiaguwen li de "jiu" 釋甲骨文里的灸 "' (*Zhongguo yuwen*, 1985, no. 5, 384–8), Zhan Yinxin 詹鄞鑫 argues that the character should be read as *jiu* 灸, meaning 'to brand'.

⁴⁴ The decipherments of *lao* 牢 (with the ox-element, or with the sheep-element as 羴) are very different. The traditional explanation is that the former is *tai lao* 太牢 'the combination of an ox, a sheep and a pig'; and the latter is *shao lao* 少牢 'the combination of a sheep and a pig'. But, the majority of scholars now agree that they should be understood as 'penned oxen' and 'penned sheep'. Cf. *Jishi*, 0313–6.

⁴⁵ Xu Zhongshu 徐仲舒 (chief ed.), *Jiaguwen zidian* 甲骨文字典 (Chengdu, 1988) lists this character as a variation of *xing*.

⁴⁶ This character is also used as a place-name in oracle-bone inscriptions; for example, *Heji*: 1141.

⁴⁷ There are sometimes exceptions; for example, *Heji*: 35986 is a very similar inscription to *Heji*: 36003 in which the ox-element and the sheep-element are, however, split up, as two independent characters.

⁴⁸ E. G. Pulleyblank, 'The final consonants of Old Chinese', *Monumenta Serica*, 33, 1977/78, 183–7, 202–3.

⁴⁹ This word probably also had a TB root; in reconstructed proto-TB, 'red, crimson' is *kyeng; cf. P. Benedict, *Sino-Tibetan*, no. 162, p. 45.; also see Zhou Fagao, *Yinyinxue lunwenji*, 1984, 293.

王...易(錫)錫羊犂

'The king...rewarded (Da) with a penned red-yellow bull.'⁵⁰

'*Xing gang*' here clearly refers to a kind of sacrificial animal, that is, red oxen, and the character *xing* seems to be an adjective. Another example is the document written on stone tablets of the Jin State of the Eastern Zhou period, found in present-day Houma, Shanxi Province, which contains the phrase *xing xi* 羴羲, also referring to a red-yellow bull.⁵¹

Sometimes *xing* is used in a slightly different context. On the *Zhe Jian zhong* 者減鐘, a bronze bell of the Eastern Zhou period, we read: 'bu bo bu *xing* 不帛不羴; (they) are not white nor red'; here the character *xing* is an adjective used attributively of the colour of metals.⁵²

The bone character *xing*, however, later became a phonetic sign in semantic-phonetic compounds. There is no record of this form as an independent character in the *Shuowen*, but it is found as an element in combinations making up several other characters: (a) 犂; (b) 駢. These two characters are apparently typical *xi*sheng characters, and in both the *xing*-element is the phonetic sign.

However, this element probably acts as both the semantic and the phonetic sign; the meaning of (a) is 'a kind of red hard soil';⁵³ (b) has the horn element, and Xu Shen gave the following explanation, 'to use horns to facilitate lowering and raising'.⁵⁴ This was based on Mao Heng's commentary on *Maoshi*, 223, where it is found in the phrase '*xing xing jiao gong* 駢駢角弓', and the commentary reads *xing xing* as a description of ox horns, 'adjusted and convenient'.⁵⁵ A similar usage is found from the Qin stone-drum inscriptions, where the character *xing* is written 駢; the *xin*-element indicates the sound, and the radical is changed into an ox element.⁵⁶ This shows that the characters represent the same word, even though their forms are written differently.

⁵⁰ *Mingwenxuan*: 395.

⁵¹ Shanxi wenwu gongzuo weiyuanhui 山西文物工作委員會, *Houma mengshu* 侯馬盟書 (Beijing, 1976), no. 17:1, where the phrase should be read as 駢犂.

⁵² *Mingwenxuan*: 534.

⁵³ *Shuowen*, 286


⁵⁴ *ibid.*, 94.

⁵⁵ *Maoshi zhengyi*, juan 15.1; (SSJZS. 490). In the *Shuowen* quotation of the *Shijing*, the character *xing* is still written in the old form as 駢. But in the received text of the *Maoshi*, the *xing* is written as 駢, where the old phonetic element has been replaced by the new one. In fact, although the 辛-element is employed as the phonetic, the phonetic value of the character *xing* is not the same as *xin*. They both share the same initial category, but *xin* belongs to the *zhen* 眞 final, and is reconstructed as <*hrjin. Phonologically, the *zhen* and *geng* 耕 final categories are close. Some evidence suggests that the change might have taken place during the Eastern Zhou period. Apart from the literary evidence in the *Shijing* and on the Qin stone drums, another piece of evidence has been found on a bronze jar of the Eastern Zhou period, the *Cheng Xing hu* 陳駢壺, where the character *xing* is written as 駢. It is noticeable here that the 辛-element has replaced the 羊-element as the phonetic sign. In this context, it is not entirely impossible that the phrase might be understood as an adjective describing the colour of the horns.

⁵⁶ cf. Guo Moruo 郭沫若, 'Shiguwen yanjiu 石鼓文研究', *Guo Moruo quanji — kaogubian* 郭沫若全集 — 考古編, vol. 6 (Beijing, 1982), 3-274; [first pub. Shanghai, 1939], in which a good rubbing of the inscription is provided; Guo's transcription is on p. 59. For a further discussion of the inscription, see G. Matos, *The stone drums of Ch'in* (*Monumenta Serica Monograph Series*, no. 19, 1988), 144-5.

Generally speaking, when the characters are semantic-phonetic compounds, their radicals refer to the semantic classification. Thus, when *xing* is used to describe attributively a kind of reddish soil, the character should have the earth radical; with the horse element it should refer to a red horse; with the ox element it should refer to a red ox. But, in practice, there is not such a strict discrimination; throughout the early texts, the phonetic-compounds bearing the *xing*-element appear to be interchangeable. It is used as a noun or an adjective referring to any red animal, no matter what species. This demonstrates that in the early stage there was flexibility in the application of characters and shows that the rebus principle was most important.

Bai 白

In OBI, the character *bai* is written as: .⁵⁷ The identification of the character *bai* in Shang inscriptions is comparatively easy as the character has been constantly used as a colour term and there is less modification in its graphic development. All the same, its classification, be it as pictograph, ideograph or phonetic loanword, has caused much difficulty and controversy.

If we look at the explanation given in the *Shuowen*: 'White is the colour of the West; all affairs and things that relate to Yin are white. (This character) is derived from the element of "enter" which is joined with "two"; two is a Yin number.'⁵⁸ We find Xu Shen's explanation for this character a little troubling, for it is based on the *guwen* form and provides a philosophical interpretation of the Ying-Yang theory. There is no good reason to believe that the original meaning of the Shang character is intended to carry a message for the Yin-Yang philosophers of a later period. The early graphic forms of the character in Shang and Zhou inscriptions, in fact, contradict such a description.

Several scholars argue further that *bai* is primarily a word for *bo* 魄 'soul', which is the 'spirit of Yin' and means 'emptiness', and that from it derived the meaning of the colour white.⁵⁹ This view is also largely based on speculation, mingled with Yin-Yang ideas which makes it even less convincing than Xu Shen's.

Another theory is that the character *bai* was simply a pictograph of the sun. Wieger, for example, in his popular book, *Chinese characters*, described it as follows: 'The sun that just appears. This meaning is represented by a small point (primitive) on the top of the sun. The dawn, when the eastern sky becomes white.'⁶⁰ He argued that the character derives the meaning of 'bright' and 'white' from the image of the sun. The observation on which the theory is based, however, is flawed for no early examples exist to support such guesswork. In Shang and Zhou inscriptions 'sun' (*ri* 日) and 'white' (*bai* 白) are two different characters.

⁵⁷ *Jiaquwenbian*: 0984.

⁵⁸ *Shuowen*, 160.

⁵⁹ cf. Zhou Fagao (chief ed.), *Jinwen gulin* 金文詁林 [hereafter *Gulin*] (Hong Kong, 1974/75), 4929.

⁶⁰ L. Wieger, *Chinese characters: their origin, etymology, history, classification and signification. A thorough study from chinese documents* (New York, 1965, first published in 1915), 223. This theory was based on the works of previous scholars, and evidence was found, as the sun and colour white seemed to be related in the early literature; see Zhu Junsheng 朱駿聲 (1788-1858), *Shuowen tongxun dingsheng* 說文通訓定聲 (Beijing, 1984), 464-5; and *Gulin*, 4931-2, 4934-35.

With his first-hand epigraphical knowledge of early inscriptions, Guo Moruo offered another possible explanation of the graph. He argued that the form of the character depicts a thumb, in Chinese called *mu* 拇; and that the original meaning of the word is the 'big brother' in the family, or the 'head' of the communities. In later literature when this character is used as a noun meaning 'brother' or 'head', a graphic distinction is made by adding a radical to the character, making it a phonetic compound *bo* 伯. Although they have different pronunciations in modern-day Mandarin, it is the same reconstruction <*brak in Old Chinese. Guo believed that when it was used as a colour term this was a loan character based on the phonetic rebus principle;⁶¹ however, *bai* belongs to the *bing* 井 initial and the *duo* 鐸 final; *mu* is the *ming* 明 initial and the *zhi* 之 final; and according to Li Fangkuei's reconstruction, they are not very close: *bai* <*brak, *mu* <*mag(x) in Old Chinese. Recently, Zhao Cheng 趙誠 has argued that the character *bai* is an 'abstract' pictograph and that when used as the colour term it is purely a phonetic symbol, which he called a 'yin benzi 音本字' or 'original phonetic character'.⁶²

In Shang inscriptions, *bai* <*brak indeed acts as a phonetic element in several phonetic-compounds, including *bo* 帛 <*brak, where *bai* was clearly employed as a phonetic element in a compound.⁶³ The number *bai* 百 <*prak 'one hundred' also shares the same sound and form with *bai*; but whenever it is used as a number, a small distinction is consciously made in its graphic form, which is written as 𠄎, 𠄏 or 𠄐.⁶⁴

If we look at the context in which the character *bai* appears in OBI, three different meanings of the character can be distinguished:

(a) Place-name, for example:

Heji: 33425

庚子卜：王往田于白

gengzi/crack/king/go/hunt/at/Bai

'Cracking made on *gengzi* (day 37): The king is going hunting in Bai.'

(b) Official title, probably referring to heads of tribes. There are numerous examples where the character *bo* is attached to the name of a tribe or a person's name, such as Bo Yin and Bo Bing; as such, it is possible that *bai* is used as *bo* 伯 which is used in later periods as an official title. For example:

Heji: 36509

甲...佳王征孟方伯...

jia.../wei/king/come/attack/Yufang/bo/...

'*jia*...the king will come to attack the Yufangbo...'

(c) Colour term, as an attributive adjective attached not only to animals but also men and grain; they are often ritual offerings in Shang ritual. As a colour term, the character *bai* appears frequently in OBI from all the diviners' groups and periods.

⁶¹ Guo Moruo, *Jinwen congkao 金文叢考* (Beijing, 1956), 181–2.

⁶² Zhao Cheng, 'Benzi tansuo 本字探索', *Gudai wenzi yinyun lunwenji 古代文字音韻論文集* (Beijing, 1991), 78–9.

⁶³ The character means 'white silk' in later literature, but it refers to a place-name in Shang inscriptions; for example, see *Heji*: 36842.

⁶⁴ cf. *Jiaguwenbian*: 0485.

