

Does Xǔ Shèn's *Huìyì* Category Reflect Historical Reality? An Argument for the Existence of Compound Graphs Lacking Phonophorics

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Abstract

Over the last 20 years, stimulated by William G. Boltz's influential monograph *The origin and early development of the Chinese writing system*, a number of scholars in the West have engaged in a debate over the historical status of the traditional *huìyì* 會意 ('conjoined meaning') category of Chinese characters. While the existence of such characters within the Chinese writing system at various points in its history is not in dispute, the role of *huìyì* characters in the formative stages of the script remains a matter of controversy.

In this paper I draw on some recent significant publications on Chinese writing in order to advance a theoretical argument in defense of the existence of *huìyì* graphs during the formative stages of the script. I argue that iconic combinations of graphs are well motivated and meaningful to script users, and therefore could well have played a role in the formation of the Chinese script. Comparative evidence from other early logographic writing systems as well as evidence from later stages of Chinese both support this argument, and provide an explanation for some early Chinese characters that would seem to defy any interpretation that assigns a phonetic role to one of the components.

Keywords

Early Chinese writing, *huìyì*, *xíngshēng*, motivation, iconicity

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1. Introduction

In an important and influential work on the earliest stages in the development of Chinese writing, William G. Boltz (1994) expands on the earlier work of scholars such as Peter Boodberg and John DeFrancis to argue that the traditional *huìyì* 會意 category of Chinese characters has no grounding in historical reality. One of the six types of writing (*liù shū* 六書) identified by Xǔ Shèn 許慎 in the Later Hàn 漢 dictionary *Shuō wén jiě zì* 說文解字, *huìyì* graphs are defined as constructed of two components, each of which is itself a graphic element with a conventional meaning, such that the meaning of the word written by the *huìyì* graph is a combinatoric function of the meanings associated with its components.¹ The two examples of this type of character given by Xǔ Shèn are *xìn* 信 ‘to trust’, composed of *rén* 人 ‘person’ and *yán* 言 ‘speech’; and *wǔ* 武 ‘martial’, composed of *zhǐ* 止 ‘foot’ and *gē* 戈 ‘poleax’. Other oft-cited examples are *hǎo* 好 ‘good’, composed of *nǚ* 女 ‘woman’ and *zǐ* 子 ‘child’; and *ān* 安 ‘peace’, composed of *mián* 宀 ‘roof’ and *nǚ* 女 ‘woman’.²

Boltz argued that the existence of true *huìyì* characters during the formative stages of the script is a theoretical impossibility, and that therefore the structure of these characters was misunderstood: in well-known traditional examples of the *huìyì* type of character such as *xìn* 信, *wǔ* 武, *hǎo* 好, and *ān* 安, one of the elements must have served a phonetic function.

In contrast to this claim, I believe a strong argument can be made that meaning-based graphic compounds are well motivated and meaningful to script users, and

¹ I use the term “word” here loosely to refer to the spoken unit conventionally represented by a Chinese character. In modern standard Chinese writing, these units are most commonly monosyllabic morphemes. The status of the spoken units during the period of script formation is less clear. While many units no doubt were simple monosyllabic morphemes (many of them free morphemes, and thus words), some were monosyllabic portions of longer morphemes, and some were monosyllabic words with internal morphological structure. Since in most cases the particulars are not relevant to the discussion at hand, for convenience I will employ the term “word” in a non-technical sense to indicate the spoken referent of any Chinese graph.

² Xǔ Shèn was analyzing seal-script (or earlier) forms of Chinese characters. In cases where the modern character forms are structurally equivalent, I present only the modern forms for convenience. Chinese pronunciation of Xǔ Shèn’s time and earlier was vastly different from that of modern Mandarin. For convenience, however, I will label characters and morphemes with their modern Mandarin pronunciations in *Hanyu pinyin*. Older character forms and reconstructed pronunciations will be provided only when directly relevant to the discussion.

therefore could have played a role (even if limited) in the formation of the Chinese script. Comparative evidence from other early logographic writing systems, as well as evidence from later stages of Chinese, would seem to support this argument, as do Chinese characters that cannot easily or plausibly be explained as phonetic-less using Boltz's methodology.

