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Writing for Local Government Schools: Authors and Themes in Song-dynasty School Inscriptions

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Abstract

A hallmark of the Song dynasty's achievements was the creation of a national network of state-sponsored local schools. This engendered an exponential growth of commemorative inscriptions dedicated to local government schools. Many authors used these inscriptions as an avenue to expound and disseminate their visions of schools and education. Using the methods of network analysis and document clustering, this article analyzes all the inscriptions extant from Song times for local government schools. It reveals a structural schism in the diffusion of ideas between the Upper Yangzi and other regions of the Song. It also demonstrates the growing intellectual influence of Neo-Confucian ideologues that gradually overtook that of renowned prose-writers. Methodologically, this article provides an example of how diverse digital methods enable us to handle a large body of texts from multiple perspectives and invite us to explore connections we might not have otherwise thought of.

Keywords: local government schools; Neo-Confucianism; document clustering; network analysis; digital humanities; Song dynasty

On March 21, 1199, Liu Guangzu 劉光祖 (1142–1222) was stripped of his honorific literary titles and banished to Fangzhou 房州 (Hubei), about 600 miles away from his hometown in Sichuan. He received this punishment for criticizing the court in an essay. Liu argues in the essay that learning has its own values independent of the likes and dislikes of men of his times. The goal of great learning is to comprehend the Way of the Sages so as to cultivate ourselves, and that of lesser learning is to develop our literary skills so as to fully express our intent. However, "the world today considers the Way false ... and finds elegant writing objectionable. But likes and dislikes are only fads of a moment, while truth and falsity are fixed for ten thousand generations." At a time when powerful men at the court denounced the Learning of the Way (Daoxue) as



¹Liangchao gangmu bei yao 兩朝綱目備要 (Taipei: Wenhai, 1967), 5.25a. Cangzhou qiaosou 滄州樵叟, Qingyuan dangjin 慶元黨禁 (Beijing: Zhonghua shuju, 1985), 1.27a. Dates are converted using the webbased tool provided by the Academia Sinica: http://sinocal.sinica.edu.tw/.

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"false learning" and purged their supporters from government service, Liu's remarks were an unmistakable defense of *Daoxue* and its supporters and a vigorous attack on the Song court.

The medium and circulation of Liu's remarks deserve attention. Liu put up this defense of the *Daoxue* position in a commemorative account (*ji* 記) that he wrote for a local school in Fucheng 涪城 county (Sichuan) in 1198 or 1199.² This essay was then inscribed on a stele erected in Fucheng. Immediately, this captured attention at court in Lin'an (Hangzhou). Within months, Remonstrator Zhang Fu 張釜 impeached Liu, leading quickly to his banishment to Fangzhou, and the magistrate of Fucheng acted quickly to have the stele destroyed. This did not prevent Liu's account from circulating. Soon, in a court gazette, the news of Liu's banishment reached Zhu Xi 朱熹, then at home in Jianning 建寧 (Fujian). Not only did he express his sympathy in a letter to Liu, but Zhu also received a copy of Liu's account and asked his disciple Yang Ji 楊楫 (d. 1213) to defend Liu at court.³ This incident is a vivid illustration of the wide readership and the argumentative character that many commemorative inscriptions for schools had assumed in the Song period.

As Liu Guangzu's inscription for the Fucheng county school indicates, these inscriptions did more than celebrate the construction, expansion, and restoration of local schools or commemorate the patronage and generosity of their sponsors. Their audience reached beyond the local scholars and officials who had access to the steles. These inscriptions often circulated in manuscript and print form and enjoyed a wide readership. Song writers frequently used these inscriptions as influential avenues for promoting their own visions of learning.

This article explores the changing themes of these school inscriptions in Song times, the backgrounds of their authors, and the scope of their influence. A hallmark of the dynasty's achievements, the creation of a national network of state-sponsored local schools in Song times has received a great deal of scholarly attention. Some of the works focus on the institutional history of government schools, some explore their spatial distribution, and some are detailed case studies of how local schools evolved in different places. This study takes a different approach. Focusing on the inscriptions the

²Some sources (such as Liu's biography in *Song shi* and even Liu's tomb epitaph by Zhen Dexiu) mistakenly identify Liu's account as for a local school in Fuzhou 涪州 (Chongqing). That Liu's account was for Fucheng county in Tongchuan 潼川 (Sichuan) can be ascertained from the tomb epitaph for Yang Linggui. See Tuo Tuo 脫脫 ed., *Song shi* 宋史 (Beijing: Zhonghua shuju, 1977), 397.12100; Zhen Dexiu 真德秀, "Liu gexue muzhiming" 劉閣學墓志銘, *Xishan xiansheng Zhen wenzhong gong wenji* 西山先生真文忠公文集 (*Sibu congkan* edition), 43.14b; Wei Liaoweng 魏了翁, "Hanzhou tongpan Yang jun Linggui muzhiming" 漢州通判楊君令圭墓誌銘, *Chongjiao Heshan xiansheng daquan wenji* 重校鶴山先生大全文集 (*Sibu congkan* edition), 84.12a.

³Shu Jingnan 東景南, Zhu Xi nianpu changbian 朱熹年譜長編 (Shanghai: Huadong shifan daxue, 2001), vol. 2, 1353.

⁴Thomas H.C. Lee, Government Education and Examinations in Sung China (New York: St. Martin's Press, 1985). Han Fengshan 韓鳳山, "Tang Song guanxue zhidu yanjiu" 唐宋官學制度研究 (PhD diss., Northeast Normal University, Shenyang, China, 2003).

⁵Zhou Yuwen 周愚文, *Song dai de zhou xian xue* 宋代的州縣學 (Taipei: Guoli bianyi guan, 1996). Tian Zhifu 田志馥, *Song dai Fujian miaoxue de lishi dilixue fenxi* 宋代福建廟學的历史地理學分析 (Beijing: Jingji guanli, 2016).

⁶For a few examples, see Lü Xufeng 呂旭峰, "Song dai Henan difang guanxue yanjiu" 宋代河南地方官學研究 (Master's thesis, Henan University, Kaifeng, China, 2008); Cui Lijun 崔麗君, "Song dai Jiangxi jiaoyu yanjiu" 宋代江西教育研究 (Master's thesis, Nanchang University, Nanchang, China, 2007); Yang Jie 楊杰, "Liang Song Jiangxi de guanxue, shuyuan yu keju" 兩宋江西的官學、書院與科舉

Song authors composed for local government schools, this article seeks to reveal some general spatial and temporal patterns in how local government schools evolved over the course of the Song in relation to the broader political and intellectual trends. It sees the local government school as a site where different political and cultural forces competed to define and redefine the purpose of education and to transform its physical space.

To achieve this goal, this article makes use of digital methods of network and text analysis and combines them with a close reading of some inscriptions. Methodologically, this article provides an example of how diverse digital methods enable us to handle a large body of texts from multiple perspectives and invite us to explore connections we might not have otherwise thought of. A total of 773 inscriptions dating from the Song period pertaining to local government schools provide the source materials for this study. The precise meaning of "inscriptions" and local government schools, however, requires some explanation.

Accounts (ji) and Steles (bei)

The Song authors usually called these inscriptions "accounts" (ji 記). The ji developed into a popular category of writing only after the mid-Tang. Prior to the Tang, very few authors identified their essays as ji. The majority of the writings with ji in the title are either short introductions to Buddhist sutras and their translations (jiejing ji 解經記, fanyi ji 翻譯記) or inscriptions on Buddhist sculptures (zaoxiang ji 造像記). Literary anthologies and critiques in this period do not include ji as a specific literary genre. In Tang times, however, the ji developed into a highly popular category of writing. Nearly 1,700 texts survived from the Tang with ji in their titles, and they are no longer dominated by Buddhist themes.⁷ Early Song compilers of Tang anthologies included ji as a new category of writing, which was further divided into more than twenty subdivisions to reflect the wide range of subject matter in these texts. Not only were there accounts of palaces and government offices, guest houses and post stations, city walls and gates, bridges and sluice gates, monasteries and shrines, and towers and pavilions, but there were also accounts of banquets and memorable events, paintings and antiques, botany and scenic sights, calamities and propitious portents, and so forth.8

This long list shows the great diversity in the subject matter of the ji and the great variation in their writing styles. In the early twentieth century, Lin Shu 林舒 (1852–1924) noted the wide range of writings subsumed under the category of ji and, following some earlier scholars, pointed out the similarities between some ji texts and stele inscriptions: "There are those that fully adopt the writing style of stele

⁽Master's thesis, Jiangxi Normal University, Nanchang, China, 2008); Ren Chao 任超, "Song dai Chengdu fuxue shulun" 宋代成都府學述論 (Master's thesis, Sichuan Normal University, Chengdu, China, 2017).

⁷He Li 何李, "Tang dai jitiwen yanjiu" 唐代記體文研究 (PhD diss., East China Normal University, Shanghai, China, 2010), 36. For a discussion of the history of the *ji* before the Song, see Qian Lei 錢蕾, "Bei Song jitiwen yanjiu" 北宋記體文研究 (Master's thesis, Nanking University, Nanjing, China, 2014), 5–28.

⁸The two anthologies are Li Fang's 李昉 Wenyuan yinghua 文苑英華 (Beijing: Zhonghua shuju, 1966) and Yao Xuan's 姚鉉 *Tang wencui* 唐文粹 (Shanghai: Shanghai guji, 1994). He, "Tang dai jitiwen yanjiu," 39–40.

⁹For remarks of earlier scholars, see Hao Jing 郝經 (1223–1275), *Hao shi xu Hou Han shu* 郝氏續後漢書 (Taipei: Taiwan shangwu yinshuguan, 1983), 66A.31b, and Yao Nai 姚鼐 (1732–1815), *Zhujia pingdian guwenci leizuan* 古文辭類纂 (Beijing: Guojia tushuguan, 2012), "xumu," 13ab.

inscriptions (beiwen ti 碑文體), and these are [accounts of] shrines, temples, government offices, pavilions, and terraces. There are also those that merely provide an account of events and are not carved in stone, and these are [accounts of] scenic land-scape and travel experiences" (所謂全用碑文體者, 則祠廟廳壁亭台之類; 記事而不刻石, 則山水遊記之類.)¹⁰ Thus, Lin divides the ji writings into several categories: those about bridges and dikes, shrines and offices, and pavilions and terraces; those about calligraphy, paintings, and antiques; those about scenic sights; those that record miscellaneous and unusual events; those about schools; and those about banquets and literary gatherings. "They are all categorically called ji, but in fact, their styles of writing are not the same" 綜名為記,而體例實非一.¹¹

Although Lin placed accounts of schools (xueji 學記) into a category separate from those of bridges, pavilions, and government offices on the ground that "those of schools are argumentative essays" ($shuoli\ zhi\ wen\$ 說理之文), these two types of ji share many similarities with each other and, as Lin pointed out, with stele inscriptions. They were both commemorations of specific construction projects (such as the building or renovation of a school, bridge, or office) and often carved in stone.

This overview of the ji as a category of writing is important for deciding the appropriate scope of this study. It suggests that commemorative accounts for schools were, in fact, very similar to stele inscriptions (bei 碑 or beiming 碑銘). Any study of the accounts for schools should also include stele inscriptions in the analysis, despite the apparent difference in their titles. The choice of terms between bei 碑 and ji 記 reflected, in some measure, a change in literary convention from the Tang to the Song. Take commemoration of Confucian shrines and local schools for example. During the Tang and the Tang-Song interregnum, nine commemorative texts for Confucian shrines and local schools were titled ji and fifteen bei or beiming (stele inscriptions). In the Song, only fourteen were titled bei and 569 were called ji. Therefore, in this study, I make no distinction between accounts (ji) and steles (bei) for local schools. Both are included in the analysis and, for simplicity, I refer to both types of writings categorically as inscriptions. 12

Local Government Schools

The local government school was an institution that underwent significant transformation in Tang-Song times. In brief, the distinction between a school and a Confucian shrine was never absolute in the Tang and Song. Many local government schools were developed from existing Confucian shrines in the first century of the Song, and thereafter they continued to expand in space and function. By the end of the Song, the local government school in many places was an architectural complex that consisted of educational and living facilities for students, administrative offices for instructors, land endowments that paid for its operating expenses, as well as a variety of shrines

¹⁰Lin Shu, Chunjue zhai lunwen 春覺齋論文 (Beijing: Renmin wenxue, 1959), 70.

¹¹Lin, Chunjue zhai lunwen, 70.

¹²In addition to accounts and steles, I have also included two epigraphs (ming 銘): Zhang Jun's 張浚 "Xin xuemen ming" 新學門銘 and Zhang Shi's "Nanjian zhou Youxi xian xue Chuanxin ge ming" 南劍州尤溪縣學傳心閣銘. Both ming are preceded by a preface of considerable length, making them somewhat similar to commemorative accounts and steles. Zeng Zaozhuang 曾棗莊 and Liu Lin 劉琳 eds., Quan Song wen 全宋文 (Shanghai: Shanghai cishu, 2006), 188:4137.139, 255:5743.432.

that were dedicated to Confucius, meritorious local officials, virtuous local men, and Neo-Confucian masters.

Local government schools and Confucian shrines had an entangled relationship in the Tang-Song period. The local government school was never a purely educational space, nor was the Confucian shrine a purely ritual one. The close relationship between the two dated from no later than the sixth century. The first Confucian shrine was erected on the campus of the Imperial University in the fourth century, ¹³ and in 550 the practice spread from the capital to the prefectures when the court of Northern Oi mandated the erection of a Confucian shrine in each prefectural school. This practice was inherited and reaffirmed by the Sui and Tang dynasties. In 630 the Tang required that county schools also have Confucian shrines on their premises, like their prefectural counterparts.¹⁴ However, scholars have rightly questioned how widely government schools were established in the prefectures and counties during the Tang. Even in those places where they did exist, these schools probably had very few students. In any event, there is clear evidence that on the campus of many local schools, most buildings had collapsed during the late Tang and Tang-Song interregnum, leaving only the Confucian shrine standing where local people came to worship Confucius as a deity with supernatural powers.¹

This situation persisted into the early Song. At the turn of the eleventh century, when local officials and local men took an interest in reviving the schools, they renovated the Confucian shrine and expanding its function by building new educational facilities in its environs (e.g., lecture halls, libraries, kitchens, and student dorms). In 1006, following an edict calling upon prefects to build shrines to Confucius, the Song court instructed them also to "erect a lecture hall inside the compound of the Confucian shrine, gather students, and select learned men of refined manners and with teaching qualifications as their instructors." This gradually transformed what had been primarily a religious space into an architectural complex with educational and ritual functions. Over the course of the eleventh century, as court officials repeatedly made local schools a critical component of their reform programs and the student body at local schools expanded, their educational functions received more support and attention, eventually overtaking the Confucian shrine in significance.