There are a few inscriptions of the Shi-group mentioning the colour of ritual animals, and 'white pigs' are among them. For example:

Heji: 19999

...午卜：王侑...白豮

.../wu/crack/king/sacrifice/.../white/boar (or hog)⁶⁵

'Cracking...wu... The king will sacrifice... white boars (hogs)'

Another inscription in which white pigs and multi-coloured oxen are mentioned is more problematic. Judging by its style of writing, it is likely to belong to the Shi-group or the Zi-group. It is on a small fragment and the tiny writing is very hard to read. The following is a tentative transcription and translation:⁶⁶

Heji: 19849

...卯，子入，歲...祭鬯三小宰... 勿牛白豮...歲祖乙二牢...用，咸...衷...祝...

.../mao/prince/X/enter/sui-slaughter/.../X/aromatic-wine/three/small/penned-sheep/.../multi-colour/ox/white/pig/.../sui-slaughter/grandfather/Yi/two/penned ox/.../use/Xian/.../hui/.../pray/...

'...mao, Prince X enters and performs the slaughtering sacrifice... X... aromatic wine, three small penned sheep...multi-coloured oxen, white pigs... perform the slaughtering sacrifice to Grandfather Yi of two penned oxen... used; Xian... it should be... praying...'

In the Bin-group, white animals are frequently sacrificed to ancestors:

Heji: 1423

...敎...劓侑大甲白牛，用

.../Que/...X/sacrifice/Da Jia/white/ox/use

'...Que...X make a sacrifice to Da Jia of white oxen. Used.'

Heji: 2051:

乙未卜：侑于祖...三宰又白豮

yiwei/crack/sacrifice/to/grandfather/.../three/penned-sheep/plus/white/pig

'Cracking made on yiwei (day 32): To make a sacrifice to Grandfather...of three penned sheep, plus a white pig.'

Sometimes, the king was concerned whether the white horse he desired could be sent in as tribute from different tribes:

Heji: 9177

(a) 甲辰卜，敎，貞：奚來白馬...王固曰：吉，其來


jiachen/crack/Que/divine/Xi/bring/white/horse/king/prognosticate/say/auspicious/qi/bring

'Cracking made on jiachen (day 41), Que, divining: Xi will bring white horses... The king read the cracks and said: Auspicious, perhaps he will bring them.'

(b) 甲辰卜，敎，貞：奚不其來白馬五

jiachen/crack/Que/divine/Xi/not/qi/bring/white/horse/five

'Cracking made on jiachen, Que, divining: Xi will perhaps not bring five white horses.'

⁶⁵ The graph is written as , probably depicting a castrated pig. See *Jishi*, 2985–6; and Wen Yiduo, *Wen Yiduo quanji 聞一多全集* (Shanghai, 1948), 539–44.

⁶⁶ An alternative transcription of the inscription is provided in *Yinxu jiagu keci moshi zongji 殷墟甲骨刻辭摹釋總集* (Beijing, 1988), 440.

In some later groups such as the Wuming and Huang groups, inscriptions containing 'white deer', 'white fox (or wolf)', 'white rhinoceros (or buffaloes)' and even 'white unicorn' can be read:

Tunnan: 86

... 寅卜：王其射黹白狝，涓日無災

...yin/crack/king/qi/shoot/X/white/fox (or wolf)/sunny/day/no/misfortune

'Cracking made on yin... the king will perhaps shoot at X white foxes (or wolves); and the day will be sunny, and without misfortune.'

Heji: 37449

壬申卜，貞：王田害，往來無災，獲白鹿一，狝二

renshen/crack/divine/king/hunt/Hui/go/come/no/misfortune/catch/white/deer/one/fox (wolf)/two

'Cracking made on renshen (day 9), divining: The king hunts at Hui, no misfortune in coming and going. One white deer and two foxes (or wolves) were caught.'

Yicun: 517 is a piece of rib bone carved beautifully on one side with a two-eyed *taotie* motif, and on the other side with the following inscription:

辛巳，王劓武丁，𠄎...麓...獲白兕，丁酉...

xinsi/king/zu-meat/Wu Ding/X-sacrifice⁶⁷/.../mountain-foot/catch/white/rhinoceros⁶⁸/dingyou/...

'On xinsi (day 18), the king performed the meat sacrifice unto Wu Ding; and X-sacrifice was performed at the foot of the...hill; and a white rhinoceros was caught. On dingyou (day 34) ...'

Heji: 36481 is not a divination but an inscription recording a war between the Shang and a northern tribe:

...小臣臚比伐，擒危美...卅四，鬪千五百七十，噉一百... 丙車二丙，虢一百八十三，函五十，矢...侑白鬻于大乙，用騂伯印...噉于祖乙，用美于祖丁，饗甘京錫...

.../small/minister/Qiang/ally/campaign/capture/Wei/Mei/.../man/twenty-four/head/thousand/five-hundred/seventy-ten/X/one-hundred/.../bing/chariot/two/bing/crossbow/one-hundred/eighty-three/quiver/fifty/arrow/.../sacrifice/white/unicorn/to/Da/Yi/use/X/chief/Yin.../X-sacrifice/to/grandfather/Yi/use/Mei/to/grandfather/Ding/X/Gang/Jing/reward/...

'...the small minister Qiang was an ally in the campaign, we captured Wei Mei...24 men, and 1570 victim heads, and 100 (or more) prisoners of war...2 chariots, and 183 crossbows, and 50 quivers, ... arrows... we sacrificed a white unicorn to Da Yi; and used Yin, who was the head of X-tribe... X-sacrifice to Grandfather Yi, and Mei was used to Grandfather Ding; X Gan Jing rewarded...'

The Shang won the great victory and captured Wei Mei, the head of the enemy and many arms and prisoners. In the victory celebrations, a white unicorn⁶⁹ and the captured chief of the tribe were offered to the Shang ancestors.

⁶⁷ The meaning of this graph is uncertain; it was probably a sort of sacrificial rite, which was often performed in hunting; see Zhao Cheng, *Jiaquwen jianming cidian* 甲骨文簡明詞典 (Beijing, 1988), 244.

⁶⁸ A number of inscriptions recorded that a larger wild animal, the *si* 兕 was often chased and caught on hunting trips expeditions, and the colour of the animal was sometimes mentioned. The interpretation differ as to whether the animal was a wild buffalo or rhinoceros, see J. A. Lefevure, 'Rhinoceros and wild buffaloes in north of the Yellow River at the end of the Shang dynasty', *Monumenta Serica*, 39, 1990/91, 131-57.

Apart from animals, *bai* can be used to modify the colour of objects such as grain; for example:

Heji: 32014

𠄎白黍登

hui/white/millet/offer

'It should be white millet that is offered.'

Heji: 34601 and *Yingcang*: 2431 also bear similar inscriptions in which 'white millet' is recorded as an offering.

The king and his diviners seem not only to have had an great interest in white-coloured animals and objects for their sacrifice but this interest appears to have extended also to human victims:

Heji: 1039

(a) 乙丑卜，...貞：...白人

yichou/crack/.../divine/.../white/man

'Cracking made on *yichou* (day 2), ...divining: ...white men.'

(b) 燎白人

liao-burn/white/man

'Make the burning sacrifice of white men.'

Heji: 293

壬子卜，旁，貞：𠄎今夕用白羌于丁，用

renzi/crack/Bin/divine/*hui*/this/evening/use/three/white/ Qiang/to/Ding/use

'Cracking made on *renzi* (day 49), Bin, divining: It should be this evening three white Qiang-men will be sacrificed to Ding. Used.'

In these inscriptions the character *bai* can be understood in three ways: as a number ('one hundred'); as men from the Bai-tribe,⁷⁰ or men distinguished by their light skin colour, as Yao Xiaosui 姚孝遂 has argued.⁷¹ However, as mentioned earlier, the Shang scribes usually tried to make some distinction when characters were used for different functions. In the above examples the character *bai* is written in the way which is usually regarded as being the colour term. In this case, the 'white man' might be of a different race from the Shang, or just a man who had a lighter skin than the Shang.

Wu 勿

In OBI there is a graph written as 𠄎 or 𠄎,⁷² and this character refers to a colour of ritual animals, usually oxen. Wang Guowei first deciphered the character as *wu* 物 with textual support from the *Shijing*, where a sentence reads: 'sanshi wei

⁶⁹ This graph is transcribed as 𠄎, reading *lin* 麟. In Chinese tradition, the *lin* or unicorn is an extremely rare beast and consequently carries great significance. See Dong Zuobin, 'Huo bailin jie 獲白麟解' in *Xueshu lunzhu*, 217–71, in which Dong wrongly identified another graph *si* as *lin*; however, he has given a comprehensive discussion of the significance of the 'unicorn' in Chinese history. Some of the words in these inscriptions have not yet been fully deciphered, and even the understanding of the phrase *bai lin* sometimes differs; for instance, Hu Houxuan 胡厚宣, in his article 'Zhongguo nuli shehui de renxun he rensheng 中國奴隸社會的人殉和人性', *Wenwu*, 1974, no. 8, p. 63, read the word as a name, 'Chief Lin'.

⁷⁰ See Yu Xingwu, *Shilin*, 450.

⁷¹ Yao Xiaosui, 'Shangdai de fulu 商代的俘虜', *Guwenzi yanjiu 古文字研究*, 6, 1981, 378.

⁷² *Jiaguwenbian*: 0083.

wu 三十雜物 ' in which, according to Mao Heng's commentary, the *wu* refers to *za se niu* 雜色牛 or 'multi-coloured oxen'.⁷³ However, a decade later, Guo Moruo challenged this view; he observed that the graph depicted a plough breaking through earth and argued that the graph is the original form of the character *li* 犁; when used as a colour term, it should be read as *li* 鷲, referring to black oxen.⁷⁴

In order to decide whether the word refers to a multi-colour or to black, it must be examined in three steps: first, the etymological relationship must be investigated by exploring its form, sound and meaning; secondly, we should examine its relationship with other related words in early texts; and thirdly, by examining the usage and context of the word in OBI, the possible readings should be tested.

In the *Shuowen* the character *wu* 物, as a phonetic compound, is defined as a general term for 'things': '*wu* means ten thousand things; and an ox is a big thing. The number of Heaven and Earth starts with the Altair (*qianniu* 'lead an ox'); thus, it derives from the ox, and the *wu* 勿 -element is the phonetic.'⁷⁵ Xu Shen's explanation here was based on later literature, certainly not on the original meaning of the character. In later transmitted texts, the meaning and function of the character *wu* is rather complex. When used as a noun, apart from the general meaning of *wan-wu* 萬物 or 'ten thousand things', it also refers to 'objects', 'matters', 'plants', 'animals', 'marks', 'spirits', 'patterns', 'types', and so on.⁷⁶ The particular usage of *wu*, as 'objects' and 'things', probably did not start before the late Zhou period.⁷⁷

Xu Zhongshu, a student of Wang Guowei, observed that the graphic form of *wu* 勿 (勿) was originally a pictograph of a plough breaking up earth, and so its primary meaning might refer to the colour of soil.⁷⁸ By contrast, Qiu Xigui argued that the graphic form is not a plough but a knife, with the dots representing the object it cuts apart; and that the form therefore suggests the primary meaning 'to separate', 'to select'.⁷⁹

It is very difficult to give an absolute textual reconstruction of the lexicographical development of certain words such as *wu*, because the dating of many of the literary texts involved is still questionable. In some other transmitted pre-Han texts such as the *Zhouli* and *Guoyu*, the archaic meaning of

⁷³ cf. *Jishi*, 0317-18; also Wang Guowei, *Guantang jili* 觀堂集林 (Beijing, 1959), 287; Wang did not recognize that the character could be an original *hewen*.

