

JOURNAL OF CHINESE LINGUISTICS

VOLUME 41, NUMBER 2

June 2013

中国
语言
学报

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THE REALITY OF COMPOUND IDEOGRAPHS

Geoffrey Sampson

The University of South Africa

Chen Zhiqun

Monash University, Melbourne

ABSTRACT

Many Western readers currently accept an account of the early evolution of Chinese script due to William Boltz, according to whom all graphs other than simple pictographs originated as phonetic–semantic compounds. This contrasts with the traditional Chinese account of 六書 ‘six writings’, according to which some graphs were compounds of separate elements each chosen for their meaning rather than their sound. This paper argues that (while the ‘six writings’ theory had flaws) with respect to that central issue it is correct, and Boltz is mistaken.

SUBJECT KEYWORDS

Compound ideographs *hui yi* Phonetic–semantic compounds Six writings

1. CONFLICTING VIEWS ON THE EVOLUTION OF CHINESE SCRIPT

If one asks about the process through which the complex Chinese script emerged from simple beginnings, we currently face an odd situation: the nature of the answer received is likely to depend on where the question is put.¹ A Chinese scholar will usually frame his answer broadly in line with the classification of graph-formation principles into 六書 ‘six writings’ in the preface to 許慎 Xu Shen’s 說文解字 *Shuo Wen Jie Zi* (compiled about AD 100).² A 21st-century Western academic with a general interest in writing systems but no special knowledge of Chinese epigraphy is more likely to cite the account by William Boltz (1994). These sources are in an important respect contradictory. Our aim here is

to argue that, although Xu Shen certainly got many things wrong (which is in part explained by his lack of access to data that have come to light in the past hundred years), with respect to the contradiction just mentioned the Chinese tradition stemming from his dictionary is essentially correct, and Boltz essentially mistaken.

The contradiction relates to the extent to which the creators of Chinese script relied on phonetic principles when they went beyond drawing simple pictures to represent ‘picturable’ words by combining two or more simple graphs into compound graphs for less readily picturable words.

For Xu Shen, 形聲 *xing sheng* graphs – in English, ‘phonetic–semantic compounds’ – in which one part represents a homophone or near-homophone of the target word while the other part gives a clue to its meaning, were one very important category of compound graph, but not the only category. There were also 會意 *hui yi* graphs – ‘compound ideographs’ – which indicate the meaning of a word by linking simpler graphs, each of which relates to the target word semantically rather than phonetically.

For Boltz there are essentially no such thing as *hui yi* graphs; all Chinese graphs which are not simple pictographs are phonetic–semantic compounds. Sometimes, he claims, this is concealed from us by the fact that a simple graph originally had alternative readings, and the reading which motivated its role as the phonetic half of a phonetic–semantic compound happened to become obsolete. Thus for instance the word 安 *ān* ‘peace’ is explained by Xu Shen as a compound ideograph: ‘woman’ below ‘roof’ suggests ‘tranquil, peaceful’. Perhaps the connexion of ideas may strike us as a little tenuous, but *prima facie* there seems no alternative possibility of explaining 安 as a *xing sheng* compound: neither in modern Mandarin nor in their reconstructed Old Chinese pronunciations does 女, ‘woman’, as a simple graph sound anything like 安 (and the same is true of the ‘roof’ element 宀, though this in any case has scarcely existed in historical times as an independent word). However, Boltz says that alongside the usual reading *nǚ* for 女 ‘we can speculate that it had a second reading that must have been approximately *ʔ(r)an, in which it functioned as a phonetic in [安 and three other graphs all containing the 女 element]’ (Boltz 1994: 108).³

Boltz summarizes his position by saying (1994: 149):

the evolution of the Chinese writing system does not, in our view, allow for compound characters that do not have a phonophoric element within their graphic structure ... We may not be able to identify it, but that is a limitation of our own knowledge ... not a sign that our phonetic principle is invalid.