In this paper I draw on some significant recent publications on Chinese writing by Western scholars engaged with the *huiyi* issue, and advance a theoretical argument in defense of the role of *huiyi* graphs in the formative stages of the script.³

2. Definition of *huiyi* 會意

In *Shuō wén jiě zì*, Xǔ Shèn provides the following formulaic definition of *huiyi* graphs: *Bǐ lèi hé yí yǐ jiàn zhǐ huī* 比類合誼以見指摠. Boltz (1994: 144) translates this as “you set the categories [of meaning] side by side and combine what is appropriate [from each]; thereby [the meaning] is indicated and evoked.”⁴ This is commonly understood to mean that *huiyi* graphs are constructed of two components, each of which is itself a graphic element with a conventionally associated meaning, such that the meaning of the word written by the *huiyi* graph is suggested by the combined meanings associated with the two components.⁵ For example, Xǔ Shèn identifies the character 信, writing *xìn* ‘reliable, trustworthy’, as a *huiyi* graph. Its two

³ While finalizing this paper I became aware of the recent publication on this topic by Sampson and Chen (2013), which makes a number of similar points concerning Boltz 1994 and *huiyi* graphs. It does not, however, take account of much of the scholarship on the issue that has been published in the last 20 years.

⁴ Boltz (2006: 57) provides a slightly different translation: “[such a character] sets the [semantic] categories [represented by the graphic components] side by side, combining their appropriate senses; thereby [the meaning] is indicated and signaled.” Boltz further notes that this definition leaves much to be desired in terms of clarity, as do the definitions that Xǔ Shèn provides for the other five types of writing. It seems to me that the lack of specificity in the definitions is at least partly the result of their formulaic nature. All six definitions are rhyming couplets, consisting of two four-character phrases. Their format was most likely intended to privilege ease of memorization and oral transmission over precision. The tradition of analyzing Chinese graphs into six types did not originate with Xǔ Shèn, but his definitions (together with the identifications in the dictionary entries themselves) are the most complete early account of this graphological framework that is extant today.

⁵ Branner (2011b: 73) defines a *huiyi* graph as “the juxtaposition of graphs representing ideas or objects that contribute abstractly to the overall meaning of the word represented.” There are numerous English translations of Xǔ Shèn's definition, as well as a wide variety of formulations of the meaning of *huiyi* graphs. But for the most part differences of detail do not impact the nature of the arguments presented in this paper.

components, *rén* 人 ‘person’ (allographically 亻 in the modern form of the graph) and *yán* 言 ‘speech’, are presumed to suggest in combination the meaning of the whole graph, just as in English we refer to someone who is trustworthy as a person who stands by his word.⁶

The term *huìyì* has been rendered in various ways in English. Boltz used “conjoining the sense” (1994) and “conjoining meaning(s)” (2006) as literal translations of the term. As a designation for a character type, “syssemantic,” “ideographic compound,” or simply “ideograph” are among the other terms that have been employed.⁷ For simplicity I will use the term *huìyì* instead of an English rendering.

3. The phonophoric principle

Boltz (1994: 72) put forth an axiom that I refer to as the “phonophoric principle”:^{8,9}

There is no way a character can be ‘invented’ by putting together constituent elements none of which is intended to have any phonetic function. To allow otherwise would be to make the construction of new graphs arbitrary, capricious, and without any underlying phonetic principle. And that would in turn make the writing system unpredictable and ultimately unworkable.

This principle is restated later by Boltz (2006: 55) this way:

... no Chinese character was created at the formative stage of the script simply by combining two or more pre-existing components solely on the basis of the meanings of the individual components, without any regard for or indication of pronunciation.

⁶ According to Branner (2011a: 101 fn31), Ezra Pound was the first to apply this idiomatic formulation to an explanation of the structure of *xìn* 信.

⁷ Galambos (2011: 395 fn1) provides a more comprehensive list of Western-language translations, with sources.

⁸ “Phonophoric” is the term used by Boltz to refer to the component of a Chinese character that functions as a pronunciation-indicating (“sound-bearing”) element. This same principle is termed the “cryptophonogram theory” by Branner (2011a: 87). The basic idea can be traced back to the work of Boodberg. See Branner (2011a) for a summary.

⁹ Although I have used Boltz’s term “phonophoric” to label this principle, I shall use the more conventional terms “phonetic component” and “phonetic element” throughout this article. No distinction in meaning is implied.

The implication of this principle is that *huìyì* graphs, as defined by Xǔ Shèn, could not possibly have come into existence during the formative period of the script. Boltz (1994: 72) puts it this way:

When characters occur with two or more constituent parts, and none appears to be phonophoric, we must assume that there is a phonetic element in the character somewhere that we have not yet uncovered As a rule, we cannot but insist that ‘phonetic-less’ characters simply do not exist.

