

Article

Visual Alchemy: Alchemical *Yijing* Diagrams 丹道易圖 in the *Illustrated Commentary on the Wuzhen Pian Based on the Zhouyi* 周易悟真篇圖注

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Abstract

The *Illustrated Commentary on the Wuzhen Pian Based on the Zhouyi* (周易悟真篇圖注 *Zhouyi Wuzhen Pian Tuzhu*), authored by the Ming dynasty Confucian scholar Cheng Yiming 程易明, is an illustrated alchemical text that integrates the elixir methodology of *Wuzhen pian* 悟真篇 (*the Awakening to Reality*) with the images and numbers (*xiangshu* 象數) system of *The Book of Changes (Zhouyi 周易)*. Centered on Daoist alchemical theory and elucidated through “*Yijing diagrams*” (*yitu* 易圖, diagrams based on the *Yijing*), it stands as a masterpiece within the tradition of alchemical *Yijing* studies (*dandao yixue* 丹道易學). Building on a review of the scholarly history of *The Wuzhen Pian*, this article focuses on the alchemical *Yijing* diagrams (*dandao yitu* 丹道易圖) in the *Illustrated Commentary*, exploring their terminological definitions, theoretical origins, and diagrammatic systems. By analyzing the structure of cosmology and internal alchemy practice theory (*neidan gongfulun* 內丹工夫論) as presented in these diagrams, this article demonstrates that the *Illustrated Commentary* not only inherits the theoretical legacy of early *Yijing* diagram scholars such as Chen Tuan (陳搏) and Yu Yan (俞琰), but also displays a unique systematic and intuitive approach to illustrating *neidan* practices through *xiangshu* diagrams (象數圖解). Notably, diagrams such as “*Mundane Continuation vs. Alchemical Inversion*” (*shunfan nixian* 順凡逆仙), the “*Three-Five-One Mathematical Model*” (*sanwuyi shuli moxing* 三五—數理模型), and the “*Fire Phases*” (*huohou* 火候) reveal attempts to construct an alchemical theoretical system centered on *Yijing* diagrams. The article further posits that the *Illustrated Commentary* bridges the gap between images–numbers *Yijing* studies (*xiangshu yixue* 象數易學) and alchemical visual hermeneutics, offering a fresh perspective centered on internal alchemy for the study of “*Yijing Diagram Studies*” (*yitu xue* 易圖學).



Academic Editor: Wu Guo

Received: 22 May 2025

Revised: 8 June 2025

Accepted: 18 June 2025

Published: 20 June 2025

Citation: He, Xin. 2025. VisualAlchemy: Alchemical *Yijing* Diagrams丹道易圖 in the *Illustrated Commentary*on the *Wuzhen Pian Based on the Zhouyi*周易悟真篇圖注. *Religions* 16: 812.<https://doi.org/10.3390/rel16070812>**Copyright:** © 2025 by the author.

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Keywords: *Zhouyi Wuzhen Pian Tuzhu*; alchemical *Yijing* diagrams; internal alchemy practice theory; images–numbers *Yijing* studies

1. Introduction

The Wuzhen Pian, attributed to the Song dynasty Daoist master Zhang Boduan 張伯端 [987?–1082; zi字: Pingshu 平叔; hao 號: Ziyang zhenren 紫陽真人 (Real Man of Purple Yang); also known as Zhang Yongcheng 張用成], stands as one of the most influential classics in the Daoist internal alchemical tradition (*neidan* 內丹). Since its composition, the text has inspired a long lineage of commentary, annotation, and interpretation, not only within Daoist communities but also among Confucian and Buddhist thinkers. In the past decades, *Wuzhen Pian* has garnered considerable scholarly attention, with studies focusing primarily on its poetic language, symbolic structure, philosophical underpinnings, and

cosmological models of internal cultivation (Davis and Chao 1939; Robinet 1995; Pregadio 2009). Scholars have analyzed the work through textual, historical, philosophical, and psychological frameworks (Crowe 1997a, 1997b).

However, a critical dimension has long been overlooked: the role of visual hermeneutics—particularly the systematic articulation of alchemical theory through “*Yijing* diagrams”—in the *Wuzhen Pian* commentarial tradition. Daoism has a long-standing tradition of using diagrams (*tu* 圖) to express metaphysical principles and doctrinal teachings, beginning with the *Zhouyi cantong qi fenzhang tong zhenyi* 周易參同契分章通真義 (*Real Meaning of the token for the Agreement of the Three According to the Book of Changes*) (Peng 1986), which employed diagrams to illustrate cosmological practices. By the Song-Ming period (960–1644), the rise in “*Yijing* Diagrammatics” elevated diagrammatic theorization to a pinnacle of Daoist numerological and visual thinking (Zhan 2001; Zhang 2004).

This study examines the *Zhouyi Wuzhen Pian Tuzhu* (*The Illustrated Commentary on the Wuzhen Pian Based on the Zhouyi* 周易悟真篇圖注, hereafter *Illustrated Commentary*) (Cheng [1611] 1717), an obscure yet significant annotated edition of *Wuzhen Pian* compiled by the Ming Confucian scholar Cheng Yiming 程易明 (1550 or 1540–?). This text, currently extant in a rare manuscript held by the National Library of China, presents over 150 diagrams that merge internal alchemical doctrine with symbolic structures drawn from the *Yijing*. The *Illustrated Commentary* not only inherits the poetic tradition of *Wuzhen Pian* but systematically reconstructs its cosmological and cultivation system through circular diagrams based on the *Yijing*'s symbolic logic. Such “alchemical *Yijing* diagrams” represent a unique integration of images, numbers, and internal praxis—a tradition underrepresented in both Daoist studies and *Yi* studies (易學).

Scholarly interpretations of *Wuzhen Pian* often treat it as a text-based system centered on moral self-cultivation or symbolic mysticism. Some Western scholars, such as Davis and Chao (1939, 1940) and Cleary (1987), interpreted it through the lens of external alchemy or Jungian psychology. Others, including Robinet (1995) and Pregadio (2009), have argued for its coherence as a symbolic ritual and contemplative practice. However, little attention has been paid to diagram-based commentaries or the broader visual epistemology embedded within the Daoist tradition. The *Illustrated Commentary* offers a vital corrective to this neglect by making visual logic central to the interpretation of alchemical doctrine. It reflects a moment when Confucian image cosmology, Daoist inner practice, and *Yijing* metaphysics converged into a system of symbolic embodiment.