2. CREEL VERSUS BOODBERG

In arguing this way, Boltz is resurrecting one side of a famous controversy of the 1930s about the nature of Chinese script between the Western scholars H.G. Creel and Peter Boodberg (Creel 1936, Boodberg 1937, Creel 1939, Boodberg 1940). Creel argued that the script was purely 'ideographic'; indeed he seems to have believed that, as used in the Classical period, it did not represent utterances of a spoken language at all (Creel 1936: 125). Boodberg by contrast held that all complex Chinese graphs were phonetically motivated. Boltz arguably takes Boodberg's point of view even further by suggesting (e.g. 1994: 14) that the script was in some sense 'trying' to develop into a 'normal', phonetically-based script (the words in scare quotes are ours rather than Boltz's), but that this evolution was regrettably arrested before it proceeded to completion.

Both of these accounts of Chinese writing seem misguided. In Creel's case it is not necessary to argue this at length, because probably no knowledgeable scholar would support his account today. Suffice it to say that we do believe that written Chinese was created as a system for recording utterances of the contemporary spoken Chinese language. It is uncontroversial that, as the grammar and vocabulary of Chinese evolved towards those of modern 白話 *bái huà* (colloquial speech), the written language for many centuries failed to keep pace, so that the 文言 *wén yán* (literary language) of modern times has lost touch with the spoken language and is not even comprehensible if read aloud. But to say that written and spoken languages gradually diverged after the creation of the

former is very different from saying that the written language was not originally based on the spoken language.

Boodberg's general point of view, on the other hand, is very much alive among Western scholars today. Boltz (1994: vii) is explicit about his intellectual debt to Boodberg. Other scholars have independently expressed extreme claims about the necessity of a central role for a phonetic principle in any writing system sophisticated enough to merit the name. Thus John DeFrancis's *Visible Speech: the diverse oneness of writing systems* (DeFrancis 1989) is crucially concerned to argue that a phonetic principle is fundamental even to modern Chinese script, which on the face of it seems (because of changes in the spoken language) to be much less phonetically based than the early script from which it descends.⁴ Jack Goody (Goody & Watt 1963, Goody 1977) accepts that Chinese script is not a phonographic script like those of Europe, but holds (Goody & Watt 1963: 314–15, 337–8) that this makes the script incapable of expressing socially- or ideologically-unorthodox ideas, or even logical argument (to us, these statements are just laughable). And Boltz's version of what we might call 'script phonocentrism' has been widely received among Western readers. Boltz's book was published in 1994, and reprinted only nine years later – for a book on a relatively arcane topic this represents considerable success. Other writers quote Boltz's view, often as though it constitutes established fact rather than a controversial hypothesis (see for instance Keightley 1989: 190–1, DeFrancis 1989: 100, both quoting Boltz 1986). Boltz was selected to contribute the chapter on 'Language and writing' to the standard reference work on early Chinese history, Loewe & Shaughnessy (1998). Some contributors to Houston (2004) are more cautious about Boltz's script phonocentrism; but all in all it would be very easy at the beginning of the 21st century for a non-specialist reader of the Western literature to take Boltz's view as a solidly-established consensus position. We know of no publication which has explicitly spelled out the fallacies in Boltz's argument.

It is perhaps natural for Western scholars, whose native languages are all written alphabetically, to assume that a script adequate for comprehensively recording the utterances of a spoken language must necessarily be based on a phonetic principle. However, the necessity here is not logical (one can certainly *imagine* a script devised without any

reference to pronunciations, though such a script might well not be practical to learn or use); and, in the extreme form in which Boodberg and Boltz express it, we do not believe that the assumption is true of Chinese script. This script did make heavy use of a phonetic principle in creating written forms for words, but alternative principles were also at work: *hui yi* graphs were devised independently of phonetics. Although Keightley, citing Boltz, writes (*loc. cit.*) that ‘recent research’ has called the *hui yi* category into question, we shall see that Boltz’s rejection of the category has very little to do with empirical research. It is based mainly on aprioristic assumptions about what ‘must’ necessarily be the case, and we find those assumptions unpersuasive.

