

My research plan is primarily focused on completing the background research for my second independent monograph: a detailed examination of phonetic patterning, euphony and phonorhetoric in premodern Chinese (Warring States through Han period) narrative texts. Building on my dissertation, which demonstrated for the first time how sound, form and content work in concert in the earliest strata of narrative texts (Western Zhou bronze inscriptions, the early chapters of the *Classic of Documents* and the *Zuo Commentary* to the *Spring and Autumn Annals*), this project further develops the threads of literary artistry and aesthetics through a particularly formative period in early Chinese literary history. My initial research indicates that during the Warring States period (ca. 475 to 221 B.C.E.) a wide variety of new types of narrative texts and literary devices were developed, and in these texts we see the emergence of many of the styles and forms of literary artistry which set the standards for literary expression in classical Chinese prose for centuries (if not millennia) to come, including extensive use of short sections featuring perfect rhyme and metrically-regular parallel prose, often employed together to form innovative and intricate patterns of rhetoric and artistry. I have planned for a range of excavated and transmitted texts to be featured in the analyses with a particular focus on early narrative historiographies, including the *Discourses of the States* 《國語》, *Strategies of the Warring States* 《戰國策》 and the *Lost Book of Zhou* 《逸周書》, along with excavated manuscripts, such the Qinghua University *Xì nián* 〈繫年〉 narrative chronology and related works from the Shanghai, Guodian and Mawangdui corpora.

This project would be impossible to achieve but for the *Digital Etymological Dictionary of Old Chinese* (discussed in greater detail below), a database-centered digital lexicon and software toolkit designed to auto-generate of an extensive variety of phonetic data for any premodern Chinese text. This toolkit demonstrates that a multidisciplinary approach to the study of Chinese texts utilizing modern historical linguistic methodologies and computer programming strategies can provide unique insights when used in support of traditional philological, phonological and paleographical analyses. I also plan to work to further extend the resources in the *Digital Etymological Dictionary of Old Chinese* and my other digital toolkits, harnessing these new technologies and the methodologies they make possible, and provide them freely to the larger scholarly community via the internet. For example, I have been recently developing the *Digital Text Concordancer*, a tool which allows for individualized automated elucidation of patterns of vocabulary and terminology both within and across specific sets of digital texts. (Via this tool one can trace specific uses of vocabulary across thousands of years of poetic corpora, providing concrete indications of influential tropes, their likely origins and how they changed over time; patterns of textual citation and paraphrase, often unmarked in early Chinese texts, are also easily indicated and subtle differences in their transmission can be traced from text to text.) Finally, the most dramatic additional feature to the *Digital Etymological Dictionary of Old Chinese* will be a “sound” function, in which the various individual pronunciations of Middle Chinese words as represented in the *Guǎngyùn* rhyme dictionary are encoded as individual sound files and then any text entered into the interface can be “spoken” aloud by the application, providing users with the ability to hear the sounds of Tang-Song Chinese for the first time—the phonetic patterns in regulated poetry from these periods are particularly striking—and bring these texts even more to life.

Project Background

My work focuses on forms of phonorhetoric, euphony and prosody employed in early Chinese poetry and prose. For millennia, the logographic nature of the Chinese language and the rapid pace of sound change and variation have presented significant obstacles to textual analyses of phonetic patterning. In the past, most studies of prosodic elements in Chinese literature have simply documented sets of rhyme words in classical poetry and discrete prose passages or types of tonal patterning in regulated poetry. However, thanks to the rise of digital technology, we can now begin to efficiently and more comprehensively evaluate pronunciations of Chinese characters and explore phonetic patterning and euphonic, prosodic and phonorhetorical structures within any Chinese text, ancient to modern, excavated or transmitted. Further, advances in early Chinese phonology, paleography and epigraphy over the past few decades have led to a more nuanced understanding of sound change in early China and allow for more precise analyses of prosodic elements and traditions of literary artistry than ever before.

When I began working on phonetic patterns in Chinese texts, I had already spent some years studying poetic theory and linguistics in several European languages. I distinctly recall my surprise when I began to study Chinese poetics in earnest and discovered that the intricate phonetic patterns in the most ancient strata of poetry, the foundation of the Chinese literary canon, had remained largely obscure for thousands of years. The pronunciation of Chinese had diverged so greatly from era to era and region to region that many phonetic distinctions that formed the bases of early Chinese poetic systems had changed to the point that poems which had originally featured end-rhyme (as most Chinese poetry does) no longer rhymed, and most of the more subtle phonetic distinctions had been completely lost. Cognizant of this, Chinese scholars beginning in the Song dynasty (960-1279 C.E.) developed systems of artificial pronunciations for rhyme words in classical poetry (originally termed *xiéyùn* 叶韻 “harmonizing rhymes”, later called *dúyīn* 讀音 “reading pronunciations”), but these fell far short of being able to accurately replicate the sounds of early Chinese.