⁷⁴ cf. *Jishi*, 322; and a more lengthy discussion in Guo Moruo, 'Jiaguwen Yanjiu 甲骨文研究', *Guo Moruo quanji: kaogubian*, vol. 1, 83-92. [Originally Shanghai, 1931]. Later, in his *Nulizhi shidai* 奴隸制時代 (Beijing, 1956), 7, Guo went on to use this linguistic evidence to illustrate an agricultural aspect, namely, that ploughing by buffalo was common in Shang times. However, oxen were usually used as sacrificial animals in Shang ritual, and there is as yet no evidence of buffalo being used for ploughing in Shang times. See Xu Jinxiong 許進雄, 'Jiaguwen suo biao xian de niugeng 甲骨文所表現的牛耕', *Guwenzi yanjiu*, no. 9, 1984, 53-74.

⁷⁵ *Shuowen*, 30.

⁷⁶ cf. *Hanzi da idian* 漢字大字典 (Chengdu, 1986-90), 1805-6.

⁷⁷ Discounting all the literary records handed down through generations, the earliest example known of the character *wu* being used in the sense of 'things' is found in the inscription on a bronze vessel from Zhongshan State of the Warring States period. It reads: '*jian yu tianxia zhi wu* 聞 (見) 於天下之勿 (物), Knowing of things under Heaven' (*Mingwenxuan*: 880).

⁷⁸ cf. *Jishi*, 0318-9.

⁷⁹ Qiu Xigui, 'Shi "wu" "fa" 釋 "勿" "發"', *Guwenzi lunji*, 70-4.

'multi-colour' or 'colour' of the character *wu* 物 has survived. Sometimes, when it is used as a verb, usually 'to select' animals, or 'to survey' lands, it probably implies that such selection is primarily decided by colour.

For example, in the '*Chuyu*' ('楚語'), it reads: 'the hair indicates the *wu* (colour) the blood announces the killing; the meaning of the character *wu* here is directly interpreted as 'colour'.⁸⁰ In the '*Diguan•Caoren*' ('地官•草人'), it reads: 'using the method of the soil transformation to *wu* ('survey') the land.' Zheng Xuan's 鄭玄 (c. A.D. 127–200) commentary says that *wu* here means 'to divine on the type and colour of the soil for cultivation'.⁸¹ Elsewhere the commentary is even clearer: '*wu* means to select by colour'.⁸² In the '*Baozhangshi*' ('保章氏'), it is read: 'By observing the *wu* (colour) of the five clouds, thereby distinguishing the omens, auspicious or inauspicious, flood or drought, and the phenomena of the coming harvest or famine.'⁸³ Here, Zheng Xuan's commentary made it very clear: '*wu* refers to colour; it means to observe the colours of clouds and vapours surrounding the sun.' Later commentators explained that the five-coloured clouds represented the different omens: green for pests; white for death; red for war; black for flood; and yellow for harvest; and it was said that: 'everything has its shape (*xing* 形) and colour (*se* 色): heaven has the colour of clouds, earth has the colour of soils, animals have the colours of their hair or skins; all these colours are called *wu*.⁸⁴

Also, multi-colour relates to *wu*. In the '*Sichang*' ('司常'), we read: 'the *Sichang* charges the nine banners which are distinguished by their colours and names...the one of mixed colours is called *wu*.⁸⁵ Here, a multi-coloured banner is called *wu* 物.⁸⁶ Such textual evidence shows that the original meaning of *wu* is likely to be 'colour', 'multi-colour' or 'distinction by colour'. The character *wu* developed later to refer generally to a type of classification (*wu lei* 物類), whence it derives its later meaning of 'things', 'objects'. This meaning then gradually became dominant and other meanings sank into oblivion.

It is also necessary to examine the relationship between *wu* 物 and *li* 犁. Although their modern pronunciations differ from each other, the early phonetic relationship between them seems to have been close. *Wu* belongs to the *ming* 明 initial and the *wu* 物 final categories, reconstructed as <*mjət; and *li* to the *lai* 來 initial and the *zhi* 脂 final, and is reconstructed as <*ljədh. In Shang inscriptions, the *wu*-element is also employed in other compounds

⁸⁰ *Guoyu* 國語 (Shanghai, 1988), *juan* 18, 565.

⁸¹ *Zhouli zhengyi*, *juan* 30, 1182–3.

⁸² *ibid.*, *juan* 24, 937. The phrase *wu se* 物色 is still used in modern Chinese, but now only means 'to choose'.

⁸³ *ibid.*, *juan* 51.

⁸⁴ See Sun's commentary; *ibid.*, 2124–5. The Shang already practised the divination method of observing the clouds; there are phrases such as *ge yun* 各雲 (*Heji*: 10405, 10406, 21021, 21022), *liu yun* 六雲 (*Heji*: 33273, *Tunnan*: 1062) and *wu yun* 五雲 (*Tunnan*: 651) in OBI.

⁸⁵ *ibid.* *juan* 53, 2200, where Sun Yirang has also provided a very informative comment on the 'Nine Flags' which are distinguished by patterns and colours.

⁸⁶ A similar account is also found in the *Shuowen*. However, in *Shuowen jiezi zhu* 說文解字注 (Shanghai, 1981), 453–4, Duan Yucui 段玉裁 (1735–1815) noted that the character *wu* 勿 here should be written as 旃; and in *Shuowen shili* 說文釋例 (Beijing, 1987), 446, Wang Jun 王筠 (1784–1854) suggested that the phrase *wu wu* 勿勿 here should be read as *cang cang* 匆匆 (葱蔥).

such as 犛, which later is a phonetic-compound *li* 利 < *ljat.⁸⁷ They may have originated from the same root, since their phonetic relationship in Old Chinese is indeed close.

Besides the phonological relationship between them, they may also relate to each other semantically. Different commentators have tended to read the character *li* as 'multi-coloured' or 'black', and have often cited textual references to support their arguments. In the following, the relevant texts will be examined.

The *Shangshu* text, contains the phrase 'bo qi li lao 播弃犁老', where the character is used to describe the wrinkled and speckled faces of old people.⁸⁸ In the *Zhanguoce*, we read a similar phrase, 'mian mu li hei 面目犁黑', where the character *li* is used together with *hei* 'black'; the commentators say that the phrase refers probably to 'yellowish dark'.⁸⁹ So it is preferable, as Wang Yinzhì 王引之 (1766–1834) pointed out, to read the character *li* 犁 as 'multi-colour' rather than 'black'.⁹⁰ In the *Shanhaijing* we read: 'qi zhuang ru li niu 其狀如犁牛'; Guo Pu's 郭璞 (c. 176–324) commentary here says that *li* refers to a multi-coloured pattern 'like a tiger skin'.⁹¹ In the *Lunyu*, attributed to Confucius, we also read: 'li niu zhi zi 犁牛之子'; He Yan 何晏, a commentator of the third century A.D., noted that 'a mixed pattern is called *li*'.⁹² All these texts show that the character *li* is indeed better understood as 'multi-colour', and is particularly related to animals like oxen.

In fact, in OBI, the two elements *wu* 勿 and *niu* 牛 are written separately in many inscriptions, and the latter may sometimes be omitted. When the two elements are written together, particularly in the Chu and Huang groups, they are written very close up, like a semantic-phonetic compound, where the ox-element would be the radical and *wu* the phonetic sign. It was originally, as Jin Xiangheng 金祥恆 pointed out, a *hewen*⁹³ and therefore should be read as two syllables, that is, as *wu-niu*, where *wu* is the modifying adjective element in a noun compound.

Further evidence is found in Shang inscriptions. Apart from its combination with the ox-element in particular, *wu* also appears as an element in the composition of several other characters: (a) with the character *lao* 牢 'a penned animal', as 𠩺; or with the character *ma* 馬 'horse', as 𠩻; and (b) added to a graph indicating the sex of the animals, such as *pin* 牝 (𠩼) and *mu* 牡 (𠩽). Rather than reading all these characters as one word, it would better to read them as *wu-ma*, *wu-lao*, *wu-mu* and *wu-pin*, and so on.

⁸⁷ In the *Shuowen*, the ancient form of *li* is written as 𠩺, (p. 91).

⁸⁸ 'Qinshi' (秦誓), this particular document has been identified as a later forgery rather than original Zhou writing. See *Shangshu zhengyi*, 尚書正義, *juan* 11 (SSJZS, 181), where Kong Yingda noted that *li* might be better understood as 'spotted'.

⁸⁹ *Zhanguoce* 戰國策 (Shanghai, 1985), *juan* 3, 85–6, where it is pointed out that the character *li* 犁 is interchangeable with 黧. See also Hao Yixing 郝懿行 (1757–1825), *Erya yishu* 爾雅義疏 (Beijing, 1982), 'Shigu diyi 釋詁第一', 23–4.

⁹⁰ Wang Yinzhì, *Jingyi shuwen* 經義述聞 (Shanghai, 1936), 266–7.

⁹¹ 'Dongshanjing' (《東山經》), see Yuan Ke, *Shanhaijing jiaozhu*, 101. In *Shanhaijing jian shu* 山海經箋疏 (Chengdu, 1985), *juan* 4, Hao Yixing cited another reference in his commentary, stating that the character *li* here means 'multi-colour', more precisely 'a black pattern on a yellowish background'.

⁹² *Lunyu zhu shu* 論語注疏, *juan* 6 (SSJZS, 2478).

⁹³ Jin Xiangheng, 'Shi wu 釋物', *Zhongguo wenzi* 中國文字, 8, 1968, 2.

The bone character *wu* retained its graphic form in early Zhou bronze inscriptions and was mostly used as a negative. Many scholars, including Guo Moruo, disregarded the possibility that the bone graph could be read as the later negative *wu* 勿.⁹⁴ But, as Qiu Xigui pointed out, *wu* is actually used as a negative in Shang inscriptions, which suggests that the relationship between these two characters is probably one of phonetic similarity.⁹⁵

The real testimony comes from OBI themselves. One inscription recently published by Shen Zhiyu 沈之瑜⁹⁶ reads:

- (a) 癸丑卜，行，貞：翌甲寅毓祖乙歲，蚩幽勿牛，茲用
guichou/crack/Xing/divine/next/jiayin/Hou/grandfather/Yi/slaughter/hui/you-dark-red/wu-multi-colour/ox/this/use
 'Cracking made on *guichou* (day 50), Xing, divining: On the next *jiayin* (day 51), in performing the slaughtering sacrifice to Grandfather Hou Yi, we should sacrifice dark-reddish multi-coloured oxen. This was used.'
- (b) 貞：蚩黃勿牛
divine/hui/huang-yellow/wu-multi-colour/ox
 'Divining: We should sacrifice yellowish multi-coloured oxen.'

Although Shen insisted that the character *wu* means 'black', this inscription actually proves that phrases such as *you wu niu* 幽勿牛 and *huang wu niu* 黃勿牛 cannot be explained logically if the *wu* reads as 'black'. How is one to understand the phrase 'dark-black oxen'? They may be better understood, as Qiu Xigui argued, as 'dark-reddish multi-coloured oxen' and 'yellowish multi-coloured oxen'.⁹⁷

The difficulty of the reading of *wu* lies in the problem of colour categorization itself. *Wu* probably covered most dark tints in Shang inscriptions. Nonetheless, there is a clear distinction between *hei*- 'black' and *wu*- 'multi-colour' in OBI. Although both are used attributively to modify the colours of ritual animals, they sometimes appear, in contrast, in the same inscriptions. Thus, the semantic definition given to the bone character *wu* is probably *za-se* 雜色, that is, (a) any non-white-coloured animals; (b) different colours mingled together, which is particularly used of a brindle animal.

Zhi 𠄎

In OBI, the character *zhi* is written as: 𠄎 or 𠄎.⁹⁸ Because it is sometimes used in conjunction with nouns such as *niu* or ox, Luo Zhenyu first read it as a colour term modifying the colour of the animal.⁹⁹

⁹⁴ cf. *Jishi*, 0321–23.