3. STRENGTHS AND WEAKNESSES OF XU SHEN’S ACCOUNT

Our own understanding of the early history of Chinese script runs as follows. Initially, a number of words were assigned simple pictographs, ranging from concrete depictions of physical objects, e.g.  (now written 鳥) for *niǎo* ‘bird’, to more abstract indications of non-physical concepts, e.g.  (now 下) for *xià* ‘below’.⁵ Then other words were given graphs in various ways.

Simple graphs were used not just for the word for which they had been invented, but also for homophones or near-homophones having unrelated meanings. The resulting high degree of ambiguity was in due course alleviated, in many but not all cases, by adding semantic determiners to distinguish (near-)homophones written with the same basic graph. Thus we find e.g.  (now 眉) used for *méi* ‘eyebrow’; with the addition of 氵 ‘water’, 湄 represented a homophone *méi* ‘brink of a stream’; with the addition of 女 ‘woman’, 媚 represented *mèi* ‘attractive, seductive’; and so on; but the basic graph 眉 without semantic determiner was used for *wěi* ‘indefatigable’ (which in Old Chinese began with *mw-*) as well as for *méi* ‘eyebrow’, the word which originally motivated the graph shape.

At the same time, other words were assigned compound graphs in which each element was chosen for its meaning rather than its sound. For instance *wǔ* ‘military’ was written as  (now 武), a combination of the elements now written 戈 *gē*, an archaic weapon commonly called in

English ‘dagger-axe’, and 止 *zhǐ* ‘foot, walk’. Graphs like 武 are the *hui yi* or compound ideographs. Note that 𠂔 was never a single, complex picture of a soldier marching with a weapon: the soldier was not depicted, rather the graph consisted of two separate pictures, representing a word whose meaning has to do with weapons and also has to do with marching.

Xu Shen’s account of the ‘six writings’ is certainly open to criticisms of detail. It would be remarkable if he did not get many things wrong, considering that the earliest form of Chinese script of which he made extensive use was the Zhou–Qin period ‘small seal’ script. Examples of the much older ‘oracle bone’ script only began to come to light about a hundred years ago, and the stylization and simplification of graphic elements that occurred between oracle bone and seal style scripts was quite enough to obscure many aspects of the logic of individual graphs. Nevertheless, Xu Shen offered a classification of graph-formation principles which corresponds reasonably well to our account above. Xu Shen’s 象形 *xiang xing* and 指事 *zhi shi* categories covered the simple pictographs, with the former standing for concrete pictures and the latter for more abstract forms such as 冫 for ‘below’. We might object that concrete v. abstract is a cline rather than a sharp two-way distinction; Xu Shen does not seem to have recognized the possibility of clines, but his two categories function to indicate the two ends of a spectrum along which simple pictographs can be placed. Xu Shen’s 假借 *jia jie* category covers graphs used for (near-)homophones of the words which motivated the graph shape, where no semantic determiner was later added (e.g. 眉 used for *wěi* ‘indefatigable’); and his 形聲 *xing sheng* category covers the many cases where a semantic determiner was added, yielding a phonetic–semantic compound. Xu Shen’s category 會意 *hui yi*, as we have seen, covered compound graphs such as 武 ‘military’ in which the elements were semantic + semantic rather than phonetic + semantic.⁶

Xu Shen did have one further category, 轉注 *zhuan zhu* (‘expressing by reciprocation’), which would have been better omitted from his list: he seems to have supposed that words for near-synonyms were sometimes created by making small arbitrary changes to a simple graph shape. But he only offered one pair of examples, 老 *lǎo* and 考 *kǎo*, both of which originally meant ‘old’.⁷ Even now that we have access to the oracle-bone forms of these graphs, the logic of their shapes

is not apparent, so there can be little reason to claim that one was formed by making a change to the other (rather than the two graphs having been devised independently). Xu Shen never uses the term *zhuan zhu* in the body of his dictionary, after the preface where it is defined (whereas he often describes graphs as *xing sheng* or *hui yi* compounds). It appears that the only reason why Xu Shen's preface discussed graph-formation in terms of 'six writings' rather than 'five writings' (excluding *zhuan zhu*) was out of undue deference to 劉歆 Liu Xin (died AD 23), editor of the 周禮 *Zhou Li*, who glossed the term 六書 'six writings' as it appears in that classic work via a list (without examples) of six graph-types including *zhuan zhu*. (In context it is not clear that the original author of the *Zhou Li* was referring to methods of devising graphs at all.)