This cautions us not to overstate the differences between inscriptions ostensibly dedicated to local Confucian shrines and those to local government schools. In many cases,

¹³The first Confucian shrine under imperial auspices appeared in 385 and was on the premises of the Imperial University, and by the turn of the sixth century Imperial Universities in both northern and southern dynasties had shrines dedicated to Confucius.

¹⁴ Gao Mingshi 高明士, Tang dai Dongya jiaoyu quan de xingcheng: Dongya shijie xingcheng shi de yi cemian 唐代東亞教育圈的形成——東亞世界形成史的一側面 (Taipei: Guoli bianyi guan), chapter 1. Huang Jinxing 黃進興, "Jiekai Kongmiao jidian de fuma: jianlun qi zongjiaoxing" 解開孔廟祭典的符碼——兼論其宗教性, in Wenhua yu lishi de zhuisuo: Yu Yingshi jiaoshou bazhi shouqing lunwenji 文化與歷史的追索——余英時教授八秩壽慶論文集, edited by Hoyt Tillman (Taipei: Lianjing chuban gongsi, 2009), 535–58.

¹⁵Wang Meihua 王美華, Lizhi xiayi yu Tang Song shehui bianqian 禮制下移與唐宋社會變遷 (Beijing: Zhongguo shehui kexue, 2015), 141-45. Cheng Yinong 成一農, "Song, Liao, Jin, Yuan shiqi miaoxue zhidu de xingcheng yu puji" 宋、遼、金、元時期廟學制度的形成與普及, in 10-13 shiji Zhongguo wenhua de pengzhuang yu ronghe 10-13 世紀中國文化的碰撞與融合, edited by Zhang Xiqing 張希清 (Shanghai: Shanghai renmin, 2006), 166-72.

¹⁶Liang Gengyao 梁庚堯, *Songdai keju shehui* 宋代科舉社會 (Taipei: Taida chuban zhongxin, 2015), 76–77.

the differences between these two types of inscriptions are more apparent than real. For example, in an inscription that celebrates a recent renovation of a Confucian shrine, one may well find evidence that the educational facilities on the premises were also restored. Consider, for example, the Tang dynasty inscription that Han Yu 韓愈 (768-824) wrote for the Confucian shrine in Chuzhou 處州 (Zhejiang). Although it was titled "Stele for the Confucian Shrine in Chuzhou" (處州孔子廟碑), Han's inscription nevertheless mentions that after the Confucian shrine was restored, the prefect in charge of the restoration also recruited students from talented local men, established a lecture hall (jiangtang 講堂) for them, and provided an endowment to support their studies. 17 There is a similar case in the early Song. In his 985 inscription dedicated to the renovation of the Confucian shrine in Sizhou 泗州 (Anhui), Xu Xuan 徐鉉 (916-991) mentioned that after Great Sacrificial Hall and the entrance of the compound was restored, the man who sponsored the project also built a "hall for lecture and discussion" (講論 之堂) on the premises. 18 Therefore, the activities commemorated in these inscriptions were not very different from many inscriptions ostensibly dedicated to local schools. For example, in the inscriptions that commemorated the building of county schools in Fengxin 奉新 (Jiangxi) and Xianyou 仙遊, the local officials first built the Confucian shrine and then added the studying and living facilities for the students.¹⁹

Thus, inscriptions ostensibly dedicated to the Confucian shrines and those to local schools may have documented very much the same activities in the same educational-ritual space. The difference in their titles reflects little more than their authors' personal preference for emphasizing either the ritual or educational function of this space.²⁰ Consequently, from the eleventh century onward, the local school's educational function received more attention than its ritual function, and correspondingly more and more of the inscriptions put emphasis on the schools instead of their Confucian shrines (Figure 1).

For this reason, this study does not make a distinction between inscriptions for Confucian shrines and local schools. The corpus of source materials in this study includes 521 inscriptions dedicated to the government schools (and their educational facilities)²¹ as well as 64 inscriptions dedicated to the Confucian shrines in Song times.

Besides those dedicated to local government schools and Confucian shrines, source materials in this study also include inscriptions that reflect how the local government school, as a state-sponsored institution as well as a multi-functional architectural complex, continued to evolve from the eleventh through the thirteenth century. Over time, land endowments were established to finance its operation, administrative offices built for their instructors, and shrines were erected on the school premises in honor of a diversity of figures. For this reason, I have also included in this study 125 inscriptions

¹⁷Han Yu, "Chuzhou Kongzi miao bei" 處州孔子廟碑, *Quan Tang wen* 全唐文 (Beijing: Zhonghua shuju, 1983), 561.5678a.

¹⁸Xu Xuan, "Sizhou chongxiu Wenxuan wang miao ji" 泗州重修文宣王廟記 (985), *Quan Song wen* 全宋文 (Shanghai: Shanghai cishu, 2006), 2:25.232.

¹⁹Hu Dan 胡旦, "Ruxue ji" 儒學記 (988), *Quan Songwen 4*:62.8. Duan Quan 段全, "Xianyou xian jian-xue ji" 仙遊縣建學記 (1000), *Quan Song wen 9*:195.410.

²⁰In a few cases, this was complicated by the fact that some inscriptions survived only in local gazetteers and their titles seem to have been added or modified by gazetteer compilers in later dynasties. For example, the title for Yuan Xie's inscription for the county school of Changguo was clearly added or modified by the Yuan dynasty editors. Yuan Xie, "Changguo zhou ruxue ji" 昌國州儒學記(1224), *Quan Song wen* 281:6377.252.

²¹These include thirteen inscriptions that were dedicated to the "shrine-school" complex (*miaoxue* 廟學).

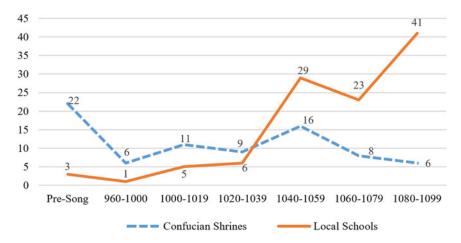


Figure 1. Dedication of Inscriptions

Table 1. Song-Dynasty School Inscriptions by Types of School Facilities

Dedicated to	Number of Inscriptions
Local Schools	521
Instructor's Offices	25
Endowments	38
Confucian Shrines	64
Neo-Confucian Shrines on Campus	55
Other Shrines on Campus	70
Total	773

for various shrines erected on the premises of local government schools, twenty-five inscriptions for the instructor's administrative offices (*jiaoshou ting* 教授廳), and thirty-eight inscriptions for school endowments (Table 1).

On the other hand, I have excluded from this study inscriptions that are unrelated to local government schools. To effectively demonstrate the growth of Neo-Confucian influence on local *government* schools after the mid-twelfth century (which I will discuss later in this article), I have excluded inscriptions for the academies (*shuyuan* 書院), because they proliferated only in the Southern Song and were closely associated with the Neo-Confucian movement.²² To include them in this study would prevent one of the analyses discussed later in this article. Also excluded from this study are inscriptions

²²For recent studies of the Southern Song academies and their close link to the Neo-Confucian movement, see Chen Wenyi 陳雯怡, *You guanxue dao shuyuan: cong zhidu yu linian de hudong kan Songdai jiaoyu de yanbian* 由官學到書院——從制度與理念的互動看宋代教育的演變 (Taipei: Lianjing chuban gongsi, 2004) and Linda Walton, *Academies and Society in Southern Sung China* (Honolulu: University of Hawai'i Press, 1999). For an overview of academies in Chinese history, see Li Guojun 李國鈞 ed., *Zhongguo shuyuan shi* 中國書院史 (Changsha: Hunan jiaoyu, 1994).

for examination facilities (e.g., examination halls (gongyuan 頁院) and travel funds for metropolitan examination candidates (gongshi zhuang 頁士莊)); inscriptions celebrating examination success (i.e., name lists of jinshi degree-holders, or jinshi timing 進士題名); and a small number of inscriptions for clan schools, the National University (taixue 太學), and schools for imperial clansmen (zongxue 宗學).

Ninety percent of the 773 inscriptions in this study are preserved in local gazetteers (fangzhi 方志) and the collected works (wenji 文集) of individual authors: 182 inscriptions are found both in their authors' collected works and at least one local gazetteer, 156 only in the collected works of individual authors, and 360 only in local gazetteers. Altogether, local gazetteers and the authors' collected works provide 682 of the inscriptions in this study. Of the remaining seventy-five extant inscriptions, eighteen are rubbings of actual steles (fapian 拓片) or printed transcriptions of the steles (fapian 独身), and another fifty-three are from local and national anthologies (fapian 独身) and pre-twentieth-century encyclopedias (fapian 独身). In short, collected works of individual authors are an important source—though, by no means a predominant one—of the school inscriptions in this study. The proportion of school inscriptions preserved in the collected works do not fluctuate much over the course of the Song. Most of the time, it is around 40 percent with a margin of ten percentage points on either side.

In brief, this study takes local government schools as its subject of investigation. Given that the local government school was an evolving institution and educational-ritual space, I have included in this study all the inscriptions pertaining to the founding and development of local government schools and their operations. They include both inscriptions that are titled "steles" and those titled "accounts." They include inscriptions ostensibly dedicated to the school and its educational facilities, as well as those dedicated to its instructor's office, its endowment, its Confucian shrine, or any shrine that was part of its architectural complex. Together, the corpus of inscriptions in this study includes 773 titles written by 524 unique authors. ²³ For convenience, in what follows, I refer to them categorically as "school inscriptions" regardless of whether they were dedicated to the school, its endowment, the Confucian shrine, or something else.

Trends

The corpus of 773 school inscriptions from the Song represents an exponential growth from Tang times. The expansion of civil service examinations, state sponsorship of education, and the growing availability of books facilitated by the spread of printing led to an enduring passion for building schools and other educational facilities in the Song period. Accordingly, the composition of school inscriptions became a popular practice in Song times. A quick comparison suffices to highlight this change. While only three inscriptions from the Tang commemorate the building and restoration of local schools (two in the eighth century and the third in the ninth),²⁴ 547 inscriptions dedicated to

²³The inscription for the entrance of Changzhou county school is listed in *Quan Song wen* twice, each under a slightly different title and a different author due to conflicts in the sources. Both the inscription and the authors are therefore double-counted in this corpus. Qian Shuiyou 潛說友, "Changzhou xian gaili xuemen ji" 長洲縣改立學門記, *Quan Song wen* 347:8026.273. Qian Shuiyou 錢說友, "Xianchun gaili xuemen ji" 咸淳改立學門記, *Quan Song wen* 356:8260.427.

²⁴These are "Fuzhou dudu fu xinxue beiming" 福州都督府新學碑銘 by Dugu Ji 獨孤及, "Kunshan xian xue ji" 崑山縣學記 by Liang Su 梁肅, and "Xiangzhou Kongzi miaoxue ji" 襄州孔子廟學記 by Pi Rixiu 皮日休. See *Quan Tang wen*, 390.3964a, 519.5275a, and 797.8354b. Note that one of them was dedicated to the "Confucian shrine-school" complex (*Kongzi miao xue* 孔子廟學).



Figure 2. Number of School Inscriptions by Period

local schools are extant from Song times. Likewise, twenty-two inscriptions survive from the Tang and the Tang-Song interregnum that commemorate the construction and renovation of Confucian shrines in the prefectures and counties, while sixty-four are known from Song times. In addition, there are also 188 inscriptions from the Song, which commemorate the establishment and restoration of school endowments, the building of instructor's offices, and the erection of various shrines on the school campus. In sum, the corpus of extant inscriptions pertaining to local government schools and their operations in the Song was thirty times that of the Tang total.

The temporal distribution of the extant school inscriptions from Song times reveals an unambiguous upward trend over the course of the dynasty with two notable spikes: first in the 1040s and then in the 1140s (Figure 2).

Only seven school inscriptions have survived from the first forty years of the Song rule. Thereafter, the number of school inscriptions began to increase. In the first forty years of the eleventh century, thirty-two inscriptions are extant. By contrast, in the 1040s, the number of extant inscriptions increased dramatically, with thirty in that decade, evidently a result of the court's decision to establish a national network of schools in the Qingli reign (1041-1048). The interest in building, restoring, and writing for local schools stayed at this high level until 1100, with constant production of twenty to thirty inscriptions per decade in the half-century between 1050 and 1099 and only a brief drop in the 1070s.²⁵ It is unclear whether the relatively lower numbers of inscriptions from the 1070s and 1100-1119 reflected a low tide in building and renovating government schools or a mere historiographical bias. Since these were the times when the reform factions of Wang Anshi 王安石 (1021-1086) and Cai Jing 蔡京 (1047-1126) dominated court politics and expanded the state-sponsored educational system, a sudden decline of interest in building and writing for local schools seems somewhat unimaginable.²⁶ Α more plausible explanation appears

²⁵The vast majority of these inscriptions (725 out of 773) can be dated with a very high degree of accuracy on the basis of internal evidence. Dates for the remaining forty-eight inscriptions are estimated by adding fifty to the birth year of their authors. Fifty is the estimated average age at which the inscriptions in our sample were composed, and this is calculated from a total of 393 inscriptions which has been accurately dated and whose author's birth year is also known. The calculations yield an average age of fifty, with a median of fifty and a mode of forty-six. The author's birth year is known in twenty-five of the forty-eight inscriptions. For the remaining twenty-three inscriptions, the author's birth year is estimated based on where their writings appear in *Quan Song wen*, since the *Quan Song wen* compilers have arranged the titles by author and the authors by the best estimates of their birth years.

²⁶Nevertheless, drawing on statistics in local gazetteers, a recent case study of Fujian shows that while the Renzong reign (1023–1063) saw a high tide in building local schools, very few schools were established between 1064 and 1127. See Tian, *Song dai Fujian miaoxue de lishi dilixue fenxi*, chapter 2.

historiographical. People seeking inscriptions for local government schools often sought them from men with higher political status. During the 1070s and 1100–1119, these men would have been supporters of the New Policies. Because the New Policies were stigmatized after the fall of the Northern Song, very few of these men's collected works (*wenji*) were preserved, and this must have significantly reduced the survival rates of the school inscriptions they had composed. In any event, the trend here shows that the construction, expansion, and renovation of local schools was not seriously affected by shifting political winds at court. Even in the Yuanyou reign (1086–1094), when the anti-reform politicians were back to power, government sponsorship of local schools remained at high levels. From 1086 to 1094, twenty-nine inscriptions are extant for local schools.²⁷

The early Southern Song marked another milestone in state sponsorship of local schools. The central and local governments acted swiftly to revive local schools immediately after the Song signed the peace treaty with the Jurchens in 1141. In 1143–1144, the court instructed prefects and magistrates to restore and renovate local government schools. In many places, however, local officials had already taken action before the court urged them to. The first six years following the signing of the peace treaty witnessed an unprecedented high tide of building and renovating local schools of the entire Song period, with forty-three inscriptions produced during the six years between 1141 and 1146. This high level of activity lasted for a century. From the 1140s onwards, school inscriptions continued to appear at a rate of about thirty to fifty per decade until after the 1240s when war broke out with the Mongols. As a result, more than 70 percent of the inscriptions in the corpus were from the Southern Song period.

