6 Conclusions

6.1 The last phase of the early Chinese writing system

The graphic variations that are referred to as phonetic loan characters or 'phonologically related textual variants' in early excavated manuscripts can be accounted for by systematic structural variability of character forms in the early Chinese writing system. In the process of inventing a compound character for a given word, alternative choices were available from sets of graphs that denote meanings of the same semantic category and from ones that stand for words of the same syllable type for use as semantic or phonetic components in any new character. These non-unique options for choosing graphic components for one and the same word are reflected in the early writing system as systematic alternations of signific and phonophoric elements of the same functional value, viz., what we have termed *synonymous significs* and *equivalent phonophorics*.

In any orthographic system of a given historical phase of the early script, character forms inherited from an earlier period co-exist with contemporaneously generated forms. The proportion of the latter, i.e., the contemporaneous stock to the former, the received stock, would decrease over time beginning from the time of the invention of the writing system itself, so that there is general historical continuity in character forms and usages. Once a sufficient number of characters representing common spoken words have been created and accumulated, orthographic change over time, if at all, takes place in the form of occasional replacement of old forms with new ones, and not of, say, a large scale, periodical restructuring and reforming of the entire writing system. The replacement of one graph by another has various motivations such as language change, in particular non-parallel phonological developments, and historical evolution of script style, such as graphic simplification and structural regularization (e.g., a tendency towards using common graphic elements rather than non-recurring, pictographic elements and inclination for using signific-phonophoric compounds.) Thus from a certain historical time onwards, the script of one period is a 'received writing system' in relation to its immediate predecessor, which includes only an insignificant portion of newly created characters. The writing system of the present time, for example, is virtually the same as that of the Han period (206 BCE-CE 220).

6.2 Regionalism in a single script system

The W.S. script is as closely related to the Western Zhou script, which is known to us mainly by ritual bronze inscriptions, as the modern standard script is related to the Han clerical script. The W.S. script inherited the character forms from the Western Zhou period in their full structural versatility, varying with one another by the alternation of synonymous significs and equivalent phonophorics. The W.S. script as a different phase of the early script from the Western Zhou script distinguishes itself from the latter, among other features, by a great increase of signific-phonophoric compound characters. In turning characters that were previously single-component graphs into compound forms, the received equivalent phonophorics, or to be precise, non-unique rebus usages of single-component characters, are paired up with various alternative significs pre-existing in the system as synonymous significs.

This trend of structural change, viz., signific-phonophoric compounding, caused significant increase in variant forms for writing the same words within a region and across regions during the W.S. period. Regional variations in character structures in the W.S. script thus have two main causes, (i) different regional distribution of pre-existing variant forms and (ii) different regional selections (and conventionalization) of signific components for newly created compound characters. Among compounds of the W.S. script origin, forms with new phonophorics are relatively rare compared to those with added significs. Apart from differences in componential structure, regionalism in the W.S. script is also expressed in the use of 'decorative strokes', the apparently non-functional, optional strokes added to the primary strokes in certain graphic environments, as well as in the physical shape of the same shared graphic elements. For instance, regional scripts may vary in the shapes of decorative strokes or in the frequency of their use.

Despite all these various expressions of regionalism, the regional scripts of the W.S. period constituted a single script system in all stylistic and orthographic respects. The use of the 'decorative strokes' itself and the general increase of compound forms are characteristic of the writings of the W.S. period. Furthermore, the regional scripts share the same character forms evolved from their Western Zhou predecessors by adding or deleting specific lines or parts of graphic elements. They share compound forms with the same added phonophoric elements which can hardly be regarded as coincidental since the phonophoric addition itself is relatively rare. We called forms shared by at least two distinct regional scripts, with or without significant changes from the Western Zhou forms, common W.S. character forms (CF). Whenever a CF has a tangible change from its

Western Zhou predecessor, any given region-specific form is explained as a derivation from its CF counterpart, and not directly from the Western Zhou forms, and this clearly demonstrates that the various regional scripts did not exist as 'script systems' per se independent from the W.S. script itself.

We also noted that the calligraphic evolution into the W.S. script can be generally characterized as tendency towards gravity and symmetry. The deletion or simplification of a graphic element in a character tends to occur in the upper part of the character while the addition of obligatory or decorative strokes tends to occur in the lower half. Also, calligraphic and structural changes were made in such a way that both the left and right side in a character have graphic substance. The tendency towards compound forms may be viewed as a change towards structural symmetry.