Apart from the redundant *zhuan zhu* category, one can pick holes in a number of the specific examples Xu Shen chose to illustrate his other categories. For instance, one of the examples for *hui yi* in Xu Shen's preface is 信 *xìn* 'to believe, trust': apparently Xu Shen thought that the logic of combining the graphs 人 for 'man' with 言 for 'speech' was that what a man says ought to be trustworthy. This is obviously far-fetched, and in fact the graph is probably a phonetic-semantic compound. One could not guess that from the present-day pronunciation of the relevant words, and perhaps not from the pronunciations of Xu Shen's day; but Baxter (1992) reconstructs *xìn* as reflecting an Old Chinese **snjins*, making 人 *rén* < **njín* 'man' a reasonable phonetic match.

4. EXAMPLES OF COMPOUND IDEOGRAPHS

This last case, then, is a case where what was taken to be a *hui yi* compound should probably, in the light of current knowledge, be recategorized as a *xing sheng* compound. If *all* apparent *hui yi* graphs were subject to similar recategorization, of course, Boltz's account of Chinese script would be correct. But the fact that Xu Shen, through lack of adequate data, made a mistake about one such graph (and, unfortunately, chose it as one of his two illustrations of the *hui yi* category in his preface) does not imply that other apparent *hui yi* graphs are not genuine semantic + semantic compounds.

In the case of 武 *wǔ* 'military', for instance, we have no reason to doubt that the logic of its construction is as described above; and there

are other reasonably clear cases. For instance, 鮮 *xiān* ‘fresh (as of food)’ was and is a clear combination of 魚 *yú* ‘fish’ with 羊 *yáng* ‘sheep’: fish and mutton are two kinds of food that need to be eaten fresh. (Karlgren 1957: 72 cites passages from early texts where the word referred specifically to fresh meat or fish.) The graph  (now 農) *nóng* ‘agriculture’ originally consisted of 田 *tián* ‘field’ and a picture of a plough (now 辰 *chén*, and now used exclusively as one of the cyclical graphs, presumably as a result of *jia jie* borrowing); note that the field is shown *above* the plough, so this cannot be seen as a single picture of a field being ploughed – it is a complex graph for a word whose meaning has to do with fields and also has to do with ploughs.⁸

Note that, in all these cases, 武, 鮮, 農, there seems to be no phonetic resemblance (either now or in reconstructed Old Chinese pronunciations) between the words represented by the complete graphs, and those represented by their constituent parts. (Of course, a ‘speculation’ that e.g. 魚 ‘fish’, normally *yú* < *ng(r)ja, once had some alternative reading similar to *xiān* < *sjen would be unrefutable.)

The number of clear *hui yi* cases is not huge, and has often been exaggerated. Some writers tend to apply the *hui yi* category to any graph containing separate elements not related in a phonetic–semantic fashion, so e.g. 東 *dōng* ‘east’, if (as commonly supposed) it shows the sun behind a tree, might be called a *hui yi* graph. Xu Shen himself did this; e.g. he calls 囿 *huàn* ‘pigsty’ a *hui yi* graph, because 豕 ‘pig’ and 口 ‘enclosure’ exist as separate graphs. We would prefer to see graphs like 東 or 囿 as single pictures each comprising two elements. Assuming that 東 did originate as a combination of the graphs 日 and 木, its meaning is not ‘something to do with the sun and also something to do with trees’, it is the direction (or at any rate one of the two directions) in which one can see the sun behind trees.⁹ Likewise, 囿 is a single picture of an enclosure containing a pig.

On the other hand, there are so many uncertainties about early Chinese graph-forms that the *hui yi* principle could well have applied to more cases than can now be recognized confidently. Often, even when a word is written by what appears to be a simple pictograph, despite knowing the meaning of the word we cannot recognize the picture; so

quite naturally when a word is written by a set of elements we are often unclear about the logic behind the grouping. The graph 罰 *fá* ‘punish’ in both modern and early forms shows ‘net’ + ‘speak’ + ‘knife’; it might be tempting to speculate that criminals when caught were held in nets and that after a verdict was spoken they were typically punished by mutilation with a knife – but that is pure guesswork, so the graph may or may not be a *hui yi* example.

