# Zheng Qiao's Grammatology

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*Abstract.* This paper begins by examining Chinese grammatology's complex relationship with empirical, epigraphic research and questioning to what extent it is—or should be—an offspring of traditional *liushu* studies, conventionally but ahistorically traced back to Xu Shen's *Shuowen* postscript. But instead of answering these questions in the context of current academic debates in their respective disciplines, this paper returns to the philological writings of Zheng Qiao (1104–1162) whom many consider to be the progenitor of later *liushu* studies, and demonstrates that these writings contain multiple currents of thought that do not lend themselves easily to be recruited by a single, coherent research program.

## 1.   Introduction: Pluralizing Chinese Grammatology

### 1.1.   The Case of 慇 〈▨為心〉

The third sentence of the "first" Guodian *Laozi* manuscript (generally known as Guodian *Laozi* A or 郭店老子甲) had to be interpreted multiple times by some of China's most erudite philologists.[1] The sentence corresponds to—and therefore finds itself read against—the second sentence in chapter 19 of the *Laozi* 老子 text as we have received it through Han-dynasty (202 B.C.E.–220 C.E.) editors, which reads

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1. My exposition in this paragraph follows that of Shaughnessy (2006, pp. 23–28). The Guodian Chu Slips were unearthed in 1993 just north of the ancient capital of the State of Chu, and are dated to the second half of the Warring States period (c. 475–221 BCE). Images, transliterations, and translations of the Guodian text are available in a number of Chinese and English language publications (Allan and Williams, 2000; Cook, 2012; Henricks, 2000; Jingmen shi bowuguan, 1998). It should be noted that the bulk of the disagreements revolved around the interpretation of the fourth character of the manuscript, while I describe here, for the sake of simplicity, the multiple possible interpretations of the second.

絕仁棄義、民復孝慈。

Cut off humaneness and discard propriety, and the people return to filial piety and parental love.[2]

The Guodian text, also composed of eight characters, differs from the received text at several points, one of which is the graph that replaces 仁 as that which is "cut off": 㤅 〈▯為心〉 (Jingmen shi bowuguan, 1998, pp. 3, 111).[3] The character assembles familiar significs ("action" 為 and "heart" 心, respectively) but, as a composite, does not appear in any received texts and is certainly not used in modern written Chinese. The idiosyncratic graph therefore was given the customary treatment by the Jingmen Museum editors preparing a transcription of the bamboo slips for publication: following the reading of Qiu Xigui 裘錫圭 who reviewed the manuscript for Beijing University Press, the editors interpreted the graph as a variant of a known character, in this case *wei* 偽, or "artifice" (ibid., pp. 111, 113). Under this and another similar interpretation, they transcribed the line inscribed on the bamboo slip as

絕偽棄詐、民復孝慈。

Cut off artifice and discard deceit, and the people return to filial piety and parental love.[4]

The problem of this interpretation, as Edward Shaughnessy suggests, is that "by forcing the script of the Warring States period to correspond to the script of the Han and later, [it is] possible that we lose some of the nuance of the original" (2006, p. 27). The habitual practice in Warring States epigraphy of seeing the unruly script forms of bamboo slip inscriptions as variants of the more legible Han forms epitomized by Xu Shen's 許慎 *Shuowen jiezi* 說文解字 dictionary (ca. 100 C.E.), a procedure already underway in the Han dynasty, leaves unexamined the formation of the very conceptual categories it necessitates.[5] Namely, the naturalized notion of a "standard form" of characters and with it, a weakened definition of graphic variant as always already that of a character in such a standard form. "Is not another reading possible?" asked the late historian Pang Pu 龐樸, who took the heart signific 心 in the

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2. Translation modified from Shaughnessy (2006, p. 24).

3. For this and other difficult-to-represent sinoform graphs, I follow the conventions of Ideographic Description Sequences (The Unicode Consortium, 2011, §12.2).

4. Jingmen shi bowuguan, 1998, p. 111. Translation modified from Shaughnessy (2006, p. 24).

5. This editorial tendency enacts, in effect, only the first of the four methods Tang Lan 唐蘭 (2015, pp. 163–277) proposes for the decipherment of unknown graph forms, the remaining three being: deducing the meaning of a graph from context, identifying the meaning of its components, and positioning the graph in a larger context of graphic transformations.

Guodian manuscripts to be semantically significant, even if it appears in composites unattested in later texts. Could 慦 not have been a now-lost term, evanescent though it may have been in the first place, that meant an action of the heart, or emotional (as opposed to physical) activity?[6]

Reading from, or reading into? Haun Saussy's (2021) question regarding the challenge posed by the recently published bamboo slip *Classic of Poetry* (*Shijing* 詩經) can also be posed to the study of writing in general.[7] To what extent could an unexpected graph in manuscript culture be made intelligible without assuming that it is only a familiar graph, veiled by orthographic idiosyncrasies that are identified merely to be discarded?[8] More specifically, where does "graphical variation" end and "lexical variation" begin?[9] (An especially important question given the disparity of exegetic significance conventionally attributed to the two.) While the interpretation of 慦 itself is a matter of disagreement among a relatively small set of experts, their process of making sense of the graph, which is typical of the laborious and difficult endeavor of reading pre-Han inscriptions in general, betrays aspects of Chinese grammatological thinking underdeveloped in generic descriptions thereof.

## 1.2.   The Problem with *liushu*

By generic descriptions of Chinese traditional grammatological thinking, I mean those articulated by historians as well as grapholinguists which, for various reasons, take as their chronological or conceptual (often both) anchor the "Six Modes of Character Formation" (*liushu* 六書) paradigm most famously described in the *Shuowen Jiezi*.[10] It is not my aim

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6. For a more detailed summary of Pang Pu's position and Qiu Xigui's response, see Shaughnessy (2006, pp. 26–28).

7. Saussy is commenting on the Anhui University manuscripts, whose first batch was published in 2019 (Huang, 2017; Huang and Xu, 2019). A number of English language studies of the Bamboo *Classic of Poetry* already exist and can be found in the 2020 issue of *Bamboo and Silk*, in which Saussy's essay appears.

8. It is not that the process of epigraphic interpretation forecloses the encounter with the new. Qiu Xigui (1980) pointed out decades ago that excavated texts may contribute to our understanding of received texts. However, with a few welcome exceptions, in practice the linguistic or referential content of the text, and in particular its "original" form reconstructed by processing the manuscripts through grammatological and hermeneutic procedures, tends to be the preferred subject of investigation rather than the logistics of graphic or textual variation *per se*.

9. To borrow the (in my view problematic) distinction in Boltz (1994, p. 159).

10. For a summary of the "Six Modes" in English, see Boltz (ibid., pp. 143–155) and Qiu (2000, pp. 151–162). More detailed surveys of the historical context as well as the evolution of the paradigm in later intellectual history can be found in Boltz (2017), Bottéro (1998), and Wang (1979).

here to survey the traditional paradigm or its various proposed modifications (e.g., Chen, 2006; Myers, 2019; Qiu, 2000; Tang, 2015). Neither do I reiterate the familiar thesis that the *Shuowen Jiezi*'s component-based analysis of characters, which is related but irreducible to the *liushu* paradigm that only briefly appears in the dictionary's postscript, provided perhaps a far more influential framework of character analysis than *liushu* itself in the history of Chinese lexicography.[11] Rather, by pointing out and then bracketing the central position *liushu* occupies in our understanding of emic theorizations of Chinese characters, I want to draw attention to different modes of grammatological thinking necessitated by the constant encounters with apparent neographisms such as 恖 in epigraphy. Modes of thinking which foreground graphic variance, for which the *liushu* theory, which treats characters as a closed set of graphs whose standardization is a *fait accompli*, has proven time and time again to be inadequate.[12]

An instructive example is the published Ph.D. dissertation of the epigraphist Liu Zhao 劉釗, who professes a graph-oriented approach to the study of earlier character forms (2011, pp. 228–234).[13] Liu studies patterns underlying the various graphic variations within oracle bone and bronze inscriptions, and identifies the following operating "rules" that might explain the diversity of graph forms in oracle bone inscriptions specifically:

1. graphic inversions, which may be subdivided into the inversion of strokes, components, or full graphs;
2. ornamental strokes;
3. simplification or linearization of contour;
4. omission of strokes or components;
5. multiplication of strokes, components, or a full graph;
6. substitution of significs with those having similar meanings;
7. replacement by a visually similar graph;
8. other types of allography that are more challenging to explain (perhaps to be attributed to periodization or the style of the scribe);
9. unique graphs of proper names;

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11. For the component-based organization of the *Shuowen Jiezi*, see Bottéro and Harbsmeier (2008). For a study of its legacy in medieval Chinese lexicography, see Bottéro (1996).

12. On the prescriptive nature of the *Shuowen Jiezi*, and *a fortiori* that of the *liushu* paradigm, see Boltz (1994, pp. 145–146) and especially Galambos (2004).

13. *Xing* 形, as opposed to sound (*sheng* 聲) or meaning (*yi* 義). This trichotomy is conventional in characterizations of Chinese classical philology, historically termed "Lesser Learning" (*xiaoxue* 小學, in contradistinction to what may be termed "philosophy"). It can be traced back to the division between hermeneutics, phonology, and graphology drawn in the *Yuhai* 玉海 encyclopedia compiled by Wang Yinglin 王應麟 (1223–1296) of the Southern Song dynasty (Tang, 1969, pp. 4–6; Tang, 2015, p. 356 ff.).

10. adaptation of character form to the specific textual context.[14]

Liu identifies similar, but not identical, patterns in early and Western Zhou bronze inscriptions, before discussing even more general patterns of graphic transformation including intra- and inter-graphic assimilation and the becoming-semantophonetic of syssemantographs. In other words, in early Chinese inscriptions, the fundamental multiplicity of graph forms, crisscrossed by a plethora of mutational trajectories that cannot be simplistically predicted by a teleological view of script evolution (*pace* Gelb, 1963, pp. 190–205), meant that every instance of writing was less a citation of a predetermined repertoire than a moment of that repertoire's own continuous transformation.[15] It is therefore unsurprising that, in the methodological reflections near the end of his book, Liu criticizes those modern scholars whose veneration of the *liushu* as the fundamental means of character analysis verges on "superstition" (2011, pp. 226–228). Even a generous reading of *liushu*, in which *shu* is taken as a verb such as "scribal act" (Bottéro and Harbsmeier, 2008, p. 252), is undoubtedly insufficient given the variational complexity at play in a corpus such as Liu's.

While Liu may have been deliberately polemical in his criticism of *liushu*, it is undeniable that, for any scholar who works in a hands-on manner with historical Chinese inscriptions, knowing how to make sense of graphic variance (which would have become familiar to such a scholar early in their training) is just as useful, if not more so, than *liushu* or similar taxonomic theories that presume a standardized corpus of characters and a standardized way of using them. But such forms of knowledge are sometimes presented as merely supplementary to *Shuowen Jiezi*-style speculations about the nature of Chinese writing, even in the writings of those scholars who know the former to be equally indispensable forms of grammatological knowledge. Qiu (2000) exemplifies this tension in the organization of his book's chapters: chapters 7, 8, and 9 explicate his "three-principles" theory that continues the revision of *liushu* in the footsteps of Tang (2015) and Chen (2006), but the substantive nouns that comprise those chapters' titles ("semantographs," "phonograms," and "loangraphs") are subverted in the subheadings by the proliferation of verbal nouns ("addition," "alteration," "replacement," "abbreviation," "interchange," "deformation," "borrowing," and so on) whose logic is continuous with the earlier and later chapters—-chapters that deal not with "classification" (the title of chapter 6 which frames chapters 7, 8, and 9) but with processes of graphic

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14. See Liu (2011, pp. 9–67) for the detailed demonstration of these patterns.

15. Analogically, this relationship between "repertoire" and "graph" recalls reinterpretations of the relationship between *langue* and *parole* (Saussure, 1986) as one of autopoiesis in the sense of Maturama and Varela (1980); see, e.g., Thibault (2011).

change along various timescales.[16]   Returning to earlier scholarship,
Tang (2015) displays a similar internal differentiation of grammatolog-
ical knowledge, with his version of "three-principles" being placed un-
der "the origin and evolution of writing" (文字的起源和其演變) while the
more complex and heterogeneous patterns underlying graphic variance
are described under "how to recognize ancient characters" (怎樣去認識
古文字). Within these organizations of knowledge, the grammatology
of variations becomes the epigraphical *mētis* (practical wisdom) from
which categorizing projects struggle to distinguish themselves as better-
codified ways of seeing, not least because they can never fully leave the
former behind without risking the collapse of their own practical effi-
cacy.[17]

What, precisely, is the relationship between epigraphy and gramma-
tology in the Sinographic context? This is by no means a simple ques-
tion, and the answer one gives will likely depend on one's own discipli-
nary affinities.[18] It is not uncommon, especially in the West, for those
who research the grammar of Chinese characters in the last few decades
to follow Ferdinand de Saussure's (1986) suggestion that the study of
language can be separated along the lines of synchronic and diachronic
inquiries—the modern science of linguistics on the one hand and the old-
fashioned tradition of philology on the other (e.g., D. K.-W. Wang, 1979,
pp. 32–38).[19] What Qiu Xigui the epigraphist has to say about writing, if
we were to follow this train of thought, would be of limited import to the
interlocutors of Qiu Xigui the grammatologist, and to insist otherwise
would be to commit a category mistake.