Boltz demonstrates that a number of characters classified by Xǔ Shèn as *huìyì* are in fact, from a historical-etymological standpoint, not *huìyì* characters, but phonosemantic compounds containing at least one phonetic component. There are various reasons why such characters become misconstrued as *huìyì* characters. Sound change over time can obscure the phonetic similarity between a phonetic component and the word written by the compound graph; graphic change over time can obscure the relationship between a character component and its original full form, thus obscuring its original phonetic value; a polyphonous graph that originally wrote more than one distinct word can become narrowed to a single referent, so that it is no longer associated with the sound value it carried when employed as a phonetic component; and so on.

As an example, consider the graph given earlier as an example of the *huìyì* type, *xìn* 信 ‘reliable, trustworthy’. It is now generally recognized that *rén* 人 ‘person’ plays a phonetic role in the graph (see for example Branner 2011a: 87-88). This is not apparent if the modern pronunciations *rén* and *xìn* are compared; it is not apparent in the pronunciations of cognates of these words in any modern variety of Chinese; it is not apparent in medieval pronunciation; and it was obviously not apparent to Xǔ Shèn in the late Hàn.¹⁰ This is because of sound changes that took place in the first millennium BCE after the creation of the graph. Baxter and Sagart (2011) reconstruct the Old Chinese pronunciations of the two graphs as follows:¹¹

¹⁰ Curiously, however, in some modern varieties of Chinese, post-Hàn sound changes have caused Old Chinese initial *n in *rén* to develop into a voiced fricative such as [z] or [ʒ], thus bringing the pronunciations of *rén* and *xìn* (with initial [s]) into closer alignment. But this is a secondary change with a result that is only fortuitously similar to the pre-Hàn situation.

¹¹ In these reconstructed forms, “[ŋ]” indicates that *n* and *ŋ* are both possible reconstructions, but there is insufficient evidence to decide between them. All Old Chinese reconstructions in this paper are in the system of Baxter and Sagart (2011), unless otherwise indicated.

人 *ni[ŋ]
 信 *s-ni[ŋ]-s

By Xǔ Shèn's time, *s-n- had already shifted to *s-, obscuring the phonetic relationship.

While Boltz makes a convincing argument about the presence of phonetic elements in many characters traditionally categorized as *huìyì*, it is also the case that his phonophoric principle makes extreme claims of a categorical nature. The principle precludes the possibility of any Chinese character types other than these three:

- i) a unit graph (which may be polysemous or polyphonous), e.g. 象, 𠄎.¹²
- ii) a compound logograph consisting of an originally polysemous unit logograph, to which has been added a semantic determinative, e.g. 物.¹³
- iii) a compound logograph consisting of an originally polyphonous unit logograph, to which has been added a phonetic determinative, e.g. 名.¹⁴

The development of characters like 物 and 名 can be related to Boltz's (1994: 69) proposed stages of the development of Chinese writing as follows:

	*mut 'creature'	*mut 'do not'	*k ^h (r)oʔ 'mouth'	*C.meŋ 'call'
(1) pictograph	勿	—	口	—
(2) polyvalent extension	勿	勿	口	口
(3) disambiguating determinative	物	勿	口	名

¹² By "polysemous" Boltz means that the graph conventionally writes two or more words with similar pronunciations but distinct meanings; by "polyphonous" that the graph conventionally writes two or more words with similar meanings but distinct pronunciations. *Xiàng* 象 is a polysemous character derived from a pictograph of an elephant, used to write the homophonous words 'elephant' and 'image'. 𠄎 is a polyphonous character derived from a pictograph of the moon, writing the near-synonymous words *yuè* 'moon' and *xì* 'night' (modern forms 月 and 夕, respectively) (Boltz 1994: 66).

¹³ 勿 (derived from a pictograph of cattle) was originally used polysemously to write *wù* < *mut 'creature, thing' and *wù* < *mut 'do not (prohibitive)'. The semantic determinative *niú* 牛 'ox' was added to create the graph 物, used unambiguously to write *wù* < *mut 'creature, thing' (Boltz 1994: 67).

¹⁴ 口 (derived from a pictograph of a mouth) was originally used polyphonously to write *kǒu* < *k^h(r)oʔ 'mouth' and *míng* < *C.meŋ 'call'. The phonetic determinative *míng* 夕 'brighten' was added to create the graph 名, used unambiguously to write *míng* < *C.meŋ 'call' (Boltz 1994: 63).