In the case of phonetic–semantic compounds, the pronunciation of the phonetic half is usually known and the semantic half is almost always drawn from a smallish set of standard semantic determiners, so that the status of the combination as an example of the phonetic–semantic category is obvious. If we count graphs belonging to Xu Shen’s various categories, we are not likely to miss many *xing sheng* cases, whereas we might easily miss *hui yi* cases. Nevertheless, there are sufficiently many *hui yi* cases whose logic remains relatively clear today to establish the reality of this category.

Indeed, although the P + S structure eventually became by far the most fertile mechanism for coining graphs, so that a large majority of all present-day Chinese graphs are of this type, there is even some evidence that in the early stages of script evolution the *hui yi* principle played proportionally a larger role than it did later. 李孝定 Li Xiaoding (1986) claimed that the proportion of *hui yi* graphs in the then-deciphered oracle-bone inscriptions was as high as one in three, while the corresponding proportion in the *Shuo Wen* was only one in eight or nine. (We do not press this point, because it is not clear that the respective counts were carried out in a manner guaranteeing comparability with one another or with our understanding of the ‘compound ideograph’ concept.) Bottéro (2004: 253) claims that the very earliest extant inscriptions contain compound ideographs but no *xing sheng* compounds at all.

5. BOODBERG’S ARGUMENTS AGAINST *HUI YI*

For Boltz’s mentor Boodberg, it seemed that the main reason to disbelieve in compound ideographs was that for some reason he found the concept simply too absurd to take seriously. Discussing the graph 明 *míng* ‘bright’, which in its modern form displays sun 日 and moon 月 side by

side and to non-experts looks like one of the most obvious examples of *hui yi*, Boodberg (1940: 270–1) suggested that people who believe in *hui yi*

imagine the composition of the character ... somewhat as follows: ‘The Chinese creators of the script said to themselves: “How shall we write ‘bright’? Now the sun is ‘bright’ and the moon is ‘bright’. We shall put the pictures of the moon and the sun together, and that shall represent the ‘idea’ of ‘bright’. Henceforth we should endeavour not to ‘call’ this ‘ideogram’ *sun*, or *moon*, or *sun-moon*, but ‘bright’.”

The obvious questions that immediately occur to anyone with linguistic sense [include]: ... would not the ‘ideogram’ be confused with a picture of the conjunction of the sun and moon? ... lost in the contemplation of his little icon representing the ‘idea’ of ‘brightness’, [the believer in *hui yi*] only shrugs his shoulders at the irreverent questioner.

Now in this particular case it may well be that 明 did not in fact originate via a *hui yi* linking of the concept ‘bright’ with the concepts ‘sun’ and ‘moon’, because (as Boodberg knew) the word has an alternative form 𠄎, and the usual modern form 明 including a ‘sun’ element probably arose as a graphic simplification of that form.¹⁰ But in the passage quoted, Boodberg is claiming that even if the original form had consisted of sun + moon, it would be ridiculous to suppose that the graph for *míng* ‘bright’ could have been invented by linking the meanings of ‘sun’ and ‘moon’ to that of ‘bright’.

We see nothing ridiculous here. Boodberg’s objection that the graph might be seen not as the word for ‘bright’ but as ‘a picture of the conjunction of the sun and moon’ is a non-issue: someone who reads a written document is looking to translate its elements into words, not into pictures of the natural world (and as a matter of fact, in Nature one never does see sun and moon adjacent in the sky). In any case, since for centuries many people have indeed believed that the graph 明 was motivated by the semantic relationship between ‘bright’, ‘sun’, and ‘moon’, how can that

belief be *self-evidently* false? If it is in fact false, that would need to be demonstrated by empirical argument, not mere mockery.¹¹