6.3 The Old Chinese phonology and the early Chinese orthography

The orthography, defined as the collective entity of componential structures of characters and their word associations, of each regional script thus represents part of the orthographic meta-system, as we may call it, presumably established well before the W.S. period. This orthographic system reveals a single phonological period as an internally consistent phonological system while containing elements of dialects which are akin to the latter. The former, viz., the mainstream phonology is none other than the Old Chinese, which is consistent with the phonology of the Shijing or the Book of Odes. The dialect phenomena in the orthographic system are reflected as irregular graphic contact among distinct phonemic categories in the mainstream phonological system.

We do not have sufficient empirical evidence to pin down the precise date of this meta-system and its underlying phonological system(s). Nevertheless, based on the fact that the refined ritual bronze inscription texts circulated across regions already during the Western Zhou period and on the complexity and sophistication of the Western Zhou culture and society, we may suppose that an elaborate orthographic system was basically completed no later than the late Western Zhou period (ca. the ninth to eighth centuries BCE). This was also the time when Scribe Zhou compiled his Shi Zhou pian, the earliest known character dictionary which served as a model for the Cang Jie pian of the Qin dynasty. The Chinese writing system at this stage should cover a sizable stock of learned words of the early Chinese intelligentsia.

The reason why textual variants in different versions of the same early texts appear as phonetic loan characters is because the character forms and usages derive from the same early orthographic meta-system with the same mainstream phonology and the same dialect mixtures underlying it. The dialect mixtures may have comprised dialect loanwords in the early Chinese lingua franca yayan. With regional variants differing from one another by equivalent phonophorics and synonymous significs based on the same phonological system of an earlier period, if a character from one region is 'read' as its structurally coincident character from another region, it will often appear as if the former represents a different word that is phonologically related to the latter. The variability in componential structure which culminated during the W.S. period became drastically reduced during the Qin and early Han periods, eventually to become like the received standard orthography. The frequent occurrences of so-called *tongjia* characters in early Han manuscripts are remnants of graphic variation from the W.S. period. The rare cases of *tongjia* characters in the received early literature are also of the same kind.

6.4 Further implications

Finally, it may be of some use to recapitulate the findings of our study in terms of their implications on phonological and textual studies.

The overall phonological system reflected in the written forms in Chu manuscripts from the W.S. period is that of Old Chinese. An argument that a character form with a phonophoric distinct from its received counterpart represents the contemporaneous or local dialect of the place where the manuscript was produced has to first clarify that the alternating graphs are not equivalent phonophorics originating from an earlier period. Indications of historically early equivalent phonophrics are (i) attestation of the same graphic alternations in early bronze inscriptions, (ii) their recurrence in characters for different words and cognate words in a word family found in either excavated or transmitted sources, and somewhat indecisively (iii) the same phonological patterns of alternation in all the available sources of early texts. The equivalent phonophorics found in manuscript characters can be used to improve our reconstructions of individual OC words and to illuminate etymological relations.

In reading a manuscript with its received counterpart, we would compare the matching characters component by component to see if the graphic alternation fits the patterns of already known sets of synonymous significs and equivalent phonophorics. This way we will not have to depend solely on the received characters to interpret the early character forms. We can now, for instance, seriously

examine the signific elements in manuscript forms for text interpretation and not dismiss them as free variants. Further, knowing that the users of the early Chinese script did not actually have the practice of randomly selecting (near-)homophonous characters, we are no longer justified in claiming candidates for the "proper forms" that early characters might be "loaned for." Instead, we will try to obtain recurring pairs of phonophoric alternations for future reference.

Likewise, occurrences of characters with different phonophoric components in early texts do not in themselves suggest that the texts were reinterpreted or misinterpreted in the course of transmission. We need to consider the existence of duplicate selections of phonophoric elements at the time when the orthographic system was still under development. In a logographic writing system in which the representation of pronunciation is based on the rebus principle, it is natural that more than one graph is frequently selected for the same word. To give an analogy, in the *fanqie* spellings found in the Middle Chinese rhyme dictionary *Qieyun* (CE 601) there are nine different characters all used to represent the same initial sound k-, when only one would have been "necessary". But at the same time, alternative phonophorics ought to be kept to a reasonably small number so that the written communication can be worked out. It appears thus far that equivalent phonophorics for one word hardly go over three in number. If this is indeed the case, we have a good deal of hope for grasping the full picture of graphic variation in the early script.