But delimiting the object of linguistic research in this way comes
with its sacrifices. A particular legacy of the Saussurean distinction in
linguistics, as philosopher Frederik Stjernfelt notes, is that studies of

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16. The "three principles" are followed by chapters 10 and 11, dealing respectively
with "allographs, homographs, and synonymic interchange" and "graphic differentia-
tion and consolidation," whose placement outside chapters 4 and 5 ("the evolution of
the shapes and styles of Chinese characters") suggest that they, like the "three princi-
ples," are more general patterns of graph formation rather than processes specific to
an earlier stage in the history of Chinese writing.

17. Cf. Scott (1998, pp. 309–341). For the notion of *mētis* in Ancient Greece (which
Scott invokes), see Detienne and Vernant (1974).

18. The question is especially complex when one takes into consideration the fact
that many prominent twentieth-century Chinese epigraphist-grammatologists were
also tasked with a third commitment: writing reform. The empirical or historical
study of ancient inscriptions, the scientific categorization of a panchronic inventory
of character forms, and the reinvention of writing in light of modern political and
technological concerns were therefore interlinked, each informing the others. For a
sketch of this complicated history, see Hou (2021), Tsu (2022), and Zhong (2019).

19. It is noteworthy that the disciplinary-specific definition of "language" in mod-
ern linguistics, with its emphasis on synchronicity and speech, was also repeatedly
invoked in earlier polemics around the "ideographic myth;" see Lurie (2006).

meaning tend to "see static structures as having ontological prominence over their transformations" and to be "interested primarily in 'codes' seen as stable relations between content and expression," which in turn has "hindered the insight into the centrality of the concept of transformation" (Stjernfelt, 2007, p. 120). "The place of synchronous description in the middle, between diachronous linguistic development on the one hand and linguistic use on the other," Stjernfelt continues, "has split this structuralism into two concepts of time without mutual contact and both ontologically underweight, with the often-noted implication that diachronous system change as the result of changes in use tends to become invisible" (ibid., p. 120). Such a differentiation of differences is already at work in aforementioned bifurcations of grammatological knowledge: the distinction between lexical and graphical variations, for example, or that between variations of script forms falling under "evolution of writing" and those that are merely circumstantial and therefore inconsequential.[20]

The difficulty that scholars such as Tang Lan and Qiu Xigui had in trying to fully separate taxonomic grammatology from empirical epigraphy can therefore be interpreted as a symptom of the synchrony/diachrony distinction's maladjustment to the study of Chinese character formation. Recent developments in grammatology in China, of which Liu (2011) is just one example, demonstrates the benefit of side-stepping this distinction through a new, non-teleological approach to the "evolution of character structure," which creates a richer description of the formation of characters by deemphasizing their structure at any given historical moment to focus on the pluralized materially-, aesthetically-, and pragmatically-conditioned transformative processes in which they are involved (see, e.g., Zhang, 2008; 2012). Nevertheless, the emphasis of these scholars tends to land on the early history of Chinese writing, which creates its own set of problems.

One needs only note that the productivity of any Chinese character-grammatical rule is best observed through the introduction of neographisms into the inventory of characters, although the exponential growth of this inventory is a sedimentary (rather than evolutionary) process that takes centuries to unfold (Myers, 2019, pp. 3–6). In fact, the vast majority of character forms in use today came about not in what is usually thought of as the "formative period" of Chinese writing—that is, up to the Han dynasties—but in the roughly two-millennium gap between the *Shuowen Jiezi* and *The Unicode Standard*, an interval often ne-

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20. The distinction between lexical and graphical variation underlies Martin Kern's (2002) otherwise erudite discussion of textual variants and hermeneutics in the context of the *Classic of Poetry*, which nevertheless remains useful as an introduction to the topic in a Western language.

glected in studies of the formation of Chinese characters.[21] What is one to do with the proliferation of neographisms in manuscript and print culture of this long temporal span—neographisms not all of which have survived to the twentieth century?[22] A leading scholar of medieval Chinese manuscript culture points out that "we need a mechanism for interpretation of the structure of a character in its existing state, the way it appeared to contemporary readers of manuscripts or inscriptions. In the process of being used, characters continue to change and this change is often governed by rules that may be largely independent of the principles that had been at play during the formative stages of the writing system" (Galambos, 2014, p. 55).[23] Imre Galambos is understating the stakes of his article here, as he writes a few pages later that "[he] believe[s] that the principles underlying [his attempt at formulating empirically determined, non-*liushu* strategies of character formation] are theoretically valid for any time period that produced texts written with Chinese characters," and that his is a list that, not forming "a closed set with a specific number," will instead "grow as new categories are identified and we will not have to force every character form into one of the existing categories" (ibid., pp. 57−58).[24] If these statements seem to echo those of the epigraphists cited earlier in the introduction, it is because early and medieval Chinese practices of writing, though separated by the monumental transformations of the Qin and the Han empires, might have more in common at a fundamental level than what received wisdom otherwise imparts. Commonalities that demand a rethinking of what the study of Chinese character structure should take as its empirical objects, and of the presuppositions about the ontology of characters underlying various types of analysis.[25]

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21. A specific consequence of this neglect is that the syssemantograph category (*huiyi* 會意) of the *liushu* is sometimes considered a "myth" by twentieth-century linguists (see, e.g., Boltz, 1994, pp. 147−149, 153−154), but those who study medieval manuscript culture closely observe that, to the contrary, characters with such "folk-etymological" structures are widely attested in preserved manuscripts, even if some of those graphs are no longer in use today (Branner, 2011; Galambos, 2011; 2014, pp. 62−64).

22. For useful inventories of variant graph forms in medieval and early modern Chinese manuscript and print culture, see Huang (2019), Zeng and Chen (2018) and Zhao (2019).

23. Scholars of medieval manuscript culture have made great process on this topic in recent years, but their insights regarding the nature of graphic variation remain, so far, confined to the specialized field despite those insights' relevance for the study of writing at large. For a snapshot of recent developments, see Van Cutsem (2022).

24. Galambos' (2014) short list of proposed formation principles are the following: archaized structures, folk-etymological structures, taboo characters, ligatures, and assimilated forms.

25. An exemplary precedent in redirecting the study of Chinese characters in this direction through the examination of manuscript evidence and considering the impe-

## 1.3.    The Goal of the Paper

These tensions between the observable productivity of graphic variation and the paradigm set forth by Xu Shen, between descriptive and prescriptive modes of thought when confronted with the proliferation of variant characters in historical practices of writing, call for a reconsideration of the data and method of Chinese grammatology. It is in response to these concerns that this paper critically engages and reactivates ways of thinking from an earlier moment in the history of the discipline. Typically, instead of attending to the operating concepts and methods in medieval scholarship on their own terms, early modern and modern grammatologists prefer to think of the history of their discipline as—in the words of a historian of science—"a chronicle of errors overcome and currently accepted doctrines anticipated" (Daston, 2017, p. 137). This retrospective tendency often leads to highly distorted narratives of the discipline's history, attributing great importance to the postscript of the *Shuowen* and other early texts while neglecting millennia of scholarship between Xu Shen and the twentieth-century epigraphists. But this scholarship is invaluable not only for understanding how Chinese grammatology became what it is but also for seeing what it could have been. This is not only because they established early modern interpretations of the *Shuowen* model as the canonical mode of character analysis but also, and more importantly, because they experimented with many other methods for analyzing the structure of characters that presuppose a different understanding of the nature of writing.[26] And my introduction to this study took the form of a prolonged examination of the contemporary legacy of the *liushu* paradigm because excavating those earlier modes of thought are of contemporary relevance.

This paper takes as its main point of reference the medieval grammatological treatise "Compendium on the *Liushu*" (*liushu lüe* 六書略) written by the historian-encyclopedist Zheng Qiao 鄭樵 (1104–1162) during the

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rialist legacy of Han fictions of writing is Galambos (2006), who, by carefully studying variance in recently unearthed Warring States manuscripts, concludes that "one could imagine the totality of individual character forms visually as a 'cloud' of potential forms, as opposed to one discrete form" (ibid., p. 2). However, it should be noted that this cloud still presupposes the autonomy of *logos*. Jacob Reed points out to me that Galambos' metaphor resembles the "cloud of exemplars" model of phonetic variation proposed in Pierrehumbert (2001), which "probably says more about the growth of 'probabilistic thinking' in the humanities than anything else" (2022, personal communication).

26. For a brief but insightful history of Chinese grammatology, see Tang (1969, pp. 12–25). For a more extensive history that decenters the *liushu* paradigm, see the two-volume Hu (1965).

Southern Song, one of the most vibrant periods for Chinese thought.[27] Traditionally, Zheng Qiao is known to be the first scholar to convert the *liushu* paradigm from a paragraph-long commentary on an opaque term in the *Rites of the Zhou* (*Zhouli* 周禮) to a full-fledged taxonomic framework systematically applied to tens of thousands of characters, initiating what later become "*liushu* studies" (*liushu xue* 六書學), the precursor to modern Chinese grammatology.[28] But treating Zheng Qiao's writing as a heterogeneous corpus—that is, acknowledging that it moves along different threads that may branch out in different ways—this paper explores other aspects of the work that may supplement, recontextualize, or even undermine his conventional legacy, while at the same time indexing other possibilities for conceptualizing Sinography that center around the problem of variance.

Such possibilities begin with a reexamination of the purview of the study of writing in the Chinese context, which will be the topic of the next section, followed in the section after by a summary of Zheng Qiao's theory of writing.

## 2.    The Fuzzy Boundaries of Sinography

### 2.1.    Un-knowing "Chinese Writing"

What is Chinese Writing? In response to this question—which any exposition of Zheng Qiao's grammatological thought will have to think

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27. In this paper I use the two-volume 1995 Zhonghua Shuju 中華書局 edition of the *Twenty Compendia to the Comprehensive Treatise* (*Tongzhi Ershi Lüe* 通志二十略), in which the compendium in question is included. This edition is based primarily on Wang Qishu's 汪啟淑 (1728–1799) edition printed in Qianlong 14 (1749), itself revising the Ming-era xylograph edited by Chen Zongkui 陳宗夔 (1522–1566) (Zheng, 1995, p. 6). The *Twenty Compendia* originally circulated in manuscript form, often alongside the remainder of the 200-*juan Comprehensive Treatise* (*Tongzhi* 通志), and as such its original text can be difficult to ascertain from extant xylographic editions. Nevertheless, according to the philological glosses of the Zhonghua Shuju edition, textual variations in the sections I discuss in this paper is relatively insubstantial. Translations from the *Compendia* mine unless otherwise noted.

28. Zheng Qiao, in other words, was less an 'author" than a "founder of a discursive practice," to use Michel Foucault's useful distinction (1979). Unfortunately, while Zheng's unconventional claims that heavily influenced second-millennium scholarship on the *Classic of Poetry* have rightfully received attention in Western scholarship (see, e.g., Mittag, 1993a,b; 2010), studies of his grammatological writings are few, even in Chinese, and tend to follow the presentist mode of historiography mentioned above. For selected previous scholarship on Zheng Qiao's grammatological writings, see Bo (2009, pp. 15–68), Bottéro (2004), Han (2008), and Shi (1974). Bottéro's short article is, to my knowledge, the first to realize the significance of non-Sinitic writing systems for Zheng Qiao's grammatological thought at large.

anew—stand in eagerness a series of familiar answers, provided for us by figures from Athanasius Kircher (1602–1680), Gottfried Wilhelm Leibniz (1646–1716), and Nicolas Fréret (1688–1749) to Ernest Francisco Fenollosa (1853–1908), Herrlee G. Creel (1905–1994), and John DeFrancis (1911–2009). It is not insignificant that to trace a chronicle of these answers would involve recounting the histories not only of Sinology and linguistics as we know them but also of Western philosophy, literature, and a range of other disciplines from the early modern period to the present.[29] But the familiarity of the question—and the assumptions it carries—obscures the instability of its terms in historical Chinese grammatology.