4. *Huìyì* 會意 graphs in the non-formative period

The existence of “true *huìyì* graphs” within the received Chinese writing system, by which I mean graphs that fit the *huìyì* definition *at the time of their creation*, is not in dispute.¹⁵ Even though the creation of such graphs would seem to violate his phonophoric principle, Boltz (2006: 55) clarifies that the principle applies only to “the time when writing in China was first invented.” It is worth reviewing the nature of post-formative-period *huìyì* graphs for the light that they can shed on the structural and cognitive properties of such graphs. We can then return to the question of whether the existence of such graphs must be *a priori* precluded during the formative period of the script, as Boltz’s phonophoric principle asserts.

One can define many structural sub-types of graph that could, broadly speaking, be categorized as *huìyì*.¹⁶ I will here focus on the most prototypical, what Behr (2010) calls “associative, syssemantic” and Branner (2011a) calls “semantic compounds”; I will continue to refer to these as *huìyì* graphs or, if necessary for clarification, as “*huìyì* graphs, narrowly defined.”¹⁷

¹⁵ In contrast we can characterize as “false *huìyì* graphs” or, less disparagingly, “folk *huìyì* graphs” (evoking the concept of a folk etymology), those graphs which were characterized as *huìyì* through a lack of recognition of what were originally phonetic components in the graphs. Branner (2011a: 87) refers to these as “crypto-phonograms.” An example of such a folk *huìyì* graph is *xìn* 信.

¹⁶ See Behr (2010) for an attempt at a comprehensive analytic categorization of Chinese character structural types.

¹⁷ This narrow definition excludes, for example, Branner’s (2011b: 73) “portmanteau characters” (“... a composite of two or more graphs for living words, all of which are to be read (in order) to give the meaning of the word represented by the whole character”), Behr’s (2010) “homosomatic” characters, and pictographs modified by dots or lines having indexical function (such as *běn* 本 ‘root’, consisting of the pictograph *mù* 木 ‘tree’ with a line marking the bottom of the trunk). Of particular interest are the homosomatic characters, composed of multiple iterations of the same graphic element, such as *lín* 林 and *sēn* 森 (both ‘forest’; the repeated element is *mù* 木 ‘tree’). Handel (1998) pointed out that graphs such as *jīng* 晶, *zá* 龺, *chóng* 蟲, *sēn* 森, and *yàn* 焱 defy any attempt to analyze them as containing a phonetic element, a point also made by Bottéro (2010: 254). Behr (2006) devoted an entire article to an investigation of this graphic type. In response Boltz (2006: 59 fn14) acknowledges the absence of a phonetic element in these graphs, but argues that they do not refute his phonophoric principle because these were “multi-component graphs that arose and functioned holistically as ‘single-bodied’ unit characters, and that the integral components of such characters came subsequently to be recognized as separable.” This claim is difficult to accept at face value. The idea that, to take one example, 木 was not recognized as a pictograph representing a tree or writing the word *mù* ‘tree’ until the unit graph *sēn* 森 ‘forest’ was later decomposed is not only intuitively odd, but completely unsupported by textual evidence. Nevertheless, as Behr (2006: 87 and 98-102) amply demonstrates, homosomatic characters do seem to have some peculiar graphic and linguistic properties, justifying their treatment as a type distinct from prototypical *huìyì*.

Behr (2010: 295) notes that while the number of true *huìyì* graphs was probably quite small in the formative period of the script, “there can be no doubt that it was used in learned graphic creations during the Medieval period.” Galambos (2011) provides numerous examples of indisputably true *huìyì* graphs created and used during the medieval period, pointing out that “these demonstrate that by medieval times [*huìyì*] was certainly one of the key models according to which people understood orthographic structure.” Because many of these graphs were disparaged as *súzi* 俗字, ‘popular forms’ as opposed to official standard forms, they are far less prevalent in the received Chinese print culture, and were often openly denigrated by educated elites. It is only through comprehensive investigation of manuscript texts that their common and widespread use is revealed. A typical example from the *Dūnhuáng* 敦煌 corpus is a graph used to write *xué* ‘to study, learn’ composed of 文 (*wén* ‘educated, cultured’) above 子 (*zǐ* ‘child’) (Galambos 2011: 404).¹⁸

Galambos stresses that the creation and use of *huìyì* characters that he describes was part of everyday, ordinary writing, and was not an artifact of the traditional conception of Chinese character structure inherited by learned elites. Behr (2006: 77-80), in contrast, discusses the role that *huìyì* interpretations have played among the literate elites. Even though the creation of *huìyì* graphs or the analysis of graphs as having *huìyì* structure often had a playful quality (termed “ludic” in Behr 2010), Behr (2006: 80) observes that the prevalence of such modes of thinking casts doubt on “whether we are justified to label the category ‘artificial’.” Behr (2006: 80-83) goes on to demonstrate