The purpose of this study is to recover, analyze, and interpret the *Illustrated Commentary* as a paradigmatic example of alchemical *Yijing* diagrams, and to situate it within the broader history of Daoist hermeneutics and Chinese cosmological visibility. This paper first traces the intellectual and visual lineage of alchemical *Yijing* diagrams from the Han to Ming dynasties, and then categorizes and analyzes the major types of diagrams in the *Illustrated Commentary*, focusing on their structure, cosmological logic, and function in internal alchemical practice. By undertaking this, this study reveals how the *Illustrated Commentary* articulates a unique “image-based metaphysics” (圖像形上學) that supplements and transforms textual modes of exposition. It concludes by arguing that the *Illustrated Commentary* redefines the epistemic role of the diagram in Daoist cultivation and calls for the inclusion of visual systems in future studies of Daoist internal alchemy.¹

2. Academic Review of *Wuzhen Pian* Studies

2.1. Chinese-Language Scholarship

Research on the *Wuzhen Pian*, based on the materials collected by the author, can be broadly divided into the following three phases: pre-1980s, 1980s–1990s, and post-2000 (He 2020). Due to space constraints, this section outlines only the core themes of each

phase. The pre-1980s period may be regarded as a pioneering stage. It began with late Qing and Republican scholars such as Liu Shiwei 劉師培, whose *Notes on Reading the Daoist Canon: Commentary on the Wuzhen Pian* (Du Dao Zang Ji: Wuzhen pian Zhushi 讀道藏記: 悟真篇註釋) (Liu 1911) launched early studies based on philological analysis, textual translation, and historical interpretation. The 1980s and 1990s marked a developmental phase. Research was initiated by scholars such as Wang Mu 王沐, whose first article appeared in 1981 (Wang 1981, 1982a, 1982b, 1984–1986). Studies during this time focused on the theoretical framework of *neidan* (danfa 丹法), symbolic numerology (*xiangshu lilu* 象數理路), and the intellectual origins of the *Wuzhen Pian*.

The period from the 2000s onward ushered in a phase of deepening inquiry. It began with the fifth, sixth, and seventh volumes of *Daoyun* 道韻 (*Rhythm of the Dao*, Vols. 5–7, 2000), edited by Zhan Shichuang 詹石窗 around the year 2000, which featured a series of papers on the Southern School of the Golden Elixir tradition (金丹派南宗研究甲乙丙) (Zhan 2000). Research in this period increasingly integrated methodologies from religious studies, phenomenology, and psychology, reinterpreting the theoretical system of the *Wuzhen Pian* within the framework of modern academic disciplines.

2.2. Non-Chinese-Language Scholarship

Tenney L. Davis and Chao Yün-ts'ung jointly published two seminal papers in 1939 and 1940, namely, “Chang Po-tuan of T'ien-t'ai, his Wu Chen P'ien, Essay on the Understanding of the Truth: A Contribution to the Study of Chinese Alchemy (Davis and Chao 1939)” and “The Three Alchemical Poems by Chang Po-tuan” (Davis and Chao 1940). These works represent the earliest comprehensive introduction and full English translations in Western academia of Zhang Boduan's *Wuzhen pian*, *Reading the Zhouyi Cantong qi* 讀周易參同契, *Song for the Daoist Liu of Bailong Cave* 贈白龍洞劉道人歌, and *Stone Bridge Ode* 石橋歌. Davis had already translated the *Zhouyi Cantong qi* 周易參同契 (*The Token for the Agreement of the Three According to the Book of Changes*) in 1932 with Wu Lu-chiang, so his interest in Zhang Boduan is not surprising (Davis and Chao 1932). Davis was astonished by the structural similarity between the internal alchemical principles of the *Wuzhen Pian* and contemporary Arabic alchemical texts, and he praised the work's importance for the development of Chinese alchemical theory. He identified two major symbolic concepts in the *Wuzhen Pian*—*yin* and *yang* 陰陽—and attempted to relate them to the symbolic system of the *Yijing*. However, he mistakenly attributes Zhang Boduan's “deliberate structuring” of symbolic and allegorical systems to a quest for artistic fulfillment, akin to European alchemists like Michael Maier (1568–1622), who works prioritized symbolic aesthetics over doctrinal clarity (Maier 1618). This interpretation overlooks the core intent behind Zhang's approach. Far from seeking artistic gratification, Zhang's arrangement primarily embodies the *danjing mi bu waichuan sixiang* (丹經密不外傳思想, “esoteric transmission of alchemical classics”)—a textual strategy to conceal alchemical theories within layered symbolism, ensuring that the Dao could be propagated without risking misuse by those deemed spiritually unprepared or frivolous. Drawing from sources like *Liexian Quanzhuan* 列仙全傳 (*Complete Biographies of Immortals*) and later regional gazetteers (e.g., *Zhejiang Tongzhi* 浙江通志, *Taizhou Fuzhi* 台州府志, *Sichuan Tongzhi* 四川通志, and *Shanxi Tongzhi* 山西通志), Davis sketched a preliminary biography of Zhang Boduan, outlining his life and key events. The most significant contribution of his papers lies in the first full English translations of the *Wuzhen Pian* and its associated texts. Nevertheless, due to cultural and contextual gaps, certain interpretations and conclusions in Davis' work contain notable inaccuracies, later critiqued by scholars.²

Joseph Needham briefly addressed the *Wuzhen Pian* in his monumental work *Science and Civilization_Vol.05 Chemistry and Chemical Technology Part 5*, though he never conducted