Typical assumptions that make the question legible for us tend to fall under two categories. First, Chinese writing conventionally meant the writing system that has more or less stabilized in form by the end of the Han dynasty, and as such is conveniently tied to the historical moment at which "China" itself became a meaningful sociopolitical entity.[30] It is routinely admitted that this script further became a "scripta franca" of a larger world, but one with a distinct center or origin, fixed not only in space but also in time (one speaks, even today, of *hanzi* or *kanji* or *hanja*).[31] Second, there is usually a glottocentric bias in the study of Chinese writing, that is to say an overemphasis on the correspondence (or lack thereof) between writing and the spoken utterance which is even thought by some to be the primary task of writing.[32] These biases have, among other things, resulted in the negligence of non-glottographic

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29. The bibliography for this history is far too enormous to present even in abridged form. For reader unfamiliar with the early history, an excellent introduction is the monograph of Madeleine V.-David (1965), complemented by Bruce Rusk's (2007) article tracing the thoughts of Kircher and others to early modern Chinese contexts.

30. For a short introduction to this script transformation process, which is often narrated as one of "modernization," see Schindelin (2019).

31. For a typical articulation of this view, see Holcombe (2001, pp. 60–77). Note that the idea that Sinographs enabled "worlds without translation" (Denecke, 2014) was already familiar to Europeans in the 16th century, and was one of the reasons Chinese writing became a key inspiration for universal language schemes such as that of John Wilkins (1614–1672) (Knowlson, 1975, pp. 15–27).

32. I acknowledge but do not follow the distinction between "semasiographic writing" and "glottographic writing" introduced by Geoffrey Sampson (1985) and has been adopted by scholars of Mesoamerican archaeology (e.g., Colas, 2011) as a more inclusive framework than that of Gelb (1963). By the glottocentric bias I do not mean a bias toward glottographic writing within this dichotomy, of which critiques have been plenty, but rather a more general approach to the study of meaning that takes spoken language as the privileged point of comparison and reference for meaning-making in general (Petrilli, 2014). Furthermore, I find it misleading to make substantialist taxonomies of writing systems in this way, as the same graphs very often afford multiple modes of meaning-making even within one, albeit heterogeneous, linguistic environ-

uses of Sinoform writing both inside and outside geographical China, as well as the customary classification of Sinoform writing systems by way of spoken languages, despite the value "Sinoform writing" already holds as an analytic frame for understanding writing in ways other than the recording of language (cf. Handel, 2019; Osterkamp, 2017).

These presuppositions accompanying the phrase "Chinese writing" in its usual sense create a tunnel vision before any inquiry even begins, privileging a *de facto* closed, internally homogeneous, already-standardized inventory of characters, fully and solely determined by their Sino-glottographic functions, as the default—if not only—subject of analysis.[33] This circumscription, however, does not necessarily reflect how a historical Chinese scholar theorizing writing as they knew it would define the purview of their study. To the contrary, just as in European intellectual history, the understandings of speech, language, and writing derive their complexity—however misguided this complexity appears in retrospect—from encounters with peoples, artifacts, and cultural practices different from one's own ("the becoming-legible of non-Western scripts," as Jacques Derrida memorably puts it; see Derrida, 2016, p. 82), Chinese theories of writing emerge from the knowledge that writing—be it under the character *wen* 文, *zi* 字, *shu* 書, or others—is a densely heterogeneous field rich with historical, cultural, stylistic, or pragmatic differences, and that "ordinary" Sino-glottographic writing can only be understood, if not constructed, through an organization of this heterogeneity.

## 2.2.   Graphic Heterogeneity in Xu Shen

Viewed in a different way, just as the history of Chinese writing constitutes a history of variance, so is the history of Chinese grammatology the history of a preoccupation with these differential relations among and between graphs, meanings, and sounds. We should recall that grapholinguistic heterogeneity already saturate Xu Shen's depiction of writing in the postscript to the *Shuowen Jiezi*. The postscript begins with an account

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ment, with "glottographic" graphs taking on "semasiographic" significance and vice versa (Osterkamp and Schreiber, 2021).

33. On open and closed writing systems, see Küster (2019). While Küster correctly notes that in Chinese writing "signs can be added to $l_s$ if a need is felt to do so" and it is difficult to make an exhaustive inventory thereof (ibid., p. 19), it is important to note that the script users' ability to do so is heavily dependent on the technological infrastructures of inscription. It would have been much easier for me—or any other ordinary user of the script—to use a graph like 㣊 in manuscript or woodblock printing (two predominant inscriptional media in historical China). In the absence of the possibility of *ad hoc* neographisms in everyday script use, a finite inventory, regardless of size, should be considered a closed writing system.

of an "evolution of scripts" that traces the beginning of writing to Fuxi's hexagrams, Shennong's knotted cord, and Cangjie's imitations of bird traces. It then moves on to a more abstract genealogy from *wen* to *zi* to *shu*, followed by the *liushu* principles which allegedly formed part of the Zhou curriculum for the prince.[34] But notably, Xu Shen's hasty account of these legendary diachronic and synchronic diversities of writing—to momentarily revert to the Saussurean division—is quickly followed by other, more problematic (for Xu Shen and his imperial audience, anyway) types of diversity that followed the Zhou's disintegration:

> 其後諸候力政、不統於王、惡禮樂之害己而皆去其典籍。分為七國、田疇異畮、車塗異軌、律令異法、衣冠異制、言語異聲、文字異形。

> [Thereafter], the various marklords warred with one another; they were not unified under one king. They considered the "harmful" effects of the rites and music to be bad and in all cases discarded their canons and records. The realm was divided into seven states. Agricultural field divisions had different measures, carts and road-ruts different axle-widths, laws and commands different rules, ritual garb different sumptuary regulations, spoken words and language different sounds, and writing different graphic structures (O'Neill, 2013, pp. 432–433).

Xu Shen is not simply narrating the history of writing here, of course, but presenting the state of affairs from the point of view of the Chancellor to the first emperor of China, with a tacit suggestion of what needs to be done about land measurements and graph forms alike. But while one of the products of Li Si's 李斯 (c. 280–208 B.C.E.) project "to homogenize these things, so as to remove what did not conform to the Qin pattern of culture," namely the Small Seal (*xiaozhuan* 小篆) form of characters, plays a central role in the *Shuowen* itself, Xu Shen is not entirely satisfied with the Qin empire's linguistic reform (ibid., p. 433). What the burner of books and murderer of scholars failed to see, and what Xu Shen's addressee does, was that imperialism without philology will always remain an incomplete enterprise (ibid., pp. 437–438). "Writing systems and their offspring characters," after all, "are the root of the classics, the origin of kingly government, what former men used to hand down to posterity, and what later men use to remember antiquity" 蓋文字者, 經藝之本, 王政之始, 前人所以垂後, 後人所以識古 (ibid., pp. 435–436). There is an noticeable anachronism in Xu Shen's use of contemproary

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34. A full English translation of Xu Shen's postscript can be found as the appendix of an excellent article by Timothy O'Neill (2013), which helpfully bridges Xu Shen's rhetorical and political gestures with his grammatological method at large from the perspective of early modern Chinese philologists. In what follows I quote directly from O'Neill's transcription and translation, which use the Song woodblock text edited by Xu Xuan 徐鉉 (916–991), known in Chinese scholarship as "Da Xu ben" (大徐本), as base text.

graph forms to illustrate the *liushu* principles upheld before writing it-
self entered into the state of disarray, but the very purpose of his project,
which highlights rather than hides this discrepancy, is to at once affirm
this anachronism (i.e., the way of the ancients can no longer be taken for
granted) and to announce its overcoming (i.e., the merit of Han standard
character forms lies precisely in their inheritance of those bygone prin-
ciples). And so Xu Shen carved out a space for others like himself in the
"empire of writing": his function is one of (diachronic) organization that
supplements (synchronic) homogenization, a matter of folding graphic
variation into a coherent historical narrative whose origin is once again
accessible, and of simultaneously disavowing and justifying the eradi-
cation of difference *per se* through force (cf. Lewis, 1999).

It is unclear whether Xu Shen's project of script organization and
standardization was, as some scholars have recently speculated, a re-
action to the pressing cultural rivalries (and with them, anxieties) of
his era, namely "the Chinese encounter with Indo-Iranians and the cul-
tural invasion of Buddhism they brought with them" (Zhang and Mair,
2020, p. 29). Regardless, for those theorizing the structure of "Chinese
writing" after Xu Shen, those "letters from the West" were to become
much more difficult to ignore.[35]  Recent Anglophone scholarship has
brought attention to the roles played by Sanskrit, Tibetan, Mongolian,
and Manchu writing systems (which are variably derived from Gupta
and Old Uyghur scripts) in grammatology of the Ming (1368–1644)
and Qing (1644–1912) periods (e.g., Söderblom Saarela, 2020; Vedal,
2022), whereas the study of Sanskrit in medieval East Asia is gener-
ally situated in the histories of Buddhism or phonology (e.g., Van Gu-
lik, 1980).  Together with Sinoform musical notations (predominantly
studied by musicologists)[36] and aforementioned "vernacular character
forms" (predominantly studied by epigraphists), the peripheral status of
non-Sinoglottographic writing systems such as various Brahmic abugi-
das in the historiography of Chinese grammatology is misleading:  it
retroactively projects early-modern and modern disciplinary divisions
such as phonology, grammatology, musicology, religious studies, "eth-
nic studies" (as opposed to the study of "Chinese tradition proper"),
and so on onto historical modes of thought wherein such specializa-

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35. What is much more often discussed is the role of Sanskrit learning on the de-
velopment of Chinese poetry and phonology, which is not dissimilar to the related
story in Japan. For medieval Chinese poetry, see Mair and Mei (1991). Chinese "rime
tables," which play an important part in the phonological scholarship, is tradition-
ally (in part due to Zheng Qiao's influence) taken to be of Buddhist origin; for recent
studies see the introduction to an essay collection edited by David Branner (2006).

36. For surveys of traditional Chinese musical notation, see, e.g., Wang (2006) and
(in English but less detailed) Zang (2002).

tions were either yet to assume relevance or would be articulated dif-
ferently.[37]

## 2.3.  Graphic Heterogeneity in Zheng Qiao

This is why readers of Zheng Qiao's "Compendium on the *Liushu*" will
find, perhaps to their surprise, that the concepts most crucial in his
analysis of Sinographs are never specific to the set of graphs used for
writing down Chinese language, but are procedures operating also in
other writing systems or practices of writing within the purview of an
observant medieval Chinese scholar. Contractions in Chinese (e.g., that
of 之焉 [\*tə ʔan] to 旃 [\*tjan], Baxter's reconstruction) are compared to
the formation of syllables in written Sanskrit, and so are *qin* musical no-
tations that likewise fall under the category of Chinese writing (*huashu*
華書) (Zheng, 1995, pp. 340, 350–351).  Missing are the "hard" classi-
fication of writing systems into abugida and logography, glottography
and musical notation, "Chinese" and "Western;" instead, what is empha-
sized are character grammars shared by various zones of writing and, in
relation to those commonalities, their respective specificity.

If the boundary of Chinese writing becomes fuzzy here—if, indeed,
both "Chinese" and "writing" become pluralized in Zheng Qiao's ency-
clopedic attention and assured rejection of incommensurability—it is
because, while his project to organize Sinographs according to *liushu*
is explicitly framed as a more assured attempt to reactivate grammato-
logical knowledge lost since the Zhou, this motive is conjoined, almost
paradoxically, with a contrary one toward the examination of writing in
general.  Speaking of his earlier work on Chinese characters (now lost),
he writes in the introduction to the "Compendium" that

> 今取象類之義、約而歸於六書、使天下文字無所逃、而有目者可以盡曉。

> Now I have taken the essence of *Xianglei*, abridged it and organized it in
> accordance to the *liushu*.  This is so that no writing [*wen* and *zi*] under the
> Heaven can escape [from the purview of my analysis], and anyone with eyes
> can understand it thoroughly (ibid., p. 234).

Of course, there is more to "[all] writing under the Heaven" than what
can be made to fit within the *liushu* paradigm, a fact that Zheng Qiao, who
concludes the "Compendium" with a three-part essay on the Sanskrit
alphabet, knows well.[38]  And in the face of this heterogeneity of known

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37. Cf. the non-differentiation of cosmology and philology in Ming scholarly cul-
ture as discussed in Vedal (2022).