¹⁸ Galambos (2011: 407) points out that semantic combination is not the only motivating factor in the selection of the *huìyì* graph components: “Generally speaking, a precondition is the graphic similarity to the standard form.” For example, the conventional graph for *xué* ‘to study’, 學, also has 子 on the bottom and, in the top portion, two occurrence of 文, which are isomorphic to the lower portion of 文. Similar patterns of graphic similarity are easily recognized in most of the *huìyì* examples that Galambos presents. Galambos further notes that in this respect the method and motivation of *huìyì* graph creation is certainly different from those that may have been involved in the formative period of the script. A second possible motivating factor is not mentioned by Galambos: the role of spoken language. It is entirely possible that non-Han peoples whose first language was not Chinese, or indeed Han peoples speaking deviant varieties of Chinese, might find the phonetic elements in graphs less salient or helpful, and would therefore have greater motivation (or, phrased another way, fewer constraints) in the use of *huìyì* graphs. The correlation of such graphs with peripheral areas of the Chinese polity and/or with non-Han ruling elites might be profitably examined.

how common the *huiyi* principle is in sinographic writing systems of non-Chinese peoples, as well as in ancient writing systems of the Near East.¹⁹

The evidence marshaled by Galambos, Behr, and other scholars clearly demonstrates that *huiyi* graphs are real entities in real writing systems. They can be created, used, and understood without impediment. The analytic principle underlying their structure is obvious and salient to users of the Chinese script (as well as to users of other logographic scripts), and can be manipulated to various ends, both playful and mundane. The question that naturally arises, then, is what is so special about the formative period of Chinese writing that might make the existence of *huiyi* graphs theoretically impossible?

5. *Huiyi* 會意 graphs in the formative period

Both Galambos and Behr are somewhat careful to avoid extending their claims about *huiyi* graphs back into the formative period, avoiding a direct confrontation with Boltz's categorical claims. In the introduction to his article, Galambos (2011: 395) says, "even if the *huiyi* principle did not play a major role during the early stages of the Chinese script"

Some readers may think it odd that the theoretical possibility of *huiyi* graphs in early Chinese writing should be a matter of debate; why not simply take the empirical approach of investigating the earliest Chinese texts (the oracle bone inscriptions (*jiǎgǔwén* 甲骨文) dating back to the 13th century BCE) to determine if any *huiyi* graphs are present? The problem is that the question of the existence of *huiyi* graphs in the earliest Chinese writing is not one that is amenable to empirical analysis. As Branner (2011a: 101) has pointed out, any claimed example of a true *huiyi* graph can be counter-claimed to be a crypto-phonogram, and *vice versa*. If one has determined *a priori*, as Boltz does, that true *huiyi* graphs could not have existed, then by definition one of the components in any such claimed graph must have had a phonetic role. If that phonetic role is not

¹⁹ On my use of the term "sinographic," and for examples of *huiyi*-type graphs in Japanese and Vietnamese writing, see Handel (2009). One might point out that there is a potential connection between, on the one hand, the high number of *huiyi* graphs found among non-Chinese speakers (Vietnamese, Zhuang, Naxi, Yi, etc.) who made use of Chinese character components to create new graphs to represent their local languages, and, on the other hand, the apparently greater use of *huiyi* graphs among sinicized non-Han peoples writing Chinese that I alluded to in the previous footnote.

apparent to us today, it can be further argued that one of the components *must* have been a polyphonous graph, and the pronunciation involved has since been lost. As Handel (1998) pointed out, the polyphonic principle demands such an explanation “even when concrete evidence for these polyphonous readings is lacking, and when more compelling [meaning-based] explanations exist for the presence of certain graphic components in Chinese characters.”²⁰

Handel (1998) listed a number of graphs that I argued were more satisfyingly understood as true *huìyì* graphs rather than compounds containing a “crypto-phonetic” element. All are identified as *huìyì* graphs in *Shuō wén jiě zì*; some of them are attested in the oracle bone inscriptions, which is to say during the formative period of the script. Among those cited were