This trend was national. The two spikes in the 1040s and 1140s were noticeable, with roughly the same magnitude and rhythm, in nearly all the physiographic macroregions (PMRs), as defined by G. William Skinner (Figure 3). Although the total number of school inscriptions increased over the course of the dynasty, the spatial distribution of these inscriptions, in terms of percentage, remained fairly consistent at all times (Table 2). For a meaningful comparison between the two halves of the Song, let us consider only the inscriptions written for schools in the south. From the Northern to Southern Song, there was only a slight increase (five percentage points) in the percentage of extant inscriptions for schools in the Lower Yangzi and the Southeast Coast and, correspondingly, a slight decrease (six to seven percentage points) in the percentage of inscriptions for the Middle and Upper Yangzi regions. This Northern–Southern Song continuity is also noticeable at the subregional level. In both halves of the Song, more than half of the extant school inscriptions for the Middle Yangzi, for example, were for schools in the Gan Basin.

The spatial distribution of extant inscriptions suggests that in both halves of the Song, efforts to build, restore, expand, and renovate government schools were

²⁷In the fourth month of 1094, the court changed the reign name from Yuanyou to Shaosheng, indicating the court's desire to reinitiate the reforms. Of the four inscriptions from 1094, three were composed after this change of policy and reign name. Thus, only one of the 1094 inscriptions is considered as written in the Yuanyou reign. However, one should keep in mind that the activities recorded in the other three inscriptions, in fact, were also carried out during the Yuanyou period.

²⁸Tang Wenruo 唐文若, "Anyue xian xiuxue ji" 安岳縣修學記 (1143), Quan Song wen 199:4395.49. Chai Fu 柴紱, "Luling xian xiu xuegong ji" 廬陵縣修學宮記 (1144), Quan Song wen 198:4380.197. Yin Gong 尹躬, "Chongxiu Yongxin xian ruxue ji" 重修永新縣儒學記 (1145), Quan Song wen 179:3922.149. Sun Di 孫覿, "Lin'an fu Lin'an xianxue ji" 臨安府臨安縣學記 (1146), Quan Song wen 160:3480.375.

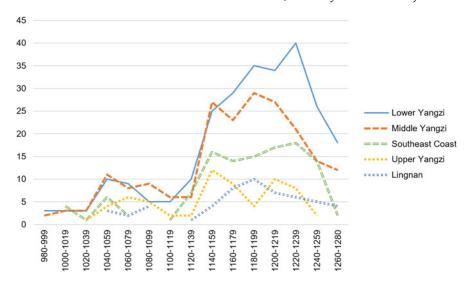
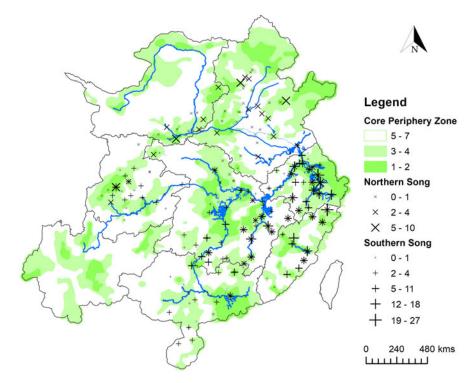


Figure 3. School Inscriptions in the South, by PMR and Period

Table 2. Spatial Distribution of School Inscriptions by Period

	Lower Yangzi	Middle Yangzi	Southeast Coast	Upper Yangzi	Lingnan	Num. of Titles
980-999	60%	40%	-	-	-	5
1000-1019	30%	30%	40%	-	-	10
1020-1039	38%	38%	13%	13%	-	8
1040-1059	29%	32%	18%	12%	9%	34
1060-1079	33%	30%	7%	22%	7%	27
1080-1099	22%	39%	-	22%	17%	23
1100-1119	36%	43%	7%	14%	-	14
1120-1139	38%	23%	27%	8%	4%	26
1140-1159	30%	32%	19%	14%	5%	84
1160-1179	35%	28%	17%	11%	10%	83
1180-1199	38%	31%	16%	4%	11%	93
1200-1219	36%	28%	18%	11%	7%	95
1220-1239	43%	23%	19%	9%	6%	93
1240-1259	43%	23%	23%	3%	8%	61
1260-1280	50%	33%	6%	-	11%	36
All Periods	37%	29%	17%	9%	8%	692

Note: To allow for a meaningful comparison between Northern and Southern Song, inscriptions for schools in North and Northwest China are excluded from the statistics in this table. In the Northern Song, local officials in North and Northwest China were also very active in establishing and sponsoring local schools. Thirty-nine percent of the inscriptions in the Northern Song were for schools in North and Northwest China, and sixty-one percent were for schools in the south.



Map 1. Location of Schools with Extant Inscriptions

Note: Using socioeconomic data from 1990, G. William Skinner coded the Core and Periphery Zones with values from 1 to 7 within each macroregion. See G. William Skinner, Zumou Yue, and Mark Henderson, "China-CPZ (Core Periphery Zones)," https://doi.org/10.7910/DVN/HBERON, Harvard Dataverse, V2, 2013. In this map, I have defined zones with values of 1 and 2 as cores, 3 and 4 semi-peripheries, and 5 to 7 peripheries.

disproportionately undertaken in the resource-rich cores of macroregions. Because of the lack of socioeconomic data of sufficient quality and detail before the twentieth century, the delineation of regional cores and peripheries in Map 1 and Table 3 are based on statistics from the 1990 census. Therefore, the boundaries of these cores and peripheries are no more than rough approximations for those in the Song period. That the delineation of these boundaries also considers physiographical features (such as rivers, ridgelines, slope, and the transportation network), which profoundly shaped the hierarchical patterns of social and economic activities in pre-industrial societies, gives some confidence of their relevance for the Song period. Thus, although the delineation of cores and peripheries is only an approximation, the distribution of extant school inscriptions in cores and peripheries still reveals a meaningful pattern. In both halves of the Song, more than forty percent of the surviving inscriptions were for schools located in regional cores, which comprised only roughly fourteen percent of the total area of the Song territory. Accordingly, traveling from the regional cores to the peripheries, the density of extant school inscriptions dropped precipitously from about twenty to about six or fewer per 100,000 square kilometers in the Northern Song and from about seventy to twenty-five or fewer in the Southern Song. As Skinner posited, the regional cores before the twentieth century were river-valley lowlands where a higher

	Northern Song		Southern Song	
Core Periphery Zone	Num. of Inscriptions	Num. of Inscriptions Per 100,000 km ²	Num. of Inscriptions	Num. of Inscriptions Per 100,000 km ²
1	38	24.7	55	54.0
2	51	15.5	174	84.8
3	33	6.1	73	23.8
4	26	3.6	113	27.2
5	22	3.2	85	19.8
6	24	3.9	61	16.4
7	11	2.2	7	2.3
Total	205	5.8	567	26.5

Table 3. Distribution of School Inscriptions in Regional Cores and Peripheries

Note: Only macroregions within the Song territory are included. For the Northern Song, these macroregions include North and Northwest China, the Upper, Middle, and Lower Yangzi, the Southeast Coast, and Lingnan. For the Southern Song, these include the Upper, Middle, and Lower Yangzi, the Southeast Coast, and Lingnan. The coded values for the Core Periphery Zones are taken from G. William Skinner and based on socioeconomic data of 1990.

proportion of fertile arable land brought about higher agricultural productivity per unit of area and a higher population density, which in turn encouraged capital investment in infrastructure and, along with the low unit cost of water transport, facilitated the growth of commerce.²⁹ Thus, it comes as no surprise that the schools, for which there are inscriptions, concentrated also along the major communication routes, such as the corridor between Chang'an and Luoyang, between Shaanxi and the Chengdu Plain, along the Grand Canal, the Gan and Xiang Rivers in Middle Yangzi, and the Min River in Fujian.³⁰ This suggests that in Song times physical and economic geography provides a more meaningful way for understanding the spatial pattern of school activity than conscious spatial organizing units (e.g., circuits). The following analysis will, therefore, use physiographical regions, instead of administrative units, as a way of assessing the national and regional influence of the authors of the school inscriptions.

In brief, throughout the Song dynasty, local officials across the country were actively engaged in building and restoring government schools, expanding their scales and functions, and providing financial support for their operations. In celebration of these activities, the Song authors composed a great many inscriptions that far surpassed the number of such inscriptions in the Tang. These inscriptions are not evenly distributed across the three centuries of the Song. Instead, the number of school inscriptions that survived from each decade of the Song shows a clear upward trend, which was marked by two major turning points: the first in the mid-eleventh century and the second in the mid-twelfth century. These were not short-lived bursts. Rather, both mid-century spikes

²⁹G. William Skinner, "The Structure of Chinese History," *The Journal of Asian Studies* 44.2 (1985), 280. ³⁰Many of these are also the same areas with a flourishing literati culture in the Song, which has been forcefully demonstrated in earlier studies of the geography of examination success. John Chaffee, *The Thorny Gates of Learning in Sung China: A Social History of Examinations* (New York: State University of New York, 1995), 119–56.

generated a new level of activity on local government schools, which was sustained in the ensuing century. Consequently, the number of extant inscriptions increased significantly over the course of the Song dynasty. Prior to 1040, fewer than ten school inscriptions were extent from each decade. This figure rose to over twenty between 1040 and 1100 and over forty between 1140 and 1239. Thus, although the Northern Song was conventionally well known for its three waves of reforms that expanded the state education system, the renovation, expansion, and support for local government schools reached new heights in the Southern Song. In fact, Southern Song authors produced twice as many inscriptions for local schools as their Northern Song counterparts.

Accounts as Discourses

School inscriptions in the Song dynasty were not simply commemorative or laudatory. Many were argumentative and even polemical, and Liu Guangzu's inscription for the Fucheng county school was an example. This reflects broad changes in the content and style of ji writings that took place during the Tang-Song period.

As literary scholars have noted, the early Tang authors of ji typically focused on the narration of events (xushi 敘事) and the description of objects (miaoxie 描寫 or zhuangwu 狀物). In the late eighth and ninth centuries, however, famous essavists like Han Yu and Liu Zongyuan 柳宗元 (773-819) enriched and enlarged the scope and depth of the genre by injecting lyrical expression (shuqing 抒情) and argument (yilun 議論) into the ji they wrote. Nonetheless, until the late Tang, argumentative elements remained very limited, and they were not based solely on reason. Instead, they tended to be inspired by the encounter between the author's personal history and the outside world they were describing and, therefore, heavily colored by their personal feelings. In his study of Liu's eight accounts of the landscape in Yongzhou (Hunan), Anthony Pak Won-Hoi argues that "Liu's argumentation is, in fact, a mixture of the argumentative and lyrical modes of expressions," so that it should be considered "emotional thought."31 While his discussion is of Liu's accounts of scenic sights, argumentative elements are also weak in other types of ji writings by Tang authors. Tang accounts of construction projects (yingzao ji 營造記) typically focus on recording the course of the event and include only a brief discussion at the end that celebrates the merits of the project's major contributors.³²

In Song times, by contrast, argumentation became a crucial element in many commemorative accounts and the dominant mode of expression in some. Song authors typically adopted a mixture of narrative and argumentative expressions when writing these essays. Some went as far as to ignore all the details of the event they were commemorating, but instead seized the occasion primarily to articulate their own views on a related topic. As Chen Shidao 陳節道 (1053–1101) opined, When Han Yu was writing a ji, he did no more than provide an account of the event. The accounts (ji) today are, in fact, discourses (lun 論). This argumentative inclination was particularly

³¹Anthony Pak Won-Hoi, "Towards an Analytical Approach to the Landscape Essay: Textual Analysis of Liu Zongyuan's Eight Records on Yongzhou," *Crossing Between Tradition and Modernity: Essays in Commemoriation of Milena Dolezalová-Velingerová (1932–2012)*, edited by Kirk A. Denton (Prague: Karolinum Press, 2017), 61–85.

³²Qian, "Bei Song jitiwen yanjiu," 82. He, "Tang dai jitiwen yanjiu," 96-106.

³³Qian, "Bei Song jitiwen yanjiu," 82.

³⁴Chen Shidao 陳師道, Houshan jushi shihua 後山居士詩話 (Baichuan xuehai edition), 7a.

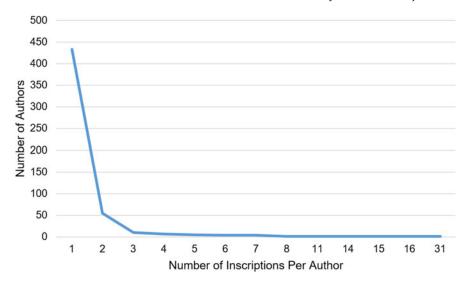


Figure 4. Distribution of School Inscriptions per Author

pronounced in the commemorative accounts for schools, so much so that Lin Shu placed them in a separate category from the accounts of other types of buildings.

That school inscriptions in the Song were avenues for promoting specific views of learning raises a series of questions: What views, and whose views, were voiced in these inscriptions? How much influence did they have? In the following sections, I will address these questions by examining the authorship and themes in the Song school inscriptions with the aid of network and text analyses.