38. The three-part essay, titled "On Sinitic and Sanskrit [Scripts]" (*lun Hua Fan* 論
華梵) is available in English translation (Mair, 1993).

writing greatly exceeding that of Xu Shen's time, Zheng Qiao did not invoke moral corruption and expel unorthodox (or non-Sinitic) writing from his study, nor did he—following early medieval Buddhist thinkers such as Sengyou 僧祐 (445-518) and Annen 安然 (841-915) to whom he was nevertheless indebted—unite Sinitic, Brahmic, and Kharosthi scripts in an universal fraternity ultimately symbolizing the Buddha's three bodies (Skt. *trikāya*).[39] But he did inherit from the earlier Buddhist thinkers their mixture of empirical and speculative ways of thinking, of both closely studying the heterogeneous field that is "writing" beyond Sinoglottography in its concrete mechanisms and readily acknowledging those mechanisms' cosmological significance.

Understanding the tendency in Zheng Qiao's writing to reorient grammatology toward living practices of writing (be they of his own or earlier times) in all their plurality and difference is important, not only for seeing how his epistemic attitude differs from those of his predecessors (Xu Shen and the medieval Buddhists) and successors (early modern Chinese philology and modern linguistics), but also for seeing how, more concretely, this choice of sources allowed him to formulate the technical functioning of writing in an idiom that may otherwise appear idiosyncratic. I will discuss that idiom at length in the next section, while the remainder of this section will briefly outline the various corpora of writing with which Zheng Qiao was familiar, and which had profound influences on his grammatological thought.

### 2.3.1. *The Brahmic Analogy*

While it is difficult to overstate the importance of Sanskrit writing systems, which were abugidas with the *akṣara* as a basic unit, for Zheng Qiao's conceptualization of writing in general, this discussion sometimes fails to emphasize a key aspect (Bottéro, 2004; Mair, 1993). Zheng Qiao's staging of "Sanskrit versus Chinese" in claims such as "For the Indians, the basis of sound-distinctions lies in the sound rather than in the writing; for us Chinese, the means of distinguishing characters lies in their written form, not in their sound" (梵人別音、在音不在字、華人別字、在字不在音; Zheng, 1995, p. 351), like Xu Shen's history of writing, is not so much a disinterested description of fixed facts about language than it is a statement about temporary states of affairs that the *Twenty Compendia* is determined to mend. The interlinked parallel prose in "Preface to the Seven Sounds" (*qiyin xu* 七音序) intimates that "sound" versus "graph"

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39. Sengyou's statement in *Collected Records on Producing the Tripitaka* (*chu sangzang jiji* 出三藏記集) is available in English translation (Sengyou, 2006). For the philosophical background of this claim, and in particular the religious significance of the translatability between languages in Mahāyāna Buddhism, see the discussion on Sengyou in Kin Bunkyō (2021, pp. 25–28).

was never an either-or situation even in the Chinese context alone, as both were entailed in the sages' teachings but subsequently forgotten.[40] What the Chinese can learn from Sanskrit is therefore the phonographic potential latent within Sinography itself, which is neither antithetical to Sanskrit phonography nor more advanced (in the sense of a linear progression) than Sinography as it is ordinarily practiced in his day. This is why his actual comparison between the two writing systems takes its *tertium comparationis* (the "third term" that makes the two terms in a comparison comparable) from the wide-spread practice of transliterating written Sanskrit using Chinese characters in the context of Buddhist sutras, and especially magical spells (Skt. *dhāraṇī*).

The medieval Buddhist practice of stacking Chinese characters in the same way that one stacks graphic components in, say, the Siddhāṃ abugida does not have a proper name. The phrases Zheng Qiao uses to describe it—"conjoining two [graphs]" (*er he* 二合) or "conjoining three [graphs]" (*san he* 三合)—are such generic descriptors that they could have been used to describe any situation in which a new graphical whole is created by juxtaposing multiple components, and this generality or vagueness is precisely the point. These phrases originated not in reflexive discourses about writing, however, but simply as reading instructions in transliterations of Sanskrit where such stacked characters appear. In a fragmented scroll recovered from the "Library Cave" in Dunhuang (sealed in the 11th century) on which a spell is written side-by-side in Siddhāṃ and Sinographic transliteration, we find the Sanskrit syllable *dāv*, which requires the vertical stacking of two graphs in Siddhāṃ (<dā> and <ba>), transliterated as 蠾 〈▨怛嚩〉, two graphs whose pronunciations in Early Middle Chinese can be reconstructed as [*tat] and [*buak], respectively (Pulleyblank's reconstruction).[41] Below the compound 蠾 is written, in smaller characters, "conjoining two [graphs]" as well as "prolonged" (*yin* 引), the latter meaning the vowel is to be read long. Outside the context of Dunhuang manuscripts, the prevalence of this transliteration strategy is attested by its omnipresence in the "Esoterica" (*mikkyō* 密教) section of the *Taishō Tripiṭaka*.[42]

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40. For example, on how the sages' teachings differentiate humans from animals: "The seeing and hearing of humans are the same as those of beasts and fowl. The sages created patterns of sound so as to guide the auditory faculty of the ear, created graphs so as to expand the visual faculty of the eye" 人與禽獸、視聽一也、聖人制律所以導耳之聰、製字所以擴目之明 (Zheng, 1995, p. 353). Knowledge of both were lost in the subsequent centuries, Zheng Qiao continues later, as those who study graphs had forgotten the difference between simple and compound graphs, while those who study sounds had forgotten the vertical and horizontal axes of the rime table.

41. See *Pelliot chinois* 2778, digitized through the International Dunhuang Project: http://idp.bl.uk/.

42. Which is fully digitized: https://21dzk.l.u-tokyo.ac.jp/SAT/index_en.html. The "Esoterica" is vols. 18–21.
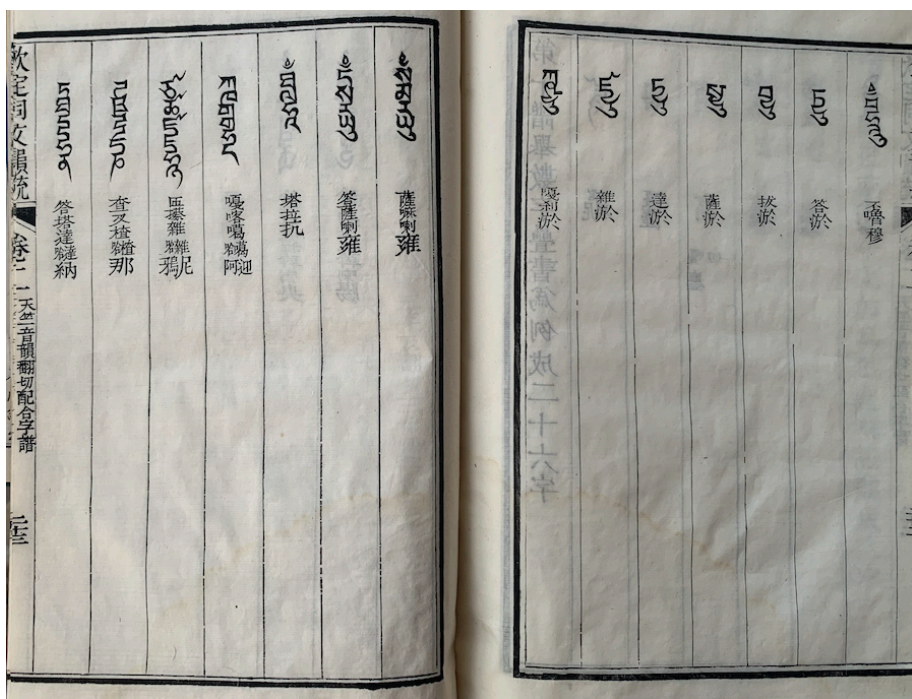
FIGURE 1. Codification of "character stacking" practice for transliterating Buddhist spells, based on the Tibetan script, in the Qing dynasty. *Qinding tongwen yuntong* 欽定同文韻統 (preface 1751, rpt. 1910). East Asian Collection, University of Chicago Library.

The later trajectory of this practice, which leads to the unexpected territories of Chinese opera theory and the Qing imperial sponsorship of Tibetan Buddhism, is beyond the scope of this paper (see Söderblom Saarela, 2016). What should be noted for now is that through typographical grids on the page which may be explicit (as in the case of the Dunhuang manuscript) or implicit (through correspondence to the Sanskrit syllables they are understood to represent), what is produced through "conjoining" becomes in some sense a single compound graph with a regular logic of composition, even if the resulting graph is not what we conventionally call a "Chinese character."[43]

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43. The Ming scholar Zhao Yiguang 趙宧光 (1559–1625) famously believed a substantial number of Sinographs in his day were created in this way, under Sanskrit influence (Vedal, 2022, p. 59). In fact, such graphs are rare, and the most well-known of which is 甭 ("not to need to"), read as *béng* today as a contraction of 不用 *bú yòng* ("not" + "use") although it was originally a "vernacular" graph form of 棄 *qì* (to abandon) and was read as such (Branner, 2011, pp. 73–74).

### 2.3.2. *The Gestural Analogy*

Zheng Qiao is careful to explain how the product of this general operation of conjoining (which can be found in Sanskrit writing but also in ordinary Sinography such as the syssemantograph) is to be mereologically understood, stating, in the case of Sanskrit syllables, that "when a graph is called 'conjoined from two [graphs],' its sound is neither that of one graph nor that of two" 凡言二合者、謂此音非一亦非二也 (Zheng, 1995, p. 351). What he means is that a conjoined graph is neither replaceable by a single graph (i.e., its significance is derived compositionally from both of its components) nor is it simply the concatenation of one graph to another without their individual functions being thus affected. To put it positively, what conjoining entails, as a general operation that Zhen Qiao finds across multiple corpora of writing, is a twofold transformation: the specialization of component graphs into specific types of sub-graphic functions (i.e., being read only for the initial or only as the semantic signific, when by itself the graph signifies more) and the coordination of specialized components in light of the blueprint of the composite graph.

Focusing on *how* different scripts operate in practice rather than *what* they are or do (which presume a fixity of their function if not existence), Zheng Qiao thus effortlessly compares Chinese writing to Sanskrit abugidas, but also compares glottographic writing to musical notation:

> 華有二合之音、無二合之字。梵有二合、三合、四合之音、亦有其字。華書惟琴譜有之、蓋琴尚音、一音難可一字該、必合數字之體、以取數音之文。

> The Chinese language has sounds that conjoin two components, but does not have graphs that show this conjoining. Sanskrit has sounds that conjoin two, three, or four elements, and also have corresponding graphs. Among Chinese writing, [such multiply-conjoined graphs] can only be found in scores for the *qin* zither. This is because [the playing] of the *qin* emphasizes its sound, and yet a single graph is often inadequate for a single sound. Thus it is necessary to conjoin the bodies of multiple graphs, so as to obtain expression made up of multiple sounds (ibid., pp. 350−351).[44]

Thematically, it should hardly be surprising, given his general argument that "graph" and "sound" were equally important in the teaching of the ancients, that Zheng Qiao would turn to existing sonographic uses of Chinese scripts (such as the transliteration of Sanskrit and Sinoform musical notation) as examples of what else Chinese writing is capable of. *Qin* "shorthand" (*jianzi* 減字, literally "abbreviated graphs") notation, which Zheng Qiao references here, deserves a closer look for our purposes, not only as another example of "conjoining" but also as a species

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44. Translation modified from Mair (1993, p. 336) for terminological consistency.

of Sinoform writing relatively unknown outside the field of musicology.[45]

Conventionally attributed to the Tang-dynasty (618–907 C.E.) musician Cao Rou 曹柔 (730–?), *qin* notation in the second millennium builds upon but greatly simplifies the earlier convention of describing manual gestures—the location of the left hand on the fingerboard of the instrument, the technique on the right hand for attacking the string—in full sentences for recording a piece of music.[46] Perhaps due to the aesthetic value traditionally associated with the wide timbral range produced by different fingering techniques, this new shorthand notation does not deviate far from the earlier method in that, not unlike Western tablature notations, it is the precise movements of the hands rather than the pitch and duration of musical notes that are to be recorded. Each of the aspects of left and right hand movements—or the lack thereof—are associated with a radical or stroke group (tellingly named *zimu* 字母 in early modern texts) taken from the full graph(s) denoting the technique.[47] Here is an partial list of this "alphabet" of gestures that demonstrates their graphic basis, meaning, and position in the composite graph. I have used some intuitive abbreviations (L for left, BL for bottom-left, etc.). Two notable positional absences in this chart are the right of top, where a number is usually written indicating the location on the string using the thirteen ornamental jades (*hui* 徽) as reference points, and the center of bottom, where the string number is given. A complete composite graph denoting a plucking gesture therefore would have the structure of 夕十卜勹三, which would be parsed in prose as "arrive at the tenth *hui* (十) with the index finger of the left hand (夕), after plucking inward with the middle finger of the right hand (勹), by sliding the left hand up (卜) along the string (三)." And in a musical score one will find hundreds of such graphs, alongside other shorthand graphs conveying finger movements (e.g., 犭 for 猱, vibrato), tempo (e.g., 爰 for 緩, slowly),

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45. The discussion given here is cursory. For a more detailed description of this notation system in English, the *locus classicus* is Van Gulik (2011, pp. 117–139). See also Kaufmann (1972, pp. 267–295), as well as John Thompson's English translation of the third fascicle of the *Great Collection of Superlative Sound* (*Taiyin daquanji* 太音大全集, 15th century) with the original illustrations: `http://www.silkqin.com/02qnpu/05tydq/ty3.htm`. On the history, see also Wang (2006, pp. 55–68) and Zang (2002, pp. 46–48). For its importance in the comparative study of musical notation systems and recording technologies, see Chua and Rehding (2021, pp. 140–145) as well as Rehding (2021).

