



New Materials and Methodological Innovation in the Exegetical Study of Warring States Scripts: Focusing on the Chu Slips Characters *Nan*, *Ti*, and the Variant Form of *Li* in the Tsinghua Bamboo Manuscript *Liang Zhong*

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Abstract. In recent years, the large-scale excavation and publication of Warring States bamboo manuscripts, including the Chu slips and the Tsinghua bamboo slips, have fundamentally renewed both the material basis and the conceptual framework of Warring States script studies. These discoveries have propelled the field toward a new research stage characterized by the centrality of newly unearthed materials and the parallel application of multiple methodologies. Against the historical backdrop of phonological divergence and graphic diversity during the Warring States period, this paper examines the identification of the original characters (*ben zi*) of *nan* and *ti* in Chu manuscripts, as well as the interpretation of the variant form of *li* in the Tsinghua manuscript *Liang Zhong*. Through a systematic review of recent advances in the use of materials, research methods, and the understanding of evolutionary patterns, the study employs an integrated approach combining phonological, graphic, and semantic analysis, graphic genealogical reconstruction, and cross-textual corroboration. It demonstrates the semantic stability and internal logic underlying graphic variation in Warring States scripts and further elucidates the historical relationship between graphic variation and the policy of script standardization (*shu tong wen zi*). In doing so, the paper highlights the scholarly significance of new materials and methodological innovation in reconstructing the developmental history of Chinese characters.

Keywords: Warring States scripts, new materials, methodological innovation, case studies in character interpretation, graphic variation, script standardization

1 Introduction

The Warring States period, following the Spring and Autumn era, constituted a pivotal stage in early Chinese history, marked by profound political, social, and cultural transformation. Politically, authority was fragmented among rival states engaged in sustained military competition, while the Zhou ritual and music system that had long underpinned governance gradually disintegrated. Against this backdrop, language and writing likewise entered a phase of heightened complexity, later characterized as a

condition of “divergent pronunciations in speech and divergent forms in writing” (*yan yu yi sheng, wen zi yi xing*)^[1].

Following the Qin unification of the six rival states, the imperial government implemented the policy of “unifying the written script” (*shu tong wenzi*) to consolidate centralized authority and facilitate cultural integration. This policy, foundational for the subsequent standardization of Chinese writing, also retrospectively highlights the extent of regional variation that had existed during the Warring States period.

Since the 1990s, archaeological discoveries of Warring States bamboo manuscripts have entered an intensive phase. More than thirty major corpora—including those from Guodian, the Shanghai Museum, and Tsinghua University—have been published, comprising over 100,000 bamboo slips. These materials provide unprecedented firsthand evidence for the study of Warring States writing and have fundamentally reshaped the research landscape. The field has consequently entered a new stage defined by the primacy of excavated materials and the integration of diversified analytical methodologies.

2 Paradigmatic Transformation in the Study of Warring States Script and the Reconfiguration of Its Overall Framework

2.1 Cognitive Limitations and Structural Constraints of Traditional Scholarship

Prior to the large-scale discovery of bamboo manuscripts, research on Warring States scripts faced significant constraints arising from limited source materials and restricted analytical perspectives. Transmitted texts such as the *Shuowen Jiezi*, compiled centuries later, could not reliably preserve the original forms or usage patterns of Warring States characters. Epigraphic materials—including bronze inscriptions, coin legends, and seal texts—were few in number and limited in functional scope, often constrained by formulaic content.

As a result, scholars lacked a comprehensive understanding of regional script systems. The distinctive features and evolutionary trajectories of regional traditions—such as those of Chu, Qi, Yan, Jin, and Qin—were difficult to delineate, and graphic variants were frequently treated as irregular or arbitrary. Moreover, the absence of sufficient comparative materials hindered the reconstruction of graphic genealogies, leaving gaps between Spring and Autumn, Warring States, and Qin script traditions and obscuring the internal logic governing graphic evolution.

2.2 The Breakthrough of New Materials: From Fragmentary Awareness to Systematic Comprehension

The continuous emergence of excavated manuscripts since the 1990s has fundamentally altered this situation. These materials appear in large quantities, coherent corpora, and diverse textual genres, allowing researchers to observe script usage across regions, periods, and social contexts. Unlike earlier epigraphic evidence, bamboo manuscripts

include both canonical texts and practical documents, providing a more comprehensive picture of everyday writing practices.