⁹⁵ See Qiu Xigui, 'Shi "wu" "fa"', *Guwenzi lunji*, 70–4.

⁹⁶ This inscription was published by Shen Zhiyu, 'Jiagu buci xinhuo 甲骨卜辭新獲', *Shanghai bowuguan jikan* 上海博物館集刊, 3, 1986, 161.

⁹⁷ Qiu Xigui, 'Jiaguwen zhong suojian de Shangdai nongye 甲骨文中所見的商代農業', *Guwenzi lunji*, 165, where Qiu argues that in OBI the character *wu* is often in contrast to the colour word *xing* 𠄎 (𠄎), and it probably then refers to a darkish multi-coloured ox.

⁹⁸ *Jiaguwenbian*: 1511, where only the second type is printed.

⁹⁹ cf. *Jishi*, 0333.

Luo's decipherment was based mainly on interchangeable characters in pre-Han texts. In the 'Yugong' ('禹貢'), the phrase 'jue tu chi zhi fen 厥土赤埴墳' can be read; later commentators such as Zheng Xuan have pointed out that there existed an interchangeable relationship among zhi 埴 <*djək, zhi 戩 <*trjək and zhi 織 <*thrjək, in the sense 'red'.¹⁰⁰

However, the explanations given for the character zhi in this text by different sources are contradictory. Karlgren has translated the above sentence as 'Its soil is red, clayey, and fat', in which he reads chi zhi fen as three separate words, and the character zhi as meaning 'clayey'.¹⁰¹ This translation obviously followed some other old commentaries such as Kong Yingda's.¹⁰²

Apart from (a) 'red' and (b) 'clayey', there is a third explanation of zhi. In fact, the chi zhi in the Yugong text is better regarded as one word rather than separate words; it probably refers to both the hue and density of the soil. In the *Shiming* 釋名, another Han dynasty dictionary by Liu Xi 劉熙 (second century A.D.), it is defined so: 'soil which is yellow, fine and dense is called zhi.'¹⁰² This explanation, in fact, takes into account the two previous views, and defines the word in terms of both colour and texture.

In Zhou bronze inscriptions, the character zhi appears frequently, modifying objects such as textiles and clothes. The most common phrase is zhi yi 戩衣;¹⁰⁴ many scholars used to read this zhi as zhi 織, meaning 'patterned weave'; while several scholars have also argued that it is better understood as a colour term.¹⁰⁵ Like the character xing 𪚩, zhi can also be used to describe ox horns. On the *Shi Qiang pan* 史牆盤, a newly discovered Western Zhou bronze basin of the King Gong period (c. 927–908 B.C.), it is read: 'ji jiao zhi guang, yi qi yan si; 犝角戩光, 義(宜)其寗祀'.¹⁰⁶ Here, the character zhi is likely to be a variation of zhi and is used as a colour term modifying the ox horns.¹⁰⁷

¹⁰⁰ See Sun Xingyan 孫星衍 (1753–1818), *Shangshu jingwen zhushu* 尚書今古文注疏 (Beijing, 1986), 154–5.

¹⁰¹ B. Karlgren, 'The Book of Documents', *Bulletin of the Museum of Far Eastern Antiquities* (hereafter *BMFEA*), no. 22, 1950, 14.

¹⁰² *Shangshu zhengyi*, juan 6 (SSJZS, 148).

¹⁰³ Wang Xianqian 王先謙 (1842–1917), *Shiming shu zheng bu* 釋名疏正補 (Shanghai, 1984), 18.

¹⁰⁴ For example, see *Mingwenxuan*: 229 (*Dou Bi gui* 豆閉簋) and 252: (*Mian gui* 免簋).

¹⁰⁵ For different opinions, see *Gulin*, 7003–18. In his *Xi Zhou ceming zhidu yanjiu* 西周冊名制度研究 (Beijing, 1986), 226–8, Chen Hanping 陳漢平 argues that the character zhi refers to a 'yellow' colour in the context.

¹⁰⁶ *Mingwenxuan*: 225.

¹⁰⁷ See Lian Shaoming 連邵名, 'Shi Qiang pan yanjiu 史牆盤研究', *Guwenzi yanjiu*, no. 8, 1983, 35–6. E. L. Shaughnessy has annotated and translated this inscription into English and seems to follow Lian's interpretation of these two relevant sentences. The translation reads: 'Even-horned and redly gleaming, appropriate were his sacrifice.' Furthermore, Shaughnessy made the following observation of the graph, '𪚩 perhaps the two hands holding a basin 𪚩 beneath the etymonic compound are intended to imply a mirrorlike brightness'; cf. *Sources of Western Zhou history: inscribed bronze vessels* (Berkeley, Los Angeles and Oxford, 1991), 183–92, esp. 190. A number of articles have been written on the inscriptions of the *Qian pan*; they include Li Xueqin 李學勤, 'Lun "Shi Qiang pan" jiqi yiyi 論史牆盤及其意義', *Xinchu qingtongqi yanjiu* 新出土青銅器研究 (Beijing, 1990), 73–82; Qiu Xigui, "'Shi Qiang pan" ming jieshi 史牆盤銘解釋', *Guwenzi lunji*, 371–85; Yu Xingwu, "'Qiang pan" mingwen zhier jie "牆盤" 銘文之二解', *Guwenzi yanjiu*, no. 5, 1981; 1–16; and Zhao Cheng, "'Qiang pan" mingwen bushi 牆盤銘文補釋', *Guwenzi yanjiu*, 5, 1981, 17–26. Since scholars' reading of these sentences vary greatly, other possibilities cannot be ruled out.

If we examine the evidence directly found in OBI, where it has several different usages and meanings, we find first, it is used as a personal name such as *Zi Zhi* 子戠 'Prince Zhi',¹⁰⁸ or as a place-name, *wang ru Zhi* 王人戠, 'The king enters Zhi'.¹⁰⁹ Secondly, as Qiu Xigui argues, the character *zhi* is also used as a verb, meaning 'to wait' in some oracle bone inscriptions.¹¹⁰ Thirdly, in many inscriptions, in particular in the Chu-group, the character *zhi* is probably a *jiming* 祭名, that is, the name of a ritual sacrifice; for example:

Heji: 22846

戊午卜，旅，貞：王賓大戊，戠，無尤

wuwu/crack/Lü/divine/king/bin-reception/Da Wu/zhi-sacrifice/no/trouble

'Cracking made on wuwu (day 55), Lü, divining: The king will perform the reception rite to Da Wu, and make the *zhi*-sacrifice. There is no trouble.'

According to Yu Xingwu, *zhi* here probably means the 'dry meat' (*ganrou* 乾肉) of animals.¹¹¹ However, in some inscriptions, *zhi* might be better read as a verb; for example:

Heji: 22550

乙卯卜，行，貞：王賓祖乙，戠一牛

yimao/crack/Xing/divine/king/bin-rite/Zu Yi/zhi/one/ox

'Cracking made on yimao day (52), Xing, divining: The king performs the bin-rite to Grandfather Yi, and makes the *zhi*-sacrifice of one ox.'

Here, the character *zhi* can be understood as a finite verb 'to bask'; *niu* can then be understood as the object of the verb, and the number can refer to the object.¹¹²

In a number of inscriptions, in particular among those of the Li-group, phrases such as: '*ri you zhi* 日有戠' and '*yue you zhi* 月有戠' are found.¹¹³ Guo Moruo explained *ri you zhi* as 'solar eclipse',¹¹⁴ and Chen Mengjia 陳夢家 read it as 'sunspots'.¹¹⁵ In both cases, the character *zhi* can be understood as the sun or moon changing colour. This view has been accepted by many scholars, and these inscriptions are interpreted as scientific evidence for Chinese astronomy.¹¹⁶

¹⁰⁸ For example, *Heji*, 30036, 30037, 32775.

¹⁰⁹ For more examples, *Heji*: 5068, 5165, 1535, 16101, 16102, 16103, 16104, 16105. These are mainly from the early period, namely, the Bin, Li, and Zi diviners' groups.

¹¹⁰ Qiu Xigui, 'Shuo jiagu buci zhong "zhi" zi de yizhong yongfa 說甲骨卜辭中“戠”字的一種用法', *Guwenzi luji*, 111-16.

¹¹¹ Yu Xingwu, *Shilin*, 182-4.

¹¹² There are several examples containing the phrase *zhi* and *niu* together, but unfortunately most of them are too fragmentary to be used as hard evidence. For example, *Heji*: 8969, 15761, 16229 and 23000, in which the character *zhi* is likely to be a name or a verb rather than an adjective.

¹¹³ The number of inscriptions including *ri you zhi* is great (for example, *Heji*: 33696-704, 27388, 29697-9, *White*: 1371); and the majority of the inscriptions are from the Li and Wuming groups, *Tunnan*: 726 reads: '*yue you zhi*' in which it relates to the moon.

¹¹⁴ Guo Moruo, *Yinqi cuibian 殷契粹編* (Beijing, 1956), 13.

¹¹⁵ Chen Mengjia, *Yinxu buci zongshu 殷虛卜辭綜述* (Beijing, 1956), 240.

¹¹⁶ See Wen Shaofeng 溫少峰 and Yan Tingdong 袁庭棟, *Yinxu buci yanjiu-kexue jishu pian 殷墟卜辭研究-科學技術篇* (Chengdu, 1983), 29-31; and Zhang Liang 張亮, 'Xin chutu de "yue you zhi" bukao 新出土的“月有戠”補考', *Zhongguo tianwenshi yanjiu 中國天文史研究* 1, 1984, 119-28.

However, this rendering has been challenged very recently by several scholars. In a recent paper, Ito Michiharu 伊藤道治 has carefully examined the use of *zhi* in many inscriptions of the different periods. Ito disagrees with the view that the inscription refers to 'astronomical' phenomena such as the solar or lunar 'eclipse' or 'sunspots', and he suggests that *ri you zhi* and *yue you zhi* are expressions concerning rituals to the sun or moon, in which *zhi* should also be understood as the name of the ritual.¹¹⁷

The question here is whether the character *zhi* is used as a colour term in some inscriptions, in particular when it appears together with a noun such as *niu*; sometimes *zhi* and *niu* are written together as a *hewen* 𠄎.¹¹⁸ In the Huang-group,¹¹⁹ there are a few inscriptions in which the character *zhi* is most likely used as an adjective modifying the colour of oxen. For example:

Heji: 35995

其𠄎牛，茲用

qi/zhi-ox/this/use

'We shall perhaps sacrifice a *zhi*-colour ox. This was used.'

It often appears together with the *lao* 牢 ('penned ox') and *wu* 物 ('multi-coloured ox'):

Heji: 36081:

(a) 甲申卜，貞：武乙宗飭，其牢，茲用

jiashen/crack/divine/Wu Yi/temple/beng-rite/qi/penned-ox/this/use

'Cracking made on *jiashen* (day 21), divining: In performing the *beng*-rite at Wu Yi's temple, we shall perhaps sacrifice penned oxen. This was used.'

(b) 其𠄎牛

qi/zhi-ox

'We shall perhaps sacrifice *zhi*-colour oxen.'

(c) ...貞：...武丁...受有祐

.../divine/.../Wu Ding/.../receive/you-have/assistance

'...divining:... Wu Ding... receive assistance.'

(d) ...勿牛...用

.../wu-multi-coloured-ox/.../use

'...multi-coloured oxen ... This was used.'