Boodberg's other 'obvious questions', omitted from the displayed quotation above, related to possible etymological links between spoken Chinese words for 'bright', 'sun', and 'moon', which might explain the graph 明 without appeal to the semantic relationships. He argued (272–3) that the graph 日 'sun', in Mandarin *rì* reflecting an Old Chinese form **njit*, may have had an alternative reading **bdang*, and in that reading may have functioned as phonetic element in 明 as a phonetic–semantic compound graph. We do not attempt to reproduce the steps of this argument (which we find quite obscure); we do not in any case understand why a hypothetical pronunciation **bdang* would have made 日 a suitable phonetic for a word which has always begun with an *m* sound – Boodberg offered nothing at all to bridge this gap in his argument. We wonder whether this aspect of Boodberg's discussion has ever been accorded much weight: it appears to us that the force of his exposition derived much more from his scornful rejection of the *hui yi* concept as untenable *a priori*. But, as already said, despite the vigour of its expression we find that aspect of Boodberg's discussion entirely unpersuasive.

6. BOLTZ'S ARGUMENTS AGAINST HUI YI

Boltz's more recent attempts to reduce apparent *hui yi* graphs to phonetic–semantic compounds do not, at least at first sight, share the *ad hoc* quality of Boodberg's discussion of 明 *míng*. We saw that, alongside the normal reading *nǚ* for 女 'woman', Boltz postulated a second, obsolete and previously unknown Old Chinese reading **ʔ(r)an* to explain how the graph could serve as phonetic element within 安 *ān* 'peace' as a phonetic–semantic compound. (Boltz explains 'roof' as the semantic determiner by claiming that the early sense of *ān* was something like 'settled', a point which for the sake of argument we shall not challenge.) But for Boltz this hypothetical reading is not linked just to the single graph 安. He cites a series of graphs all containing the 女 'woman' element and having similar pronunciations (Boltz 1994: 107).¹²

安	$\bar{a}n < *ʔan$, ‘settled’
晏	$yàn < *ʔrans$, ‘tranquil’
姁	$nàn < *nrans$, also read $nuán < *nruan$, ‘to quarrel’
姁	$jiān < *kran$, ‘licentious’

Now in principle this could be a good argument for interpreting these graphs as phonetic–semantic compounds. Where a series of complex graphs both share some particular graphic component, and resemble one another in pronunciation, unless we are prepared to treat these common features as chance coincidences the obvious explanation will be that the graphs form a phonetic series, comparable to the many series listed in Bernhard Karlgren’s *Grammata Serica Recensa*. The common graphic component will be the phonetic element, and the varying remainders will be contrasting semantic determiners.

However, this particular set of graphs would be a very strange phonetic series.

In the first place, the Old Chinese pronunciations as Boltz reconstructs them are not all that similar. Is there any non-controversial phonetic series in which some words begin with glottal stop, other(s) with n -, and other(s) again with k -?¹³

But also: the graph 晏 is very rare – the 辭海 *Ci Hai* quotes a single occurrence in (some editions of) the *Book of Odes*, which we have not succeeded in locating in the editions available to us. Karlgren (1957) has a graph-series (no. 253) in which 晏 acts as phonetic, but from what *Ci Hai* says about this graph we take it to have originated as an occasional reduced variant of the standard graph 晏 $yàn$ ‘clear sky, peaceful’. (Boltz quotes the latter graph on his p. 95 with the same modern and Old Chinese pronunciations as he gives on p. 107 for 晏.) If 晏 is a reduced form of 晏, then its phonetic similarity to 安 is no argument for 女 functioning with a non-standard pronunciation as phonetic element in both graphs: 安 as a whole would be the phonetic element within (the original form of) 晏.

The other two graphs in Boltz’s list, 姁 and 姁, would be peculiar phonetic-semantic compounds even if we accepted that 女 could function as a phonetic pronounced $*ʔ(r)an$, because the remaining parts of the

graphs are respectively one and two copies of that same simple graph 女. (Incidentally, the graph 姝 seems to be purely a 'dictionary word', listed in Xu Shen's dictionary but never having been sufficiently current for inclusion in the *Ci Hai*; we accept for the sake of argument that the word did exist.) Normally, a graph with a P + S structure represents a word which sounds like the word P, and has a meaning related to that of the word S. If P and S were identical, the word indicated by the whole should logically be the same word which functioned as both P and S, so that there would be no point in using the complex graph. Certainly we know of no uncontroversial phonetic-semantic compound graphs where phonetic and semantic elements are identical.