The extensive corpus of Chu manuscripts is particularly significant, offering detailed insight into regional patterns of graphic construction and formal evolution. Statistical analyses, such as those presented in Gao Ming's *Tables of Warring States Character Forms*, indicate that among 255 characters shared across five major regional traditions, approximately two-thirds display identical graphic forms. This finding demonstrates that convergence, rather than divergence, constituted the dominant developmental tendency of Warring States writing. Formal diversity thus coexisted with semantic stability, correcting earlier assumptions that viewed Warring States scripts as fundamentally chaotic^[6].

2.3 Methodological Innovation: From Single-Dimension Graphical Exegesis to Multidimensional Integrated Interpretation

The expansion of excavated materials has been accompanied by a major methodological shift. Earlier studies often relied heavily on isolated graphic analysis and generalized explanations through phonetic loans (*tongjia*), sometimes neglecting phonological systems and textual context^[3]. This approach frequently led to overextension of phonetic-loan interpretations, as exemplified by earlier misreadings of *nan* and *ti* in Chu manuscripts.

Contemporary scholarship increasingly adopts an integrated framework that combines graphic evolution, phonological structure, and semantic context. Excavated texts now serve as the primary evidentiary base, with graph forms reconstructed through systematic comparison across corpora. Phonological analysis is employed to constrain phonetic-loan hypotheses, while contextual and intertextual analysis ensures semantic plausibility. The incorporation of archaeological, historical, linguistic, and digital humanities methods has further strengthened the explanatory power of Warring States script studies.

3 Case Study I: Interpreting Nan and Ti in Chu Manuscripts—New Evidence for Original Graph Identification from the Perspective of “Formal Variation in Writing”

3.1 Contextual Verification through Usage Examples: Cross-Textual Evidence for Semantic Stability

The graphs *nan* and *ti* occur extensively in four major corpora of Warring States Chu manuscripts, namely the Guodian Chu slips, the Tsinghua Chu manuscripts, the Shanghai Museum Chu manuscripts, and the Anhui University Chu manuscripts. Across these sources, their contextual environments are highly consistent and point unequivocally toward the core semantic domains of “difficulty” and “ease,” respectively. Systematic retrieval and statistical analysis indicate that the graph *nan* appears a total of twenty-nine times, of which twenty-four instances—over 80 percent—clearly denote meanings

related to “difficulty” or “adversity.” The graph *ti* is attested eighteen times in total: eight instances unambiguously express the meaning “easy,” six convey the sense of “treating lightly” or “disdaining” (a semantic extension of “ease,” closely associated with subjective cognitive attitudes), and only two cases represent phonetic borrowing for *ti*, meaning “to be vigilant” or “to fear.”^[5] Overall, the semantic distribution is highly concentrated, with a clearly identifiable core meaning^[2].

The semantic value of *ti* can be further confirmed through contextual comparison across different texts. In the Anhui University manuscript *Cao Mo zhi Chen*, the phrase “*zhan zhi ti*” is explicitly contrasted with “*sheng zhi nan*”, presenting a clear opposition between “ease” and “difficulty.” In the Shanghai Museum manuscript *San De*, the expression “*wu neng er ti (yi) zhi*” conveys the idea of lightly regarding others despite lacking virtue and ability oneself, in line with the text’s emphasis on humility and self-restraint. In the Guodian manuscript *Zun De Yi*, the phrase “*min zhi ti cong*” refers to the people’s readiness or ease in following authority, a notion that resonates closely with the people-centered political thought found in transmitted literature. Through mutual corroboration across multiple texts, the interpretation of *ti* as fundamentally meaning “easy” is firmly established.

3.2 Analysis of Form–Meaning Relations: Semantic Innovation and Cultural Implications in Chu Script

The graph *nan* is a phono-semantic compound, structurally composed of the semantic determinative *xin* (heart) and the phonetic element *nan*. Its overall configuration distinctly reflects characteristic features of Chu script. In terms of graphic form, the upper component typically preserves either the full form or a reduced variant of *nan*, most commonly with the lower elements omitted, while the *xin* component is added below. This combination is not an arbitrary assemblage but follows established principles of graph construction in which form, sound, and meaning are closely integrated: *nan* functions as the phonetic element indicating pronunciation, while *xin* serves as the semantic determinative, signaling that the meaning pertains to psychological or emotional experience. Importantly, the “difficulty” expressed by *nan* is not confined to objective circumstances alone but emphasizes the subject’s internal perception of hardship; the inclusion of the *xin* component effectively reinforces this semantic dimension. The construction of this graph thus exemplifies the Chu script’s tendency toward fine-grained semantic differentiation^[2].