Although the inscriptions are fragmentary, it is clear that the divination charges here are made of the chained-choice type (*xuanzhen* 選貞) and are concerned with the selection of ritual animals. The diviner first proposed various animals such as *lao* 牢, *zhi niu* 𠄎牛 and *wu niu* 勿牛; they are all written as *hewen*. The *zhi*-ox here is probably in contrast by colour to the *wu niu* 'multi-coloured ox'.

¹¹⁷ Ito Michiharu, 'Zhi zi kao 𠄎字考' (unpublished paper presented at the Conference of the Xia-Shang Culture Studies, Luoyang, 1991).

¹¹⁸ As mentioned earlier, Luo Zhenyu was the first to decipher it as a colour term, and he transcribed the graph as 𠄎.

¹¹⁹ There is an earlier Wuming-group inscription, Heji: 30718, in which the character *zhi* was used as an adjective, but the inscription is too fragmentary to be certain. Also, in the Huang-group, *zhi* is still used in a way referring to the ritual sacrifice; for example, Heji: 38115, but an epigraphic distinction has been made to it, written as 𠄎.

A very rare inscription of the Huang-group, which is inscribed on a carved bone, also includes the term *zhi* in a manner which supports the suggestion that it is likely to be a colour term:

Yicun: 518

壬午，王田于麥麓，獲商獸兕，王錫宰丰窰小盥兒。在五月，佳王六祀彫日。
renwu/king/hunt/at/Mai/foot-of-mountain/capture/Shang/zhi/rhinoceros/
*king/reward/Zai Feng/palace-officer/small/huangxiong(?)*¹²⁰*/in/five/month/*
wei/king/six/year/yong-rite/day
 ‘On *renwu* (day 19), the king hunted at the foot of Mount Mai, and a *zhi*-colour rhinoceros of Shang was captured. The king rewarded Zai Feng, the officer of the palace, with a small bronze vessel. This was on the day of the *yong*-rite, in the fifth month of the sixth year of the king’s reign.’

This is a record about the king’s hunting activities. The phrase *zhi si* 獸兕 here refers to the animal (a rhinoceros or wild buffalo) captured in the hunting expedition. The carving and content of the inscription are very similar to *Yicun*: 517, where the capture of a *bai si* 白兕 (white rhinoceros, or buffalo) is recorded.

Although there are reasons to believe that the bone character *zhi* is used as a colour term, probably denoting a yellowish- or reddish-brown, different interpretations cannot be completely ruled out.

Many scholars have believed that *zhi niu* in Shang inscriptions is probably the same as *te niu* 特牛 found in later texts. In many Zhou texts, as was mentioned earlier, the character *zhi* 𧇧 is interchangeable with *zhi* 埴; and the latter is itself interchangeable with the character *te* 特.¹²¹ The relationship among them is based on the principle of phonetic-borrowing: *zhi* <*tjək and *te* <*dək both belong to the *ding* 定 initial, and the *zhi* 職 final, differing only in the medial; their reconstructions are therefore very close.

There is, however, a real confusion about the semantic meaning of the character *te* in later textual criticism. A brief search through some pre-Han texts, such as the *Zhouli*, *Liji*, *Zuozhuan* and *Guoyu*, reveals that the character *te* is often used as an adjective attributed to a kind of ritual animal, such as *te sheng* 特牲; or in combination with various animals: *te yang* 特羊, *te tun* 特豚 and *te niu* 特牛. But, the interpretations of *te* in these texts may vary from scholar to scholar. For instance, in the *Zhouli*, we read: ‘*fan ma te ju si zhi yi* 凡馬特居四之一’; Zheng Xuan said in his commentary that it ‘means that there are three female ones and one male’; he obviously read the *te* here as ‘male (animal)’.¹²² In the *Shuowen*, it is said ‘*pu-te* 樸特 means a male-ox’;¹²³ Duan Yucui in his commentary also cited a reference from the *Chuci*.¹²⁴ Many scholars have agreed that *te* means ‘male (animals)’.

¹²⁰ The translation of *huang xiong* 盥兒 as ‘a bronze vessel’ is very tentative; see Guo Moruo’s ‘Zai Feng gu keci 宰丰骨刻辭’; cf. *Guo Moruo quanji-kaogu bian*, vol. 1, 405–10.

¹²¹ See Lu Deming 陸德明 (c. 550–630), *Jingdian shiwen* 經典釋文 (Shanghai, 1985), 683, 759, where he notes that *zhi* and *te* are interchangeable in the *Liji* text.

¹²² *Zhouli zhengyi*, juan 62, 2613.




¹²³ *Shuowen*, 29.

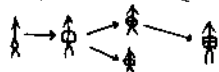
¹²⁴ Duan Yucui, *Shuowen jiezi zhu*, 50.


At the same time, a completely different explanation has been offered: that *te* means 'one', 'single' or 'alone'. In the *Yaodian* ("堯典"), we read: '(He) returned, arrived at the ancestral temple; *te* (one ox) was sacrificed.'¹²⁵ In the *Zuozhuan* (22th year of Duke Xiang), we read: 'a *te* (single)-sheep is offered, and the combination of a sheep and a pig would be granted.'¹²⁶ In the *Guoyu* (*Jinyu* "晉語"): 'you can prepare for me a banquet of *te* (one)-sheep';¹²⁷ again in the *Chuyu* ("楚語"): 'the dukes' *ju*-rite uses the *te* (single)-ox; and for the *si*-sacrifice, use a *tailao*-combination (of one ox, one sheep and one pig).'¹²⁸ In the *Liji. Jiao te sheng* 禮記·郊特牲, we read: 'a single bull (*te mu* 特牲) is used in the rites performed in the suburbs; and the combination of an ox, a sheep and a pig is used at the Altars of Soil and Grain.'¹²⁹ In all these texts, *te* 特 is understood by the commentators to mean 'one' or 'single' (*yi ye* 一也); and in particular in the *Liji* text, *te* can hardly mean 'male', but refers rather to a number.

Huang 黃 and Hei 黑 (or Jin 黜)

The main reason that the characters *huang*-'yellow' and *hei*-'black' are discussed together is because they are often confused in the early orthography. However, if we examine their appearance in OBI closely, although they are written similarly, there is still a distinction in their graphic forms.

The character *huang* is written with several variations in OBI: (a)  (b)  (c) . Despite the variations, the graph is basically a drawing of a man with an abnormal body in frontal view;¹³⁰ and, as Qiu Xigui points out, its graphic development is as follows:¹³¹



The character *hei* is written as: .¹³² It is a pictograph of a figure with a big head. Yu Xingwu deduced that when it is used as a colour word it should be read as *hei*-'black'.¹³³ This decipherment has been accepted by most scholars.

In OBI, *huang* and *hei* are clearly two different words, although both are used as adjectives modifying attributively the colours of animals, such as *hei yang* 黑羊 'black sheep', and *huang niu* 黃牛 'yellow oxen'. Some examples are:

Heji: 31178

夷黃牛，有正

hui/huang-yellow/ox/have/correct

'We should sacrifice yellow oxen. There is correctness.'

¹²⁵ *Shangshu zhengyi*, *juan 3* (SSJZS, 127); see Kong Yingda's commentary.

¹²⁶ *Chunqiu Zuozhuan zhengyi* 春秋左傳正義, *juan 35* (SSJZS, 1974); see Du Yu 杜預 (222–284)'s commentary.

¹²⁷ *Guoyu*, *juan 8*, 286; see Wei Zhao 韋昭 (204–273)'s commentary.

¹²⁸ *ibid.*, *juan 18*, 564–5; Wei Zhao commentary.

¹²⁹ *Liji zhengyi* 禮記正義, *juan 25* (SSJZS, 1444).

¹³⁰ See Tang Lan 唐蘭, 'Maogong ding "zhu fu, congheng, yuhuan, yu tu" xinjie 毛公鼎·朱軾·璉衡·玉環·玉璠·新解', *Guanming ribao* 光明日報, 9 May, 1961, where he argues that the pictographic form of the character is perhaps a religious person such as a shaman.

¹³¹ See Qiu Xigui, 'Shuo buci de fen wu wang yu zuo tu long 說卜辭的焚巫罔與作土龍', *Guwenzi lunji*, 218.

¹³² *Jiaguwenbian*: 1606.

¹³³ Yu Xinwu, *Shilin*, 227–30.

Heji: 36350

乙卯：其黃牛，正，王受有祐

yimao/qi/huang-yellow/ox/correct/king/receive/you-have/assistance

'On *yimao* (day 52): We will perhaps sacrifice yellow oxen, correct; the king will then receive assistance.'

Heji: 29544

寅黑犬，王受有祐

hui/black/dog/king/receive/you-have/assistance

'We should sacrifice black dogs, the king will then receive assistance.'

Yingcang: 834

庚寅卜，貞：其黑豕

gengyin/crack/divine/qi/black/pig

'Cracking made on *gengyin* (day 27), divining: We will perhaps use black pigs.'

Sometimes, yellow oxen were sacrificed to the directions (*fans* 方), and black sheep were used for the rain-making magical rite:

Heji: 14315

(a) 貞：燎東西南，卯黃牛

divine/burn/east/west/south/mao-cut/yellow/ox

'Divining: We shall perform the burning sacrifice to the East, West, and South, and cut a yellow ox.'

(b) 燎于東西，侂伐，卯南黃牛

burn/to/east/west/you-sacrifice/human-victim/mao-cut/south/yellow/ox

'In performing the burning sacrifice to the East and West, we shall offer human victims, and cut a yellow ox to the South.'

Heji: 30552

(a) 弼用黑羊，無雨

not/use/black/sheep/no/rain

'We do not use black sheep, there will then be no rain.'

(b) 寅白羊用于之，有大雨

hui/white/sheep/use/for/it/have/big/rain

'It should be white sheep that are used for it, there will then be heavy rain.'

Occasionally, the *huang*-‘yellow’ refers to metals:

Heji: 29687

丁亥卜，大...其鑄黃呂...凡利，寅...

dinghai/crack/Da/.../qi/cast/huang-yellow/metal/.../fan¹³⁴/li (good)/hui/...

'Cracking made on *dinghai* (day 24), Da... casting a yellow metal... X, favourable; it should...'

Yingcan: 2567





王其鑄黃呂，奠盥，寅今日乙未，利

king/qi/cast/huang-yellow/metal/offer/blood/hui/today/yiwei/li (good)

'The king casts a yellow metal and makes the blood offering; it should be today, *yiwei* (day 32), favourable.'


¹³⁴ This is probably a pictograph of a bier 𠄎, but whether it is used here in its original meaning is uncertain; see Zhao Cheng, *Jiaguwen cidian*, 224.



The inscriptions here are very interesting: not only is the character *huang* used for the first time attributively to modify a metal, as an adjective, but it also reveals the ritual that accompanied bronze casting in the Shang period.¹³⁵

The character *huang* appears frequently in Zhou bronze inscriptions, and has several variations:¹³⁶ (a)  (b)  (c)  (d) . In most instances, as Guo Moruo pointed out, it is used as a phonetic loanword of *huang* 市璜 'a belt', or *huang* 璜 or *heng* 衡 (珩) 'a jade pendant'.¹³⁷ Both *huang* and *heng* belong to the *jian* 見 initial category and the *yang* 陽 final; and their reconstructions are indeed very close: *huang* <**gwang*; and *heng* <**grang*.

Apart from being used as a loanword, *huang* is also used as a colour term in Zhou texts. For example, a common phrase *huang gou* 黃耇 'old people' is found both in Zhou bronze inscriptions and the transmitted texts such as the *Shijing*¹³⁸ where the character *huang* is understood as referring to the colour of old people's hair.¹³⁹ On the *Baigongfu fu* 白公父盃, a bronze vessel of the King Xiao reign (c. ninth century B.C.), we read: 'qi jin kong ji, yi xuan yi huang 其金孔吉, 亦玄亦黃';¹⁴⁰ here *xuan* and *huang* are both understood as colour terms referring to the metals.¹⁴¹

As mentioned earlier, the characters *huang* and *hei* are often confused with each other. The reason for such confusion could simply be scribal error, but there may also be a more complex etymological reason.

