



由一个字到一本书

# 汉字排版

刘晓翔 著

高等教育出版社

From a character to a book:

**Chinese Typography**

Liu Xiaoxiang

Higher Education Press



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到  
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致读者  
To the reader

刘晓翔  
Liu Xiaoxiang





2010年2月，由高等教育出版社出版，向熹译著，我设计的《诗经》在德国莱比锡被评为“世界最美的书”。这本书除了整体气韵在古籍出版里“新”以外，内文排版没有体现出汉字之美，也没有对汉字排版的一般规律进行研究，它完全停留在“感觉”的表象之上，被关心我的前辈提醒与批评。

恰在当时，我的老师吕敬人先生传授给我版面网格系统的基本方法，由此，开启了我大约6年来对这一领域的研究和设计实践。本书姑且算作我研究与实践的点滴，当然也只是对汉字排版的一孔之见，一定有很多谬误需要同行指正。

在已经去物质化的文字系统中，把自己的思维拉回“刀耕火种”的铅印时代，是一件很难的事。但是，只有当文字在我的大脑中还原为一个个铅字时，我才学会理解、使用并尊重文字做为生命体的特质，也才能把文字的信息属性分层次、有秩序、讲节奏地传递给读者。因此，本书强调：对于平面设计、书籍设计爱好者而言，首先应该建立的就是对文字的敬畏和使用时的慎重！

本书尝试用图形的方式，尽可能浅显地讲述汉字倍率（系数）网格的系统起点、构成及使用方法。

- I 数理之美：汉字与费波那契数列 将正方形的汉字与费氏数列相联系，指出感性的汉字（象形文字）在排列上能够带来理性美的同时，文字的排列也由一个“点”形成了一个“面”，进而成为一张“网”；
- II 结合了汉字字号与费波那契数列的开本设计 将纸张不断对折形成的开本用费氏数列做出美学上的修正；
- III 文字字号之间的倍率（系数）关系 讲述倍率（系数）对于排版的重要作用以及怎样根据文本属性确定书籍的字号体系；
- IV 基于倍率（系数）的不同字号构成同尺寸版面 将所看到的平面倍率化，或依据字号倍率（系数）建立具有内在联系的页面阅读体系，就是由一个字到一本书；
  - I-IV 反复论述倍率（系数）的目的只有一个，就是在去物质化的文字系统里，培养、建立起对不同属性（字号）的文字所组成的信息建筑——书籍中所应该具有的依据字号建立的阅读秩序与逻辑。理解汉字倍率（系数）网格系统的分解和组成，驾驭此系统从而提高传播效率。
- V 版心 例举了34种同尺寸页面、同倍率（系数1.5pt）、同字号（9pt）网格的各不相同的页边距、版心（版心的宽与高分别以W、H代替）以及分栏。其中V\_8-9和V\_17因为版心内文字的不同属性，标注得比其他详细。
- VI 案例 4个案例代表了4种书籍类型，选择的目的在于通过这几个案例，告诉汉字倍率（系数）网格的使用者，倍率（系数）是按照设计者意志，并结合文本感受所建立起的复杂文本属性（体例）的系统。系统由设计者建立，依据视觉感受来使用，把固定的格与排列的律动相结合，创造属于汉字的格律美。

由手工抄写到雕版印刷再到铅字凸版印刷，逐渐发展成现在的电脑排版系统直接与印刷机对接，造书技术在不断地进步，文明的发展也总有技术的提升相伴随。但无论技术如何提升，前提都是遵从人的使用与审美需求，人也靠自己制造的机器创造美，创造诸如Kindle、iPhone等新的阅读载体。本书讨论的汉字排版倍率（系数）网格系统，也应看作计算机汉字排版的方法论。它并非著者独创，而是依据前辈和同侪经验，集西方平面设计方法论和正方形汉字的审美法则为一体，将汉字纳入秩序与理性美之中。

In February 2010, the edition of the Book of Songs (Shi Jing) I designed, published by the Higher Education Press and translated by Xiang Xi, won the “Best Book Design from All over the World” award in Leipzig, Germany. Although this edition of the ancient classic offers a “new” artistic conception, in terms of typography, its body completely fails to embody the beauty of Chinese characters. Clearly no research on the general rules of Chinese typography had been conducted. As many of my seniors who care for me have pointed out and criticized, its presentation is entirely based on “feelings”.

It was around that time that my mentor, Mr. Lu Jingren, taught me the basics of his grid system for layout. It was the start of six years of research and design practice in the field, of which the present work is a tentative overview. Of course, it offers but a limited outlook on Chinese typography, and is certainly plagued with mistakes to be peer-reviewed.