Networks

The 773 extant inscriptions in the corpus were composed by 524 unique authors. The distribution of school inscriptions among the authors follows the Pareto Principle (i.e., that roughly 80 percent of the effects come from 20 percent of the causes). In this case 433 authors had only one extant inscription, while the remaining ninety-one authors contributed 340 inscriptions to the corpus (i.e., three to four inscriptions per author on average). Of these ninety-one authors, the most prolific six contributed 12 percent of the inscriptions in the corpus (Figure 4). These men included Zhu Xi 朱熹 (1130–1200), Zhang Shi 張栻 (1133–1180), Wei Liaoweng 魏了翁 (1178–1237), Zhou Bida 周必大 (1126–1204), and Wang Sui 王遂 (jinshi of 1202). Whether an author's collected works, if ever compiled, have survived into this day provides only a partial explanation, at best, for the uneven distribution of extant inscriptions among different authors.³⁵ On the one hand, authors whose collected works have

³⁵Some authors' collected works, especially those that have survived in part or been reconstituted after they were already lost, do not include inscriptions for local government schools. For example, eighteenth-century editors of *Siku quanshu* reconstructed the collected works of Li Shi 李石 (b. 1108) after they were lost, but the reconstructed edition does not include any school inscription by Li. Both Li's school inscriptions studied in this article are preserved in a twelfth-century national anthology. Given the analytical

survived are more likely to have more than one extant inscription in my corpus. Of the 524 authors, 144 (i.e., about a quarter) had collected works that have survived; and of these 144, sixty-six (i.e., 45 percent) have more than one extant inscription. By comparison, of the 380 authors who either do not have a *wenji* or whose *wenji* has not survived, only twenty-five (i.e., a mere 6 percent) had more than one extant inscription. On the other hand, the potential historiographical bias caused by the condition of an author's *wenji* must not be overstated. Less prolific writers may have never had a *wenji* in the first place. Moreover, of the 144 authors whose collected works have survived, seventy-eight nevertheless has only one extant school inscription. Even among the top six most prolific writers, one (Wang Sui) does not have an extant *wenji*. All of Wang's eight school inscriptions are preserved in local gazetteers compiled at different times and in different places.

The number of inscriptions from an author bespeaks only one facet of an author's influence. Compare, for example, Chen Zao 陳造 (1133-1203) and Hong Mai 洪邁 (1123-1202). Chen was a man of Gaoyou Military Prefecture 高郵軍 (Jiangsu), who obtained the jinshi degree in 1175 and embarked on a career in government that culminated in a staff position in the Military Commission of Huainan West Circuit. He had five inscriptions in the corpus. Three of them were for prefectural and county schools in Gaoyou, his home prefecture, and the other two were for schools in Chuzhou 楚州 and Yangzhou 揚州, both within a hundred-kilometer radius of Gaoyou. This contrasts with the inscriptions from Hong Mai, Chen's contemporary and a native of Poyang 鄱陽 (Jiangxi), who passed the examinations in 1145 and held a series of prominent positions at court and in the provinces. Hong had four school inscriptions in the corpus, but only one was for a school adjacent to his home prefecture. His three other inscriptions commemorated activities in local government schools of a vast geographical area that included modern Henan, Fujian, and Guangxi provinces. Some of these activities were undertaken by Hong himself, and others by his friends.

This suggests that to gauge an author's influence, one needs to take into consideration not only how prolific he was but also how widely he projected his influence. Therefore, this section looks at the spatial distribution of school inscriptions from each author. It first constructs a bipartite network, where each link connects an author and the location of each school for which he composed an inscription. The locations are first aggregated into different prefectures and then into different physiographic macroregions (PMRs). ³⁶

Authors who wrote for schools in two or more prefectures in the same PMR are considered men of regional influence, while those who have extant inscriptions for schools

purpose of this article and for the convenience of expression, collected works are considered non-extant if they do not contain any school inscriptions.

³⁶Sometimes a prefecture and its subordinate counties fall inside different PMRs. In this study, PMRs are assigned according to the geographic coordinates of prefectural seats, so that men writing for a prefectural school and schools in its subordinate counties are not considered to be writing for schools in different PMRs. In any event, this affects only ten inscriptions in the corpus, five of which relate to the fact that the Huizhou 徽州 prefectural seat falls inside Lower Yangzi macroregion, while the seat of its subordinate county Wuyuan 婺源 is technically inside the Middle Yangzi macroregion. In addition, since most of North China was lost to the Jurchens during the Southern Song, the few places that technically fall inside the North China macroregion are reassigned to the Lower and Middle Yangzi in the Southern Song dataset. This affects seven inscriptions, including six for schools in Lianghuai (assigned to the Lower Yangzi macroregion) and one for a school in Jinghu (assigned to the Middle Yangzi).

	<u> </u>		
	Number of	Number of Authors	
Num. of PMRs	Northern Song	Southern Song	
4	1 (1)	4 (4)	
3	0 (0)	7 (7)	
2	13 (11)	24 (18)	
1	14 (9)	28 (16)	
	3	Num. of PMRs Northern Song 4 1 (1) 3 0 (0) 2 13 (11)	

Table 4. Distribution of Authors by the Number of PMRs Where They Had Inscriptions

Note: The number of authors whose collected works have survived is reported in parentheses.

in different PMRs are considered men of national influence. Because an author must have at least two extant inscriptions in the corpus to allow for a meaningful interpretation of whether his influence was confined to the same PMR, those with only one extant school inscription in the corpus are excluded from this analysis. This reduces the number of authors in the corpus from 524 to ninety-one. Of these ninety-one authors, about half (forty-three) wrote only for schools in the same PMR. Nearly always, these were the PMRs where their home prefectures were located, ³⁷ indicating strongly that their influence—like that of the aforementioned Chen Zao—was confined to their home region. By contrast, the other half (forty-eight authors) had more or less national influence, having produced inscriptions for schools in different PMRs. Among these forty-eight authors, twelve superstars wrote for schools widely distributed in three or four PMRs (Table 4). ³⁸

To assess the relative importance of different regional and national influencers, this bipartite network (Figure 5) between authors and school locations is transformed into a one-mode author-by-author network where a link is created for any two authors who wrote for state schools in the same PMR. For example, if one author wrote for schools in both the Lower and Middle Yangzi and another for schools in the Lower Yangzi and the Southeast Coast, a link is established between the two authors because they both broadcast their views in the Lower Yangzi region. The strength of this link, which depends on both authors' magnitude of influence in the region, is measured by multiplying the number of inscriptions each author wrote for schools in that region. The derived network, therefore, maps overlapping spheres of influence. In this network, authors who were active, primarily or exclusively, in the same macroregion formed a closely connected subgroup with one another, whereas authors connecting these

 $^{^{37}}$ There are only five exceptions: Li Chui 李垂 (965–1033), Zhang Boyu 張伯玉 (fl. 1050s), Li Zhi 李廌 (1059–1109), Han Yuanji 韓元吉 (1118–1187), and Lin Yingyan 林應炎 ($\it jinshi$ of 1235). In addition, Yu Hong's 余閎 home prefecture is unknown.

³⁸It should be noted that authors who have inscriptions for schools in two or more PMRs are more likely to have a *wenji* that survives to today, but the nature of this correlation is ambiguous. On the one hand, the school inscriptions from men whose collected works have not survived are more likely to be a fraction of all they had written and these inscriptions are typically preserved in local gazetteers and local anthologies. The smaller number of their extant inscriptions and the geographical bias in the condition of their preservation may lead us to underestimate these authors' scope of influence. On the other hand, we may reasonably assume that men of national renown are more likely to have a *wenji* and that their *wenji* are more likely to have survived to this day. If so, it is just as likely that not having a *wenji* that survives today was actually a product of the author's truly lesser influence.

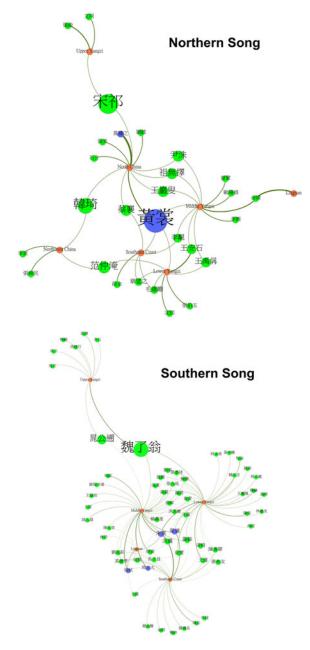


Figure 5. Bipartite Networks between Author and School Location in the Northern and Southern Song Note: Yellow nodes denote macroregions, whereas blue and green nodes represent authors. Each author node is sized according to its betweenness score, which measures how frequently it lies on the shortest path between any other nodes. The blue or green color of each author node indicates its core or periphery membership. This core-periphery analysis—not to be confused with the core and periphery zones in G. William Skinner's macroregional analysis—partitions the network into a highly interconnected cohesive subgroup (i.e. the core, in blue) and a set of loosely connected nodes (i.e. the periphery, in green) attached to the core. The thickness of each line is based on edge weight (i.e. the number of inscriptions each author wrote for schools in the PMR).

subgroups were those who managed to broadcast their views in multiple macroregions and enjoyed nation-wide influence. To measure these network properties, I have conducted two types of analyses. One of them partitions the network into subgroups using the algorithms of modularity analysis and core-periphery analysis, and the other evaluates the importance of each individual author in the network as a bridge between different subgroups by calculating their betweenness centrality.

To capture historical change, the author-by-author network data is split into two subsets based on the year each inscription was written. I use 1126 as the cut-off year because it marked not only the end of Northern Song but also the emergence of Neo-Confucian themes in the corpus (discussed below). Since very few school inscriptions were composed between 960 and 1039, the structural properties of the derived Northern Song network reflect mainly the situation after 1040.³⁹

The Separation and Bridges

A study of the betweenness scores (Table 5) leads to two findings. The first is the marked separation between the Upper Yangzi (Sichuan) and other macroregions in both Northern and Southern Song networks (Figure 6). In both networks, there was close interaction among the macroregions in the eastern half of the Song (North China, Lower and Middle Yangzi, and the Southeast Coast), but a much weaker connection between these regions and the Upper Yangzi. Take, for example, the eleven Northern Song authors who wrote for schools in the Middle Yangzi. Two of them also wrote for the Lower Yangzi, one for the Southeast Coast, one for North China, and another one for Lingnan. None of them wrote for schools in the Upper Yangzi. On the other hand, none of the authors who wrote for schools in the Upper Yangzi composed inscriptions for other regions, with the singular exception of Song Qi 宋 祁 (998–1061) who also had an inscription for a school in North China. This pattern persisted in the Southern Song. During the Southern Song, the exchange of ideas in the eastern half of the empire (Middle and Lower Yangzi, the Southeast Coast, and even Lingnan) grew more intense than before, but the interaction between the east and the Upper Yangzi remained limited and only through the mediation of two figures: Wei Liaoweng and Chao Gongsu 晁公遡 (jinshi of 1138).

This geo-network structure explains the exceptionally high betweenness scores of Song Qi, Wei Liaoweng, and Chao Gongsu in the networks, which attest to their unparalleled importance as an intellectual bridge between the Upper Yangzi and the other macroregions. An author's betweenness score measures his ability to control information and disseminate ideas in the network. Mathematically, it is the number of times this author appears on the shortest links between any other two authors in the network. Thus, a higher score of betweenness indicates a more dominant role in information dissemination. Since authors writing for the same macroregion are, by definition, pulled

³⁹By chance, none of the writers in the corpus have extant school inscriptions both before and after 1126. Therefore, there is no overlap of authors between the two sets of inscriptions generated from the corpus.

⁴⁰In this study, regional influencers in the same PMR by definition have direct ties to one another but no direct tie to regional influencers in any other PMR and, for that reason, always have a betweenness of zero.

direct tie to regional influencers in any other PMR and, for that reason, always have a betweenness of zero. On the other hand, national influencers are always information brokers between different PMRs and have a positive betweenness. Therefore, what merits attention in this study is the betweenness value of each national influencer, for it indicates how important he was in the diffusion of ideas between different macroregions.

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Table 5. Betweenness Scores of Authors

Author	Betweenness Score
Northern Song Network	
黄裳	64.20
朱祁	50.00
韓琦	33.87
范仲淹	20.70
蔡襄	16.07
尹洙, 祖無擇, 王巌叟*	15.93
王安石, 王禹偁	11.89
李覯	7.79
毛維瞻*, 章望之	3.90
Southern Song Network	
魏了翁	230.18
晁公遡	110.21
朱熹, 葉適, 黃榦, 洪邁	33.16
袁燮	22.76
王遂*, 陳耆卿, 唐仲友, 梁椅*	20.28
張栻, 周必大, 胡寅, 真德秀, 劉克莊, 包恢, 吳子良	15.05
楊萬里	13.07
黃震*,謝諤*,袁甫,劉宰,張九成,楊簡,汪藻,孫覿,張嵲,張孝祥,洪咨夔,湯漢*	10.39
林岊*, 陳元晉	1.70
王邁	1.57

Note: An author whose collected works have not survived is marked with an asterisk.

into separate clusters in the author-by-author network, a high betweenness score indicates a strong ability to bridge different regional clusters and broadcast views in multiple regions. An author's betweenness score is, therefore, positively correlated to both the size of the potential audience in each macroregion for which he functioned as an intellectual bridge (measured by the number of authors writing only for this region) and the frequency with which he played this role (measured by the total number of inscriptions he wrote for these regions and reflected in the edge weight between him and other authors), and it is also negatively correlated to the number of alternative bridges between these macroregions.⁴¹ The combination of these three factors resulted in the high

⁴¹In this study these factors are measured by the number of other influencers in each macroregion for which the author functioned as a bridge, the number of extant inscriptions he wrote for schools in the macroregion, and the number of other national influencers who also functioned as a bridge for the macroregion.

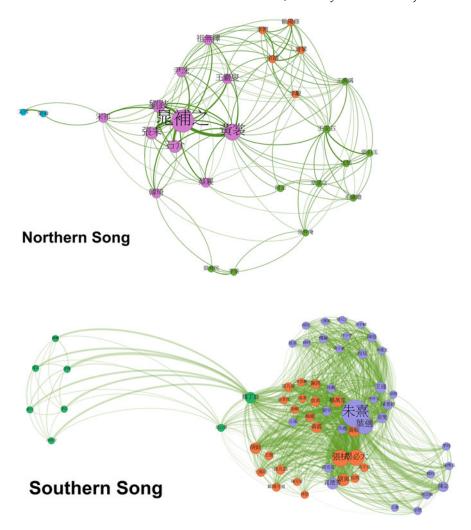


Figure 6. Author-by-Author Networks in the Northern and Southern Song Note: Each node is sized according to its coreness score, which measures the node's closeness to the core in a coreperiphery partition. Each node is colored according to the modularity cluster to which it belongs. A modularity cluster is a subgroup of nodes that have dense connections with one another but sparse connections with those in other modularity clusters. Each network is partitioned into different modularity clusters in Gephi using the default value (1.0) for the resolution parameter (a higher value for the resolution parameter tends to reveal more details by partitioning the network into a larger number of small clusters, and vice versa). The thickness of each line is based on edge weight.

betweenness scores of Song, Wei, and Chao, who were unrivaled in their role of facilitating the exchanges of ideas between the Upper Yangzi and the other macroregions. By contrast, famed and prolific authors such as Zhu Xi, Zhang Shi, and Ye Shi had considerably lower betweenness scores. While they wrote a large number of school inscriptions and were active in three or more macroregions, these men had connections only in the east. The presence of other men (e.g., Hong Mai) playing similar roles in the eastern macroregions made them less unique and less indispensable.