It seems much easier to understand a graph comprising many 'woman' elements as indicating, by virtue of the meaning 'woman', independently of pronunciation, a target sense such as 'womanizing, adulterous, licentious'.¹⁴ And, if there was a word *nàn* or *nuán* meaning 'quarrel', we do not find it difficult to believe that politically-incorrect inhabitants of a polygamous society might have seen two 'woman' symbols as a suitable way to suggest that sense; again this is more reasonable than treating one 'woman' as phonetic and the other as semantic determiner (which would in any case imply a recognized link between the concepts 'woman' and 'quarrel').

To sum up: although Boltz tries to establish the plausibility of his reanalysis of 安 *ān* 'peace', as a phonetic-semantic compound which used an obsolete reading of 女 as phonetic, by offering a series of other graphs in which the same 女 element allegedly functions in the same way, when that series is examined the plausibility melts away. And, if 安 *ān* is considered in isolation, the hypothesis of a hitherto-unknown reading in *-an* for 女 can be seen to be purely *ad hoc*, invented to shore up the claim that apparent compound ideographs are really phonetic-semantic compounds and having no independent justification.

Space forbids us from going through the various other novel 'phonetic series' which Boltz (1994) proposes in the attempt to explain away apparent *hui yi* combinations, but we do not find them more persuasive than the series he constructs to explain 安.

7. CONCLUSION

One can make any theory work, if one is willing to make sufficiently many special assumptions. If someone believes that the earth is flat, it seems easy to refute him by pointing to the mast and then the hull of an approaching ship gradually emerging over the horizon. But a believer in a flat earth might respond by postulating some novel physical force which gradually deflects light rays towards the earth's surface: that would create the same appearance for an observer. If there were good independent reasons for recognizing the reality of this force, then we might have to take the flat-earth theory seriously. But if the flat-earth defender says 'There must be such a force, because otherwise the earth could not be flat', we recognize that the novel force is just an *ad hoc* device postulated in order to try to rescue a doomed theory.

The many novel readings for familiar graphs, such as **bdang* for 日 or **?(r)an* for 女, postulated by Boodberg and Boltz in order to reinterpret *hui yi* compounds as phonetic-semantic compounds are like the alleged force which deflects light. Chinese graphs do sometimes have multiple readings, and if the readings postulated by Boodberg and by Boltz were independently justified, their arguments might have weight. But in reality these novel readings are motivated only by the wish to rescue the claim that there are no *hui yi* graphs in Chinese script.

We should accept that, as Xu Shen told us two millennia ago, diverse principles were at work in the evolution of Chinese writing. The principle which ended by accounting for the largest share of the modern dictionary was, certainly, a phonetic principle. But there were other mechanisms, having no parallel in European writing systems, which also played an important part.

NOTES

1. We gratefully acknowledge a comment by an anonymous referee for this *Journal*. Responsibility for all shortcomings in the paper is ours alone.
2. Because this paper deals with the evolution of Chinese graphs from the beginning up to the Han-period standardization, graphs will be quoted

in that standard form; to use modern simplified graphs would add an extra layer of complication to an exposition which is already complicated enough.

3. There are many uncertainties about the phonology of Old Chinese, and different scholars reconstruct wordforms in different ways; but what matters here is that no-one supposes that *ān* ‘peace’ and *nǚ* ‘woman’ ever sounded similar. In the system of Baxter (1992), these words had the Old Chinese forms **ʔan*, **nrjaʔ* respectively. (Boltz offers a more idiosyncratic reconstruction for ‘woman’, details of which are not relevant here.) Except where otherwise stated, reconstructed forms preceded by asterisks below will be shown in Baxter’s (1992) system.