- fèi* 吠 ‘to bark’ —composed of 口 ‘mouth’ and 犬 ‘dog’
- mù* 牧 ‘herder’ —composed of 牛 ‘cattle’ and 支 ‘rap with the hand’
- gǔ* 蠱 ‘intestinal worm’ —composed of 蟲 ‘insect’ and 皿 ‘vessel’
- sūn* 孫 ‘grandchild’ —composed of 子 ‘child’ and 系 ‘connection’ (or ‘rope’?)
- zōng* 宗 ‘temple’ —composed of 宀 ‘roof’ and 示 ‘altar’
- shuāng* 雙 ‘pair’ —composed of two 隹 ‘short-tailed bird’ elements and 又 ‘hand’

For all of these examples, I am not aware of any independent evidence that either component of the character was used in the polyphonous manner that would be necessary if it were to function as a phonetic component for the graph as a whole. For example, Boltz would presumably claim that either *kǒu* 口 ‘mouth’ or *quǎn* 犬 ‘dog’ had another function writing a word pronounced *fèi*, presumably meaning ‘to bark’. Yet I am not aware of any textual evidence suggesting that either 口 or 犬 was ever used verbally in a context where ‘to bark’ is a plausible referent. The *fèi* pronunciation is assigned to one of these graphs by means of a circular argument with no independent corroboration.

²⁰ Handel (1998) also argued that the positioning of graphic components within a Chinese character is sometimes suggestive of a semantic relationship among those components, especially when that positioning would seem to violate the general tendency for characters to occupy a notional rectangle of constant proportions. This is another type of evidence that should be given some weight in the analysis of the origin of specific character forms.

But it must also be acknowledged that my claim that these are *huiyi* graphs is also neither falsifiable nor provable.²¹ It too is ultimately a matter of subjective judgment, predicated on the hypothesis that such graphs could have existed at this period of the formation of the script, and on the claim that the particular semantic combinations are plausible.²²

Ultimately, then, discussion and dispute about the historical origin of specific graphs is not a meaningful way to tackle the larger question. We must return to the phonophoric principle itself.

The phonophoric principle is based on an assumption that a compound graph lacking a phonetic element is inherently “arbitrary” and “capricious,” and therefore cannot come into existence. But it is far from clear on what basis the “arbitrary and capricious” claim can be justified.

Let us first examine the question of motivation. Boltz (1994: 148) points out that the juxtaposition of two elements can be suggestive of many different meanings. In the case of 牧 (*mù* ‘herder’), one might imagine that a combination of graphic elements for ‘cattle’ and ‘rap with the hand’ could also refer to “to brand,” “to perform an animal sacrifice,” or any number of more abstract notions like “wealth,” “to steal,” “to count,” and so on, limited only by imagination and cultural norms. But such arguments overlook a simple truism: all that is necessary to explain the invention of such a character is an appropriate motivation in the mind of the person who creates the graph. In other words, if one asks “why should ‘cattle’ beside ‘rap with the hand’ be a suitable representation for ‘herder’,” the answer is “because the person who invented the graph felt it would be a suitable representation.” As soon as the graph has become conventionally associated with the word it represents—i.e. becomes a functioning element of the writing

²¹ This is true regardless of how much epigraphic evidence is marshaled. Branner (2014: 739) points out that the philology of excavated materials can support extensive and credible “explanations [of individual graphs] competing with the polyphonic model,” but nevertheless a preponderance of circumstantial evidence will never constitute definitive proof.

²² To some degree judgments of plausibility are bound up with individual and societal mindsets. In some cases, however, I would argue that the semantic connections are so fundamental to human experience as to be universal. For example, I would argue that the relationship between ‘mouth’, ‘dog’ and ‘to bark’ would be readily recognized by any human being over the age of two, across time and space.

system—the initial motivation for its creation becomes irrelevant. For a script user to continue to associate the compound graph with the word it represents is then no more difficult than it is for that same script user to associate a unit graph with the word it represents.

One might draw an analogy with the “arbitrary” and “capricious” nature of compound formation in spoken language. The combination of English root morphemes “park” and “way” might have many logically possible meanings, including perhaps most obviously a walking path that is located within a park. But this is not what the word means in American English, where it designates a type of road for motorized vehicles. Although other meanings for such a combination of morphemes are theoretically possible given the morphosyntactic rules of English and the semantic associations of 20th-century North American culture, the arbitrariness of this particular meaning of the compound does not preclude the ability of English speakers to learn and use the word. Indeed, many speakers may not even consciously be aware of the internal morphological structure of the word; once it has been conventionally associated with its referent, it can be used as a unit word and the original motivation for its creation is no longer necessarily relevant.