a dedicated study of the text (Needham 1983, pp. 88–107). Earlier, Farzeen Baldrian-Hussein had also noted Zhang Boduan’s contribution in her research, yet her discussion remained cursory without substantive analysis (Baldrian-Hussein 1979). Following Davis’ pioneering efforts, translations of the *Wuzhen Pian* into non-Chinese languages gradually proliferated. Davis had framed the *Wuzhen Pian* as a “*waidan* 外丹 (external alchemy)” text, translating its terminology through the lens of material alchemy, resulting in what scholars later deemed a “paraphrased version.” Later, American scholar Thomas Cleary translated the text based on Liu Yiming’s 劉一明 (1734–1821) Qing dynasty commentary *Wuzhen Zhizhi* 悟真直指 (*Straightforward Directions on the Wuzhen Pian*) (Cleary 1987). Cleary employed modern psychological terminology to interpret this ancient alchemical classic, an approach that held some validity given the text’s metaphorical layers. However, as Liu Yiming—a master of Confucianism, Buddhism, and Daoism (儒釋道三教)—frequently cited tripartite doctrinal concepts in his annotations, Cleary struggled to render these accurately, producing a hybridized “explanatory translation.” Furthermore, like Davis, Cleary neglected philological rigor, leading to notable errors. For instance, he mistakenly identified Zhang Boduan as a Quanzhen 全真 Daoist priest and translated the Daoist epithet “Zhijizi 知幾子” [Master Who Knows the Subtle Beginnings, referring to Qiu Zhao’ao 仇兆鰲 (1638–1713)] as “I don’t know how many people,” a glaring misinterpretation. Russian scholar Evgeny A. Torchinov produced a translation based on Dong Dening’s 董德寧 (fl. 1788) Qing dynasty commentary *Wuzhen Pian Zhengyi* 悟真篇正義 (*The Correct Meaning of the Wuzhen Pian*) (Torchinov 1994). Torchinov’s work, grounded in *neidan* theory, surpassed earlier translations in accuracy. He asserted that the *Wuzhen Pian* is a definitive classic expounding the methods, theories, and practices of Daoist internal alchemy. Torchinov translated “*neidan*” as “Daoist yoga”—a “complex synthesis of psychophysical training” aimed at achieving Daoism’s ultimate goals of immortality, spiritual perfection, and union with the cosmos (Zheng 1996, 2003).

Following these efforts, French scholar Isabelle Robinet and Canadian scholar Paul Crowe not only produced translations but also engaged in scholarly analysis. Robinet’s study of the *Wuzhen Pian* represented a culmination of her broader research on Daoist internal alchemy. She recognized that the metaphorical meanings within such a “poetic” text as the *Wuzhen Pian* required deciphering through its symbolic referents. Consequently, she questioned whether straightforward translations alone could facilitate meaningful engagement with *neidan* studies in non-Sinological contexts (Robinet 1995). She criticized Thomas Cleary’s “explanatory” or synthetically paraphrased translations for failing to engage with the essence of *neidan* itself. Instead, Robinet chose to anchor her approach in the philosophical foundations of Daoist internal alchemy, seeking to uncover the internal logic connecting *neidan* practices and textual construction (which necessitated attention to both their unity and diversity), aiming to restore *neidan* philosophy’s rightful place in Chinese intellectual history. Paul Crowe, while acknowledging Joseph Needham’s work, critiqued its “methodological flaws” in applying modern chemical principles to analyze the *Wuzhen Pian*. Based on his interpretation of the *Xiuzhen Shishu: Wuzhen Pian* 修真十書·悟真篇 (*Ten Books on the Cultivation of Perfection: Chapters on Awakening to Reality*), he argued that the text addresses an “initiatory and spiritual transcendence” experience (Crowe 1997b). Crowe’s interpretative direction was sound; his master’s thesis focused on the *Wuzhen Pian* as a dedicated study, divided into three sections: textual and biographical introduction, translation of the *Wuzhen Pian*, and analysis of Zhang Boduan’s internal alchemical thought. While the first and third sections were notably concise, the translation portion remains his most valuable contribution (Crowe 1997a).

Japanese scholars have also published numerous articles on the study of the *Wuzhen Pian*. In 1994, Azuma Jūji provided a review of these works, compiling a comprehensive

bibliography (Azuma 1994). Overall, compared to their Western counterparts, Japanese scholars placed greater emphasis on philological foundations and avoided major errors in their research. In terms of research content, their studies remained within the scope outlined in Wang Mu's 王沐 two seminal essays: *Danfa Yuanliu* 丹法淵源 (Origins of Alchemical Methods) (Wang 1981) and *Danfa Yaozhi* 丹法要旨 (Essential Principles of Alchemical Methods) (Wang 1982a, 1982b). However, their delineation and synthesis of the *Wuzhen Pian*'s specific symbolic and metaphorical systems were notably more meticulous and lucid.

Italian scholar Fabrizio Pregadio, a leading figure in Western studies of Daoist alchemy (*neidan* 內丹), has dedicated himself to researching and translating alchemical texts, even establishing Golden Elixir Press to publish works and essays on *neidan*. During the period of deepening scholarship, Pregadio published two books on the *Wuzhen Pian*: *Awakening to Reality: The "Regulated Verses" of the Wuzhen Pian, a Taoist Classic of Internal Alchemy* (Pregadio 2009) and *Foundations of Internal Alchemy: The Taoist Practice of Neidan* (Pregadio 2011). The latter is a translation of Wang Mu's 王沐 *Essential Principles of Alchemical Methods from the Wuzhen Pian* (Wang 1982a, 1982b), while the former primarily offers an introduction and translation of the *Wuzhen Pian*. Pregadio's translation comprises two parts: a direct translation of the *Wuzhen Pian* text and selected commentaries by Liu Yiming. He prioritized terminological consistency, ensuring that each term was translated uniformly throughout, and even compiled a Chinese–English glossary for reference.

Later, American scholar Richard Bertschinger published the *Written Upon Awakening to Reality: A Translation of Zhang Boduan's Guide to Internal Alchemy* (Bertschinger 2016). Bertschinger, who had long engaged with Chinese acupuncture and moxibustion—both benefiting from and studying it—developed a profound interest in Chinese culture, translating and researching texts like the *Yijing* and *Daodejing* 道德經. His deep understanding of Chinese thought, particularly *Yijing* studies, medicine, and Daoism, allowed him to interpret the *Wuzhen Pian* with unparalleled insight. He stated: "*The task is illustrated in the natural world around us—the passage of the seasons, the behaviour of animals, the passing of the solstices and equinoxes, the waning and waxing of the moon, stars, and planets, the coming and going of day and night. This is Stoneage science, preserved as Daoist wisdom. Herein lies the clue to our true oneness with Nature, we can never separate from the rhythm of the cosmos and natural world. Accepting this we finally truly understand and may represent ourselves. Man and woman kind are one with Nature. Nature goes through changes but there is a pattern and regularity, of sorts, to these changes.*" He further remarked: "*Our true nature is something uncomplicated, near at hand, to be discovered, who we really are, something going on all the time, to be grasped in an instant—so akin to the Ch'an Buddhist wu (Japanese satori), as the title Wu Zhen P'ien or "On Awakening to Reality" illustrates.*" Without doubt, Bertschinger's translations were informed by his personal experience with the practical efficacy of acupuncture and *neidan*.