In recent decades, historical linguists have begun to reconstruct the sounds of ancient Chinese words, one by one. This is extremely difficult and painstaking work, with evidence from ancient rhyme dictionaries, rhyming poetry and data from word borrowing among Sinitic languages and across ancient dialects all brought to bear on changes in pronunciation. In 2003, in my work on Western Zhou bronze inscriptions I began to use modern linguists’ reconstructions of Zhou period Chinese to attempt to document the prosody of these texts beyond the rhymed passages proposed by Wang Guowei 王國維, Guo Moruo 郭沫若 and Wolfgang Behr. I found that not only was there clear evidence of rhyme and half-rhyme (*bomoioteleuton*) in metrically regular patterns, but that when one performed a full phonetic analysis of all the words in the inscriptions, these patterns went far beyond the rhymes and provide indications of intricate forms of literary artistry which no scholar, Chinese or Western, has ever documented.

At that point I had been doing the work mainly by hand, surrounded by a host of dictionaries and reference tools, making charts and spreadsheets with the pronunciations of each word over different time periods. This endeavor was arduous: since even a relatively short text would take days or even weeks to outline in full, I felt there must be a way to make the process more efficient. Drawing on skills from my previous career as a software engineer, I began to research new developments in digital Chinese texts and encoding systems. I built a series of databases containing the data from the most important phonological dictionaries and sources and created a computer program which could efficiently parse Chinese source texts and retrieve the lexical data programmatically for each graph. This was the birth of the *Digital Etymological Dictionary of Old Chinese*, a digital lexicon and software suite which provides keys to unlocking phonetic, euphonic and prosodic systems in premodern Chinese texts from the Song dynasty all the way back to the Western Zhou. (In recent months, it has become apparent that the tool is also useful for the analysis of phonetic patterns in modern Chinese, and the application's core functions can be applied to the phonological and philological analyses of any text, in any language.)

I began to use the *Digital Etymological Dictionary of Old Chinese* to analyze phonetic patterns in a wide variety of texts, both poetry and prose, excavated and transmitted, from the most ancient periods through the Song dynasty. Based on my previous research into the development of specific early Chinese genres and literary theory, I had made a few hypotheses about shifts in literary style and form, but I was primarily interested in seeing what results the data would provide. My initial findings were that there had been several shifts in the types of rhyming and literary devices employed in prose, rhymeprose and poetic forms over the first two millennia of textual history: the first in the Spring and Autumn period, the second during the Han dynasty, and the third in the late Northern and Southern dynasties period into the early Tang. For my dissertation, I decided to focus on the first transition, comparing fully datable *prima facie* evidence from Western Zhou bronze inscriptions with selections from the transmitted editions of the *Classic of Documents* and speeches preserved in the *Zuo Commentary* to the *Spring and Autumn Annals*. Each work displayed a range of striking and unique phonetic patterns and prosodic devices, largely consistent within the work. In addition, I was able to demonstrate how these patterns and devices work in concert with the semantic and rhetorical structures within the texts, adding emphasis and adornment to some sections but not others, largely depending on the content and overall structure. While these findings allow these long texts to be split into discrete sections, it is still unclear whether these divisions represent different textual strata or were simply employed by the composer as a tactic to embellish certain sections while leaving others unadorned. Not only can we now accurately document these intricate patterns of the earliest uses of euphony and literary artistry in Chinese literature, but the study provides a clear picture of previously unknown divisions within these texts and proposes a detailed theoretical framework to provide reasons why the texts were structured in this way.

Over the next few years my plan is to publish articles, in English and in Chinese, featuring excerpts from my dissertation and my translations of various other early Chinese texts, placing particular emphasis on how prosodic and phonorhetorical patterning often works in concert with larger semantic and syntactic structures. As complete, detailed analyses of phonetic, semantic, syntactic and

rhetorical patterns, like those featured in my dissertation, have never been published for any early Chinese text (Bernhard Karlgren's article on the *Lao Zi* 《老子》, a few discrete studies of the *Zhuang Zi* 《莊子》 and detailed individual studies of tonal prosody in Tang dynasty regulated poetry remain the closest examples to date), this leaves wide avenues for exploration of these features throughout both the classics of literature, ritual and history and the massive corpora of newly-discovered manuscripts excavated over the past century. I would particularly be interested in working to elucidate the changes which took place during the transitional periods outlined above, examining the variety of ways sound was combined with semantics to create literary artistry during the first two millennia of early Chinese literary history. I also plan to build on my research into these early periods by researching the ways traditional forms and literary devices influenced later developments in the Song, Yuan, Ming and Qing dynasties, including the widespread use of the style which came to be known as *piánwén* 駢文, "parallel prose" the earliest evidence for which is detailed in my dissertation.