46. The best-known example of this earlier and scarcely-attested notation method is the "Secluded Orchid" (*Jieshi diao youlan* 碣石調幽蘭) manuscript dated to the 7th century, which has received a detailed discussion in English in Yang (2014).

47. Note that, while *zimu* refers unambiguously to "letter" in the sense of the alphabet in modern Mandarin Chinese, its meaning in early modern Chinese is much more complex. This will be discussed in the next section.

TABLE 1. An incomplete list of common components in *qin* shorthand notation.

| Stroke group | Full graph | Meaning | Hand | Position |
|:---:|:---:|:---:|:---:|:---:|
| 大 | 大 | Thumb | L | L of T |
| 亻 | 食 | Index finger | L | L of T |
| 中 | 中 | Middle finger | L | L of T |
| 夕 | 名 | Ring finger | L | L of T |
| 𧿹 | 跪 | "Kneeling" ring finger | L | L of T |
| 艹 | 散 | Open string | L | T |
| 卜 | 绰 | Slide up | L | T of B |
| 氵 | 注 | Slide down | L | L of B |
| 尸 | 擘 | Thumb inward pluck | R | TL of B |
| 乇 | 托 | Thumb outward push | R | BL of B |
| 木 | 抹 | Index inward pluck | R | T of B |
| L | 挑 | Index outward push | R | BL of B |
| 勹 | 勾 | Middle inward pluck | R | TR of B |

rest (e.g., 省 for 少息, brief rest), and other information (e.g., �〈square曲冬〉 for 曲終, end of score).

The character grammar of *qin* shorthand notation cannot be treated in full here, but a general sketch can nevertheless be attempted to better situate this practice within what is already established of Zheng Qiao's grammatology. First, regarding the formation of the *zimu* or stroke groups. Quite clearly the selection of stroke groups, which may be a radical (氵 for 注) but more often a more arbitrary (albeit distinguishing and conventionalized) graphic subset of the full graph, exceeds the purview of "idiosyncratic allomorphy" as discussed in Myers (2019, pp. 55–69) and should be compared instead to medieval manuscript ligatures observed, again, in the Dunhuang manuscripts.[48] More generally, the abbreviation process can be situated along one of the two "pathways" of Chinese character simplification identified by David Lurie (2011, p. 314 ff.), namely abbreviation (or synecdoche) as opposed to cursivization (cf. Champollion, 1836, pp. 14–18). And similar to the products of these two pathways in the case of Japanese writing (*katakana* and *hiragana*, respectively), *qin* shorthand notation may be distinguished from the roughly contemporaneous musical notation system derived through cursivization—"vernacular character notation" (*suzi pu* 俗字譜)—not just graphically but also with respect to social prestige and musical genre (Kaufmann, 1972, pp. 174–182; Zang, 2002, pp. 53–60).

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48. The most well-known of such ligatures is writing *pusa* 菩薩 (Bodhisattva) as 芔 〈square艹艹〉. For a history of this type of ligature traditionally referred to as *hewen* 合文 or "conjoined graphs," which already appeared in oracle bone inscriptions and was perhaps most popular in early texts in general, see Galambos (2010). Note, however, that in ordinary ligation only up to two characters will be combined into one, which is not the case for *qin* shorthand notation.

FIGURE 2. The beginning of "Ancient Lament" (*guyuan* 古怨), composed by Jiang Kui 姜夔 (c. 1155–c. 1221), with lyrics. *Baishi daoren gequ shuzheng* 白石道人歌曲疏證 (preface 1749, rpt. in *Liaohai congshu* 遼海叢書 1934). East Asian Collection, University of Chicago Library. For a modern performance, see https://www.youtube.com/watch?v=kxT4paThVbM.

Second, at the level of conjoining, it should be observed that, of the composite graphs created from the stroke groups in the table above, the fundamental structure is more-or-less nonnegotiable and non-recursive.[49] The composite graph can always be split into an upper and a lower portion, where (very heuristically speaking and disregarding the numbers) we can state that the upper portion communicates a

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49. Only one "template" in general allows a full graph such as 𠀆𠀆夕十𠀆卜𠀆勹三 to be a component, which is structured by 早 (for 撮) and denotes two strings being plucked at the same time by different fingers. In this case, one full graph each would be placed to the bottom-right and bottom-left of 早.

steady state concerning only the left hand, while the lower portion communicates movement either to or from this state (right hand attack and left hand motions before or after the attack). On the top, the left hand fingering is always to the left, while on the bottom, the right hand technique will always conjoin directly with the string number, and it is to this composite that the left hand movement (if present) conjoins. The result is that each stroke group will always occupy the same position, and thus graphic allomorphy is reduced to a minimum. As in the case of transliterating Sanskrit syllables, conjoining in this case operates under a very stable blueprint in which each of its internal positions is functionally specialized.

### 2.3.3.   *The Challenge of Archaeology*

One last, unusual corpus of writing that greatly affected Zheng Qiao's grammatological thought must be introduced here, although it is somewhat different in nature from the previous two. While writing practices related to Buddhism or music were for Zheng Qiao recent history or even contemporary practice, Zheng Qiao also lived shortly after the appearance of the first-ever dedicated woodblock print publications of inscriptions (both facsimile and transcription) found on excavated bronzes from as early as the Shang and Zhou dynasties, publications such as Ouyang Xiu's 歐陽修 (1007–1072) *Jigu lu bawei* 集古錄跋尾 (*Colophons from the Records of Collecting Antiquity*), Lü Dalin's 呂大臨 (1046–1092) *Kaogu tu* 考古圖 (*Illustrations for the Study of Antiquity*, preface 1092) and *Bogu tu* 博古圖 (*Illustrated Catalogue of Antiquities*, 1122) created by Huizong 徽宗 (r.  1101–1125), the last emperor of the Northern Song dynasty (Pirazzoli-t'Serstevens, 2010; Sena, 2010; Shaughnessy, 1991; Visconti, 2015).[50] These publications add to two other major works of Song epigraphy, the *Han jian* 汗簡 (*Sweating the Bamboo*) by Guo Zhongshu 郭忠恕 (d. 977) and the *Guwen sishengyun* 古文四聲韻 (*Ancient Graphs Organized by Tone and Rime*) by Xia Song 夏竦 (985–1051), both of which contain large inventories of "ancient" (that is, Warring States) graph forms taken from various inscriptions available to the authors at the time (see Galambos, 2006, pp. 15–20).

These publications, which undoubtedly partook in the *Zeitgeist* of antiquarianism of the Song dynasty, also provided specific epistemological opportunities and challenges for philologically-minded scholars who

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50. It should be noted that these were not the first publications of archaeologically discovered texts after the Han dynasty, but rather the first that focus on—and accurate reproduce in print—the original inscriptions in large quantities (the two works cited describe over 200 and over 500 objects, respectively). For earlier instances of publishing excavated texts, consider the famous (and famously contentious) case of the *Bamboo Annals* (*Zhushu jinian* 竹書紀年) discovered in the autumn of 279 C.E. (Shaughnessy, 2006, pp. 185–256).

FIGURE 3. Facsimile and transcription of the inscription on a cauldron known as
"Jinjiang ding" 晉姜鼎 dated to the early Spring and Autumn period. *Kaogu tu* 考
古圖 (preface 1092, rpt. 14th–15th century). Harvard-Yenching Library.

read the inscriptions closely.[51] For the compiler of the *Illustrations for the
Study of Antiquity*, for example, the impressive presence of excavated in-
scriptions serves as a reminder of what is lost when later scholars take
on a more rebellious attitude toward the ancients. Taking aim specif-
ically at a text often associated today with philosophical Daoism—the
*Zhuangzi*—Lü Dalin writes in the preface:

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51. On Song dynasty antiquarianism and the appreciation of ancient inscriptions,
in addition to the already cited scholarship, see Egan (2006, pp. 7–59) and Sena
(2019).

莊周氏謂儒者逐迹喪真、學不善變、故為輪扁之說、芻狗之諭。重以漁父、盜跖、《詩》《禮》發冢之言、極其訾謷。夫學不知變、信有罪矣。變而不知止於中、其敝殆有甚焉。

Zhuangzi states that scholars obsess after traces [of the ancients] and lose sight of what is true, learn [from the books] but are not flexible, and therefore created [various fables and legends] that are insulting to scholars to the extreme. It may be true that it is a mistake to study [the Classics] without understanding how things have changed; but to drastically depart [from received teachings] without knowing where to stop, that is far more deleterious (Lü, 1092, *juan* 1: 1ʳ–1ᵛ).[52]

And the true traces of the ancients (which Lü would insist, *contra* Zhuangzi, is not an oxymoron) that are most worth venerating are to be found in the inscribed artefacts of antiquity, of which the Han dynasty editors, who tried to restore a textual order after the Qin "burning of the books," only possessed fragments (*yibian duanjian* 遺編斷簡, literally "remnant scrolls and broken bamboo slips"). Therefore his epoch is fortunate to be in possession of the various types of bronze vessels that, "over the course of millennia and centuries, emerged in mountains cliffs, the walls of buildings, agricultural fields, and tombs" (ibid., *juan* 1: 3ʳ). But his goal in gathering these inscriptions together, the compiler hastens to add, is not merely to delight in the accumulation of antiquaries; rather,

觀其器、誦其言、形容髣髴、以追三代之遺風、如見其人矣。以意逆志、或探其制作之原、以補經傳之闕亡、正諸儒之謬誤。

By inspecting the vessels and chanting the ancients' inscriptions, a vague glimpse of their countenance becomes perceptible. And in this way we recover the lingering customs of the Three Dynasties, as if being in the presence of the ancients ourselves. One may thus venture to speculate their intentions, and investigate why [the inscribed vessels] were created. Thus one may mend the lacunae of the received Classics, and correct the errors of various scholars [who have opined since then] (ibid., *juan* 1: 3ᵛ–4ʳ).

The general gesture made here—that the outcomes of archaeological investigations challenge received wisdom about the past—is a recognizable one, as powerful then as it is today. Zheng Qiao—who like many of his age believed that a better-mediated relation with the past is possible—mirrored this rhetoric freely in his own "Preface to Bronze and Stone" (*jinshi xu* 金石序), even borrowing wholesale Lü Dalin's motif that what excavated inscriptions make available are not merely the uttered speech but the countenance of the ancients:

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52. In the interest of succinctness I have opted not to translate Lü's numerous allusions to specific passages in the *Zhuangzi*. For a comparative study of this motif in *Zhuangzi* against the veneration of written texts from ancient times, which discusses some of these "fables and legends," see Zhang (1992, pp. 1–34).

方冊者、古人之言語。款識者、古人之面貌 [...] 蓋閒習禮度、不若式瞻容儀、諷誦
遺言、不若親承音旨。今方冊所傳者、已數千萬傳之後、其去親承之道遠矣。惟有金石
所以垂不朽、今列而為略 [...]

Today's codices consist of the spoken words of the ancients; ancient in-
scriptions consist instead of their countenance[...] [As Wang Cheng from the
Jin period writes,] "studying vainly the ritual norms is much inferior to wit-
nessing mannered demeanor in person, and chanting the remnant speech is
much inferior to receiving the sound of the instruction oneself." What is be-
ing conveyed in codices today has undergone thousands if not tens of thou-
sands of phases of transmission, and it has strayed far from what was received
[by the ancients] themselves. Only bronze and stone persist without decay,
and now I list them to form a "Compendium" [...] (Zheng, 1995, p. 1843).