After translating the *Wuzhen Pian*, Evgeny A. Torchinov did not halt his research. Collaborating with Russell Kirkland, he published an article titled *the Circles of Verse: Alchemical Symbolism and Concealed Structures in the Wuzhen Pian* (Torchinov and Kirkland 2017). As previously mentioned, Isabelle Robinet recognized that deciphering the metaphors in the *Wuzhen Pian* required tracing clues from the symbolic objects themselves. Her approach, however, avoided direct engagement with these metaphors, opting instead for a macro-historical analysis of intellectual thought. In the deepening phase of research, Torchinov confronted this "difficulty" head-on, exploring the *Wuzhen Pian*'s symbolism. Unlike many Chinese scholars who focused solely on the images–numbers structures of *Yijing* studies 易學象數結構, Torchinov argued that the *Yijing*'s symbolic system had been integrated into the *Wuzhen Pian*, becoming an intrinsic component of the text. He posited that the *Yijing*'s images–numbers framework served as a "connective and implantative

structural tool” linking the symbolic system to the *Wuzhen Pian*’s textual fabric. This analytical “deconstruction” facilitated a clearer interpretation of the *neidan* 內丹 text’s meanings—originally comprehensible only to those well-versed in *Yijing* numerology—thereby making its esoteric content more accessible.

In summary, research on the *Wuzhen Pian* has yielded substantial insight, particularly in the systematic exploration of its alchemical theories (*danfa* 丹法), images–numbers structures (*xiangshu* 象數), and intellectual origins. However, prior scholarship has predominantly focused on textual exegesis, philosophical interpretation, and the ideological framework of the Golden Elixir (*jindan* 金丹) system, while paying insufficient attention to the tradition of visual hermeneutics in commentaries on the *Wuzhen Pian*. Works that systematically present the *neidan* cultivation system through diagrammatic annotations (*tuzhu* 圖注) remain nearly untouched. The *Illustrated Commentary*, the sole extant *neidan* commentary that integrates the *Wuzhen Pian* with *Yijing* 易經 imagery—using alchemical *Yijing* diagrams (*dandao yitu* 丹道易圖) as its structural core—not only preserves the text’s core alchemical principles but also innovatively visualizes and systematizes *Yijing* numerology. This unique approach develops a distinctive mode of expressing *neidan* doctrines. Consequently, it is imperative to shift scholarly focus toward the integration of visual representation and alchemical theory, examining the unique value of *dandao yitu* in terms of theoretical origins, formal characteristics, and ideological frameworks. This approach will illuminate their role in perpetuating and innovating within both the Daoist alchemical tradition and the broader legacy of *Yijing* diagrammatic scholarship. The following discussion will commence with an analysis of *dandao yitu* and related concepts.

3. The Meaning and Origins of Alchemical *Yijing* Diagrams and Related Concepts

What are alchemical *Yijing* diagrams? The term “alchemical (Dao)” (丹道) refers to Daoist alchemy. Regarding “*Yijing* diagrams” (易圖), Professor Liu Dajun 劉大鈞, a renowned scholar of *Yijing* studies, states: “The scholarly value of *Yijing* diagrams lies in their use of visual forms to elucidate and explore the profound meanings of the *Yijing*. They have played a significant role in advancing later studies on numerology (象數), philosophical principles (義理), alchemy (丹道), Chinese medicine, geomancy (堪輿), and divination (占筮) (Shi 2015, Preface).” As Professor Liu observes, *Yijing* diagrams encompass diverse categories—some focus on numerology, others on philosophical principles, alchemy, medicine, and so forth. For clarity in this discussion, I combine “alchemical” (丹道) and “*Yijing* diagrams” (易圖) to denote works that employ the numerology (象數 images–numbers) and philosophical principles (義理) of the *Yijing*, expressed through visual diagrams (圖象), to elaborate Daoist alchemical theories. Alchemical *Yijing* diagrams thus represent a specialized manifestation of *Yijing* studies (易學) applied to Daoist alchemy.

3.1. Alchemical *Yijing* Studies (丹道易學), Alchemical *Yijing* Diagram Studies (丹道易圖學), and Alchemical *Yijing* Diagrams (丹道易圖)

First, let us examine what *Yixue* (易學, *Yijing* studies) is. *Yixue* is a discipline focused on studying the *Zhouyi*, broadly divided into images–numbers *Yijing* studies (象數易) and philosophical *Yijing* studies (義理易), both dedicated to the development of the *Yijing* scriptures and their commentaries. Historically, the evolution of *Yixue* extended beyond the *Yijing* scriptures themselves, giving rise to diverse cultural forms³, among which Daoist *Yijing* studies (道教易學) emerged as one distinctive manifestation. As noted by scholar Zhang Weiwen (章偉文), Daoist *Yijing* studies are an academic framework that employs the *Yijing*’s hexagram and line symbols (卦爻象), hexagram numerology (卦數), and concepts or propositions from historical *Yijing* scholarship—centered on the

Yijing scriptures, commentaries, and their interpretations—to elucidate Daoist beliefs and doctrinal thought. These studies were developed primarily to address questions of the human–cosmos relationship (人天關係) within Daoist doctrines and beliefs across different historical periods, resulting in Daoist *Yijing* studies that bear distinct characteristics of their respective eras (Zhang 2004).

Dandao (丹道 alchemical, encompassing external alchemy and internal alchemy) is a vital component of Daoism, and alchemical Dao *Yijing* studies (丹道易學) represent a major branch of Daoist *Yijing* scholarship. During the Han dynasty (206 BC–220), Wei Boyang’s (魏伯陽) *Zhouyi Cantong Qi* employed *Yijing* symbolism to expound alchemical practices, harmonizing the principles of the “Great Yi” (大易, cosmic changes), “Huang-Lao” (黃老, Huangdi-Laozi philosophy), and “Furnace Fire” (爐火, alchemical techniques) into a unified framework. This text stands as Daoism’s earliest systematic treatise on alchemy and marks the inception of alchemical Dao *Yijing* studies. From the late Tang and Five dynasties through to the Song-Yuan periods (875–1368), internal alchemy matured, the Zhong-Lu Golden Elixir School (鍾呂金丹派) rose to prominence, and alchemical Dao *Yijing* studies entered a new phase of development. Scholar Zhang Weiwen posits that the Song-Yuan era witnessed the integration of Daoist *Yijing* studies with internal alchemy, yielding the following three primary academic forms (Zhang 2004): (1) *Yijing* internal alchemy studies (易學內丹學): Focused on individual cultivation, embodying cosmic principles (tiandao zhi li 天道之理) through personal realization to achieve harmony between the self and the Dao. (2) Daoist *Yijing* diagram studies (道教易圖學): Explored cosmic principles through *Yijing* diagrams (易圖), providing theoretical guidance for internal alchemical practices. (3) Daoist *Yijing*–Laozi syncretism (道教易老學): Synthesized cosmological and human-centered philosophies, bridging metaphysical (*xing'er shang* 形而上) and practical (*xing'er xia* 形而下) realms through the interplay of substance (體) and function (用). Zhang identifies this synthesis of Daoist *Yijing* studies and internal alchemy as the essence of alchemical *Yijing* studies, with Daoist *Yijing* diagram studies more precisely termed alchemical *Yijing* diagram studies (丹道易圖學)⁴. During the Song-Yuan period, these diagram studies elucidated cosmic principles to guide internal alchemical cultivation. By the Yuan-Ming era this field matured, producing works like the *Illustrated Commentary*—texts that employed alchemical *Yijing* diagrams (丹道易圖) to expound alchemical cosmology and cultivation methods. Notably, Daoist alchemical texts often utilized *Yijing* frameworks pragmatically to justify cultivation techniques, with limited concern for inherent compatibility between *Yijing* theory and alchemical praxis. Some works even forcibly conflated the two. Authored by Confucian scholars, the *Illustrated Commentary* exemplifies *Yijing*–alchemy syncretism, asserting that both *Yijing* principles and alchemical practices manifest the cosmic Dao (tiandao 天道), reflecting a strong Confucian–Daoist synthesis.