To take a second example, the combination of the Sinitic morphemes meaning ‘steam’ and ‘vehicle’ is a compound word meaning ‘automobile’ in modern Chinese (*qìchē* 汽車) while the same compound means ‘train’ in Japanese (*kisha* きしゃ 汽車) and Korean (*gicha* 기차 汽車). Both are plausible senses for such a compound, but only one of the many logically possible meanings has been selected for in each language.

To go back to the example of the graph 牧, the fact that ‘cattle’ beside ‘rap with the hand’ *could* conceivably mean many things does not mean that it *can't* mean just one thing. Behr (2010: 295) says of *huìyì* graphs:

Obviously, characters belonging to this type, especially if composed of more than two elements, create enormous cognitive processing difficulties. This is because a semantic class has many more possible denotations than the one relevant for the identification of the particular word in question, but it cannot be disambiguated by means of phonetic information in this structure. Rather, it has to rely heavily on pure convention of association, i.e. rote learning. The category is therefore much more marginal than traditionally assumed, although probably not

completely elusive, as claimed by Boltz (1994), even during the earliest phases of Chinese writing.

But Behr may be overstating the difficulty of such rote memorization. After all, iconographic unit Chinese characters require rote memorization, and there are many hundreds of such graphs in the Chinese writing system. (Indeed, the existence of at least several hundred such graphs is necessary if there is to be a sufficient stock of graphs to serve as phonetic elements in phonosemantic compound graphs.) It is therefore evident that the existence of several hundred *huiyi* graphs would not present a particularly difficult challenge for human cognition.²³

Branner (2011a: 94) usefully points out that “Chinese characters are read, not deciphered.” By this I think he means that, as many psycholinguistic studies suggest, it is not necessary to break down a Chinese graph into its component elements, and then to analyze the role of such elements, in order to successfully recognize a graph. To what degree reading of Chinese characters involves analysis of Chinese character components is in fact a complex question that is not yet easy to answer definitively. Psycholinguistic studies suggest that Chinese readers are aware of, and often make use of, graphic components within Chinese characters, but that they are also capable of processing such characters holistically to varying degrees.²⁴ Regardless, Branner’s point is a useful reminder that it is important to distinguish the three processes of creating characters, learning/memorizing characters, and reading characters. These are distinct cognitive functions that operate under different sets of constraints and motivations. Whether the initial motivation for a semantics-based juxtaposition of graphic elements would appear well-motivated or arbitrary to a reader is ultimately irrelevant to the

²³ Indeed, the presence of hundreds of “crypto-phonograms” or “false *huiyi* graphs” in the modern Chinese writing system does not present a difficulty for modern users of the script. This is clear empirical evidence for the ability of learners to tolerate large numbers of phonetic-less graphs within a logographic writing system. The fact that *huiyi* graphs are combination of two elements and that unit iconographs contain only one element should only make *huiyi* graphs easier, not harder, to learn, since the learner can associate a non-arbitrary mnemonic accounting for the presence of the two elements in the graph.

²⁴ Branner (2011a) cites a few relevant psycholinguistic studies. For a broader overview of psycholinguistic studies that attempt to determine how fluent readers recognize and process Chinese characters, see Handel (2013). It should be noted that the findings of such studies are by no means definitive, and much work remains to be done before the cognitive processing of Chinese characters in the act of reading can be fully understood.

ability of that reader to learn and use the graph. Presumably, however, if the nature of the juxtaposition “makes sense,” this would aid in memorization, just as for a unit character that is pictographic in origin, a real *or imagined* iconic relationship between the graph and its referent can aid memorization.

Furthermore, the irrefutable existence and use of *huìyì* graphs in different languages and time periods, as described in the previous section, demonstrates convincingly that there is no cognitive impediment to the creation, learning, and use of such graphs.

Ultimately, then, we are left with the question of why the rules for graphic creation and use should be different in the “formative period” of the script than at later times, as Boltz claims. This raises a further question: how do we decide when the formative period of the script begins and ends? I would argue that once the writing system is functioning—which is already the case with the earliest oracle bone inscriptions of the 13th century BCE—then all of the functionality associated with later periods of the script is already present. The rebus usage of characters, the addition of semantic and phonetic determinatives, the wholesale creation of phonosemantic compound graphs—within a single generation following the invention of writing, probably within a few years at most, all this functionality would have become second nature to script creators and script users. On what basis, then, could it be argued that there is something unique about the first several hundred years of script usage that precludes a character type commonly seen in later periods?