4. One of us has answered DeFrancis on this point, we believe adequately (Sampson 1994).

5. We illustrate early forms of Chinese graphs from Richard Sears’s ‘Chinese Etymology’ site (www.chineseetymology.org), with grateful acknowledgement. For each graph we show one clear and representative specimen from the range of variant oracle-bone and bronze-inscription forms included on that site.

6. The graph 武 ‘military’ is our example of an S + S compound, not an example Xu Shen uses in his preface to define this category. In the body of his dictionary, Xu Shen explains the graph 武 by quoting an implausible ‘folk etymology’ attributed to a past king of the state of 楚 Chu; we are not obliged to take that seriously.

7. The sense ‘examine’ for *kǎo*, the usual sense of the word in modern Chinese, seems to have begun as a *jiā jiē* use of the graph for a homophone of *kǎo* ‘old’.

8. An alternative form for *nóng*, attested earlier, had two tree or plant symbols in place of ‘field’; this might also be counted as a *hui yì* combination, but our point here is that the variant which gave rise to the later standard graph certainly was one.

9. It may be that 東 did not originate as a combination of 日 and 木. Oracle-bone forms of 日 standardly show the central bar short, separated by space at either end from the enclosing circle, while forms of 東 consistently show the corresponding bar as extending fully from side to side. Our point here, though, is that even if the origin of the graph were as usually supposed, it ought not to be counted as a case of *hui yì*.

10. This would not necessarily mean that the graph did not have a *hui yi* origin. The left-hand side of 𠄎 did not survive as an independent graph into later Chinese, but it is claimed to have been a pictograph for ‘window’, with a pronunciation beginning with *k-*; so it would not have been a suitable phonetic for *míng* ‘bright’, whereas ‘window + moon’ is perhaps almost as plausible as ‘sun + moon’ to hint at the meaning ‘bright’.

11. It has been pointed out (e.g. Tranter 2001: 194) that, whether or not the *hui yi* system was used in the development of Chinese script, it certainly was used in the development of some other scripts, e.g. the Sumerian.

12. We replace Boltz’s Wade–Giles transcriptions of modern pronunciations with their *pinyin* equivalents; otherwise the information here is as given by Boltz, with Boltz’s Old Chinese forms.

13. At one point (1994: 93) Boltz claims that we know so little about Old Chinese initial consonants and consonant-clusters that we can never be justified in rejecting a proposed phonetic series because the initials are too dissimilar. In saying this he sets himself against all the leading authorities on Old Chinese phonology; Bernhard Karlgren, 李方桂 Li Fang-Kuei, William Baxter, and others routinely use apparent *xing sheng* graph-series to offer reconstructions of Old Chinese initials, and their systems, while differing in some details, are sufficiently similar and linguistically plausible to have been broadly accepted by the research community. If Boltz’s claim were correct, this research would be worthless.

14. Whether the graph, interpreted this way, should be categorized as *hui yi* or as an abstract *zhi shi* graph would be a matter of definition; the boundary between these two categories also seems blurry, though we have seen that Xu Shen did not deal in blurry distinctions. Our point here is that we see no temptation to categorize the graph as a case of *xing sheng*.

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論會意字的真實性

散復生

南非大學

陳志群

墨爾本市蒙納士大學

題要

在西方學界，人們普遍接受 William Boltz 關於漢字早期發展的理論。Boltz 認為除了象形字以外，所有其他的漢字都應該源于形聲字。Boltz 的理論同傳統的六書理論是相抵觸的。在許慎的六書理論中，有一組漢字，也就是許慎所定義的會意字，是由兩個或兩個以上的符號因為其各自代表的意義而結合起來所形成的。在這篇論文中，我們將證明在會意字這個漢字範疇上，六書理論是正確的，儘管其理論有其自身的缺陷，而 Boltz 的理論是錯誤的。

關鍵詞

會意 形聲 六書

Geoffrey Sampson
Dept. of Linguistics
PO Box 392
UNISA
South Africa
[sampson@cantab.net]

Zhiqun Chen
Chinese Studies, LCL
Arts, Monash University
Clayton, VIC 3800
Australia
[zhiqun.chen@monash.edu]