Dandao (丹道) refers to the path of attaining immortality through alchemical cultivation. Central to Dandao is dual cultivation of inner nature and vital force (性命修煉), with the cauldron-furnace (鼎爐), medicinal agents (藥物), and fire phases (火候) constituting its three essential components—a point beyond dispute. The systematic practice of dual cultivation requires a metaphysical framework, namely the cosmology (宇宙論) and cosmogony (生成論) of Dandao. While most alchemical scriptures primarily expound on the practical methods of dual cultivation, they seldom address the underlying metaphysical structures supporting this system. Commentaries on the *Wuzhen Pian* generally perpetuate the metaphysical framework established by Zhang Boduan in his original text. This framework derives from pre-Qin Daoist philosophy and the Zhong-Lu alchemical Dao tradition (鍾呂丹道), serving to validate the ultimate goal of internal alchemy: “eternal life and union with the Dao” (長生不死, 與道合真). Guided by the pre-Qin Daoist concept of

“returning to the root and restoring the primordial mandate.” (歸根復命), the Zhong-Lu tradition systematized the processes of “from Dao to human” (由道而人) and “from human to Dao” (由人而道), constructing a cosmic evolutionary model of mutual transformation: form (形) ↔ essence (精) ↔ pneuma (breath, energy, vital force) (qi 氣) ↔ spirit (神) ↔ emptiness (虛) ↔ Dao (道).⁵ As articulated in the opening of *the Huashu* (化書, *Book of Transformation*): “In the unfolding of the Dao, emptiness transforms into spirit, spirit transforms into qi, qi transforms into form—once form arises, the myriad beings become constrained. In the application of the Dao, form transforms into qi, qi transforms into spirit, spirit transforms into emptiness—once emptiness illuminates, the myriad beings become interconnected.” 道之委也，虛化神，神化氣，氣化形，形生而萬物所以塞也。道之用也，形化氣，氣化神，神化虛，虛明而萬物所以通也 (Tan 1996, p. 1). From the perspective of alchemical Dao, the sequence “Dao → emptiness → spirit → qi → essence → form” represents a counter-Dao trajectory—the ordinary human process of “birth, aging, sickness, and death” (生老病死). Conversely, the sequence “form → essence → qi → spirit → emptiness → Dao” aligns with the Dao, embodying the path of “eternal life and union with the Dao” pursued by cultivation adepts. This is the process of “shedding mortal form, refining one’s constitution, repairing the self, and returning life to its source” (脫胎換骨, 變化氣質, 修復自我, 生命回歸).

The Dao of the *Yijing* (易道) refers to the philosophical system encapsulated in *The Book of Changes*. As stated in the *Siku quanshu zongmu tiyao* 四庫全書總目提要 (*Annotated on the Bibliography of Complete Writings of the Four Repositories*): “The Dao of the *Yijing* is vast and all-encompassing, extending to astronomy, geography, music theory, military strategy, phonology, mathematics, and even the external alchemical practices of esoteric traditions—all may invoke the *Yijing* for explication.” 易道廣大，無所不包，旁及天文、地理、樂律、兵法、韻學、算術，以逮方外之爐火，皆可援《易》以為說 (Ji 1965, p. 1). The philosophy of the *Yijing* is profound and universal, permeating all realms. *The Xici zhuan* (系辭傳) (*The Great Treatise*) declares: “How vast and great is the *Yijing*! Speaking of the distant, it knows no bounds; speaking of the near, it rests in stillness and correctness; speaking of the space between Heaven and Earth, it encompasses all. (Li 1999, pp. 272–73)” Yu Yan 俞琰 (1258–1314), in his *Zhouyi Jishuo* (周易集說, *Collected Explanations of the Book of Changes*), elaborates: “The Dao of the *Yijing* is vast, and its text equally so. Whether addressing the distant or the near, or the realm between Heaven and Earth, there is no place where the *Yijing* does not apply. For the distant, its principles flow unimpeded; for the near, its principles manifest in stillness and correctness before our eyes; for the space between Heaven and Earth, it exhaustively contains the principles of all things and affairs. Truly, it is boundless!” 《易》之為道也廣大，其為書也亦廣大。以言乎遠，以言乎邇，以言乎天地之間，無所往而非《易》。以遠而言，則其理通行而不禦；以邇而言，則其理具在目前，靜而且正；以天地之間而言，則萬事萬物之理無不備焉。可謂廣大矣 (Yu 1986). *Yijing* studies represents China’s most ancient philosophy, reflecting its earliest worldview and methodology. Its primary aim is to comprehend and master the relationship between Heaven and humanity (天人關係)—the multifaceted interactions between humans and the natural cosmos.