It is often said with respect to this early period of Chinese archaeol-
ogy that "complex theories were proposed to explicate the historical and
ritual significance of ancient objects. As a result, historical narratives
and cosmological outlooks were modified or expanded based on the re-
vised understanding of antiquity" (Sena, 2019, p. 3). It is important that
most of the terms in these claims are in the plural: what this face-to-face
with the ancients meant for Zheng Qiao—the "understanding of antiq-
uity" it results in and the modification of historical narratives that it
necessitates—should be distinguished from a general antiquarian point
of view represented by scholars like Lü Dalin. Lü Dalin, in his celebra-
tion of antiquity, tends to downplay the strangeness of the past (espe-
cially from a grammatological or epigraphic perspective), but the earlier
epigraphist Yang Nanzhong 楊南仲, whose opinion was cited at length by
Ouyang Xiu, is much more forthright in his comments on the inscription
on the *Hancheng ding* 韓城鼎 cauldron:

其銘蓋多古文奇字、古文自漢世知者已稀、字之傳者、賈逵、許慎輩多無其說。蓋
古之事物有不與後世同者、故不能盡通其作字之本意也。其不傳者、今或得於古器、無
所依據、難以臆斷。大抵古字多省偏旁而趣簡易 [...]

This inscription has many ancient and strange graphs, and few after the
Han dynasty have known them. As for graphs with received counterparts,
scholars like Jia Kui and Xu Shen have failed to give us appropriate interpre-
tations of them. The way things were in the past differs sometimes from the
way they are now; and for this reason, the original intention behind the cre-
ation of the graph cannot be fully understood. Of graphs without received
counterparts, and which we have now chanced upon in ancient vessels, there
is nothing upon which to base our speculations. We can roughly conjec-
ture that ancient graphs often omit radicals and prefer simpler forms [...]
(Ouyang, 1888, *juan* 1: 5ʳ).

The face-to-face with the ancients, far from confirming what is already
known (the ambition of cultural conservatism), is for this experienced
epigraphist instead almost humbling: it reveals how little one knows
about the chronotope at the heart of "this culture of ours" (cf. Bol,

1992).[53] It is a strangeness that calls for a reevaluation of what is gained or lost in traditional scholarship, among other things.[54]  Zheng Qiao's response to this challenge, which is much closer to Yang Nanzhong's than to Lü Dalin's, will be outlined below.  For now, however, I will only mention that while Zheng Qiao's "Compendium on Bronze and Stone"―which contains only the list of names of inscriptions with date and location―is often cited in the history of Chinese archaeology, his much-closer analysis of the ancient graph forms as would have been available to him through print publications, which can be found near the end of the "Compendium on the *Liushu*," is rarely discussed in that or other contexts, as previous scholars have tended to focus on aspects of the latter that anticipates later "*liushu* studies."

## 3.   Outline of Zheng Qiao's Grammatology

### 3.1.   The Vitality of Writing

From today's viewpoint, Zheng Qiao's selection of what counts as writing is thus free from a number of "-centrisms": it takes into account both writing practices from other cultures and minor practices within one's own culture, both graphs that record speech and graphs that inform performance, and both scripts of the present and scripts of the past.  This series of "both"s, furthermore, does not introduce binaries but at most a space of variation, with underlying technical continua and analogies, as we have already begun to see. In this section, I switch from an etic account of Zheng Qiao's sources (differentiating them, as I have done above, using familiar categories such as Indian, music, or archaeology) to an emic exposition of his concepts.  The emphasis will fall on how Zheng Qiao created grammatological concepts, often by extrapolating and radicalizing existing ones within Chinese grammatological

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53. On the multiple transliterations of the Hancheng inscription and their provenance, as well as Ouyang Xiu's suspension of judgement on their veracity, see Sena (2019, pp. 54–63).

54. Thus, after reading the transcriptions and learning about how pre-Qin character grammar differed from his own, Ouyang Xiu laments, in a sentiment that anticipates Zheng Qiao's: "The seal scripts of antiquity at times have additional [components], and at times omit [components] entirely, and [the same component] can also be move to the left, right, above, and below [of the other] in accordance to the [artisan's] desire but also limited by their skill. Since the time of the Qin and the Han, all this are limited and forced into one set of graph forms, thus [inscriptions such as this] is all we see of ancient writing.  How regretable!" 古之篆字、或多或省、或移之左右上下、惟其意之所欲、然亦有工拙。秦、漢以來、裁歸一體、故古文所見者止此、惜哉！(Ouyang, 1888, *juan* 1: 6$^v$).

discourse, to structure these heterogeneous corpora of writing and render legible their intra- and inter-corpora relations.

At the conceptual borderlands of Zheng Qiao's grammatological thought, which is far enough from the formal analysis of graphs that it cannot be studied in detail here, is an anthropology that attempts to understand what makes the human (in a world peopled also by plants and animals) uniquely capable of writing, which also differentiates written texts (*shu* 書) from drawn images (*tu* 圖).[55] The latter point is particularly significant because, while Zheng Qiao makes clear that all the *liushu* are variations derived from original *xiangxing* 象形 or "pictographs," he is also clear that despite their shared point of departure, pictographs and images follow fundamentally different patterns of meaning-making, the former taking on "form" (*xiang* 象) with a tendency toward simplification while the latter takes on "shape" (*xing* 形) with a tendency toward details (Zheng, 1995, p. 234).[56]

Writing thus shares the same basis as, yet is defined by an originary departure from, pictures. Owing to its tendency toward simplicity, Zheng Qiao continues, the "pictograph" lends itself much more than does picture to variation and diversification (*bian* 變), the two processes that produce the *liushu* categories (ibid., p. 234). These transformations are not evolutionary or sequential but sedimentary, resulting in a heterogeneous field resulting from their interplay not unlike a game of *go* resulting from the minimal difference between the white and the black stone:

> 經之有六書、猶奕之有二棋 [...] 奕之變無窮、不離二色 [...] 苟二棋之無別、白猶黑也、黑猶白也、何以明勝負？

> That the Classics are composed of [graphs of the] *liushu* types is like the game of *go* being composed of stones of two types [...] the game has infinite variations, yet it does not depart from those two colors [...] and had there been no difference between the two types of stones, with the white being indistinguishable from black and the black being indistinguishable from white, how could one decide the win and the loss? (ibid., p. 233).

This metaphor is both elucidating and misleading. Elucidating, because it demonstrates that a mixture of multiple types of graphs (rather than a homogeneous inventory of "pictorgraphs" or "phonographs") is crucial

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55. On human nature, Zheng Qiao's position essentially is that humans are at once animal-like (*dongwu* 動物, moving-things) and plant-like (*zhiwu* 植物, planted-things), capable of horizontal movement yet having a vertical corporeal orientation. This hybridity—a bipedal posture, to risk an anachronism—renders the human body something of a site of interaction between Earth and Heaven, born from the former yet receiving the Way of the latter (Zheng, 1995, p. 349).

56. On Zheng Qiao's writing on the relation between images and writing, including translations of the relevant primary texts, see Si (2008, esp. pp. 54–81, pp. 137–141).

for the function of writing; misleading, because it paints a picture of writing that is merely generated combinatorially by a finite set of types, while we have already seen that Zheng Qiao's epoch is one in which many corpora of writing challenged the millennium-old claim that the combinatorial logic of *liushu* is the origin of the creation of graphs (*zaozi zhi ben* 造字之本). Indeed, Zheng Qiao touches upon this claim but immediately moves on to two more general—and original—principles that lay the foundation of a more general grammatology, and subsumed the *liushu* categories under their operation. The two principles are:

1. The generative relation between child-graphs and mother-graphs 子母之相生; and
2. The difference between simple and compound graphs 文字之有間 (ibid., p. 233).

Just precisely what the two principles entail is the topic of this section. For now, I will note that it is here that we find the polysemic concept that, much more than *liushu*, is most general and generative for Zheng Qiao's conception of writing, and which indeed can be found everywhere in "Compendium on the *Liushu*": *sheng* 生, which translates (across a number of grammatical categories) to "to grow," "to give life to," "to live," "to produce," "to generate," "living," or "life."

It would not be an exaggeration to state that for Zheng Qiao, the most general and salient characteristic of writing in general is its vitality or generativity, its manifold engagement with growth.[57] This dependence on life is not a naïve vitalism that locates an *élan* or entelechy within material things, but a specific reference to the etymology of "*zi*" 字 (graph, or in Zheng Qiao more specifically compound graph), as given for example in the *Shuowen*:

> 字：乳也。
>
> *zi* 字 is the same as *ru* 乳.
>
> 乳：人及鳥生子曰乳、獸曰産。
>
> When human and birds give birth to offspring, it is called *ru* 乳. In the case of beasts, it is called *chan* 産.[58]

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57. Yannis Haralambous points out to me that the centrality of this life metaphor in Zheng Qiao's grammatology bears resemblance to the "Chinese DNA" project developed by Chu Bong-Foo's team (2000; n.d.).

58. For Xu Shen's definitions in the *Shuowen*, I use the convenient digital edition `https://www.shuowen.org/`, which also includes the influential commentary of Duan Yucai 段玉裁 (1735–1815). The two graphs are numbered 9720 and 7665, respectively. A more complete but also more complex online philological aid that collates various *Shuowen* commentaries can be accessed at `http://www.kaom.net/book_xungu.php`.

This earlier usage of "*zi*" (which graphically decomposes to a child 子 under a roof 宀), as something akin to establishing a parent-child relation (through birth or, more often in received texts, metaphoric adoption), is attested in a number of canonical texts composed before the Qin conquests, and was clearly on Zheng Qiao's mind as he categorizes different components of compound graphs into child-graphs and mother-graphs.[59] To write a compound graph is already to bespeak a relation between its components, wherein one (the phonetic component, in today's parlance) enters into the care of the other (the determinative).

But the significance of *sheng* or life eventually outgrows its origin in the etymology of *zi*, and comes to denote a general orientation of Zheng Qiao's project, which as we have seen is committed to living practices of writing. In his own words (and referring to his earlier work that is now lost):

> 臣六書證篇實本説文而作、凡許氏是者從之、非者違之。其同乎許氏者、因畫成文、文必有説、因文成字、字必有解。其異乎許氏者、每篇總文字之成、而證以六書之義、故曰六書證篇。然許氏多虛言、證篇惟實義、許氏所説多滯於死、證篇所説獨得其生。葢許氏之義、著於簡書而不能離簡書、故謂之死。證篇之義、舍簡書之陳迹、能飛行走動不滯一隅、故謂之生。

My "Verified Chapters on the *Liushu*" were written with the *Shuowen* as their basis. I followed Mr. Xu whenever he is correct, and contradicted him whenever he is wrong. Where I followed him: because simple graphs (*wen*) have their basis in drawings, all simple graphs have an explanation; because compound graphs (*zi*) have their basis in simple graphs, all compound graphs also have an analysis. Where I contradicted him: every chapter collected graphs as we find them, and verified them with the *liushu*, which is why the work is titled "Verified Chapters on the *Liushu*." While Mr. Xu has mainly empty speech, the *Verified Chapters* have only real significance. What

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59. In the *Zuo Tradition of the Spring and Autumn Annals* (*Zuoshi chunqiu* 左氏春秋, traditionally attributed to Confucius' contemporary Zuo Qiuming 左丘明), where this earlier sense of the graph is used most consistently, "*zi*" denoted something closer to an adoptive relation rather than a blood relation, a matter of "taking someone under one's wing," so to speak. Consider the following examples:

> 楚雖大、非吾族也、其肯字我乎？

Although Chu is great, its people are not our kin. Will it be willing to care for (字) us? (Zuo, 2016, p. 747).

> 禮也者、小事大、大字小之謂、事大在共其時命、字小在恤其所無。

By definition, ritual propriety means that the lesser serve the greater and the greater care for (字) the lesser. Serving the greater consists of respecting timely commands from them. Caring for the lesser consists of showing concern about the things that they lack (ibid., p. 1705).

The quotations are from the Fourth Year of Duke Cheng (587 B.C.E.) and the Thirtieth year of Duke Zhao (512 B.C.E.), respectively. This usage, rather than biological offspring, seems to be much better represented across the *Zuo Tradition*.

is discussed by Mr. Xu is constrained by the [scheme's] being inert/dead (*si* 死), whereas the discussions of *Verified Chapters* are uniquely receptive to life (*sheng*). This is because Mr. Xu's writing is attached to inscriptions on bamboo slips but cannot be lifted therefrom, hence I say they lack life. My *Verified Chapters* leave behind the aged traces of bamboo slips and lets words move about freely without being constrained to one place, hence I call their characters "alive" (Zheng, 1995, p. 343).

The concept of life or *sheng* 生 thus operates in Zheng Qiao's "Compendium" in two, interrelated, ways. First, *sheng* denotes intra- and inter-graphic relations that his study of writing focuses on, such as the relation between different components in a compound graph or the lines of variation or diversification linking one graph to another. Second, *sheng* signals that this way of thinking about writing is both dependent on and applicable to the expanded field in which the boundary of Sinography has become fuzzy, leaving behind Xu Shen's limited corpus to include, as we have seen, other writing practices known in Zheng Qiao's time that he felt grammatology needed to take into account.