A close look at men with high betweenness scores also leads to a second observation: that is, the growing importance of Neo-Confucian philosophers, surpassing that of prose writers, as an intellectual bridge in the network who managed to broadcast their views of learning in different regions. Of the three national influencers who wrote for the Upper Yangzi, both of the two earlier ones (Song Qi and Chao Buzhi) were famed prose writers who had a connection to Sichuan. Song was posted to Sichuan in the eleventh century, while Chao relocated there during the Jurchen invasions of the early twelfth century. ⁴² In the thirteenth century, by contrast, the role of these prose writers was taken over by Wei Liaoweng, a leading Neo-Confucian philosopher from Sichuan with national renown.

The same trend is also notable in the eastern macroregions. In the Northern Song network, men with high betweenness scores in the eastern macroregions were mainly prose writers. Some of them had high-ranking offices in the State Council, such as Fan Zhongyan 范仲淹 (989–1052), Wang Anshi, and Wang Yansou 王巌叟 (1043–1093). Many others held only middle-ranking appointments such as censors, ministers, Secretariat Drafters, and prefectural governors. These included authors like Wang Yuchen 王禹偁 (954–1001), Yin Zhu 尹洙 (1001–1047), Zu Wuze 祖無擇 (1011–1085), Cai Xiang 蔡襄 (1012–1067), and Huang Chang 黄裳 (1044–1130).

Of these famed prose writers, some were also classicists but none had a connection to the Neo-Confucian movement. Huang was ranked first in the civil service examination of 1082 and known for his specialized knowledge of court rituals. He was the only person who wrote for schools in four different PMRs during the Northern Song, and this gives him the highest betweenness score in the entire network, surpassing that of Song Qi. Li Gou 李觏 (1009–1059) was a renowned classicist, but his focus was more on statecraft than moral philosophy. Yu Wuze 祖無擇 (1011–1085) studied with the classicist Sun Fu 孫復 (992–1057) early in his life, though he was known primarily for his literary and administrative skills. None of the Northern Song intellectuals traditionally associated with the Neo-Confucian movement (such as Zhou Dunyi, the Cheng brothers, Zhang Zai, and their disciples) wrote inscriptions for local government schools.

By contrast, the prominence of the Neo-Confucian moral philosophers is conspicuous in the eastern macroregions of the Southern Song network. Here the most important intellectual bridges included Hong Mai, Zhu Xi, Ye Shi 葉適 (1150–1223), and Zhu's disciple Huang Gan 黃榦 (1152–1221), all of whom had inscriptions for three or more PMRs. Of these leading figures, all but Hong Mai and Ye Shi were Neo-Confucian moral philosophers. Among those who were next in structural importance, Neo-Confucians were also numerous and they came from a great diversity of intellectual lineages in the movement. As much as Zhu Xi later tried to purge his influence and diminish his standing, Zhang Jiucheng 張九成 (1092–1159) was a leading figure in the first generation of Southern Song Neo-Confucian philosophers. Hu Yin 胡寅 (1098–1156) and Zhang Shi carried forward the intellectual legacy of Hu Anguo 胡安國 (1074–1138), whose influential teaching career in Hunan during the early Southern Song had turned the area into a major center of Neo-Confucian ideas. Both Zhen Dexiu 真德秀 (1178–1235) and Huang Zhen 黃震 (1213–1280) traced their intellectual descent to Zhu Xi's disciples. They, alongside Wei Liaoweng and Huang Gan, were

⁴²Zeng Zaozhuang 曾棗莊, "Keyou sanshi nian, bu chu Bo yu Ba: Chao Gongsu ji qi *Songshan ji*" 「客遊三十年,不出僰與巴」——晁公溯及其《嵩山集》, *Tianfu xinlun* 天府新論 6 (1989), 75–80.

⁴³For a study of Li, see Xie Shanyuan 謝善元, *The Life and Thought of Li Kou, 1009–1059*. San Francisco: Chinese Materials Center, 1979.

among the best known Neo-Confucian philosophers in Zhu Xi's tradition in the thirteenth century. Yang Jian 楊簡 (1141–1226), Yuan Xie 袁燮 (1144–1224), and Xie's son Fu 甫 (1174–1240) were Mingzhou (modern Ningbo) men who transmitted the learning of Lu Jiuyuan 陸九淵 (1139–1192). Some, like Bao Hui 包恢 (1182–1268), were influenced by the ideas of both Zhu Xi and Lu Jiuyuan.⁴⁴

Admittedly, the Neo-Confucians were not the only men who spread their views in different macroregions. In both the twelfth and the thirteenth centuries, they had rivals. Among their rivals were both statecraft thinkers (e.g., Ye Shi, Tang Zhongyou 唐仲友 (1136–1188), Chen Qiqing 陳耆卿 (1180–1236), and Wu Ziliang 吳子良 (b. 1197)) and famed prose writers and poets (e.g., Chao Gongsu, Hong Mai, Zhou Bida, and Yang Wanli 楊萬里 (1127–1206)).

Despite this great diversity of literary and philosophical pursuits that these authors represented, the growing influence of Neo-Confucianism in the network is evident in the fact that many of the Southern Song prose writers and poets, unlike their Northern Song counterparts, came under a strong Neo-Confucian influence. Yang Wanli was a famed poet but also deeply interested in Neo-Confucian thought. So was Liu Kezhuang 劉克莊 (1187–1269). Although he made a name for himself in history as a poet and literary critic, Liu was also a convinced disciple of Zhen Dexiu. Likewise, Xie E 謝諤 (1121–1194) was known mainly for his literary skills, but he also studied with Guo Yong 郭雍 (1091–1187), son of Cheng Yi's disciple Guo Zhongxiao 郭忠孝, and was an influential teacher of Neo-Confucian thought. Liang Yi 梁椅 started his career as a writer but, in his later years, was said to have devoted himself to the learning of the Cheng brothers and Zhu Xi.

The Core Groups

The prominence of Neo-Confucian authors in the Southern Song network is also borne out by core-periphery and modularity analyses (Table 6). Whereas betweenness scores draw attention to the role of individual authors as bridges between otherwise disconnected subgroups in the network, core-periphery and modularity analyses seek to assign individual authors into meaningful subgroups. Core-periphery and modularity analyses each operate with a different assumption about network structure. The classical algorithm of core-periphery analysis assumes that there is a densely connected subgroup of authors (the core) in the network who also have access to many other parts of the network (the periphery), while these other parts are weakly linked among themselves and have to depend on the core to reach one another. Modularity analysis, by contrast, does not posit the existence of a single core but seeks to partition the network into different clusters (i.e. modularity classes) so that authors in the same cluster have dense connections with each other but sparse connections with those in other clusters. In brief, modularity analysis works best with networks where multiple hubs and clusters are present, while the classical algorithm of the core-periphery analysis is best for describing the structural properties of a network that has a single dominant hub.

The way in which author-to-author networks are constructed in this study places all the regional influencers in separate clusters, while national influencers who are active in multiple macroregions serve as bridges and perform the critical function of integrating different clusters into a more cohesive network. Therefore, modularity and coreperiphery analyses complement each other by focusing respectively on the clustering

⁴⁴Song shi 421.12591.

328 Song Chen

Table 6. Coreness Scores of Authors

Author	Coreness Score
Northern Song Network: Core	
晁補之	0.70
黄裳	0.43
Northern Song Network: Periphery	
石介, 劉跂, 張耒	0.26
尹洙, 祖無擇, 王巌叟*	0.15
蔡襄	0.14
宋祁, 韓琦	0.13
余靖	0.06
王安石	0.05
歐陽修, 曾鞏, 李廌	0.05
王禹偁	0.04
李覯	0.03
張伯玉, 沈括, 毛維瞻*, 章望之	0.02
段全, 范仲淹	0.02
張俞, 李垂, 文同, 張舜民	0.01
Southern Song Network: Core	
朱熹	0.62
莱適	0.34
張栻	0.31
周必大	0.28
Southern Song Network: Periphery	
胡寅	0.17
真德秀	0.15
黃榦, 王遂*, 胡銓, 魏了翁, 楊萬里	0.14
黄震*	0.12
袁燮, 陳宓	0.11
謝諤*, 袁甫, 陸九淵	0.09
陳造, 程珌, 陳耆卿, 劉宰	0.08
洪邁, 張九成, 楊簡, 劉克莊, 樓鑰	0.07
汪藻, 孫覿, 包恢, 王庭珪, 王質, 歐陽守道	0.06
吳子良, 張嵲, 張孝祥, 洪咨夔, 湯漢*	0.05
楊時,季翔,余閎*,陳傅良,趙汝騰,唐仲友,梁椅*,林岊*,陳元晉	0.04
	(Continu

(Continued)

Table 6. (Continued.)

Author	Coreness Score
胡珵*, 黃中輔*, 韓元吉, 陸游, 錢時, 周子巖*, 時少章*, 林應炎*, 王應鳳*, 晁公 遡, 王邁	0.03
邵博*, 馮時行*, 李石*, 梁介*, 楊輔*, 度正	<0.02

Note: An author whose collected works have not survived is marked with an asterisk.

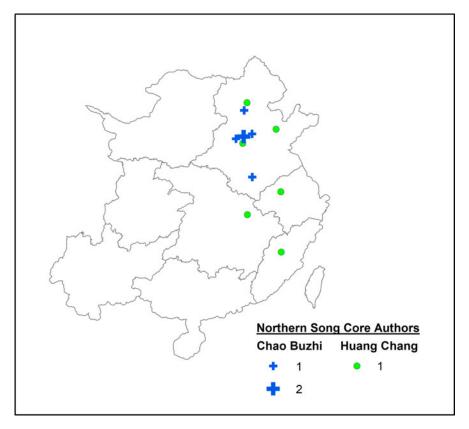
and integrating forces in the network. In the Northern Song, the relatively small number of authors and school inscriptions has limited the degree of cohesion between different macroregional clusters. With the exception of Huang Chang, who wrote for schools in four different macroregions, all national influencers in the Northern Song network wrote only for schools in two macroregions. This gives Huang the highest coreness score and makes him the most central node in the network. Although Huang was a native of Fujian, more of his inscriptions were dedicated to schools in North China than anywhere else. The combined effect is a core group of authors in the Northern Song network that consisted only of two men, including Huang and a North China regional influencer (Chao Buzhi 晁補之 (1053–1110)). Both were embedded in a cluster that had North China as its primary sphere of influence.

In the Southern Song network, by contrast, the core group was no longer embedded in any single regional cluster. Instead, it consisted of four national influencers whose primary sphere of influence varied but also overlapped. Their wide and overlapping spheres of influence, compounded by their high productivity as authors of school inscriptions, made them the most critical nodes in integrating the different regional clusters of the network. Of these four authors, two (Zhang Shi and Zhou Bida) wrote predominantly for schools in the Middle Yangzi and two others (Zhu Xi and Ye Shi) were most active in the Southeast Coast. But they, except Zhou, also had a good number of inscriptions for schools in other macroregions (Map 2).

The core-periphery analysis corroborates what has been revealed in the betweenness analysis: prose writers who had dominated the Northern Song network gave way to a more diverse group of scholars under a strong Neo-Confucian influence. The Northern Song core group was constituted by Huang Chang and Chao Buzhi, both renowned prose writers. By contrast, the Southern Song core included a prose writer-cum-statesman (Zhou Bida), a statecraft thinker (Ye Shi), and two leading Neo-Confucian philosophers (Zhu Xi and Zhang Shi).

Charles Hartman has argued cogently that the Neo-Confucian intellectual dominance in the Southern Song resulted in the greater survival of writings by Neo-Confucian scholars, thus coloring historical records. That the most influential authors of school inscriptions came from a Neo-Confucian background in the Southern Song and that these inscriptions had greater and greater Neo-Confucian content (see next section) perhaps reflects, more or less, the biased transmission of Southern Song texts in favor of Neo-Confucian authors. Since the collected works of Southern Song Neo-Confucian scholars had greater chances of surviving intact into

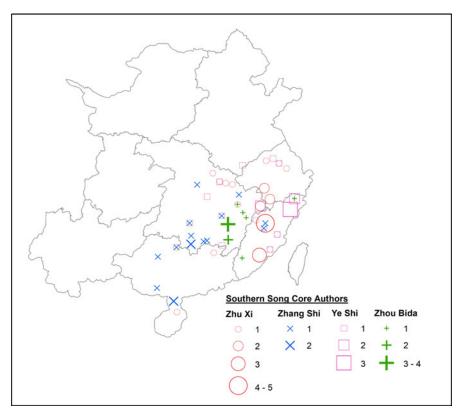
 $^{^{45}\}mathrm{Charles}$ Hartman, "The Making of a Villain: Ch'in Kuei and Tao-hsüeh," Harvard Journal of Asiatic Studies 58.1 (1998), 59–146.



Map 2. Location of Schools with Inscriptions from Core Authors

modern times, it is natural that their influence is less likely to be underestimated than that of non-Neo-Confucian authors whose collected works are often lost or have survived only in fragments. As Tables 5 and 6 demonstrate, men with high betweenness and coreness scores are, with few exceptions, indeed men whose collected works have survived.

Although this historiographical bias may have magnified the prominence of Neo-Confucian authors in the Southern Song network, its impact should not be overstated. As I have discussed earlier, historiographical bias was often entangled with actual historical change: although modern historians are prone to underestimate the influence of men whose writings have not survived intact into our times, the chance of survival of an author's writings was itself a product of his influence. Thus, it is reasonable to consider that the growth of the Neo-Confucian voice in school inscriptions and the greater survival of their writings, in general, are a product of the same historical phenomenon (namely, their growing intellectual dominance) and that the greater survival of their writings, in turn, amplified the volume of their voice in the school inscriptions. Furthermore, the large quantity of school inscriptions from Neo-Confucian scholars reflects not only the greater survival of their writings but also the close attention they paid to these inscriptions as a means of establishing their intellectual dominance, which stands out in relief against their lukewarm interest in writing for shrines of local deities.



Map 2. Continued.

Intellectual Affiliation

The remarkable visibility of Neo-Confucians in the Southern Song network owed much to their intellectual dominance and the greater survival of their writings. But it also had a debt, in large measure, to a growing tendency to consider intellectual affiliation when a person was seeking an author for a school inscription in the Southern Song.