In the *Shuowen*, Xu Shen gave an explanation of the form and meaning of the character *hei*: 'the colour of what fire smoked over; derived from the flame-element which rises out of the window. The 囪-element is an archaic form for window.'¹⁴² Xu's definition of *hei* has been rejected by many modern scholars because the graphic form is based on the Small Seal Script, written as ,¹⁴³ which does not correspond to the form seen in OBI.

In OBI, *hei* is also written with two variations: (a)  (b) . The main element is almost identical, apart from the addition of a mouth-element on the top and sometimes a fire element beneath. Since these characters are sometimes used indiscriminately, it is then presumed that they shared the same sound.¹⁴⁴

¹³⁵ See Yan Yun 燕耘, 'Shangdai buci zhong de yezhu shiliao 商代卜辭中的冶鑄史料', *Kaogu*, 1973, no. 5, 299.

¹³⁶ *Jinwenbian*: 2207.

¹³⁷ Guo also argues that the graph depicts a man wearing an archaic jade pendant; cf. *Jinwen congkao*, 174–86.

¹³⁸ *Mingwenxuan*: 201, 471; *Maoshi*: 172, 246 and 302.

¹³⁹ See Hao Yixing, *Erya yishu*, 23–5.

¹⁴⁰ *Mingwenxuan*: 301.


¹⁴¹ See Chen Chusheng 陳初生, *Jinwen changyong cidian 金文常用詞典* (Xi'an, 1987), 1107–8. Other phrases such as *Huang di* 黃帝 ('Yellow lord') and *huang zhong* 黃鐘 ('Yellow tune') can be found on the late Zhou bronzes.

¹⁴² *Shuowen*, 211.

¹⁴³ This form occurs in several early Zhou bronzes. As Chen Zhaorong 陳昭容 argued recently, the bone graph cannot be linked directly to the later character *hei* and the characters may have different origins. Chen also discussed the problem of the confusion between *huang* and *hei*. See Chen Zhaorong, 'Guwenzi zhong de [] ji cong [] zhu zi 古文字中的 [] 及從 [] 諸字', *Hanxue yanjiu 漢學研究*, 6.2, 1988, 135–73.

¹⁴⁴ For example, *Heji*: 10170, 10181, 10187, 10184. All these inscriptions bear the character *hei*, but are written differently. By not recognizing that this is no more than a variation, many scholars here misread this character; for example:

Cuibian: 551: 用  牛 use/jin-black/ox

In early Zhou bronze inscriptions, the character is transformed thus:¹⁴⁵ . The main graphic structure is very similar to the Shang character, but the head is given emphasis by small dots which some scholars argue represent ink. Their theory is that this was a pictograph of a man whose face was tattooed, a practice known in Chinese history as *qing mian* 黥面, an ancient punishment of criminals. Therefore, the ink must suggest the meaning black.¹⁴⁶ However, the bone graph does not have these ink spots, and the character *hei* is never used as a colour term in Zhou bronze inscriptions.

If only its graphic development is taken in account, the bone character should be transcribed as *jin* 堇.¹⁴⁷ The identification of this bone character with the modern form *han* 曠 'drought', in the context of the examples which follow, was proposed by Tang Lan:¹⁴⁸

Heji: 10168

庚戌卜，貞：帝其降曠

gengxu/crack/divine/di-god/qi/descend/han-drought

'Cracking made on *gengxu* day (47), divining: The *di*-god is perhaps sending down a drought.'

Heji: 10187

丁未卜，...龍方...降曠

dingwei/crack/.../Longfang/.../descend/han-drought

'Cracking made on *dingwei* (day 44), ... Longfang... sending down a drought.'

In the inscriptions the character *han* seems to be used as a noun. However, it can sometimes be read as a verb:

Heji: 10164

...丑卜，貞：不雨，帝佳曠我




...chou/crack/divine/not/rain/di-god/wei/han-drought/us

'Cracking made on ... *chou* day, divining: There is no rain. the *di*-god is causing us to suffer drought.'

Here, Guo Moruo read it as loanword of the character *jin* 緇, meaning 'red'; see *Cuibian kaoshi*, 20. Tsung-Tung Chang and Serruys read it literally as a pictograph 'to burn a hunchback on fire' or 'to use (as victim) a hunchback'; see Chang, *Der Kult der Shang-Dynastie: im Spiegel der Orakelschriften* (Wiesbaden, 1970) 249; and Serruys's 'Language of Shang oracle bone inscriptions', *Toung Pao* 60, 1-3, 1974, 1050, n. 32.

¹⁴⁵ *Jinwenbian*: 1662.

¹⁴⁶ See Tang Lan, 'Shaaxisheng Qishan Dongjiacun xin chu Xi Zhou zhongyao tongqi mingci de shiwen he zhushi 陝西省岐山董家村新出西周重要銅器銘詞的釋文和注釋', *Wenwu*, 1976, no. 5, 63.

¹⁴⁷ In the *Shuowen* (p. 290), it is written as , and also as , meaning 'a clay soil'; and its *guwen* form is written as . In Zhou bronze inscriptions, *jin* is sometimes used attributively to modify a jade tablet, e.g. *jin zhang* 堇璋, in which the character *jin* is also understood as *jin* 'a kind of precious stone'; see *Mingwen xuan*: 434 (*Song ding* 頌鼎), 435 (*Song gui* 頌鬲), 436 (*Song hu* 頌壺). But, it is not entirely impossible that the character *jin* there should be read as a term referring to dark or black colour. Many surviving archaic jade *zhang*-tablets are black.

¹⁴⁸ Tang Lan, *Yinxu wenzi ji* 殷墟文字記 (Beijing, 1981, first pub. 1934), 82-6.

Heji: 10172

辛卯卜，敝，貞：帝其嘆我

xinmao/crack/Que/divine/di-god/qi/han-drought/us

'Cracking made on *xinmao* (day 28), Que, divining: The *di*-god is perhaps causing us to suffer drought.'

Yu Xingwu reads the character here literally as *hei*- 'black', 'darkness', ('the sun loses its light').¹⁴⁹

In OBI, the *jin*-element is also employed as a phonetic in another bone-character *jian* 艱 which occurs frequently, meaning 'difficulty', 'trouble', or 'hardship'. For example:

Heji: 24164

甲子卜，旅，貞：今日無來艱






jiazi/crack/Lü/divine/today/no/come/trouble

'Cracking made on *jiazi* (day 1), Lü, divining: There is no coming trouble today.'

It is difficult to relate these characters *hei* and *jin* in the Zhou phonological system. *Hei* belongs to the *xiao* 曉 initial and the *zhi* 職 final, reconstructed as < **hak* or < **hmak*; and *jin* belongs to the *jian* 見 initial and the *wen* 文 final, reconstructed as < **kjian*; they are unlikely to be related to each other.

Jian 艱 < **krən* is closer to the reconstruction of *jin*. However, although their initials are close, their finals still differ substantially. Their distinct phonetic reconstructions seem difficult to explain in the present phonological framework. If it is accepted that they all derived from the same root and the original character can only have one pronunciation, then some phonological explanation needs to be found.¹⁵⁰

You 幽 (or Xuan 玄)

The character *you* can be found in OBI; it is written as:¹⁵¹ . The graphic structure of this character consists of two elements:  and ; the former resembles two twisted threads, and the latter was understood by many scholars as a mountain-element. Traditionally, it is regarded as a *xingshengzi*, that is, its elements may suggest its meaning and sound. The *Shuowen* says: 'you means hidden; it is derived from the element of  inside an element representing mountain,  is also the phonetic sign.'¹⁵²

¹⁴⁹ Yu Xingwu, *Shilin*, 229–30.

¹⁵⁰ The later phonetic-compounds which bear the *jin*-element as their phonetic element also clearly divide into two different categories, for example: (a) 勤, 僅, 覲, 謹 and (b) 漢, 難. In the (a) category, the characters mostly have velar initials and *wen* 文 < **-ən* or *zhen* 真 < **-in* final categories; the (b) category have various initials such as *ni* 泥 < **-n*, *xiao* 曉 < **-h*- and *tou* 透 < **-th*-, and their finals are mostly the same, *yuan* 元 < **-an*. The evidence here seems to suggest that there was a movement from the central vowel *-a*- to the low vowel *-a*- in that period; and that the palatization caused by the *-j*- and *-r*- may have been an important factor in such a transition. Tang Lan has once suggested that the *zhen* and *yuan* categories are interrelated in proto-Chinese; see *Yinxu wenzi ji*, 79–81, 86.

¹⁵¹ *Jiaguwen bian*: 0533.

¹⁵² *Shuowen*, 84.

However, as several scholars have argued, the ancient form of *you* is probably not derived from the mountain-element, but from a simplified form of the fire-element which acts as the semantic element.¹⁵³ In Shang inscriptions, the elements for 'mountain' (*shan* 山) and 'fire' (*huo* 火) are often confused in their forms.

If the element representing twisted threads is written in half, as 𠄎, then it becomes another character, *xuan* 玄. There is probably an etymological relationship between these two characters, because they relate to each other in various ways.

Semantically, the two characters are indeed related. In the *Shuowen*, *xuan* is defined almost as a synonym of *you*: 'it means hidden and remote; black mixed with red is called *xuan*. It represents something hidden which is then covered up by the *ru* 入 ("to enter") element.'¹⁵⁴ Thus, as *you* means 'hidden', *xuan* also means 'hidden and remote'; and here *xuan* is defined as a colour word. In modern Chinese, both *you* and *xuan* mean black; but, in the strict archaic lexical sense, *xuan* refers to the 'dark-red' colour.

In OBI, apart from its role as a component of *you*, the twisted threads element is also an independent character *zi* 茲. Although their pronunciations seem distinct in Mandarin Chinese, these two characters *you* and *zi* probably shared an early phonological relationship. In Old Chinese, *you* belongs to the *ying* 影 initial and the *you* 幽 final; and *zi* to the *jing* 精 initial and the *zhi* 之 final. Their phonological categories are closely related, and their reconstructed sounds are: *you* 幽 <*ʝiəgw, *zi* 茲 <*tsjəg. The character *zi* is often used as a demonstrative or pronoun in both Shang inscriptions and later transmitted texts, meaning 'this'; we often read phrases such as *zi yong* 茲用 ('this is used') in OBI.¹⁵⁵ In some texts, it may also be understood as a colour term meaning 'black' or 'dark'.¹⁵⁶

Several other characters probably also originated from this root word, such as *you* 幼 <*jiəgw, meaning 'young', which employed the twist-element as the phonetic sign;¹⁵⁷ *ji* 幾 <*kjəg 'small'; and *si* 絲 <*hrjəg, the original pictograph of silk threads, and *you* 黝 referring to 'dark' or 'dark-green' colour. These examples suggest that the characters with the 𠄎-element are usually related to each other in some way, both phonetically and semantically. These characters are often interchangeable; that is, they are cognates, but sometimes they are just loan characters. They probably derive from a common root.¹⁵⁸

In OBI, the character is indeed used as the colour term attributively of ritual animals; for example:

Heji: 33606

𠄎幽牛

hui/you-dark-red/ox

'We should sacrifice dark-red oxen.'

¹⁵³ cf. *Gulin*, 2481–3.

¹⁵⁴ *Shuowen*, 84.

¹⁵⁵ See Hu Houxuan, 'Shi "ziyong" "zi yu" 釋"茲用", "茲御"', *BIHP*, 8.3, 1940, 467–84.