## 3.2. Simple Graphs

The entanglement between these two meanings of *sheng* can be seen throughout the five-volume "Compendium on the *Liushu*," where new grapholinguistic data engender new conceptual paradigms and vice versa. This interconnection between epigraphy and grammatology is especially salient in the work's fifth, most theoretical volume, which will be the focus of the remainder of this paper. I follow Zheng Qiao's second principle and present this material by establishing first a distinction between simple and compound graphs (*wen* 文 and *zi* 字, respectively). This historically contentious distinction, famously articulated as "those graphs whose body is isolated are/become *wen*, and those graphs whose body is conjoined are/become *zi*" 獨體為文、合體為字, concerns not so much what each graph *is*, as an unchanging quality insensitive to its contexts, but the trajectory of becoming or the network of relations that a graph encrypts, while alternative trajectories or networks always lurk not too far away (ibid., p. 5).[60]

The opening essay in the fifth volume of the "Compendium on the *Liushu*" is titled "The Diagram of '一' Arising and Becoming Simple

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60. In the fifth volume, essays that deal with the grammar of simple graphs and compound graphs do not exhaust all the forces conductive of neographism, as Zheng Qiao also discusses contractions (Zheng, 1995, pp. 339–341), what is lost and gained between the Seal and the Cleric Scripts (ibid., p. 346), graphs created *ex novo* by specific historical persons such as Empress Wu Zetian (r. 690–750) (ibid., p. 347), and other topics. Their omission in this paper is the choice of this author, not Zheng Qiao's.

Graphs" (*qiyi chengwen tu* 起一成文圖), and it situates the formal origin of the simple graph in "一," the trace left on the inscriptional surface by a steadily moving hand.[61] The bulk of this essay follow a repetitious syntactic pattern, demonstrating the transformations of the stroke through various geometric operations, often through intermediate graphic patterns for which Zheng Qiao always provides a phonetic gloss. A representative sequence of transformation of "一" would read:

折一為⌐、反⌐ 為 ⌐, 轉 ⌐為 ∟、反 ∟為⌐。至⌐ 而窮。

Bend 一 and [it] becomes ⌐ , invert ⌐ and [it] becomes  ⌐, rotate  ⌐ and [it] becomes  ∟, invert  ∟ and [it] becomes ⌐ . [When this line of variation] reaches ⌐ it is exhausted (Zheng, 1995, p. 335).[62]

The stable quadri(grapho)syllabic syntax here gives a sense of regularity or recursivity: [變]A 為 B, or [transform] A and [it] becomes B, to be followed by C (from B), D (from C), E (from D), etc. This phrase structure dominates both the first essay (wherein five different, diverging lines of variation from "一" are given) and the second essay. The verbs denoting the transformation proliferate as the essays go on. It is therefore informative that, at the beginning of this procession or cascade of becomings, this syntax is altered slightly:

衡為一。從為丨。邪丨為丿 、反丿 為乀。至乀為窮。

Horizontal and [it] becomes 一, vertical and [it] becomes 丨. Tilt 丨 and [it] becomes 丿 , invert 丿 and [it] becomes 乀. [When this line of variation] reaches 乀 it is exhausted (ibid., p. 335).

I have left out from the translation of the first sentence information that is not in the original (and which Zheng Qiao could have provided had he intended to). What is noteworthy here is that 一 is not, in itself, held to be the origin of the cascade, which is instead occupied by an absent "A" whose content we are left to conjecture: the movement of the hand? ink on paper? something else entirely? What Zheng Qiao does explain is that 一 is chosen for a reason, which is what differentiates the graph from two other alternatives that might, upon first sight, seem to better represent the origin or perfection, the dot and the circle:

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61. Undoubtedly Zheng Qiao is playing upon cosmological claims in canonical philosophical texts that posit the arising of all things from Oneness (the linguistic signification of *yi* 一), which arises from Nothingness, but his reference to this discourse is interesting precisely because he reformulates it—and in so doing modifies it—in grapholinguistic terms. On Oneness and the changing conceptions of coherence in (pre-Song) Chinese thought, see Ziporyn (2012; 2013).

62. Once again, we should be reminded that Zheng Qiao insists all of these graphs can be read out loud. Thus, he notes that ⌐ should be read as 及 [*gip], and so on. However, I will not provide these readings in this paper as with other Sinographs, since they are often not attested anywhere else and are, in my view, meaningless.

引一而繞合之、方則為□、圓則為○。至 ○ 則環轉無異勢、一之道盡矣。丶、與一偶、一能生、丶不能生、以不可屈曲、又不可引、引則成丨 [...] 天地之道、陰陽之理也。

Prolong 一 and close it upon itself, if squared it becomes □, if circled it becomes ○. Reaching ○, [the graph] turns in a circle and lacks the propensity for deviation, and here the Way of 一 is exhausted. The dot 丶 is the opposite of 一. 一 is capable of generating (*sheng* 生), but 丶 is not. This is because it cannot bend or form curves, and neither can it be prolonged: if prolonged it just becomes 丨 [...] Such is the Way of Heaven of Earth, the pattern inherent in *yin* and *yang* (ibid., p. 335).

"The Way of 一" is tellingly exhausted upon reaching a homogeneous curvature, when the "propensity for deviation" is expelled: that which qualifies 一 as the substitute origin of simple graphs is precisely its capacity for variance, be it in the form of bending, being prolonged, or anything else.

If this first essay in the fifth volume of "Compendium on the *Liushu*" demonstrates the proliferation of graphs generated by 一 or, in what amounts to the same thing, its propensity for deviation, the second, titled "Diagram of the Formation of Forms from Simple Graphs" (因文成象圖), displays the diversity of generative relationships or trajectories of variation among a larger repertoire of graphs, many of which epigraphic evidence found in publications such as the *Illustrations for the Study of Antiquity* and the *Ancient Graphs Organized by Tone and Rime* introduced above.[63] A total of nearly twenty types of inter-graphic relationships are suggested, although no claim is made that all such relationships are exhaustively listed in the essay. Each of these relationships is introduced with a phrase such as "there are [graphs] obtained through vertical inversion" (有到取), followed by a list of examples (less sequentialized than in the previous essay). An exemplary subset of these relationships is as follows (ibid., pp. 335–336):

With the benefit of hindsight, it is not difficult to see that Zheng relies, without discrimination, on graphs from a variety of sources to make his points, some more reliable than others.[64] But thinking through the

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63. Other significant sources for graphs analyzed in this essay are the Seal Scripts given in the *Shuowen*, graph forms of his own day, as well as the *Classic of Changes* (*Yijing* 易經) hexagrams, which are analyzed as the origins of some later glottographic graphs.

64. We know, for example, that 三 is a common form of "four" in oracle bone and bronze inscriptions, and only became replaced by the "modern" form 四 *en masse* in Warring States manuscripts. The ligature 廿 is likewise familiar to any student of Chinese even today, and the calligraphic differentiation of 毋 and 母 is a textbook example in Chinese paleography for the reduction of a polysemic graph's lexical load (Qiu, 2000, pp. 325–326). On the other hand, the form ⼓ for "left," while clearly taken from the aforementioned *Sweating the Bamboo* lexicon, is only attested among excavated materials in oracle bone inscriptions, which neither Zheng Qiao nor his prede-

TABLE 2. Selected transformations/relations of simple graphs.

| Transformation | Zheng's Term | Example |
| --- | --- | --- |
| Vertical inversion | 到 | ⊥ (up) to ⊤ (down) |
| Horizontal inversion | 向 | ⼃ (left) to ⺄ (right) |
| Back to back | 相背向 | 似 (to do) to 从 (north) |
| Taking from what is near | 近 | ☷ (the *kun* trigram) to 巛 (earth) |
| Reduplication | 加 | 二 (two) and 二 to 亖 (four) |
| Subtraction | 減 | 二 and 十 (ten) to 廿 (twenty) |
| Changing the middle | 中 | 毋 (do not) to 母 (mother) |

internal logic of the text rather than evaluating his arguments against the yardstick of epigraphic accuracy, the point of the essay becomes clearer: simple graphs are generated from each other through graphical operations, and it is first and foremost through the invisible threads left behind by these operations that we should understand their forms. Thus the cascade of variance that Zheng Qiao traces back to the horizontal stroke 一 continues through a much larger corpus of graphs, past and present, through plural yet specific patterns that have little to do with the radical-based system of the *Shuowen* or any of the *liushu* principles. A cascade that flows through the world of simple graphs until the appearance of a different type of relationship fundamentally different from everything discussed so far—the bending, adding, subtracting of strokes, the geometric manipulation of components, and so on. This relationship is the intra-graphic relationship of conjoining.

## 3.3.  Compound Graphs

In the texts available to Zheng Qiao and in his own writing, the term *zimu* 字母 (mother-graph) meant something more intricate and intriguing than letters in an alphabet. The term can be traced to its specialized use in Buddhist scriptures or commentaries, where it signified the initial consonant (with an inherent vowel) in the Brahmic writing systems known in China since the third century C.E., while intermittently designating the basic unit of Brahmic writing systems, the *akṣara* (Mak, 2014,

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cessors likely had knowledge of. The more common form in bronze inscriptions and later manuscripts is in fact the one given in the *Shuowen* (similar to the "modern" form 左), while in the Chu manuscripts the 工 signific is often replaced by the 口 signific. For epigraphic aid and the images of graphs in excavated inscriptions, I refer to the *Open Ancient Chinese Characters Glyph Database*: http://www.ccamc.co/cjkv_oaccgd.php?.

p. 215).[65] Its more general usage, which Zheng Qiao relies upon, derives from the Sinographic *zimu* attributed to the late-Tang monk Shouwen 守溫, who selected thirty-six graphs, in imitation of the phonological organization of Sanskrit syllables, that represent the thirty-six initials of the Chinese language.[66] Zheng Qiao's praise for these *zimu*, which form the backbones of phonological rime tables, is unreserved:

> 華僧從而定之、以三十六為之母、重輕清濁、不失其倫、天地萬物之音、備於此矣。雖鶴唳風聲、雞鳴狗吠、雷霆驚天、蚊蝱過耳、皆可譯也、況於人言乎。

> The Chinese monk followed [Indian phonology] and established the mother-graphs with thirty-six graphs, which preserved the distinctions between accented and unaccented, voiced and voiceless sounds. In these [written characters] are the sounds of all the myriad things of heaven and earth. Though it be the cry of a crane, the voice of the wind, the crow of a cock, the bark of a dog, the crash of thunder which startles heaven, the buzz of a tiny insect passing by your ear, all can be rendered [through these graphs]. How much more so [can it render the sounds of] human speech![67] (Zheng, 1995, pp. 353–354)

Zheng Qiao's fascination with the use of Sinographs in phonology likely informed the vocabulary he uses to discuss grammatology, where the becoming-initial of a graph in *fanqie* 反切 spelling or the becoming-consonant of a Sanskrit *zimu* when a vowel mark is added becomes a blueprint for how the becoming-component of a graph is conceptualized. Zheng Qiao was not the first to notice the grammatological analogy between the Sanskrit abugida and compound graphs in Chinese writing, as Buddhist writers such as Sengyou had carried out similar analyses half a millennium earlier; but his systematization of this vocabulary connects component-based analyses of compound graphs to his general concept of life and enables a reformulation of the *liushu* theory (Bottéro, 2004).

It is safe to conjecture that Zheng Qiao's concept of the child-graph (*zizi* 字子) is his own (or otherwise contemporary) invention, reassessing *zimu* as being only half of the vocabulary necessary to describe compound graphs. Unlike the operation of conjoining, which as we have seen is shared across various writing systems that Zheng Qiao discusses,

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65. The Tang dynasty monk Huilin 慧琳, in a widely-referenced lexicon of Buddhist terms titled *Sound and Meaning of All Sutras* (*Yiqiejing yinyi* 一切經音義, c. 807), described Sanskrit *wenzi* 文字 as having twelve vowel markers (*fanzi shengshi* 翻字聲勢), thirty-four mother-graphs (*zimu*), and four "helping sounds" (*zhusheng* 助聲). See Jao (1990, pp. 113–117).

66. On the history of Chinese traditional phonology, including discussion of key terms such as the rime table, *fanqie* spelling, and the thirty-six *zimu*, see Branner (2006) and Pulleyblank (1999).

67. Translation modified from Mair (1993, p. 339).

the idiom of child- and mother-graphs is primarily reserved for compound Sinographs. At the most basic level, Zheng Qiao defines them in the following way:

立類為母、從類為子。母主形、子主聲。

That which establishes a category is the mother-graph, and that which follows an established category is the child-graph. The mother-graph prioritizes its shape, while the child-graph prioritizes its sound (Zheng, 1995, p. 344).