With today’s dematerialized writing system, it is difficult to think back in the ancient, “slash-and-burn” terms of typesetting and printing; however it is only when using my imagination to change characters back to typefaces in my head that I have been able to learn to understand, utilize and respect the idiosyncrasies of characters that are indeed alive, and hierarchically, orderly and rhythmically pass on their informational properties to readers. Therefore this book should primordially inspire in graphic and book design enthusiasts a new reverence for characters to be used cautiously!

This book attempts to explain, in plain and simple terms, the origin, structure and usage of the matrix-based grid system in Chinese typography with figures:

- I **Mathematical aestheticism: Chinese characters and the Fibonacci sequence** Quadrate Chinese characters are associated with the Fibonacci sequence to rationally beautify the arrangement of emotional (ideographic) Chinese characters, starting from a “point” that extends to a “surface” and finally a “grid”;
- II **Book format design combining type size and the Fibonacci sequence** The size of a book, determined by folding sheets of paper over and over again into different formats (folio, quarto, octavo, etc.), is then corrected with the Fibonacci sequence for more aesthetical results;
- III **Relationship between the coefficients of type sizes** The important role of coefficient in typography, and how to construct the hierarchy of type sizes on the basis of text properties;

- IV **Different type sizes compose same-sized layouts on the basis of coefficient** Rationalize all surfaces, or, on the basis of coefficient, establish a page-reading system with inherent connections, that is, from a character to a book;

I-IV In a dematerialized writing system, the only objective in repeatedly discussing coefficient is to nurture and establish the necessary order and rationality in information architectures (books) composed of texts with different properties (type sizes). We should understand how to break down and recompose the matrix-based grid system in Chinese typography and utilize this system to enhance the efficiency of information dissemination.

- V **Type area** We give in example 34 grids with same-sized formats, same coefficient (1.5pt) and same type sizes (9 pt.) but different margin sizes, type areas (area width and height are listed under W and H) and columns. Examples V\_8-9 and V\_17 are more precisely annotated than others.
- VI **Cases** We have also given 4 examples based on 4 different types of books, which we have selected in order to inform users of matrix-based grids in Chinese typography that grid constitute a system that integrates the emotions inspired by a text, and refers to intricate textual properties (style), at the designer’s will. The designer establishes the system; he uses it as he considers visually fit, combining the rhythm of cases and arrangements to create the proper structural beauty for Chinese characters.

From manual transcribing and copying to wood-blocks and again to letterpress, the art of printing has gradually developed into the current computer-aided typesetting systems directly connected to the printing presses. The development of civilizations must be accompanied of technological enhancements; and so the science of book printing is ever progressing. The premise, however, is to respect people’s usage and aesthetical needs. Men depend on their machines to create beauty; to create new reading machines such as the Kindle, the iPhone, etc. The matrix-based grid system for Chinese typography discussed in this book should also be considered as methodology for computerized Chinese character typography. It is not the unique creation of the author; rather it is based on the experience of elders and colleagues; it integrates the methodology of Western graphic design and the aestheticism of quadrate Chinese characters to bestow order and rationality upon the latter.



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3						字
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5						字
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7						字
8						字
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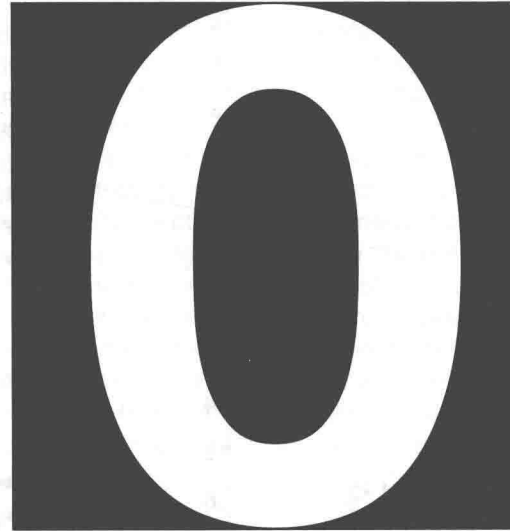
范例