From the metaphysical framework of Dandao discussed above, there is no explicit involvement of *the Yijing*. In reality, within alchemical texts, *Yijing* studies are primarily used to elaborate on concepts such as cauldron-furnace (鼎爐), fire phases (火候), and medicinal agents (藥物), while their role in the metaphysical construction of Dandao has generally been overlooked. However, some pioneers, dissatisfied with traditional metaphysical frameworks, began exploring the use of the Dao of the *Yijing* (易道) to interpret Dandao. Yu Yan of the late Song and early Yuan dynasties, Lu Xixing 陸西星 (1520–1601 or 1606) of the Ming dynasty, and Cheng Yiming stand out as exemplary

figures. Yu Yan, a third-generation disciple of Bai Yuchan 白玉蟾 (1194–1229?), claimed to have received guidance from a recluse on the method of “reading the *Yijing* without reading it.” He authored the *Yi Wai Biezhuan* (易外別傳, *A Separate Transmission Outside the Changes*), implying a unique transmission outside the mainstream *Yijing* system. The text combines diagrams with commentary, following the tradition of Chen Tuan 陳搏 (ca. 920–89), founder of diagram studies (圖學), to illustrate the *Yijing* and expound Dandao. It includes diagrams such as *Heart as the Supreme Polarity* (心為太極圖, attributed to Shao Kangjie 邵康節 1011–1077), *Supreme Polarity in the Void: Prenatal Diagram* (太極虛中先天圖, attributed to Zhu Ziyang 朱紫陽 1130–1200), *Direct Diagram of the Prenatal Sixty-Four Hexagrams* (先天六十四卦直圖), *Earth Bearing Heaven’s Vitality* (地承天靈圖), *Moonlight Received by the Sun* (日受月光圖), *Qian-Kun and Kan-Li Diagram* (乾坤坎離圖), and *Heaven-Earth-Sun-Moon Diagram* (天地日月圖). Yu Yan primarily drew from Wei Boyang’s *Cantongqi* and Shao Kangjie’s *Prenatal Diagram* (先天圖) to articulate his alchemical *Yijing* philosophy, proposing the concept of “the *Yijing* within the body (身中之易)”. He integrated the evolutionary process of the *Yijing*’s supreme polarity (太極) into the practice of bodily alchemy, asserting that the path of alchemical Dao cultivation mirrors the unfolding of the supreme polarity. From metaphysical cosmology (宇宙論) and cosmogony (生成論) to practical methodology (工夫論) and staged cultivation (次第論), he imbued the concept of supreme polarity with new significance.

Yu Yan’s influence extended beyond Daoist circles. Cheng Yiming’s *Illustrated Commentary* employed the *Yijing*’s supreme polarity as a bridge between Confucian and Daoist teachings. Compared to Yu Yan and others, Cheng Yiming’s work stands out for its meticulous integration of symbols and metaphors through diagrams and textual exegesis, presenting his ideas with greater clarity and detail. Moreover, since most alchemical texts neglect metaphysical cosmology and cosmogony, Cheng Yiming’s synthesis of the Dao of the *Yijing* with alchemical Dao to address these foundational questions represents both his unique contribution and innovation.

3.2. The Intellectual Origins of Alchemical *Yijing* Diagrams (丹道易圖)

The *Illustrated Commentary* was compiled during the Wanli 萬曆 reign of the Ming dynasty (1573–1620) and uses the *Wuzhen Pian Sanzhu* (悟真篇三注, *Three Commentaries to the Wuzhen Pian*) as its foundational reference. Its emergence was not accidental. Compared to other *Wuzhen Pian* commentaries and internal alchemy (*neidan*) texts, the *Illustrated Commentary* distinguishes itself by employing *Yijing* diagrams (易圖) as the primary medium to explicate internal alchemy theory. The use of *Yijing* diagrams as an interpretive method reflects both the traditional illustrated exegesis (圖解) of Daoism and the inherent logical development of alchemical *Yijing* diagrams themselves.

On one hand, diagrammatic interpretation has long been embedded in Daoist scriptures as a traditional mode of theoretical exposition. The *Daozang* (道藏, *Daoist Canon*) includes a specialized category termed “Lingtu” (靈圖類, spiritual diagrams), a classification first documented in the Southern and Northern dynasties text *Dongzhen Taishang Cangyuan Shanglu* (洞真太上倉元上錄, *Supreme Register of the precelestial Repository from the cavern of Perfection and the Most High, or Superior Rester of the Azure Origin*), which states: “These twelve matters each have twelve subdivisions: first, natural writings; second, talismanic registers; third, annotated formulas; fourth, images and diagrams (圖象)...” 此十二事，又各有十二事：一曰自然文字、二曰符策、三曰注訣、四曰圖象.....(DZ, vol. 33, p. 585). Here, “images and diagrams” refers to Daoist theoretical works that use visual diagrams to elucidate core texts or prioritize imagery.

The use of *Yijing* diagrams (易圖) as the primary medium to expound Daoist theory also has traceable origins. *The Cantongqi* first integrated the theories of the *Zhouyi* with

Daoist doctrinal systems, marking the establishment of Daoist *Yijing* studies (道教易學)⁶. Subsequently, numerous works related to *Yijing* diagrams emerged in Daoist texts, such as the *Zhouyi Tu* (周易圖, *Cosmological Diagrams of the Book of Changes*), *Dayi Xiangshu Gouchen Tu* (大易象數鉤沉圖, *Diagrams on the Exploration of Symbolic Numerology in the Great Changes*), *Yishu Gouyin Tu* (易數鉤隱圖, *Diagrams for Uncovering Hidden Principles in Yijing Numerology*), and *Yixiang Tushuo (Nei-Wai Pian)* (易象圖說內外篇, *Illustrated Discourses on the Symbols of the Changes (Inner and Outer Chapters)*). Simultaneously, Daoist *Yijing* studies significantly contributed to the development of the Zhouyi system and even stimulated the rise in the *hetu* and *luoshu* school (圖書學派) in the early Song dynasty. Through the Song, Yuan, and Ming dynasties, *hetu* and *luoshu* studies (*tushu zhi xue* 圖書之學) gradually evolved into “*Yijing* Diagram Studies” (易圖學) (Zhu 1991, p. 9). *Yijing* diagram studies became highly prevalent during the Ming dynasty, exemplified by works like Lai Zhide’s *Yijing Laizhu Tujie* (易經來註圖解, *Annotated Diagrams of the Yijing with Commentary*). *Yijing* diagrams were not only used to explicate *Yijing* principles but also broadly employed to express distinct logical frameworks and worldviews, becoming tools for interpreting the cosmos. The prevalence of *Yijing* diagram studies in turn influenced the alchemical *Yijing* studies (丹道易學) that had originally spurred its development. The *Illustrated Commentary*, which employs *Yijing* diagrams to comment on internal alchemy (*neidan*) theory, emerged under this intellectual zeitgeist.