School inscriptions in the Song commemorated a wide variety of projects, such as the building, expansion, and renovation of the ritual and educational facilities, the establishment and restoration of an endowment, and rebuilding the entire school on a different site, and so forth. These projects usually involved the cooperation of a variety of figures, including local scholars, retired officials of local origin, and local administrators at different levels of the bureaucracy. Some brought forward the proposal and some approved it; some made financial contributions and some managed the finances; some supervised the workers and some monitored the progress of the project. Nevertheless, nearly all the school inscriptions credited local administrators—mostly prefects and county magistrates, but sometimes also circuit officials, deputy heads, or others—with being in charge of these projects. The precise role these officials played varied from one project to another. Sometimes they took the initiative to propose the projects, and at other times they only approved proposals from local scholars. Sometimes they

Author Identity 960-1126 1127-1279 Total Project Overseers 21% 12% 14% Colleagues 23% 20% 21% Personal Connections 11% 13% 10% Local Affiliates 18% 24% 23% Intellectual Affiliates 0% 5% 4% Unspecified 27% 27% 27% Num. of Inscriptions 212 606 818

Table 7. Identity of Authors of the School Inscriptions

Note: Authors of some inscriptions had multiple identities (e.g. a man of local origin who also had a position in the local school, or a colleague of the project overseer who also graduated from the same civil service examination class). These inscriptions are counted twice in this table. Therefore, the added total reported in this table is greater than the total number of inscriptions in the corpus.

only helped cover some of the expenses, and at other times they closely supervised the progress. At any rate, they were, at the very least, the purported overseers of these projects.

At all times in the Song, some of these project overseers took it upon themselves to write the inscriptions. This practice appears to have grown less popular over time, however. The percentage of school inscriptions written by project overseers declined from about one-fifth in the Northern Song to only slightly more than one-tenth in the Southern Song. Correspondingly, about four-fifths of the school inscriptions in the Northern Song and nine-tenths in the Southern Song were authored by men who were not themselves overseers of the commemorated projects. These authors usually wrote in response to the request from a project overseer or from some local men who acted on behalf of the overseer. These authors fell into four major categories: colleagues, personal connections, local affiliates, and intellectual affiliates (Table 7).

First, in nearly all the projects the overseers were local officials (especially prefects and county magistrates). Therefore, they frequently turned to colleagues in the local government for school inscriptions. In both halves of the Song, these authors contributed about one-fifth of all the school inscriptions. Some of these colleague-authors were the overseers' superiors, holding appointments in circuit and prefectural administrations, some their bureaucratic equals (e.g., magistrate of a nearby county or governor of a nearby prefecture), but the majority of them were the overseers' subordinates, such as local school instructors and staff members in prefectural and county administrations. Although the inscriptions do not always state it clearly, at least some of these subordinates were themselves actively engaged in the commemorated projects, taking on such responsibilities as monitoring the progress and managing the funds.

The second type of authors were the overseers' personal connections. Some were the overseers' agnatic and affinal kin. Some were their friends. Some had been close associates of the overseers because they hailed from the same places (tongxiang 同鄉), attended the National University in the same year (tongshe 同舍), graduated from the same civil service examination class (tongnian 同年), or had previously worked together in the same government department (tongliao 同寮). These shared backgrounds and experiences traditionally fostered the growth of a common identity, mutual trust, and close affinity. In both halves of the Song, these men contributed slightly more than one-tenth of the extant school inscriptions.

The third type of authors were men of local origin. Some of these authors were local scholars still studying in the schools and preparing for the examinations, but many had earned metropolitan degrees (*jinshi*) and held office. These authors also contributed about one-fifth of the inscriptions in the corpus, with a moderate increase from 19 percent in the Northern Song to 24 percent in the Southern Song.

It is the fourth type of authors that deserve emphasis. These authors wrote for local schools mainly because of their intellectual backgrounds and scholarly ties. Compared to the other types discussed above, these men authored only an insignificant share (5 percent) of the inscriptions in the Southern Song, but the growth in their visibility from the Northern to the Southern Song was phenomenal. In the Northern Song, intellectual affiliation mattered only in the writing of one school inscription. In this case, a local scholar from Hongya 洪雅 county of Jiazhou 嘉州 (Sichuan), acting on behalf of the magistrate who carried out the commemorated project, requested an inscription from his own teacher. In the Southern Song, by contrast, a diversity of intellectual connections played a prominent role in thirty-two inscriptions. Sometimes the authors agreed to write because they were teachers of the project overseers (or men who requested inscriptions on the overseers' behalf). Sometimes the author and the overseer (or his relatives) studied with the same teacher. At other times, the project concerned a shrine dedicated to a renowned scholar, of whom the author (or his close relative) was a disciple or with whom the author had received instructions from the same master.

The growing importance of intellectual ties in the writing of school inscriptions was closely linked to the Neo-Confucian movement. First, of the thirty-two Southern Song inscriptions where intellectual ties played a role, nineteen were written to commemorate the shrines dedicated to Neo-Confucian figures, including both renowned Neo-Confucian masters (i.e., Zhou Dunyi, the Cheng brothers, Zhu Xi, and the Lu brothers) and their disciples (e.g., Xie Liangzuo 謝良佐, Huang Gan, and Yang Jian). As I will discuss later, these shrines proliferated from the mid-twelfth century onwards and were emblematic of the Neo-Confucian scholars' efforts to transform the physical space of local government schools. Not surprisingly, the authors of these inscriptions often came from a strong Neo-Confucian background. The thirty-two Southern Song inscriptions were written by nineteen different authors. Of them, fourteen were Neo-Confucian philosophers (i.e., Zhu Xi, Wei Liaoweng, eight authors who studied with Zhu Xi or Zhu's disciples, three who studied with Lu Jiuyuan or Lu's disciples, and Bao Hui whose family had close intellectual ties to both Zhu and Lu), and two were sympathetic to the Neo-Confucian position (i.e., Liu Guangzu and Wang Sui).

Zhu Xi alone contributed twelve of these thirty-two inscriptions, some at the request of his students and intellectual associates and others by virtue of his reputation as the leading thinker who transmitted the learning of Zhou Dunyi and the Cheng brothers. In 1176, for example, Liu Gong 劉珙 (1122–1178), Prefect of Jiankang 建康 (modern Nanjing), erected a shrine to Cheng Hao in the government school. Upon its completion, Liu sent Zhu Xi a letter requesting an inscription from him. Liu and Zhu both hailed from Jianning 建寧, but making no mention of their shared native place, Liu's

⁴⁶Li Man 李曼, "Yijian Kongzi miao ji" 移建孔子廟記 (1094), Quan Songwen 80:1759.374.

⁴⁷For some examples, see *Quan Song wen* 296:6741.66 [韶州州學師道堂記], 304:6951.318 [溧水縣建小學記], 288:6557.391 [鄂州州學四賢堂記], and 307:7018.361 [吳縣學慈湖先生祠堂記].

⁴⁸For some examples, see *Quan Song wen* 275:6239.414 [二陸先生祠記], 288:6556.388 [徽州朱文公祠堂記], 294:6702.265 [鄉先生祠堂記], 304:6951.315 [南陵修儒學記], 307:7018.361 [吳縣學慈湖先生祠堂記], 319:7323.177 [臨川縣學勉齋祠記], and 319:7334.370 [三陸先生祠堂記].

letter explained why he considered Zhu Xi the most suitable author for the inscription in terms of Zhu's intellectual accomplishments:

When I was a young man, I studied the books written by Mr. Cheng. I realized that his way of learning and his virtuous conduct carried on the traditions of Confucius and Mencius that had no longer been transmitted. Although I have failed to attain his height in learning, my mind has turned toward it. Since you have chanted his poems and studied his works, I wish you would write an essay to record [the erection of the shrine].

吾少讀程氏書,則已知先生之道學德行實繼孔孟不傳之統。顧學之雖不能至,而心鄉往之。以吾子之嘗誦其詩而讀其書也,故願請文以記之.⁴⁹

In Song times, authors of school inscriptions were no longer content with providing an account of how a government school or any of its associated facilities was rebuilt, expanded, or repaired. Many of them availed themselves of the opportunity to make an argument about education and learning. The scope of their influence varied, however. Some had opportunities to write only for schools close to home, but others composed inscriptions in different regions across the Song territory. From the Northern to Southern Song, as more and more school inscriptions were written, men who had an opportunity to write for schools in different regions also increased. This allowed them to spread their views more widely and thereby facilitated the exchange of ideas between different macroregions. However, the intensity of this exchange varied in different parts of the Song. It was more intense in the eastern half of the Song (i.e., between regions such as the Lower Yangzi, Middle Yangzi, Southeast Coast, and even Lingnan) but very limited between these regions and the Upper Yangzi. Nevertheless, in the network of these exchanges, there appeared a group of authors with wide influence. They were bridges of ideas between different regions. They spread their views widely and fostered a shared understanding of learning and the functions of government schools. At first, these influential writers were predominantly renowned prose writers, but from the mid-twelfth century on, many of them were Neo-Confucian moral philosophers. The growing importance of Neo-Confucian scholars in the writing of government school inscriptions owed much to a Southern Song phenomenon: that is, men who renovated and expanded local government schools became increasingly interested in seeking inscriptions from their own teachers, fellow students, and scholars who had intellectual ties to the Neo-Confucian luminaries enshrined on the campus of the schools.

Themes

Since many Song authors used school inscriptions to broadcast their views of learning, we may reasonably expect that the views in school inscriptions must have changed over the course of the Song when the intellectual background of their authors changed. This section explores this phenomenon with the aid of computer-assisted text analysis.

At the core of this section's analysis is the method of document clustering based on tf-idf calculations.⁵⁰ The idea of tf-idf, short for "term frequency-inverse document frequency," is to group similar documents together based on the pattern of their language

⁴⁹Zhu Xi, "Jiankang fuxue Mingdao xiansheng ci ji" 建康府學明道先生祠記, *Quan Song wen* 252:5653.61-62.

⁵⁰Text analysis in this section is conducted in Exploratory Desktop, a data analysis program developed by Exploratory, Inc. See https://exploratory.io/.

use. Documents are considered similar if they use the same words more frequently than other documents in the corpus. This means that the importance of any word to a document is positively influenced by how frequently this word appears in this particular document and, in the meanwhile, negatively influenced by how frequently this word appears in the corpus in general. The first factor is measured by the number of times the word appears in the document (i.e., the "term frequency" or tf value), and this is adjusted by the value of "inverse document frequency" (i.e., the idf value) which measures the second influencing factor based on the number of documents in the corpus that contain this word. Using the tf–idf values, it is then possible to transform each document into a set of numbers (a vector), where each number is a quantitative expression of how important a word is to the document. This process, technically known as document vectorization, creates a vector space that has as many dimensions as the number of unique words in the corpus, and the similarity between documents is computed as the "distance" between the vectors that each represent a document.

What constitutes a word, however, is not straightforward in Chinese-language documents. While white spaces in English and many other languages provide an intuitive way of dividing a string of written scripts into its component words, Chinese-language documents do not offer this convenience. As word segmentation algorithms for Chinese texts—especially classical Chinese texts—are still being developed,⁵¹ a few recent studies have elected to take each character as a unit of analysis (i.e., a dimension in the vector).⁵² This approach does not serve the purpose of the present study because of the multivalence of Chinese characters.

Take the character *li* 理 for example. Figure 7a plots the number of times this character appears in the school inscriptions. Since li is a key concept in Neo-Confucianism, the upward trend in this graph appears to be consistent with the growing prominence of Neo-Confucian authors in the writing of school inscriptions. But this is misleading. In fact, this upward trend was only a result of the growing number of school inscriptions written in the Song period. Once the frequency of *li* is normalized by the number of extant inscriptions in each period, the upward trend disappears (Figure 7b). The Neo-Confucian influence on the content of inscriptions becomes evident only if one graphs the frequency of two-character terms, such as tianli 天理 (heavenly principle) and renxin 人心 (human mind) (Figure 7c). That is, the meaning of two-character terms is much less ambiguous than that of one-character terms in classical Chinese. In some of the school inscriptions, the character li indeed stands for the Neo-Confucian notion of "principle" or "coherence," but in many others, it is also used as part of a verb (e.g., jingli 經理 (to manage)), or the name of a government agency (e.g., dali 大理 (Court of Judicial Review)), etc. Only when li is understood in relation to the character immediately preceding or following it does the ambiguity of its meaning disappear. Two-character terms, such as qiongli 窮理, tianli 天理, jingli, and dali, are far less multivalent.53

⁵¹For the most recent and promising development on word segmentation in Chinese texts, see Peng-Hsuan Li, Tsu-Jui Fu, and Wei-Yun Ma, "Remedying BiLSTM-CNN Deficiency in Modeling Cross-Context for NER," arXiv:1908.11046 [cs.CL].

⁵²For two examples, see Paul Vierthaler, "Fiction and History: Polarity and Stylistic Gradience in Late Imperial Chinese Literature," *Cultural Analytics*, May 23, 2016, and Donald Sturgeon, "Digital Approaches to Text Reuse in the Early Chinese Corpus," *Journal of Chinese Literature and Culture* 5.2 (2018), 186–213.

⁵³Of course, the two-character compound *dali* may also be the name of a state, but the nature of our corpus ensures that the term is rarely—if at all—used in this sense.



Figure 7. (a) Occurrences of *li* in the Corpus. (b) Occurrences of *li*, Normalized by Number of Inscriptions in Each Period. (c) Occurrences of *tianli* and *renxin*, Normalized by Number of Inscriptions in Each Period.

Therefore, this study adopts two-character terms as its unit of analysis. First, I use a computational algorithm to identify any two contiguous characters in the texts and thereby generate a list of all possible two-character combinations (137,274 in total) from the corpus. This list is trimmed down by several filtering operations. Two kinds of filters are applied. First filtered are two-character combinations that contain the most common words (the so-called "stopwords"), which are mostly grammatical particles but also include some verbs and prepositions.⁵⁴ Then, the second set of filters is applied to ensure that documents will not be grouped together because they all contain similar references to dates and administrative levels or because they all provide rich accounting details of a construction project.⁵⁵

Certainly, not all of the remaining two-character combinations (95,977 in total) are meaningful. We may safely assume that the more often a two-character combination appears in the corpus, the more likely it is meaningful. To maximize the percentage of meaningful combinations on the list, I filter out all the combinations that appear less than seven times in the corpus, and I have chosen seven as the threshold value based on the corpus-wide frequency distribution of all the 95,977 two-character combinations (Figure 8). This leaves us with a total of 4,070 two-character terms. Then, each school inscription is transformed into a vector composed by the tf-idf value of each of the 4,070 terms for the inscription. Finally, these school inscriptions are divided into three clusters using the K-Means clustering algorithm. ⁵⁷

The distribution of school inscriptions in the three clusters reveals a clear temporal pattern (Figure 9). Cluster A represents the earliest and dominant mode of writing school inscriptions in Song times. The small number (twenty-three) of inscriptions in the first six decades of the Song fall exclusively in this cluster. The dominance of this cluster was challenged first in the 1030s by the appearance of Cluster B inscriptions and again in the 1120s by that of Cluster C inscriptions.