- 1. 本书在写作的同时也是关于内容的书籍设计。
- 2. 页面尺寸：540x810pt，分别是 60 个 9pt 和 90 个 9pt。横纵比为 2:3，从印装考虑，也为保持 2:3 的比例关系，在本书的天头、地脚分别扩展 9pt，切口扩展 12pt，成为现在的成品尺寸。
- 3. 页边距的天头用 O，地脚用 U，订口用 L，切口用 R 代替。O、U、L、R 后面的数字代表 9pt 文字的个数。
- 4. 为了使图形简洁明了，本书版心宽用 W，高用 H 代替，在 W 之外加上 [，H 之外加上 { 来方便识别，W、H 后面括号中的数字是汉字字号乘数量。
- 5. 版心内横向字号为 9pt 的数字为方便计数，同时也可以看做没有栏间距的分栏。纵向字号为 9pt 数字为版心内的行数。
- 6. V\_34（第 140、141 页）非常重要，仔细阅读对于理解本书有帮助。

L13+[W(9pt×42)]+R5  
O8+{H(9pt×61)}+U21

Examples

- 1. This book has been designed using the matrix-based grid system it introduces.
- 2. Format: 552 x 828pt, calculates from the the size of grid area whose size is 540 (60 x 9pt) x 810pt (90 x 9pt). To maintain 2:3 proportional relation and take printing in consideration, head and foot margins in this book extend to 9pt respectively, side margins to 12pt, which gives us the format.
- 3. O is used for the head margin; U is used for the foot margin; L is used for the back margin; and R for the side margin. The number after O, U, L and R represent numbers of 9pt characters.
- 4. For clear and succinct figures, this book used W and H to represent the width and height of its type area. Square bracket and curly brace is added beyond W and H respectively for identification; arithmetic expression in brackets is the length of W or H.
- 5. The horizontal numbers on the top of the type area show the word count per line; meanwhile, they also indicate the columns. The vertical numbers on the left of type area show line numbers.
- 6. V\_34 (Page no. 140, 141) is a very important example. Its in-depth reading will help readers better understand this book.





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数理之美：  
汉字与费波那契数列<sup>1</sup>  
Mathematical aestheticism:  
Chinese character &  
Fibonacci Sequence<sup>1</sup>



人的创造终将消失在时间之中。

唯造物主之创造永恒！

The creation of Man will eventually be lost in time.  
Only that of God is eternal!

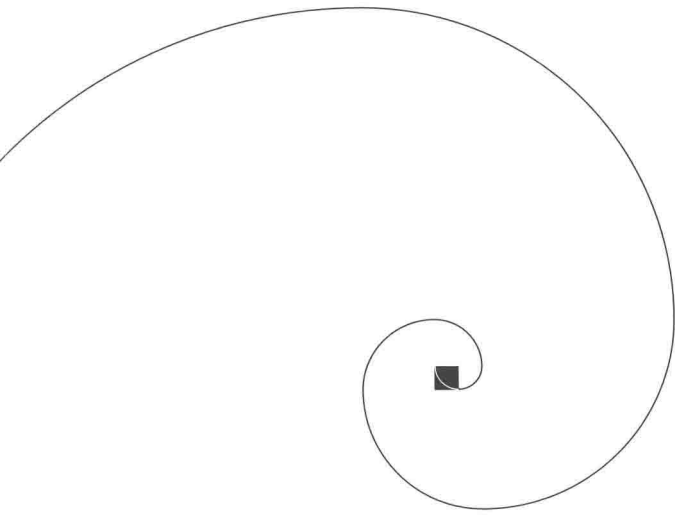
1. 汉字排版的方法论有很多，本书不过是一家之言。  
网格系统的建立在于将信息传递纳入秩序之中，同时，美比严格按网格排列重要！  
将汉字排版的倍率（系数）网格系统与费氏数列相联系，构成汉字书籍开本、页边距以及排版的数理之美：格律美。汉字字号与行距1:2的比例关系是适中的阅读速度和费氏数列的完美结合。  
本书的汉字排版方法也适用于竖排。

2. 参见 Hrant, A. (2014). Mathematics and History of the Golden Section. Logos.

1. There are numerous methodologies in Chinese typography, and the present book only introduces that of one school of thought. The grid system is meant to bring order in the transmission of information; meanwhile, far more consideration is given to aestheticism than strict abidance to grid alignment. Interlinking the matrix-based grid system for Chinese typography and the Fibonacci sequence allows for the structuring mathematical aestheticism in terms of book format, margin distances and typography; in other words: structural beauty. The proportion between Chinese character font and line spacing is 1:2, which is a perfect combination between the Fibonacci sequence and a moderate reading speed. The methodology for Chinese typography presented in this book can also be used for vertical compositions.

2. Hrant, A. (2014). Mathematics and History of the Golden Section. Logos.





费波那契数列<sup>2</sup>组合出的完美曲线

Perfect figures composed with the Fibonacci sequence<sup>2</sup>

9pt x 1 x  
1