On the other hand, regarding the alchemical *Yijing* diagrams in the *Illustrated Commentary*, their greater significance lies in being the outcome of the inherent logical evolution of alchemical *Yijing* studies. The Eastern Han text *Cantongqi* employed the theoretical core and symbolic systems of Han-era *Yijing* studies, such as the Najia Theory (納甲說) (Zhan 1984), to outline the framework of alchemical practice. During the Five dynasties period, Peng Xiao 彭曉(?–955) authored the *Zhouyi Cantongqi Tongzhen Yi* (Peng 1986, p. 556) and created diagrams such as the *Mingjing Tu* (明鏡圖, *Chart of the Bright Mirror*), *Shuihuo Kuangkuo Tu* (水火匡廓圖, *Diagram of Water and Fire in Harmonized Framework*), and *Sanwu Zhijing Tu* (三五至精圖, *Chart of the Three-Five Supreme Essence*) to elucidate the allegorical meanings of hexagrams, lines, images, and numerological symbols⁷. The *Mingjing Tu* explicated the medicinal agents and fire phases (藥物和火候) of alchemy, which were highly valued by Song and Yuan alchemists. The latter two diagrams were incorporated by Chen Tuan into his *Wuji Tu* (無極圖, *Diagram of the Ultimateless*). The *Wuji Tu* used *Yijing* diagrams to interpret cosmic generation, evolution, and return, directly stimulating the emergence of *hetu* and *luoshu* studies in the early Song dynasty. The *Wuji Tu* was later transformed by Zhou Dunyi 周敦頤 (1017–73) into the *Taiji Tu* (太極圖, *Diagram of the Supreme Polarity*).

Following the groundwork laid by Peng Xiao, Chen Tuan, and others, Zhang Boduan of the Northern Song dynasty authored the *Wuzhen Pian*, which inherited the *Cantongqi* lineage’s framework of cultivation stages and absorbed the alchemical cosmology of Chen Tuan’s *Wuji Tu* (無極圖) and *Xiantian Tu* (先天圖, *Diagram of Precelestial Heaven*), systematically expounding the Great Dao of the Golden Elixir. After Ye Wenshu 葉文叔 (fl.1161) initiated its annotation, the *Wuzhen Pian* gradually gained prominence. During the Song and Yuan periods, commentaries or exegeses by figures such as Ye Wenshu, Weng Baoguang 翁葆光 (fl. 1173), Yuan Gongfu 袁公輔 (fl. 1202), Xia Yuanding 夏元鼎 (fl. 1225–27), Xue Daoguang 薛道光 (1078?–1191), Lu Ziyue 陸子野 (13th century?), Chen Zhixu 陳致虛 (1289–after 1335), and Dai Qizong 戴起宗 (fl. 1332–37) emerged. While each commentary emphasized different aspects and advanced alchemical theories, all remained text-based, with few employing diagrams. This may stem from the following two factors: First, the development of alchemical *Yijing* diagrams followed its own logic and rhythm, and the Song–Yuan era was a period of refinement for diagram and

numerology studies, making it premature for *Wuzhen Pian* commentators to fully adopt *Yijing* diagrams to elaborate their alchemical methods. Second, commentators prioritized attaining the meaning while discarding the symbols (得言忘象), focusing on internalizing alchemical praxis rather than emphasizing its symbolic systems (象, i.e., the Zhouyi's symbolic framework).

By the late Song and early Yuan, Yu Yan grew dissatisfied with the hexagram-line symbolic numerology (卦爻象數) system inherited from the *Cantongqi* and *Wuzhen Pian* (rooted in Han-era Xiangshu *Yijing* studies 象數易). He integrated it with Shao Yong's (邵雍) *Xiantian Yijing* studies (先天易學, derived from Chen Tuan's *Xiantian Tu*) and Zhou Dunyi's *Taiji Tushuo* (太極圖說, *Explanation of the Diagram of the Supreme Polarity*), emerging as a pioneer in using *Yijing* diagrams to interpret internal alchemy. While the *Wuzhen Pian* articulated alchemical theory through poetic verses—concise yet abstruse—Yu Yan's use of *Yijing* diagrams rendered the teachings visually intuitive and accessible. His successful experimentation expanded the trajectory of Daoist alchemical *Yijing* studies, establishing *Yijing* diagrams as the primary medium for explicating internal alchemy. By the Ming dynasty, *Yijing* diagram studies (易圖學) had matured and proliferated, creating the intellectual conditions for the *Illustrated Commentary* to emerge.

In terms of content, the *Illustrated Commentary* inherited the alchemical cosmological model transmitted through Chen Tuan's *Wuji Tu*, incorporated elements from Zhou Dunyi's *Taiji Tushuo*, and meticulously systematized the alchemical principle of “Mundane Continuation vs. Alchemical Inversion” (順凡逆仙, conforming to the ordinary leads to mortality; reversing the ordinary leads to immortality). The way Daoists travel in the world thus runs in two directions, unlike the way of the cosmologists, not only from the Dao to multiplicity, following the unfolding of the world (shun 順, lit., “continuation”), but also from multiplicity to the Dao, in a reverse order (ni 逆, lit., “inversion”) that Daoism calls “return” (fan 返). Simultaneously, it refined and reworked the cultivation doctrines of the Wei Boyang–Peng Xiao–Zhang Boduan lineage, developing a distinct theoretical character ultimately expressed through diagrams. Compared to earlier alchemical texts, the *Illustrated Commentary's* pivotal contribution lies in elevating the application of *Zhouyi* symbolic numerology (周易象數) within alchemical theory to unprecedented sophistication.

4. An Analysis of Alchemical *Yijing* Diagrams in the *Illustrated Commentary*

Daoist inner alchemy (*neidan*) operates through a multilayered symbolic language that merges cosmology, physiology, and ritual transformation. In the *Illustrated Commentary*, this symbolic language is visualized through a dense interplay of diagrams, each incorporating multiple traditional systems of correspondence. These include the Five Phases, the Four Symbols, the Stems-and-Branched calendrical system (*ganzhi*), the *Hetu* and *Luoshu*, as well as *Yijing* trigrams and hexagrams. Rather than serving as abstract metaphors, these systems form the operative framework through which cosmic and bodily processes are aligned. The illustrated diagrams synthesize these systems to depict an idealized path of inner cultivation, grounded in the cyclical transformations of nature and time. Understanding these symbolic logics is essential for interpreting how the *Commentary* visualizes *neidan* not merely as a metaphysical pursuit but as a cosmotechnical practice of embodiment.