The graph *ti* is likewise a phono-semantic compound formed from *xin* and the phonetic element *yi*. In its predominant form, *yi* appears above *xin*, though left–right configurations with *yi* on the left and *xin* on the right are also attested. The underlying constructional logic closely parallels that of *nan*: *yi* functions as the phonetic element ensuring phonological consistency, while *xin* highlights the association between meaning and mental or emotional states. The meanings expressed by *ti*—including “ease” and “treating lightly”—are both grounded in subjective cognitive judgment: “ease” reflects an evaluation of task difficulty, while “treating lightly” reflects an attitude toward others’ abilities. In both cases, the use of the *xin* determinative aligns precisely with the semantic content.

Within the Chu script system, the addition of the *xin* component to express internal emotions and psychological states constitutes a relatively stable pattern of graph formation. Characters such as *si*, *you*, *hui*, and *nu* serve as representative examples. This constructional tendency is not incidental but rather reflects a broader cultural orientation within Chu society that emphasized inner disposition, emotion, and moral sensibility. Through sustained graphic adaptation and innovation, this cultural emphasis was encoded into the writing system itself, ultimately giving rise to a distinctive Chu script style that sets it apart from the writing traditions of other regions^[6].

3.3 Transformation of Scholarly Paradigms: From the Generalization of Phonetic Loans to Precise Identification of Original Graphs

The renewed interpretation of the graphs *nan* and *ti* not only corrects misjudgments in earlier scholarship but also offers a clear illustration of a deeper epistemological shift in the study of Warring States writing. The analytical focus has moved away from an earlier tendency to overgeneralize phonetic-loan (*tong jia*) explanations and toward a mode of inquiry centered on the identification of original graphs (*ben zi*) grounded in excavated materials and supported by structured chains of evidence. The driving forces behind this paradigmatic transformation lie in the sustained accumulation of newly excavated texts and the progressive systematization of research methodologies.

Recent studies have increasingly taken excavated manuscripts as their primary evidentiary basis, employing an integrated interpretive approach that combines systematic organization of graphic forms, comparative phonological analysis, and close examination of contextual usage. This methodological synthesis has made it possible to determine the status of original graphs with a substantially higher degree of precision. From a phonological perspective, *nan* and *nan* both belong to the *ni* initial and *yuan* rhyme category, while *ti* and *yi* fall within the *yu* initial and *xi* rhyme category; in both cases, the phonological correspondence is complete and fully consistent with the basic principles of phono-semantic character formation, in which phonetic elements serve to indicate pronunciation. This alignment provides strong phonological support for identifying these graphs as original characters rather than accidental phonetic loans.

At the level of graphic structure, an examination of Chu script conventions—particularly the regular use of the *xin* component to mark meanings related to mental states and inner disposition—shows that the forms of *nan* and *ti* are fully consistent with the internal mechanisms of graphic innovation in Chu writing. They are therefore better understood as intentional and systematic creations rather than as ad hoc substitutions arising from phonetic borrowing. Semantically, cross-textual comparison demonstrates that the meanings of both graphs remain stable across different manuscripts and contexts, further reinforcing their identification as original graphs.

Taken together, the phonological congruence, graphic coherence, and semantic consistency of *nan* and *ti* constitute a convergent body of evidence that exemplifies the methodological maturation of Warring States script studies. This case thus not only substantiates the reinterpretation of two specific graphs but also reflects a broader shift toward precision, contextualization, and evidentiary rigor in the discipline as a whole.

4 Case Study II: Interpreting the Variant Form of *li* in the Liang Zhong Chapter of the Tsinghua Bamboo Manuscripts—Principles of Graphical Simplification and Intertextual Corroboration in the Evolution of Writing

4.1 Genealogical Reconstruction of Graph Forms: Logic of Simplification and Regional Characteristics in Warring States Script

During the Warring States period, graphical simplification emerged as a dominant trend in the evolution of writing systems. The development of the character *li* conforms closely to this general tendency, exhibiting the characteristic pattern of “retention of core components and reduction of non-essential elements.” At the same time, different regions adopted distinct strategies of simplification, resulting in clearly differentiated regional styles. In the Qin script tradition, simplification proceeded in a relatively moderate manner: the core composite structure “*mai + li + pu*” was largely preserved, with reductions limited primarily to stroke complexity. By contrast, the Chu script tradition pursued a more radical approach. In Chu manuscripts, the auxiliary semantic element *pu*—which functions as a non-core indicator of action—was omitted, and the phonetic element *li* was further reduced to the graphically similar form *ren*, producing the distinctive variant structure with *ren* below and *lai* above. Here, *lai* represents a simplified form of *mai*, preserving the core semantic component of the character^[4].