¹⁵⁶ It is sometimes interchangeable with the character *zi* 淄 'black'; cf. *Shuowen*, 84.

¹⁵⁷ In the inscription on the *Zhongshanwang Cuo ding* 中山王厝鼎, *you* is written as 𠄎, this shows that the phonetic value of 幽 and 幼 are the same; cf. *Mingwenxuan*: 880.

¹⁵⁸ In his doctoral thesis, 'Yin Zhou guwen tongyuan fenhua xianxiang tansuo 殷周古文同源分化現象探索' (Jilin Daxue 吉林大學, 1991), 180, Wang Yunzhi 王蘊智 argues that these characters can be traced back stage by stage to the same Shang root <*ʝəu.

Tunnan: 763

…卜：小乙卯，亥幽牛，王受祐，吉

.../crack/Xiao Yi/mao-cut/hui/you-dark-red/ox/king/receive/assistance/auspicious

'Cracking made on... We shall perform the cutting sacrifice and it should be dark-red oxen; the king will then receive assistance. Auspicious.'

Sometimes, the dark-red ox is used in contrast to animals of the other colour:

Heji: 14951

亥幽牛，又黃牛

hui/you-dark-red/ox/you-again/huang-yellow/ox

'We should sacrifice dark-red-oxen, plus yellow ones.'

Although the character *you* is usually written with the 'fire-element' in OBI, there are some exceptions; for example:

Tunnan: 4420

亥幽牛

hui/you-dark-red/ox

'We should sacrifice dark-red oxen.'

where *you* is used as a colour term attributively of the colour of an ox, but the 'fire-element' here is omitted, and the 𠄎-element is written closely to the character *niu*, as if it were a *hewen* character 𠄎.

There is some evidence to suggest that the characters *you* 幽 and *xuan* 玄 may not have been distinguished at this stage in the Shang period. Heji: 33276 reads:

乙巳，貞：華禾于爰，三玄牛

yisi/divine/hu-beg/harvest/to/Nao/three/xuan/ox

'On *yisi* (day 42), divining: In performing the prayer for a good harvest to Nao, three *xuan* (dark-red) oxen are offered.'

In this inscription the character *xuan* is written with only one twisted thread and without the fire-element. Judging by the context, it is likely to be a simplified form of *you* 幽.

Therefore, although in modern Chinese lexicography both the characters *you* and *xuan* are defined without distinction as 'dark'/'black', the colour term *you* is more likely to be a 'reddish' colour than a 'black' colour in the Shang perception. In Shang ritual, animals of the *you*-dark-red colour are used differently from *hei*-black animals, and are closer to the reddish animals such as *xin niu* or red-yellow oxen.

Some later references may help us to understand the problem better. In Zhou bronze inscriptions, both *you* and *xuan* are constantly used as attributive adjectives, that is, colour terms: *xuan* is mostly used to describe metals or ores such as *xuan-liu* 玄鑠,¹⁵⁹ *xuan-guang* 玄統;¹⁶⁰ and textiles and clothing such as *xuan-yi* 玄衣 and *xuan-gun* 玄袞;¹⁶¹ whilst *you* appears frequently and

¹⁵⁹ For example, *Mingwenxuan*: 826: *Zhugong Jing zhong* 郟公桴鐘, 827: *Zhugong Hua zhong* 郟公華鐘.

¹⁶⁰ *ibid.*, 538: *Wuwang Guang jian* 吳王光鑑.

¹⁶¹ For example, see *Mingwenxuan*: 201: *Shi Wangfu ding* 師望父鼎, 202: *Shi Cai ding* 師夔鼎.

attributively modifies the colour of jades such as *you-huang* 幽黃(璜).¹⁶² In these inscriptions, they are likely to be understood as 'dark', 'red-dark', or even 'dark-green'. In Zhou bronze inscriptions, many of the colour words are often used attributively of objects such as the clothes which are gifts from Zhou kings to their ministers. The colours of the gifts such as jades and garments, as Chen Hanping argued, probably symbolize the social status of the receiver.¹⁶³

In pre-Han literature, it is likely that there is still a difference, however subtle, between *you* and *xuan*. For example, in the *Shijing*, we read: 'qi ye you you 其葉有幽' (*Maoshi*: 228), and 'he cao bu xuan 何草不玄' (*Maoshi*: 234). In both examples, *you* and *xuan* are used to modify the colour of the plants but, according to the early commentaries, *you* means only 'black' or 'dark-green', whereas *xuan*, as Zheng Xuan noted, is 'dark-red'.¹⁶⁴ In the *Laozi*, a phrase *xuan pin* 玄牝 'Dark Cow' can be read.¹⁶⁵ Although it is attributed with a profound philosophical meaning, the word *xuan* seems also to be related to menstruation.

Later, the meanings of *you* and *xuan* become much more complex, especially in literary contexts, where they signify 'dark', 'deep', 'remote', 'hidden', 'mysterious', 'small', 'subtle', 'silent',¹⁶⁶ and both are used to refer to the spiritual world. However, there seems to be a slight distinction between them: the latter often signifies the sky or heaven, such as the *Xuan gong* 玄宮 (The Dark Palace), *Xuan pu* 玄圃 (The Dark Garden), and *Xuan que* 玄關 (The Dark Gate-tower), while *you* is related to the underworld which is called the *You du* 幽都 (Dark Capital).¹⁶⁷

Conclusion: Shang colour categorization

In the above I have identified and examined the usages of a number of colour terms found in Shang oracle bone inscriptions: *chi*-red', *bai*-white', *hei*(or-*jin*)-black', *huang*-yellow', *xing*-red-yellow', *you*-(or *xuan*)-dark-red', possibly *zhi*-brown', and *wu* for multi-colour. There may be other colour words used in Shang inscriptions which it is not yet possible to decipher, but the colour terms found so far show that the Shang already had a rich colour vocabulary. To conclude this paper, I would like to offer some theoretical discussion of Shang colour categorization in relation to general studies done by other linguists and anthropologists in the field.

First, it is interesting to note that the graphic forms of some of the colour terms contain a semantic element indicating their meaning: the characters *chi*

¹⁶² *ibid.*, 416: *Liu ding* 柳鼎; in this attributive phrase the character *you* 幽 is sometimes interchangeable with *cong* 蔥(蔥), for example, see also *Maogong ding* 毛公鼎.

¹⁶³ Chen Hanping, *Ceming zhidu*, 286-93.

¹⁶⁴ See *Maoshi zhengyi*, *juan* 15:2 and 15:3 (SSJZS, 495, 501).

¹⁶⁵ See Chen Guying 陳鼓應, *Laozi zhu yi ji pingjie* 老子注譯及評解 (Beijing, 1984), 85.

¹⁶⁶ *cf. Hanyu da zidian*, 280-81, 1094-5.

¹⁶⁷ For example, in the *Zhaohun* ('招魂'): 'Souls, please return! Stop your descent to that Dark Capital'; in the same chapter, we read: 'Flying fire is rising continually; the dark-red face turns steaming red.' The *youdu* 幽都 is known to be the underworld, and the phrase *xuanyan* 玄顏 'dark-red face' refers, as Wang Yi 王逸 (c. A.D. second century), pointed out, to heaven. See Hong Xingzu 洪興祖 (c. A.D. twelfth century), *Chuci buzhu* 楚辭補注 (Beijing, 1983), 201, 213-14.

and *you* both have the fire-element;¹⁶⁸ and the character for black is etymologically associated with 'drought' and 'difficulty'. The reason why these words are associated somehow relates to a psychological interaction between natural phenomena and the human perception of colour. The basic law behind such association may be founded on analogical thinking; for example, red reminds us of the connotations of fire and blood, green calls up thoughts of trees and nature.

Secondly, the characters representing colour terms usually have more than one function; apart from being adjectives, they are also verbs, grammatical particles, or personal or place names. When used as a colour term, the word functions as an adjective modifying an object, usually an animal, forming an attributive phrase.¹⁶⁹ That the Shang colour terms are associated with ritual animals is significant. Linguistic profusion is, as Evans-Pritchard argues, related to the direction and strength of a people's interests. In studying the Nuer cattle vocabulary, he found that the nomenclature of oxen mainly referred to their colour and the shape of their horns; for example, the Nuer had ten principle colour terms: 'white' (*bor*), 'black' (*car*), 'brown' (*lual*), 'chestnut' (*dol*), 'tawny' (*yan*), 'mouse-grey' (*lou*), 'bay' (*thiang*), 'sandy-grey' (*lith*), 'blue and strawberry roan' (*yil*), and 'chocolate' (*gwir*). When a cow was of a single colour it was described by one of these terms, but there were, however, many combinations.¹⁷⁰ In his study of the Mursi colour terms, David Turton also finds that there are no colour terms in Mursi other than cattle-colour terms and the configurations of cattle colours serve as a model for colour naming.¹⁷¹ The Shang people may also have used ritual animals as their model for colour naming.

Furthermore, the identification of colour terms and their graphic forms cannot take us very far if we do not understand the colour categorization they stand for. As we have learned from linguistic and anthropological studies, even when a word is used as a colour term throughout its lexical history, it does not necessarily exhibit a fixed reference to the colour spectrum; and we should remember that its semantic boundary can shift from time to time. It is useful then to reconstruct the colour categories underlying the colour terms found in OBI which could lead to a better understanding of Chinese colour terminology.¹⁷²

According to Berlin's and Kay's theory, mentioned above in the introduction, at the first stage of colour categorization we should have 'light-warm'

¹⁶⁸ The Greek word for 'fire' (*pyr*) and the Latin word *hurrus* meaning 'fiery red' derived from the same ancestral form. This led to Romance forms meaning 'dark red' (Provençal *buret* meant 'brownish red') and Old French *buire* (variant *bure*), meaning 'dark brown'. Cf. D. Bolinger and D. Sears, *Aspects of language* (New York, 1981), 266.

¹⁶⁹ For a further discussion on the attributive phrases in Shang inscriptions, see K. Takashima, 'Noun phrases in the oracle-bone inscriptions'. *Monumenta Serica*, 36, 1984/85, esp. 263-7.

¹⁷⁰ E. E. Evans-Pritchard, *The Nuer: a description of the modes of livelihood and political institutions of a Nilotic people* (Oxford, 1940), esp. 41-8.

¹⁷¹ D. Turton, 'There's no such beast: cattle and colour naming among the Mursi', *Man*, 15, 1980, 230-38.

¹⁷² In the 1940s, Hu Puan 胡樸安 tried to reconstruct the evolutionary history of Chinese colour terms. His starting-point was that the evolution of the colour vocabulary was associated with the evolution of human society; therefore his reconstruction is as follow: *hai*- 'white' came first; it is a pictograph of a man's face, indicating the recognition of man himself; second is *chi*- 'red', which is associated with 'fire'; it probably emerged in the hunting stage; third *huang*- 'yellow' derived from the 'soil', indicating the development of agriculture; and fourth *hei*- 'black' came with a settled and civilized society, the form of the character representing cooking 'smoke'. See Hu Puan, 'Cong wenzixue shang kaojian gudai

(white, red and yellow) and 'dark-cool' (black, green and blue) categories. White emerged from the 'light-warm' category at the second stage. At the third stage, either 'dark-cool' decomposes into black and cool, or 'warm' is split into red and yellow. The fourth stage must be black, white, red and yellow. At the fifth stage green and blue are differentiated from the 'cool' category.¹⁷³ Thus, the so-called universal temporal order is as follows:

I: light-warm (white/red/yellow)
dark-dool (black/green/blue)

II: warm
white
dark-cool

IIIa: warm > red/yellow
white
dark-cool

IIIb: warm
white
dark-cool > black/cool

IV: white
red
yellow
black

V: white
red
yellow
green/blue
black

Basing himself on the Theory of Berlin, Kay and McDaniel, W. Baxter argues that there are probably only four basic colour terms (*bai* 白, *huang* 黃, *chi* 赤 or *zhu* 朱, *xuan* 玄) in pre-Zhou Chinese, representing four colour categories: white, red, yellow and dark-cool.¹⁷⁴ The evidence from Shang inscriptions largely supports this hypothesis, but it also shows some particularities.