6. Conclusion

Boltz’s phonophoric principle is based on the assumption that when it comes to the creation of graphs, there is no middle ground between “phonetically based” and “arbitrary and capricious.” But the existence of such a middle ground is demonstrable, both theoretically and empirically. *Huìyì* graphs, though they lack phonetic elements, are far from being arbitrary or capricious. The semantic juxtaposition reflected in their compound structure is *motivated*; in other words, these graphs *make sense*. This motivation not only explains the process underlying their creation, but also provides a mnemonic mechanism to aid memorization of the character. To be sure, that mnemonic mechanism can fade over time if the idiosyncratic or cultural associations underlying the juxtaposition are not apparent to a user, but this is no more of a problem for the conventionalized use of the

graph than the loss of iconographic or phonetic associations due to changes in graphic structure or pronunciation. Far from making “the writing system unpredictable and ultimately unworkable,” *huìyì* characters would seem to be simply another example of a type of sign that is conventionally associated with its referent.

This critique of the absolutist view expressed by the phonophoric principle should not be taken as a criticism of the valuable contribution that Boltz (1994) and later publications have made to improving our understanding of the early features of the Chinese script. The claims that polyphony was far more common than is directly evident in the textual record, that many so-called *huìyì* graphs actually contain phonetic elements, and that the script as a whole was in origin far more phonological in nature than has been traditionally assumed, are all persuasively argued and contain a great deal of explanatory power. Viewing *huìyì* graphs with a skeptical eye and seeking evidence for hidden phonetic elements appears to be an effective heuristic that should be employed with greater frequency and rigor in Chinese epigraphic philology.²⁵

Once we have disposed of the categorical assertion of the phonophoric principle, we can turn our attention to what is in many ways a more interesting and engaging task: the use of philological evidence to try to determine the specific origins and developmental pathways of individual graphs. While many so-called *huìyì* graphs are, as Boltz has demonstrated, merely phonosemantic compounds in disguise, there is surely a small but significant residue of true *huìyì* graphs. Identifying and characterizing these graphs will allow us to focus on the bigger-picture question of their role and

²⁵ As an example, Boltz (1994: 120) hypothesized that 寸, conventionally used to write *cùn* ‘unit of measure; inch’, was polyphonous, which explains its otherwise puzzling role as phonetic element in a number of characters belonging to the Old Chinese Yōu 幽 rhyme group and having Old Chinese dental stop initials, such as *zhōu* < *trjəgwɣ 肘 ‘wrist’, *zhòu* < *drjəgwɣs 酎 ‘kind of fermented spirits’, *tāo* < *thəgwɣ 討 ‘to punish, blame’, and *zhòu* < *drjəgwɣ 紉 ‘crupper of saddle’. Boltz argued that this series of characters could be best explained if 寸 were assumed to also write the word *shōu* < *hrjəgwɣ ‘hand’ (now conventionally written 手), and was being employed as a phonetic element in these compound graphs. (Old Chinese reconstructions given here are Boltz’s, in turn based on the system of Li Fang-Kuei. They differ notably from the reconstructions of the same words in the system of Baxter and Sagart.) This is entirely persuasive, since it neatly explains the structure of the entire set of characters in the phonetic series without resort to controversial interpretations of phonetic similarity, and because there are no plausible alternative explanations for the structure of these graphs in which 寸 could play a semantic role. (Handel (1998) pointed out that a slightly different explanation was possible, namely that the second word written by 寸 was not *shōu* ‘hand’ but *zhōu* ‘wrist’, conventionally written 肘.)

nature in the history of Chinese writing, an important endeavor as we pursue a more comprehensive understanding of the origin of writing itself.

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六書中的會意字是否具有歷史真實性？ ——論無聲符復合字的創造動機

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提要

二十年來眾多西方學者對傳統會意字的歷史地位展開了激烈討論。儘管學者對於會意字在漢字發展的悠久歷史中存在過這一事實毫無爭議，但對其在文字形成階段所起到的作用仍存在分歧。

本文從理論上指出會意字在文字形成階段就沒有不能存在的理由。筆者認為，具有一定意義指向的組合對文字使用者來說是具有意義的，因此會意字很可能在漢字的形成中扮演了一定的角色。這一點無論是通過與其他早期表意文字系統的比較，還是通過對稍晚時期的漢字本身的研究都可以得到證明，這樣也才能為早期一些好像不帶聲符的合體字的來源提供更好的解釋。

關鍵詞

早期漢語文字系統，會意，形聲，動機，形象性