The variant form of *li* attested in the *Liang Zhong* chapter of the Tsinghua bamboo manuscripts, composed of *lai* in the upper position and *ren* in the lower position, can therefore be regarded as a representative example of the Chu script’s trajectory of graphical simplification. Through systematic comparison with related forms found in the Baoshan, Guodian, and Shanghai Museum Chu manuscripts, it is possible to reconstruct with relative clarity the sequence of structural reduction. Beginning with the Western Zhou bronze inscription form composed of *mai*, *li*, and *pu*, the character first appears in a stage where *mai* is reduced to *lai*, yielding the form “*mai + li + pu*.” Subsequently, the *pu* component is eliminated, resulting in “*lai + li*,” and finally the phonetic element *li* is further compressed into the graphically proximate form *ren*, producing the ultimate variant “*lai + ren*.” This evolutionary sequence demonstrates that, throughout the process of simplification, Chu scribes consistently retained the component bearing the primary semantic load *lai*, while progressively removing elements of secondary functional weight and compressing the phonetic component. The case not only accords with the broader Warring States tendency toward economy in writing but also vividly reflects the flexible and thoroughgoing regional style characteristic of Chu script.

The introduction of digital research tools has provided powerful support for the systematic organization and analysis of graphical evolution. By utilizing the retrieval and comparison functions of comprehensive Warring States script databases, researchers can rapidly assemble multiple attested forms of the character *li* from different Chu manuscript corpora and present them through visualized comparison. Taking the “*lai + ren*” form from the Tsinghua *Liang Zhong* manuscript as an example, direct juxtaposition

with the “*lai+ren*” form found in the Baoshan manuscripts and the “*lai + li + pu*” form attested in the Guodian manuscripts makes the stepwise reduction of structural components immediately apparent. Such visual evidence provides a solid empirical foundation for identifying the internal mechanisms governing graphical simplification.

4.2 Contextual Compatibility and Intertextual Corroboration: Dual Validation of Semantic Interpretation

The reconstruction of the graphical genealogy of the variant forms of *li* provides a solid formal basis for interpretation, while contextual compatibility and intertextual corroboration further confirm its semantics and usage. Together, these approaches establish a dual validation framework linking graphical form and meaning, thereby ensuring the reliability of the interpretive conclusions. In the *Liang Zhong* chapter of the Tsinghua bamboo manuscripts, the variant form of *li* appears on three occasions. When interpreted as *li*, all instances yield coherent meanings within their respective contexts and are mutually corroborated by parallel usages in other transmitted and excavated texts.

First, in the sentence “*bai shen jie li hui mou*” from *Liang Zhong*, the graph *li* is best interpreted as *li*, functioning as a phonetic loan for *lai*. Given the phonological proximity between *li* and *lai* in Old Chinese, such loan usage is entirely plausible. Semantically, the phrase denotes “the various deities all come together to assemble and deliberate,” which accords precisely with the core narrative context—frequently attested in early texts—of rulers convening assemblies with the gods. This interpretation is not an isolated conjecture. A closely parallel usage appears in the Cili Chu manuscript *Wu Yu*, where the phrase “*zhu hou jie li chao*” employs *li* in the sense of “to come,” yielding the meaning “the feudal lords all come to court,” fully consistent with the described diplomatic context of audiences with the king of Wu. Furthermore, although the *Hanshu* biography of Liu Xiang does not contain the graph *li* itself, its descriptions of the gathering and convergence of the populace articulate a comparable semantic field. This indirect parallel reinforces the plausibility of interpreting *li* here as conveying the sense of “coming together” or “arrival.”

In this light, the *li* in the phrase “*bai shen jie li hui mou*” should be understood as a loan usage, read as *lai* (“to come” or “to arrive”), and semantically aligned with the scenario of a ruler summoning the gods to deliberate on state affairs. The same semantic mechanism is at work in the Cili Chu manuscript *Wu Yu*, where *li* likewise denotes the act of coming to court. References in the *Hanshu* concerning collective convergence, while lacking the specific graph, nonetheless point to an analogous semantic domain and thus provide supplementary confirmation of this interpretation^[4].

Second, in slips 21–22 of *Liang Zhong*, the phrase “*li jiang wan min*” employs *li* in its conventional sense, meaning “to bestow” or “to confer,” yielding the interpretation “to bestow [benefits] upon the myriad people.” This usage directly corresponds to that found in the *Yao Dian* chapter of the *Shangshu*, where the expression “*li jiang er nü yu Gui Rui*” denotes Yao’s act of bestowing his two daughters upon Shun. In both cases, the compound *li jiang* conveys the sense of an authoritative bestowal from above, and the semantic alignment between the two texts is exact. Additional support is provided by the Tsinghua manuscript *Bin Gong Li*, where references to “bestowing upon the

people” (*jiang min*) follow the same semantic logic. Together, these excavated texts form a direct network of mutual corroboration, firmly establishing the interpretation of *li* in this context.