 $^{^{54}}$ The stopwords used in this study include 之,以,其,而,不,為,有,也,所,然,於,則,無,矣,曰,此,與,焉,未,又,乎,于,亦,乃,因,且,夫,何,盍,哉,耳,豈,不,及,若,and 如. Two-character terms beginning with zhe 者 are also discarded, but those ending with it are not. The interjection wuhu 嗚呼 is also discarded.

 $^{^{55}}$ For this purpose, Chinese calendrical terms are filtered, which include: all Song-dynasty reign titles; the sixty *ganzhi* terms; any two-character combination that contains the character 年, 月, or 日; and the terms 歲在 and 歲次 which often precede the *ganzhi* expression of a year. The only exception is *Mingdao* 明道, since it is only briefly used as a reign title and often appear in texts as the style name of Cheng Hao 程顥 (1032–1085). Also discarded are two-character combinations containing any of the characters that frequently appear in the corpus and indicate specific administrative levels: namely, 縣, 邑, 府, 州, 軍, 監, 郡, 令, 尹, 宰, 守, and 牧. This is to reduce the probability of documents getting grouped together simply because they all concern prefectural or county-level schools. Finally, combinations where both characters are Chinese numerals (- to +, +, +, and +, +) are also pruned from the list.

⁵⁶A two-character combination that appears only once in the corpus is more likely to be a combination of two characters that are contiguous in a document only by chance, while a combination that has several hundred occurrences is unlikely to have formed only by chance. For example, *sixian* 祀咸 is a meaningless combination generated by the computer. It is extracted from the sentence *desi xianyun* 得祀咸允 ("[Their] reception of sacrifices are all appropriate") and appears only once in the corpus. On the other hand, there are clearly meaningful combinations such as *tianxia* 天下, *xiansheng* 先生, *xuezhe* 學者, and *xuexiao* 學校, each of which has several hundred occurrences in the corpus.

 $^{^{57}}$ The algorithm of K-Means Clustering divides the documents into k number of clusters that minimizes the sum of squared distance between all vectorized documents within a cluster and the cluster center. The number of clusters (k) is fixed a priori. In this study, the value of k is set at 3 after experimentation with different k values and with reference to output from the Elbow method calculations.

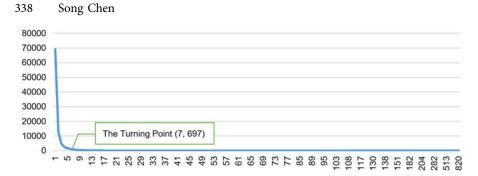


Figure 8. Corpus-Wide Frequency Distribution of All Two-Character Combinations

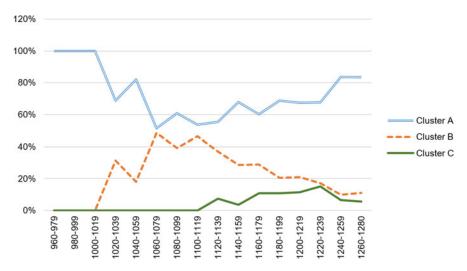


Figure 9. Percentage of Inscriptions in Each Cluster by Period

Cluster A was the mainstream. At all times, at least half (and sometimes 60 percent to 80 percent) of the inscriptions belong to this cluster. Cluster B inscriptions first appeared in the 1030s, claiming five of the fourteen inscriptions of that decade. The share of inscriptions in Cluster B continued to rise in the years that followed, reaching a peak first in 1060–1079 and again in 1100–1119. In these two periods, nearly half of the inscriptions fall into Cluster B. Thereafter, the share of Cluster B inscriptions declined steadily, although it never completely disappeared. Finally, in the 1120s, the third type of inscriptions (Cluster C) surfaced. At first, it claimed only 4 percent to 7 percent of the inscriptions written between 1120 and 1159. However, by 1160–1179 its share had risen above 10 percent, and it stayed at this level all the way until 1239.

A close look at the timing of when inscriptions in different clusters first appeared in each macroregion provides evidence for the findings in the preceding section. It reveals

⁵⁸Of the sixteenth inscriptions from the 1020–1039 period, only two were composed in the 1020s, both in Cluster A. All the five inscriptions belonging to Cluster B were written between 1035 and 1039.

the great impacts that the weak connections between the Upper Yangzi and other macroregions had on the diffusion of ideas between the eastern and western halves of the Song empire. The first inscription in Cluster B was composed by Zu Wuze in 1035 for a school in North China. In 1040–1059, inscriptions in the Cluster B style spread to other regions such as Northwest China, the Lower and Middle Yangzi, and Lingnan. By contrast, no Cluster B inscriptions appeared in the Upper Yangzi until two Sichuan men, in the early 1070s, wrote for the Confucian shrine in Yongtai 永泰 county (Zizhou 梓州) and the prefectural school of Chengdu respectively. Similarly, the first inscriptions in Cluster C were written for schools in the Lower Yangzi in 1126 and 1135. In the next few decades (1140–1199), twelve more inscriptions in the Cluster C style appeared for schools in the Middle Yangzi, the Southeast Coast, and Lingnan. However, in the Upper Yangzi, no inscription in this style is known until 1207 when the Sichuan-born Neo-Confucian scholar, Wei Liaoweng, wrote for a Neo-Confucian shrine inside the Chengdu prefectural school.

What exactly distinguishes these clusters from one another? Do they share any common ground? A comparison of the top-frequency terms in each cluster provides some clues. Table 8 reports the top ten most frequent terms in each cluster.

There are obviously some overlaps between the top-frequency terms in different clusters. Four terms frequently appear in all three clusters. Three of these terms (*zhusheng* 諸生 (students), *xuezhe* 學者 (scholars), and *xiansheng* 先生 (masters)) indicate the shared concern for education in all clusters, and the other (*tianxia* 天下 (all under heaven)) reveals a shared imagination of the cultural world. Moreover, Clusters A and B also share an interest in discussing local schools in relation to the classical tradition and the state, which is evident in their frequent references to *Kongzi* 孔子 (Confucius) and *tianzi* 天子 (the Son of Heaven). In contrast, these two terms appear much less often in Cluster C inscriptions.⁶³

Let us now turn to the cluster-specific top-frequency terms—that is, terms that appear only on the top ten list of one cluster but not the other two. These terms foreground the distinctive themes of each cluster. The contrast between Clusters B and C is particularly pronounced. The unique terms in Cluster B suggest strongly that these inscriptions focus on the relationship between antiquity (sandai 三代 (Three Dynasties) and xianwang 先王 (sage kings)) and men of later generations (houshi 後世), a theme that was at the center of intellectual and political discourses of the midand late eleventh century. Cluster C inscriptions, on the other hand, exhibit a strong Neo-Confucian orientation. The frequently-used terms in these inscriptions betray the authors' attempt to elevate the status of Confucius and Mencius as a pair (Kong Meng 孔孟), their reverence for the Neo-Confucian masters (Zhou Dunyi (Lianxi 濂溪), the Cheng brothers (Er Cheng 二程), and the Three or Four Masters (san

⁵⁹Zu Wuze 祖無擇, "Caizhou xinjian xue ji" 蔡州新建學記 (1035), Quan Song wen 43:935.317.

⁶⁰Wen Tong 文同, "Yongtai xian xinxiu shengmiao ji" 永泰縣新修聖廟記 (1070), *Quan Song wen* 51:1107.152. Lü Tao 呂陶, "Fuxue jingshi ge luocheng ji" 府學經史閣落成記 (1071), *Quan Song wen* 74:1610.50.

⁶¹Li Bing 李邴, "Chuzhou jiaoshou ting timing ji" 楚州教授廳題名記 (1126), *Quan Song wen* 175:3823.64. Hu Cheng 胡珵, "Yanguan xianxue zhi ji" 鹽官縣學之記 (1135), *Quan Song wen* 182:3991.153. These inscriptions focus on two intellectual figures: Xu Ji 徐積 (1028–1103, disciple of Hu Yuan 胡瑗 [993–1059]) and Zhang Jiucheng.

⁶²Wei Liaoweng, "Chengdufu fuxue san xiansheng citang ji" 成都府府學三先生祠堂記 (1207), *Quan Song wen* 310:7094.259.

 $^{^{63}}$ Kongzi is among the top twenty frequent terms of Cluster C inscriptions, whereas *tianzi* is not even in its list of top fifty frequent terms.

Table 8. Top Ten Most Frequent Terms in Each Cluster

	Cluster A	Cluster B	Cluster C
天下	Х	X	x
諸生	X	X	х
學者	X	X	x
先生	x	X	x
孔子	X	X	
天子	x	X	
學校	x	X	
君子	X		
先聖	x		
聖人	Х		
學宮	X		
先王		x	
三代		X	
後世		X	
庠序		X	
濂溪			x
三先[生]			X
四先[生]			x
二程			x
孔孟			X
聖賢			X
天地			X

xiansheng 三先生 / si xiansheng 四先生)), as well as their preoccupation with the proper relationship between the sages (shengxian 聖賢) and the cosmic order (tiandi 天地). These characteristics of Clusters B and C set them apart from Cluster A, which focuses more on Confucius himself (xiansheng 先聖).

The differences between the three clusters are also manifest in the expanded lists of top-frequency terms for each cluster. Table 9 lists the top thirty frequent terms in each cluster.

These lists betray a shared statist orientation between Cluster A and B. Both stress the relationship between schools and the imperial authority, which is evident in their frequent references to "dynasty" (guojia 國家) and "court" (chaoting 朝廷). In the inscriptions of both clusters, the local government school was a state institution whose goal was to transform local literati and local society. They speak of schools as the place for teaching and nourishing the literati (jiaoyang 教養 and yangshi 養士) and stress the importance of transforming local culture (jiaohua 教化) through the practice of Confucian rites (liyue 禮樂).

	Cluster A	Cluster B	Cluster C
天下, 孔子, 聖人, 學校, 諸生, 學者, 先生, 君子, 三代	x	x	x
天地, 聖賢, 孟子, 教授	X		x
天子, 國家, 立學, 學宮, 庠序, 弟子, 教養, 教化, 春秋, 禮樂, 先聖, 可謂	X	X	
子弟,講堂,養士,建學,釋奠,[夫/孔]子廟	X		
先王,後世,朝廷,風俗,道德,東南,興學,士者,禮義,教者, 古人		X	
濂溪, 三先[生], 二程, 孔孟, 四先[生], 程先[生], 人心, 明道 [先生], 河南, 太極, 孟氏, 庶幾, 文公, 程氏, 斯道, 生祠, 伊川, 異端, [濂]溪先[生], [濂]溪周[先生]			x

Table 9. Top Thirty Most Frequent Terms in Each Cluster

Nevertheless, there are also marked differences between Clusters A and B. Inscriptions in Cluster A have a stronger ritual focus. They make more frequent mentions of the spring and autumn sacrifices (chunqiu 春秋 and shidian 釋奠) performed at the Confucian shrine (zimiao [夫/孔]子廟). In contrast, Cluster B inscriptions often employ the signature phrases of the late eleventh-century reformers, such as "morality" (daode 道德) and "customs" (fengsu 風俗). Thus it comes as no surprise that the number of inscriptions in Cluster B reached a peak in 1060–1119, in which the reformers and their critics took turns to dominate court politics. Three of the four extant inscriptions written by Wang Anshi fall into this cluster, as does the only extant inscription by Wang's follower Lü Huiqing 呂惠卿 (1032–1111).

The features of Cluster C are much more conspicuous, and these features set it far apart from the other two clusters. The top thirty most frequent terms of Cluster C are literally a dictionary of Neo-Confucian locutions, with very limited overlap with the top thirty frequent terms in the other two clusters. These terms include Mencius (*Mengzi* 孟子 / *Mengshi* 孟氏), names of Neo-Confucian masters (e.g., *Mingdao* 明道 (Cheng Hao), *Yichuan* 伊川 (Cheng Yi), *Yiluo* 伊洛 (i.e., the Cheng brothers), *Cheng shi* 程氏 (the Chengs), *xi xian* [濂]溪先[生], and *xi zhou* [濂]溪周[先生] (i.e., Zhou Dunyi)), Neo-Confucian philosophical concepts (*renxin* 人心, *tianli* 天理, and *taiji* 太極), and phrases that express the self-identity of the Neo-Confucian fellowship (*sidao* 斯道 and *Daoxue* 道學) and their hostility towards Buddhism and Daoism (*yiduan* 異端).

In view of this, it should not surprise us to find that men who contributed two or more inscriptions in Cluster C were all Neo-Confucian philosophers, who composed twenty of the fifty-five inscriptions in Cluster C altogether. These authors, six in total, spanned a wide intellectual spectrum within the Neo-Confucian movement. They included Zhu Xi and Zhang Shi, the leading figures who commanded the intellectual centers in Fujian and Hunan respectively. Of the remaining four, three had close links to the Zhu Xi school: Huang Gan and Chen Mi 陳宓 (1171–1230) were Zhu's disciples, and Wei Liaoweng was Zhu's firm supporter. The fourth, Yuan Fu, by contrast, studied with Yang Jian, who in turn received his teachings from Lu Jiuyuan who was

⁶⁴The term "wengong" 文公 on this list is ambiguous. As a posthumous title, it may refer to Zhu Xi but also Wang Anshi. However, it appears that in most cases, it is a reference to Han Yu (*Han wengong* 韓文公).

based in Jiangxi but had immense influence in Zhejiang. Among those who had only one school inscription in Cluster C, one also finds a wide diversity of Neo-Confucian scholars, including Zhu Xi's well-known disciples Liao Deming 廖德明 (*jinshi* of 1169) and Chen Chun 陳淳 (1159–1223) as well as Lu Jiuyuan's followers (e.g., Yang Jian and Bao Hui).