There is an echo here to Xu Shen's organization of the *Shuowen* here, however critical Zheng Qiao is of Xu's actual categories that sometimes file graphs under their child-graphs instead of mother-graphs.[68] Zheng Qiao is careful to establish that, while the mother-graph in this context is fully analogous to the *zimu* of phonology, their difference can be accounted for by the different meanings "category" (*lei* 類) assumes when different organs of perception are in play. The visual identity of the *Shuowen* "radical," which Zheng Qiao takes to be the more important in the "learning of the eye" (*yan xue* 眼學, that is, grammatology as opposed to phonology; cf. (Zhang and Mair, 2020)), establishes a category under which is gathered various adopted children, components that are now under its care (*zi* 字).

Of the six categories of the *liushu*, only two consist of compound graphs that can definitionally be analyzed through this new idiom: the syssemantograph (*huiyi* 會意) and the phonetic compound (*xiesheng* 諧聲). Of which, "[the conjoining of] two mother-graphs form the syssemantograph, [the conjoining of] a mother-graph and a child-graph form the phonetic compound" 二母為會意、一子一母為諧聲 (Zheng, 1995, p. 233). Nevertheless, Zheng Qiao uses these two terms as the main anchors for his analyses of graphs falling under those categories as their numerous subcategories. These numerous subcategories have been studied in previously-cited scholarship that situate Zheng Qiao in the context of *liushu* studies, and therefore will not be examined here.

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68. For example, Zheng Qiao criticizes the 句 category in the *Shuowen*. in which are included graphs 拘 and 鉤. Zheng Qiao argues that 拘 should be subsumed under the hand radical and 鉤 the metal radical, and the 句 category is pointless because 句 is a child-graph, not a mother-graph (Zheng, 1995, pp. 344–345).

## 4.   Conclusion: Time and Variations

> Instead of condemning or excluding, one consigns
> a certain thing to antiquity, to archaism. One no
> longer says "false" but, rather, "out-of-date," or
> "obsolete." In earlier times people dreamed; now
> we think. Once people sang poetry; today we
> experiment efficiently. History is thus the
> projection of this very real exclusion into an
> imaginary, even imperialistic time. The temporal
> rupture is the equivalent of a dogmatic expulsion.
>
> Serres, 1995, p. 50

> It is the variation itself that is systematic, in the
> sense in which musicians say that "the theme is the
> variation."
>
> Deleuze and Guattari, 1987, p. 93

This paper began by examining Chinese grammatology's complex relationship with empirical, epigraphic research and questioning to what extent it is—or should be—an offspring of traditional *liushu* studies, conventionally but ahistorically traced back to Xu Shen's *Shuowen* postscript. But instead of answering these questions in the context of current academic debates in their respective disciplines, I returned to the philological writings of Zheng Qiao—whom many considers to be the progenitor of later *liushu* studies—and demonstrated that these writings contain multiple currents of thought that do not lend themselves easily to be recruited by a single, coherent research program. The "Compendium on the *Liushu*" certainly contains an attempt to categorize a standard repertoire of glottographic Sinographs according to the *liushu*, but it is also something different and more. Zheng Qiao's grammatology, when read along the lines sketched out in this paper, exemplifies an explicit interconnection between grammatological and epigraphic modes of thinking: by drastically expanding the purview of what is included in the study of writing, the basic concepts and operating underlying formal theorizations of writing are also continuously transformed, resulting in deep analogies between different repertoires of writing and provisional lists of operations that are never fully finalized. All of the methodology and results that emerge along these lines—the commitment to living practices of writing, the centrality of inter- and intra-graphic relations, the recognition of the propensity for deviation as the originary force of neographism—are encapsulated in the term *sheng* 生, which Zheng uses to align the realm of writing with its immanently productive or generative forces. Seen in this light, the term "grammatogenetics" as opposed to

"grammatology" is perhaps more fitting for the nature of his endeavor, since the invention of writing is no longer a rarefied event of the distant past but a continual, only derivatively signifying process central to the nature of writing itself.[69]

It goes without saying that Zheng Qiao's study of grammatogenesis is at once linguistic and philosophical, and I will not further summarize its details beyond what is already given above. A further dimension of this grammatogenetics is its politics. It has sometimes been observed that, in the context of twentieth-century Chinese archaeology, "the transformation of archaeology into the virtual handmaiden of antiquarianist historiography coincide with an increasingly reactionary political climate" (Von Falkenhausen, 1993). We have already seen how such a dynamic was already at play in the Northern Song, with Lü Dalin's preface heralding an elimination of difference and a return to antiquity, whose glory in part derives from a presumed homogeneity and unity. But Zheng Qiao's antiquarianism, if we can call it that, imagines that the archaeology of writing and writing-related concepts alike will open up another possible relation with the past, not establishing a dichotomy of orthodoxy and deviation but a relation of kinship in diversity.[70] His patience for and attention toward the graphic heterogeneity of his own time is echoed by what the study of excavated texts enabled him to confirm: that the scripts of the ancients had variance and deviation as a core element, and that instead of an imagined teleological orthography that later scholars so eagerly project backward in time what prevailed were local habits and sensibilities.[71] Zheng Qiao's response to such antiquarian tendencies within paleography in the "Compendium" proceeds in four essays, the first three being lists of examples while the fourth developing a focused argument.

The first three essays are titled "Diagram of Variant Graphs Across Time" (*gujin shuwen tu* 古今殊文圖), "Diagram of Variant Graphs Within a Single Era" (*yidai shuwen tu* 一代殊文圖), and "Diagram of Variant Graphs in Various States" (*zhuguo shuwen tu* 諸國殊文圖), and they enumerate examples of what, in today's parlance, amounts to the diachronic change as well as synchronic variability of graph forms (cf. Galambos, 2006). In the first essay he chooses commonly appearing graphs such as 泉, 貨 (both meaning "currency") or 惟 (a common particle at the beginning of texts) and traces the various forms they take in inscriptions dated from

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69. I am inspired in this formulation by Brian Massumi's distinction between "ontology" and "ontogenetics" in philosophy, one prioritizing positions and entities while the other emergence and becoming (2021, pp. 1–23).

70. Zheng Qiao's position in this regard, as is perhaps clear by now, is also taken by this author.

71. I use the term "orthography" strictly in the sense of a normative standard of graph forms.

the time of the legendary Yellow Emperor to the Shang and the Zhou dynasties.[72]  The second essay focus on local corpora such as "the coins of Fuxi" and the money and inscribed vessels of Shang to demonstrate that even under one sovereign, the "same" graph can be written with a considerable degree of variance.  Finally, in the third essay, Zheng Qiao turns to the same graph inscribed on vessels attributed to various dukes of the Zhou, and once again finds considerable variance in how graphs such as 文 and 公 are written.  Neither of the three essays are particularly long, although they each end with a sentence that states that graphic variation of the type described are too many to list, and the examples given in the essays should provide a general idea of the phenomena (Zheng, 1995, pp. 337–339).
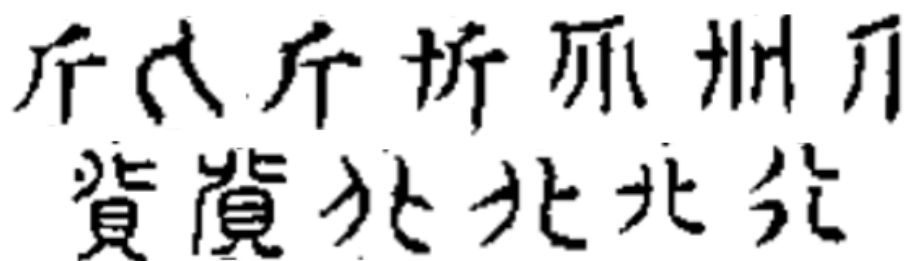


FIGURE 4. Variants graphs of 貨 Zheng Qiao gives in "Diagram of Variant Graphs Across Time" (*gujin shuwen tu* 古今殊文圖), attributed to money dated from the Yellow Emperor's time (top left) up to the Zhou.

All this, Zheng Qiao concludes, is evidence of the arrogance of the Qin conquerors who "unified" China, that is to say, homogenized it, and also of later scholars who attempted to legitimize the imperialistic installation of the "modern" orthography. How could the intent of the ancient sages be tied to this or that specific graph form (which, according to Xu Shen, the Clerical Script of his day inherits) when there were no fewer than thirteen ways of writing a graph like 貨 in inscriptions dated to their era? Thus the hermeneutic attitude in the study of a privileged set of graph forms—an attitude that focus on the graphs' original intent or inherent meaning (*yi* 義)—is a futile endeavor misguided from the

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72. In this and the following essay, Zheng Qiao references many graphs found on ancient money, but I have been unable to locate the source of those inscriptions in any received text.  Ming scholars cite Zheng Qiao's now-lost work *Quanpu* 泉譜 or *Catalogue of Coins* as a paleographic authority, therefore it is likely that Zheng Qiao is referring to inscriptions included in this work, inscriptions that he perhaps played an active part in collecting.

start.[73]  In this way, Zheng Qiao recovers the intention of the ancients by suggesting, paradoxically, that the very idea of such an intention that can be discerned from graph forms is a later fantasy:

> 後人之書、附義成文、古人之書、舍義成文。文而無義者、皆古聖人之書也、附義成文者、皆是依緣意想而取象、舍依緣則其意無所繫者、此後人之用心也。

> Later scholars graft "meaning" to their writings, while the ancients write by leaving "meaning" behind. All writings that are without inherent intention or meaning are the writings of the ancient sages. The formation of graphs with "meaning" attached to them, on the other hand, are dependent upon mental speculations and are meaningless without them. Such are the artifices of later scholars (Zheng, 1995, p. 339).

But what is without "meaning" in this strong sense created by Han scholars is not arbitrary or disorderly, as the Xu Shen postscript portrays; rather, what differentiates between the writing practices of pre- and post-Qin China is that in the former, the source of meaning is not legitimated by the authority of the origin, but rather by various local habits of reading and writing:

> 觀諸國殊文、則知三代之時、諸國之書、有同有異、各隨所習而安、不可彊之使同。秦人無知、欲使天下好惡趨避盡狥於我、易天下之心而同吾之心、易天下之面而同吾之面。

> Beholding the various graphs of each nation, we see that at the time of the Three Dynasties [Xia, Shang, and Zhou] the writings of each state had their similarities but also their differences. They were each content with what was habitual for themselves and did not territorialize writing to enforce homogeneity. The Qin regime was ignorant and wanted to forcibly make the preferences of all under the Heaven follow its own preferences, to change the heartminds of all under the Heaven to be the same as its own heartmind, to alter the countenance of all under the Heaven to be the same as its own countenance (ibid., p. 339).

Or worse: it may have eradicated the heartmind (*xin* 心) of others entirely through the mutilation of their senses (cf. Dean and Massumi, 1992, pp. 26–39). It is perhaps fitting to conclude this conclusion by citing at length a recent study by Liu Baojun 劉寶俊 of the use of the 心 signific across three corpora of bamboo inscriptions from the Chu state (namely the Guodian, Shanghai, and Tsinghua manuscripts), and in particular his discussion, in light of Chu heterographic practices in

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73. The polemical argument against the overemphasis on "meaning" strongly echoes his famous argument against the exegetical tradition surrounding the *Classic of Poetry*, claiming that the songs therein should not be read for their implicit moral messages—as has been done since the influential *Mao Tradition* of the Han dynasty—but were edited by Confucius primarily on the basis of their appropriateness for various ritual occasions as musical compositions (Mittag, 1993a).

general, of the 憇 graph with which this paper began. Citing the opinion of Pang Pu and echoing the sentiment of Zheng Qiao, Liu Baojun writes:

> "憇" is a specialized graph created by the people of the Chu state to emphasize "an action of the heart," and in fact appears earlier than "偽" [...] The correspondence between the Chu graph "憇" to graphs in the Qin lineage "偽" is the same as that between the Chu graph "悬 〈▤身心〉" [body-heart] and graphs in the Qin linage "仁," and seems to contain an implicit pattern of correspondence that intimates the oppositional difference between the systems of thought of the Chu and the Qin peoples. The Chu "憇" graph emphasizes not the external, artificial action of "偽" (人為之偽) but the internal, mental action of "憇" (心為之 憇): it is the mental state of action or an action of the mind, not physical activity but a mental action (不是行為而是心為). In the later competition between the Qin graph "偽" and the Chu graph "憇," following Qin's unification of all under the Heaven, the homogenization of writing, and the eradication of all that is different from Qin graphs, "偽" became the orthodox, standardized form that is promoted through governmental power and have survived to this day. And the Chu graph "憇" has disappeared following the Chu state's demise at the hands of the Qin. It is fortunate that due to archaeological excavations some two thousand years later, the mental traces (心跡) of the Chu people once again see the light of day, and the efforts of their mind are at last no longer in vain (Liu, 2020, p. 84).

## Acknowledgements

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