4.3 Scholarly Value of the Interpretation: Revealing Regularities and Validating Methodological Approaches

The interpretation of the variant form of *li* attested in the Tsinghua bamboo manuscript *Liang Zhong* is of considerable scholarly significance. It not only deepens our understanding of the mechanisms underlying graphic evolution during the Warring States period, but also empirically demonstrates the explanatory power of newly adopted research approaches. More specifically, this case shows that the process of graphic simplification in Warring States writing was not the result of arbitrary reduction, but followed an internal principle that prioritized the preservation of functionally essential components while progressively eliminating subsidiary elements.

Taking *li* as an example, its graphic development consistently retained *lai* as the primary semantic indicator, while gradually removing the *pu* component and compressing the phonetic element *li* into the graphically similar form *ren*. Comparable patterns of simplification can also be observed in other excavated materials, such as the omission of the *shi* component in Chu-script forms of *ren*, or the reduction of the *zhi* component in Qin-script forms of *fa*. Viewed in this light, the present case provides a theoretically transferable point of reference for interpreting the meaning and reconstructing the evolutionary trajectories of other Warring States characters.

5 Conclusion

The reinterpretation of *nan* and *ti* as original graphs in Chu manuscripts, together with the analysis of variant forms of *li* in the Tsinghua bamboo manuscript *Liang Zhong*, clearly demonstrates the major breakthroughs achieved in the study of Warring States writing over the past several decades. These advances have been made possible by the sustained emergence of newly excavated materials and by corresponding innovations in research methodology.

Warring States writing constituted a system with its own distinctive patterns of evolution and structural principles. The innovations and variations observable in regional scripts were not accidental but responded to specific semantic and expressive demands. Such demands, in turn, reflect differences in social organization, cultural traditions, and modes of thought across regions during the period. The Qin policy of “unifying the script” (*shu tong wen zi*) should therefore be understood as a process of integration and optimization of existing regional writing systems. In this process, certain local features were inevitably eliminated, while at the same time the logographic system of Chinese writing was further refined and consolidated.

Looking ahead, continued adherence to a research paradigm centered on excavated materials and supported by rigorous, interdisciplinary methodologies will undoubtedly yield further advances. These future findings will contribute substantially to the

construction of a more comprehensive history of Chinese character development and to a deeper understanding of the transmission and transformation of ancient Chinese civilization. Ultimately, such work will allow for a more nuanced appreciation of the *longue durée* of Chinese history and the enduring richness of its cultural heritage.

References

1. Bottéro F. The Origin and Early Development of the Chinese Writing System[J]. 1996. DOI: <https://doi.org/10.2307/605196>.
2. LIU Bao-jun. Interpretation of the Characters “*nan*” and “*yi*” in Warring States Chu Bamboo Slips from the Perspectives of “Regional Script Variation” and “Script Unification” [J] Journal of South-Central University for Nationalities (Humanities and Social Sciences Edition), 2025,45(06):149-157+187.DOI:10.19898/j.cnki.42-1704/C.20250328.02.
3. LIU Bao-jun Meng Yuan-yuan. The Chu bamboo slips '*nan,yi*' and the 'Shuowen' entries '*nan,ti*': are they interchangeable characters, or simply the same in form[J].Collected Works on Comprehensive Studies of Excavated Documents,2020,(01):116-123.
4. HUANG De-kuan. A New Interpretation of the Variant Form of the Character '(*li*)' in the Tsinghua Bamboo Slips 'Two Zhong'[J].Research on Chinese Characters and the Chinese Language,2025,(02):3-7+125.DOI:10.13513/j.cnki.41-1041/h.2025.02.007.
5. DU Xuan-tu LU jie. 'Difficulty or Respectfulness': Exploring the Meaning of 'Difficulty' in Four Chapters of the Analects[J]. Journal of Xihua Normal University (Philosophy and Social Sciences Edition) ,2019,(04):51-53.DOI:10.16246/j.cnki.51-1674/c.2019.04.008.
6. CHENG Zhi-jun. A Study on the 'Variant Forms of Characters' in Qin and Chu during the Warring States Period[D]Anhui University,2024.DOI:10.26917/d.cnki.ganhu.2024.002336.

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