Two caveats are in order about these findings. First, document clustering in this analysis reveals shared themes, not positions. The position a document takes on a specific theme relies greatly on interpretation. We know, for example, that Cluster C inscriptions share a common interest in Neo-Confucian philosophy (e.g., the heavenly principle and the human mind) and masters (e.g., Zhou Dunyi and the Cheng brothers). Yet the list of top-frequency terms does not reveal what position these inscriptions take on the relationship between the heavenly principle and the human mind, nor does it indicate whether these inscriptions agree or disagree with the Neo-Confucian masters. It is particularly important to bear this in mind when we interpret Cluster B inscriptions. As I have noted in the "Trends" section, few school inscriptions in this corpus were from the hands of the late eleventh-century reformers.⁶⁵ As a result, many of the inscriptions in Cluster C composed in 1060-1119 were, in fact, from the hands of men whose political views were either ambiguous or at odds with the reformers. Of them, Huang Chang and Chao Buzhi-who have been identified as the most influential eleventh-century authors in the preceding network analysis—were prime examples. Of Huang's six extant inscriptions, five fall into Cluster B, and of Chao's six inscriptions, two are in Cluster B. Neither, however, was closely associated with the reformers. Placing first in the jinshi examination of 1082, Huang went on to hold a series of positions at court but was not involved in the debate over Wang Anshi's New Policies, while Chao was blacklisted as a member of the anti-reform Yuanyou faction. The presence of their writings in Cluster B suggests that major themes in this cluster—e.g., the antiquity, the former kings, and the transformation of morality and customs—were not owned by the reformers such as Wang Anshi and Lü Huiqing. Rather, these concerns were shared by a much broader segment of literati officials across the political divide.

Second, few authors were exclusive in their choice of themes when writing school inscriptions, and sometimes they deliberately smuggled in new ideas and wrapped them carefully in existing discourses. Therefore, of the thirty-six authors who had three or more pieces in the extant inscriptions, only six had all their pieces in the same cluster. The five most prolific authors in the corpus—i.e., men who wrote more than ten extant inscriptions—all had some inscriptions in each of the three clusters. Three of these authors were leading Neo-Confucian philosophers, but they nevertheless had inscriptions that focused more on the themes associated with Clusters A and B. Zhu Xi, for example, had thirteen inscriptions in Cluster A, ten in Cluster B, and eight in Cluster C. Zhang Shi had four in Cluster A and six in each of the other two clusters. Compare Zhu Xi's 1179 inscription for Zhou Dunyi's shrine in the Longxing 隆興 prefectural school and his 1182 inscription for the Qiongzhou 瓊州

 $^{^{65}}$ The six inscriptions by Wang Anshi, one by Lü Huiqing, and another by Zhang Dun 章惇 (1035–1105) are the exceptions.

⁶⁶These were Zhang Yu 張俞 (fl. 1040s), Hu Yin, Xie E 謝諤 (1121–1194), Hong Mai, Lou Yue 樓鑰 (1137–1213), and Cheng Bi 程珌 (1164–1242). All the inscriptions by these men fall in Cluster A, indicating that they wrote mainly on the general themes of Confucius, ritual offerings, and schools, without engaging intensively in the topics of the mid-eleventh-century statesmen or those of the Neo-Confucians.

⁶⁷These three were Zhu Xi, Zhang Shi, and Wei Liaoweng. The other two were Ye Shi and Zhou Bida.

prefectural school, which the computer has assigned to Clusters C and B respectively.⁶⁸ His 1179 inscription, written at the request of his devoted follower Huang Hao 黃鸝, an instructor of the Longxing prefectural school, was essentially a Neo-Confucian philosophical treatise. Ostensibly, the inscription was presented as a tribute to Zhou's scholarly contributions, but Zhu Xi also seized this opportunity to discuss explicitly and at great length his ideas of the sages' way. First, he offered a reinterpretation of Zhou's highly controversial work Explanation of the Diagram of the Supreme Ultimate (Taiji tushuo 太極圖說) by sneaking in his own concept of the "principle" (li 理). Then, he promoted the idea of the transmission of the Way (daotong 道統) from the sage kings, to Confucius and Mencius, and to Zhou and the Cheng brothers. The style of his 1182 inscription was very different. In this piece, Zhu's promotion of the Neo-Confucian pedagogical objective is wrapped into a broad discussion of the sage kings in antiquity (xianwang 先王 or shengwang 聖王) and their effort to transform local customs through education (jiaohua 教化). Zhu's argumentative framework focuses on the difference between the sage kings in antiquity and men of later generations. He argues that the sage kings' purpose in establishing schools was to teach proper behavior in social interactions and that they were successful. In developing this argument, Zhu again sneaks in his concept of the "principle." He maintains that each of the five cardinal social relationships that are the foundation of human society has its own "principle" and that the sage kings' educational program helped local men apprehend and preserve these principles that were already inherent in themselves. Classical study and ritual performances are not an end in themselves but only the means for cultivating a moral person. Thus, Zhu Xi adroitly redefines the purported pedagogical goal of the Qiongzhou prefectural school. Whereas Han Bi 韓璧, the prefect who approached Zhu for an inscription, renovated the school to help local literati compete with those of other regions in memorizing texts and composing poetry and essays, Zhu argued that these were trivial. Instead, he urged the Qiongzhou scholars to direct their effort to what was inherent in themselves, fathom all the principles under heaven, and cultivate their virtue and conduct. This effort of personal cultivation, said Zhu, was the root of examination success and worldly accomplishments.

Scholars have long taken note of the close relationship between the Neo-Confucian movement and the spread of academies in the Southern Song. Northern Song scholar-officials concentrated their effort on building and reforming state institutions (e.g., government schools and civil service examinations) for preparing and recruiting talented men into government service. By contrast, the Southern Song scholar-officials, especially the Neo-Confucians, turned their attention away from the reform of state institutions and focused instead on the content of the educational program itself: the pedagogical objectives and methods, the textbooks, and the daily schedule of study. Therefore, they put their effort into building academies. These academies borrowed the institutional model of local government schools but promoted the educational programs in accordance with the ideals of the Southern Song—especially Neo-Confucian—scholars.⁶⁹

My analysis in the above sections suggests that their enthusiasm for building academies did not lead the Neo-Confucians to ignore the local government schools. They readily accepted these schools as state institutions that had value, but they made constant effort to introduce their own vision of learning into these schools. The two inscriptions

⁶⁸Zhu Xi, "Longxing fuxue Lianxi xiangsheng ciji" 隆興府學濂溪先生祠記 (1179), *Quan Song wen* 252:5654.80; "Qiongzhou xueji" 瓊州學記 (1182), *Quan Song wen* 252:5655.91.

⁶⁹Chen, You guanxue dao shuyuan, 27-106, 379, 389-95.

from Zhu Xi discussed here provide a good illustration of the different ways in which the Neo-Confucians sought to transform local government schools to fit their vision. At times, Neo-Confucian adherents transformed the ritual space of local government schools by erecting new shrines on campus in honor of Neo-Confucian masters and wrote inscriptions that promoted these masters as transmitters of true learning. At other times, when they did not have the opportunity to transform the physical and functional spaces of local government schools, they advanced their agenda in the inscriptions. Accepting the state's sponsorship of local schools and its purported intention of emulating the ancient kings to transform local culture, they sought to redefine the pedagogical objective of state-sponsored educational activity.

To summarize, the development and mixture of different clusters of inscriptions reflect how the physical space of a local Confucian shrine-school complex (*miaoxue* 廟學) was transformed over the course of the Song dynasty. From the eleventh century through the thirteenth, a succession of political and intellectual leaders—first the mid- and late eleventh-century state activists and then the Neo-Confucians—tried to redefine the functional and architectural features of the local Confucian shrine-school complex through a process of superimposition. That is, they had the local Confucian shrine-school complex take on new functions without forcing it to give up its old ones, and usually, they achieved this goal by adding new buildings to the existing architectural complex or repurposing some of its existing structures. The local Confucian shrine-school complex, therefore, was gradually expanded, its functions became increasingly diverse, and the inscriptions associated with this architectural complex became more and more multifaceted.

In the first decades of the Song, state educational facilities were in ruins in many places, with only the Confucian shrines left standing where seasonal sacrifices were offered to Confucius and his disciples. Inscriptions dedicated to this space were correspondingly uniform: they all fall under Cluster A and are devoted to a general discussion of Confucian sacrifices and education. In the second phase, from the mid-eleventh century to the mid-twelfth, reform-minded officials called upon the court to take on more responsibilities for nourishing literati and transforming local culture. They urged the court to emulate the sage-kings of antiquity and build government schools in prefectures and counties. In this climate, local officials constructed new educational facilities (such as lecture halls and dining and lodging spaces), often on the premises of existing Confucian shrines. The site where the Confucian shrine had been standing was thereby transformed into a government school complex. The Confucian shrine was not abandoned, however, but became an integral part of the newly expanded complex. Speaking of its functions, what had been a primarily ritual space now took on both ritual and educational responsibilities. Accordingly, in this second phase, inscriptions associated with this Confucian shrine-school complex bifurcated into two clusters: a cluster that continued to emphasize the ritual functions of the space (Cluster A) and a cluster that focused primarily on idealized antiquity, the sage-kings, and the role of the state in transforming morality and customs in local society (Cluster B).

Come the mid-twelfth century, the growing influence of the Neo-Confucians ushered in the third phase of change. The shrine-school complex acquired new architectural

⁷⁰When possible, the Neo-Confucians not only attempted to transform the ritual space of local government schools but also tried to transform their educational program in accordance with the Neo-Confucian vision. Chen Wenyi has provided a few cases from the thirteenth century in which Neo-Confucian scholars adopted the curriculum and pedagogy of the White Deer Grotto Academy after being appointed instructor of local government schools. *You guanxue dao shuyuan*, 186–88.

features, as some buildings were added and some existing structures remodeled in honor of Neo-Confucian masters. The complex's educational function remained crucial, but it co-existed with its newly expanded ritual functions, which included both the age-old ritual facilities centered on Confucius and his disciples, but also the more recent ones in honor of Neo-Confucian figures. Thus, owing to repeated superimposition of new educational and ritual structures and functions, from the early eleventh century onward, the school complex was gradually transformed into a multi-functional space, vastly different from the original Confucian shrine whence it had evolved. Accordingly, in the twelfth and thirteenth centuries, inscriptions for this architectural complex became as much a mixture as the complex itself. New constructions and remodeling projects in honor of Neo-Confucian masters provided the occasion for writing inscriptions that advocated Neo-Confucian ideals, while some other inscriptions continued to be produced—some by Neo-Confucian writers themselves—that focused mainly on the shrineschool complex's relation to the state, to the sage-kings of antiquity, and to sacrifices to Confucius. This association between different themes and different types of buildings on the school premises is evident in Table 10. The table shows that almost all inscriptions dedicated to Confucian shrines fall into Cluster A, whereas a predominant number of Cluster C inscriptions were written for shrines honoring Neo-Confucian figures.

Conclusion

A hallmark of the Song achievements was the creation, for the first time in Chinese history, of a national network of state schools in nearly all prefectures and counties. Not only was state-sponsored education a critical component of court policy in the latter half of the Northern Song, but local officials and scholars continued to play active roles in restoring and expanding government schools and funding their operations throughout the Southern Song. This high level of activity in local government schools engendered an exponential growth of commemorative inscriptions dedicated to local government schools. These inscriptions did not only provide an account of the various activities in local schools. Many of their authors took the occasion to expound and disseminate their visions of schools and their views of learning and education. By studying these inscriptions from multiple perspectives and with the aid of digital analytic methods, this article has sought to identify the dominant authors of school inscriptions, delineate the scope of their influence, trace the changes in their social and intellectual background, and reveal the shifts in their thematic focus.

The mixture of themes in school inscriptions reflects the history of local government schools during the Song dynasty as an evolving institution that was constantly shaped by intersecting political and intellectual forces. On sites where only Confucian shrines stood, teaching and living facilities were constructed in the eleventh century through the efforts of local officials and scholars and in response to calls from the court, transforming these sites into an architectural complex with both ritual and educational functions. This complex continued to expand in the twelfth and thirteenth centuries with the addition of shrines dedicated to Neo-Confucian masters.

Using a method of document clustering, this study has demonstrated that the themes of school inscriptions became increasingly diverse over the course of the Song dynasty, reflecting how the physical space of local government schools was transformed to accommodate their growing functional complexity. Whereas the earliest inscriptions focus on the Confucian shrines on the school premises and their ritual significance as the site for sacrificing to Confucius, some inscriptions from the mid-eleventh century on started

Cluster Dedicated to Num. of Inscriptions Α B C69% Local Schools 30% 1% 521 Instructor's Offices 76% 20% 4% 25 Endowments 79% 16% 5% 38 Confucian Shrines 89% 11% 0% 64 Neo-Confucian Shrines on Campus 22% 7% 71% 55 Other Shrines on Campus 81% 9% 10% 70 Total 69% 7% 773 24%

Table 10. Distribution of Inscriptions in Each Cluster by Type of School Facilities

to describe local government schools as the meeting point between state authority and local society and between the present times and the idealized antiquity. These inscriptions saw the local government schools as an embodiment of the ideal that the state should emulate the sage-kings of the Three Dynasties and, through education, transform local customs. Finally, from the mid-twelfth century on, the Neo-Confucian influence surfaced in many school inscriptions, especially those dedicated to shrines that were erected on the school campus in honor of Neo-Confucian masters. These inscriptions became vehicles for Neo-Confucian philosophical and educational visions.

The shifting themes in the inscriptions paralleled the changes in the political and intellectual backgrounds of their authors. Whereas the standard narrative emphasizes their role in academies and their criticism of examination-oriented education, this article shows the Southern Song Neo-Confucians also went to great lengths to transform the architectural and functional space of local government schools and expand their mission beyond examination preparation. Relying on the betweenness metric and clustering algorithms, this article has analyzed the structural properties of the network that undergirded the diffusion of ideas between different parts of the Song territory. The study of the authors' geographic scope of influence reveals a structural schism between the Upper Yangzi and other regions of the Song dynasty. While the interaction between the Lower and Middle Yangzi, the Southeast Coast, and Lingnan grew ever more intense over the course of the Song, the connection between the eastern regions and the Upper Yangzi remained weak throughout these centuries, Whether intense or weak, the interregional exchange of ideas was mediated by a small number of authors who had the opportunity to write for schools in different physiographic macroregions and who, for that reason, were more capable of projecting their influence over a wide geographic area. This enabled them to play a critical role as a bridge between different regions and integrate men of more confined spheres of influence into a national network. In the Northern Song, this role was played mainly by renowned prose writers. By the Southern Song, however, much of it was taken over by leading Neo-Confucian philosophers and their supporters.

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