Apart from the four categories, there probably existed a category *wu* 勿 'multi-colour' in the early stage. The colour terms *bai* and *wu* are seen to be used in contrast in the inscriptions of the early period (the Shi-group). In Shang colour

bianse benneng yu rance jishu 從文字學上考見古代辨色本能與染色技術', *Xuelin* 學林, 3, 1941, 53-67. However, while this kind of view reflects early academic interest in the study of colour terms, it has little value for a real understanding of colour terms and colour categorization, for it is too simplistic to account for any social or linguistic evolution.

¹⁷³ Berlin and Kay's theory since has been modified; see P. Kay and C. K. McDaniel, 'The linguistic significance of meanings of basic color terms', *Language* 54, 1978, 610-46.

¹⁷⁴ W. Baxter, 'A look at the history of Chinese color terminology', *Journal of the Chinese Language Teachers Association*, xviii, 2, 1983, 1-25. Here, Baxter lists the character *zhu* as one of the early basic terms. Although the form can be found in OBI, it is never used as a colour term. It is, however, used as the colour term representing red in Zhou bronze inscriptions.

categorization, *bai*-‘white’ probably covers most of the light tints while *wu* seems to include all ‘coloured’ objects. An alternative interpretation is that *bai* means ‘no-colour’, and that *wu* refers to various dark-cool colours. A similar case can be found in ancient Egyptian colour terminology, where apart from the four basic colour terms: black (*km*), white (*hd*), red (*dsr*) and green (*wad*), there is another term *sab* meaning ‘variegated’ or ‘multi-coloured’, which is used only for animal skins and hair. The same situation is also seen in Sumerian and Akkadian.¹⁷⁵

Therefore, although Berlin, Kay and McDaniel argued that the discrimination of ‘white’ (warm) and ‘black’ (cool) must be ‘Stage I’ of the universal colour categorization, it is not entirely impossible that the first colour distinction may also be between the two categories, ‘coloured’ and ‘non coloured’.

By using colour chips, many investigators have found considerable differences between the way one group of people classifies the colour spectrum by comparison to others. For instance, H. Conklin has observed that the classification of colours among the Hununoo of the Philippines is radically different from our own.¹⁷⁶ There are four basic colour terms: (a) (*ma*)*lagti?* covers English ‘white’, but also all other light tints; (b) (*ma*)*biru* covers ‘black’, but also dark tints of other colours; (c) (*ma*)*rara?* covers approximately ‘red’, ‘orange’ and ‘maroon’; and (d) (*ma*)*latuy?* covers the range of ‘yellow’, and light tints of ‘green’ and ‘brown’. Furthermore, their classification is based on the wet/dry axis, which is different from that of brightness/intensity.

Based on my study of Shang colour terms, the Shang colour categorization can be hypothetically reconstructed as shown in fig. 1.

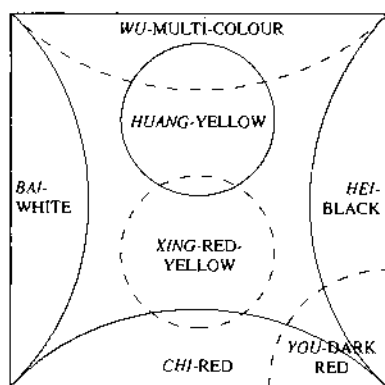


Fig. 1

The evidence from OBI suggests that there are three or four colour terms standing for the ‘red/warm’ category: *chi*-‘red’, *xing*-‘red-yellow’ (‘orange’), *you*-‘dark-red’; and probably *zhi*-‘brown’ (which is a dark-yellow or dark-red-yellow colour) might also be related to this category. Red is the most silent of colour experiences to the human eye, and covers a greater

¹⁷⁵ See J. Baines, ‘Color terminology and color classification: ancient Egyptian color terminology and polychromy’, *American Anthropologist*, 87, 1985, 282–97.

¹⁷⁶ H. Conklin, ‘Hanunoo color categories’, *Southwestern Journal of Anthropology*, 11/4, 1955, 339–44.

variety of wavelength combinations than other colours. However, there is some lexical distinction between the words *chi*, *xing* and *you* in Shang inscriptions: they all refer to animals of reddish colour, but *chi* is only used attributively to modify the colour of horses, whilst *xing*, *zhi* and *you* refer to oxen. Linguistically speaking, they can hardly be treated as synonyms. In fact, the difference between these colour terms is more likely to lie in the saturation of the hue.

Huang-‘yellow’ also presents some difficulty for our categorization. In the *Shuowen*, Xu Shen says that *huang* ‘is the colour of earth’;¹⁷⁷ and in Shang rituals, we see that animals of yellow colour were sacrificed to the directions or the earthly spirits. Sometimes, *huang*-‘yellow’ was used in contrast to *you*-‘dark-red’. In the Shang colour categorization, ‘yellow’ seems to be a neutral colour, which may be understood as a ‘warm’, or a ‘cool’ colour, largely depending on the luminosity and the sensory processes, rather than the hues.

In reading the colour chart, we have to bear in mind that our translation of the colour terms in Shang inscriptions has to be tentative because there are uncertainties as to whether modern perceptions of colour which are represented by these colour terms are or are not similar to those of the Shang people.¹⁷⁸ It is clear that understanding colour categorization is a multidimensional process: the effect of colour, its hues, brightness and saturation all play their part. A colour term sometimes has less to do with the real object’s colour than its lightness or saturation, and these three attributes are often mixed or overlap.¹⁷⁹

A final observation should be made on the late stage of development in colour categorization with special reference to the linguistic representation of ‘green/blue’. In late periods, apart from white, red, yellow and black, there is the fifth basic colour term *qing* 青 < **tsing*, representing the ‘green/blue’ category.

The form of the character *qing* is found in Shang inscriptions, written 青, but it is never used as a colour term.¹⁸⁰ The character *qing* graphically, as well as phonetically, relates to *sheng* 生 < **sring* ‘to grow’. Textual evidence of the use of *qing* as a colour term probably does not appear until the Zhou period. On the *Qiang pan*, cited earlier, we read: ‘*qing you gao zu* 青幽高祖’, where *qing*, used together with *you*, is probably understood as the extended meaning of the colour term ‘dark-green’, referring to the sky or heaven where the ancestors lived.¹⁸¹

¹⁷⁷ *Shuowen*, 291.

¹⁷⁸ In his study of the semantic system of Shang language, Zhao Cheng noted that the colour terms may cover domains much broader than their modern lexicography; he thinks that in OBI *hei*-‘black’ covers darkish grey, *hai*-‘white’ covers light grey and yellow, *huang*-‘yellow’ covers brown and *chi*-‘red’ covers bright yellow or orange. See Zhao Cheng, ‘Jiaguwen ciyi xitong tansuo 甲骨文詞義系統探索’, *Lunwenji*, 101–2.

¹⁷⁹ For further discussion, see H. Conklin, ‘Color categorization’, *American Anthropologist*, 75, 1973, 931–42.

¹⁸⁰ cf. *Jishi*, 1739, where Li Xiaoding argues that the character appears in one inscription in which it was probably used as *qing*-‘green’, but evidence shows that it should be read as *nan* 南 ‘south’, rather than *qing*-‘green’.

¹⁸¹ Many scholars have read the *qing* as a loan character for *jing* 靜 ‘silent’, and translated the phrase as ‘the silent and mysterious ancestors’; for example, see Li Xueqin, ‘Lun “Shi Qiang pan” jiqi yiyi’ (see n. 167 above).

In pre-Han texts, the meaning of the character *qing* is complex; it probably means (a) the colour green, e.g. *qing cao* 青草 'green grass'; (b) the colour blue, e.g. *qing tian* 青天 'blue sky'; and (c) sometimes, *qing* is also understood as black or dark.¹⁸² In the *Shijing*, for example, we read '*lü zhu qing qing* 綠竹青青' (*Maoshi*: 55)¹⁸³ and '*qi ye qing qing* 其葉青青' (*Maoshi*: 233).¹⁸⁴ In both cases, the character *qing* is likely to be an adjective referring to the colour 'green'; and in the first example in particular, it is used to describe *lü zhu* or 'green bamboo'. However, when used in the context of the sky, *qing* is interchangeable with *cang* 蒼 <*tshang ('dark-grey'). In the *Shijing*, the colour term referring to the sky is *cang*: '*you you cang tian* 悠悠蒼天' (*Maoshi*: 65);¹⁸⁵ and '*bi cang zhe tian* 彼蒼者天' (*Maoshi*: 131).¹⁸⁶ In *Zhuangzi Xiaoyaoyou* 莊子·逍遙游, both *qing* and *cang* are used to describe the colour of the sky.¹⁸⁷

Baxter argues that green and blue were included in the black category in pre-Zhou Chinese.¹⁸⁸ From the literary material, it is likely that *qing* was indeed interchangeable with other colour terms such as *cang*, *you* or *xuan* during the early stage. Later, when colour categorization was better defined, a distinction between *you* and *xuan* was made and *qing* emerged from the dark category, from which also derived the new colour terms *lü* 綠 'green' and *lan* 藍 'blue'.

There is no doubt that the Shang people did know of the existence of the colour green/blue. Archaeological evidence has shown that green pigment was specially made and used at that time. In the 1960s, Cheng Te-k'un 鄭德坤 studied a group of fifteen *t'u lu* pigment containers assigned to the late Shang and early Zhou period.¹⁸⁹ These containers are made of bronze, pottery, jade and marble. Each piece has four or five tubular containers, one at each corner. In three out of the fifteen containers, deposits of pigments were found in the bottom of the tubes, and these have been identified as white, black, red and green powders.¹⁹⁰ Therefore, it is possible that in the Shang period although the *qing*-'green/blue' category was not yet linguistically distinguished, it was included in the *wu*-multi-colour or *huang*-yellow category. Here, the linguistic history of *qing* is a perfect example demonstrating the complex relationship between colour terms and colour categorization.

¹⁸² See Shimizu Shigeru 清水茂, 'Shuo qing 說青', *Wang Li xiansheng jinian wenji* 王力先生紀念文集 (ed. Xianggang yuwen xuehui 香港語文學會, Hong Kong, 1987), 141–62.

¹⁸³ *Maoshi zhengyi*, juan 3.2: (SSJZS, 321).

¹⁸⁴ *ibid.*, juan 15.3 (SSJZS, 501).

¹⁸⁵ *ibid.*, juan 4.1: (SSJZS, 330).

¹⁸⁶ *ibid.*, juan 6.4: (SSJZS, 373).

¹⁸⁷ Guo Qingfan 郭慶藩 (1844–1896), *Zhuanzi jishi* 莊子集釋 (Beijing, 1961), 4, 14.

¹⁸⁸ W. Baxter, 'Chinese colour terminology', 17–18.

¹⁸⁹ Cheng De-k'un, 'The T'u-lu colour-container of the Shang-Chou period', *BMFEA*, 37, 1965, 239–50. The name 'T'u-lu' was taken from an inscription inscribed on one of the containers.

¹⁹⁰ The specimen was analysed by the Research Laboratory for Archaeology at the University of Oxford. A report was included in Cheng's paper.