Among the various symbolic systems employed, two stand out for their structural and interpretive significance: the Five Phases (*wuxing*) and the Stems-and-Branched (*ganzhi*) calendrical framework. The Five Phases—Wood (*mu* 木), Fire (*huo* 火), Soil (*tu* 土), Metal (*jin* 金), and Water (*shui* 水)—anchor a wide-ranging network of correspondences linking internal organs, directions, colors, and celestial animals (e.g., Azure Dragon of the East,

Vermilion Bird of the South). This system enables the mapping of macrocosmic forces directly onto the human body as a site of alchemical transformation. Closely interwoven with this is the Stems-and-Branches system, a sixty-fold cycle formed by the combination of ten Heavenly Stems and twelve Earthly Branches. While originally calendrical, this temporal model was adopted into neidan as a way of regulating inner alchemical processes—especially the timing of fire (*huohou* 火候) and the alignment of practice with cosmic rhythms. These two systems appear repeatedly in the diagrams not as background theory, but as integral logics that structure visualized processes of transformation. As subsequent sections will demonstrate, the *Illustrated Commentary* mobilizes them to translate abstract cosmological patterns into embodied stages of cultivation, fusing numerological time with internal physiology.

The *Illustrated Commentary* contains over 150 alchemical *Yijing* diagrams that systematically expound Cheng Yiming's alchemical framework, broadly categorized into three groups. The first category employs *Yijing* diagrams to depict the generative processes of heaven, earth, and all phenomena, alongside theoretical explorations of cosmic principles. Examples include the *Diagram of Transmitting the Dao, Imparting Knowledge, and Resolving Doubts* (傳道授業解惑之圖) (Cheng [1611] 1717, Metal Volume, folio 7 [i.e., page 7 of the scanned version]), *Diagram of Continuation and Inversion* (順逆之圖) (Cheng [1611] 1717, Wood Volume, folio 8), *Diagram of the Three-Five-One* (三五一之圖) (Cheng [1611] 1717, Wood Volume, folio 34), *Diagram of the Dao Generated from emptiness* (虛無生道之圖) (Cheng [1611] 1717, Water Volume, folio 15), *Diagram of Heaven's Roundness and Earth's Squareness* (天地方圓顯晦之圖) (Cheng [1611] 1717, Water Volume, folio 69), *Diagram of Dispelling Delusion and Returning to Truth* (破迷歸正圖) (Cheng [1611] 1717, Wood Volume, folio 37), *Diagram of the Nongwanzi* (弄丸子圖) (Cheng [1611] 1717, Metal Volume, folio 10), *Diagram of the Great Dao's Unity* (大道一貫之圖) (Cheng [1611] 1717, Wood Volume, folio 3), and *Diagram of Heavenly and Human Dao* (天道人道之圖) (Cheng [1611] 1717, Fire Volume, folio 39). A number of these diagrams—particularly the *Diagram of Continuation and Inversion* and the *Diagram of the Three-Five-One*—will be examined in detail later in the manuscript to illustrate how these structural maps encode cosmological and physiological processes.

The second category analogizes the processes and principles of cosmic evolution to illustrate internal alchemy within the human body, subdivided into diagrams elucidating foundational theories, cultivation stages, specialized terminology, fire phases (火候), and medicinal agents (藥物). Foundational theories are represented in diagrams like the *Diagram of Kun, Qian, Bo, and Fu as the Root* (乾坤剝復此根之圖) (Cheng [1611] 1717, Wood Volume, folio 39), *Diagram of Shared Paths in Cultivation and Immortality* (作仗修仙同此一轍之圖) (Cheng [1611] 1717, Wood Volume, folio 41), and *Diagram of the Gathering and Dissipation of Hun and Po* (魂魄聚散變化之圖) (Cheng [1611] 1717, Water Volume, folio 5). Cultivation stages outline macro-level practices and critical junctures, such as the *Diagram of Three Vehicles and Nine Reversions* (三乘九轉返還之圖) (Cheng [1611] 1717, Metal Volume, folio 6), *Diagram of the Reversion Through Liuwu and Jiuyi* (流戊就已返還之圖) (Cheng [1611] 1717, Water Volume, folio 17), and *Diagram of Male-Female Inversion* (男女顛倒之圖) (Cheng [1611] 1717, Water Volume, folio 18). Fire phases are detailed in diagrams like the *Diagram of Subtle Fire Phases* (妙人火候之圖) (Cheng [1611] 1717, Wood Volume, folio 11), *Diagram of Tiger Leaping and Dragon Soaring Fire Phases* (虎躍龍騰火候之圖) (Cheng [1611] 1717, Wood Volume, folio 13), and *Diagram of Cosmic Transformation Fire Phases* (天地變化火候之圖) (Cheng [1611] 1717, Wood Volume, folio 18). Medicinal agents are explored in the *Diagram of Nectar and Yellow Sprout* (甘露黃芽之圖) (Cheng [1611] 1717, Wood Volume, folio 15), *Diagram of Urging the Seeker to Trace the Source of Life* (勸君窮取生身之圖) (Cheng [1611] 1717, Wood Volume, folio 23), and *Diagram of Mundane and True Lead* (凡鉛真鉛之圖) (Cheng [1611] 1717, Water Volume, folio 12). Later in this article,

representative examples such as the *Diagram of Cosmic Transformation Fire Phases* and the *Diagram of Mundane and True Lead* will be analyzed in detail to demonstrate how this category maps inner agents onto the cosmos.

The third category focuses on Chan (Zen) Buddhist gathas (禪宗詩偈) appended to the *Wuzhen Pian*, emphasizing mind–nature cultivation, such as the *Diagram of Qian's Transformations and the Rectification of Nature and Vital Force* (乾道變化各正性命之圖) (Cheng [1611] 1717, Fire Volume, folio 35), *Diagram of the Western Pure Land's Forms* (西方極樂色相之圖) (Cheng [1611] 1717, Fire Volume, folio 42), *Diagram of the Precious Moon Wheel* (一輪寶月之圖) (Cheng [1611] 1717, Soil Volume, folio 22), and *Diagram of Mind-to-Mind Transmission* (心心相授之圖) (Cheng [1611] 1717, Fire Volume, folio 44). This category culminates in cosmic–alchemical diagrams (e.g., *Diagram of the Precious Moon Wheel*) that not only signify the completion of minggong 命功 (Vital Force cultivation)—marked by the stabilization of essence (*jing* 精) and consolidation of primal qi (元炁) through cyclical fire-phasing (*huohou* 火候)—but also delineate the ontological pivot toward xinggong 性功 (Inner Nature cultivation). Here, the perfected elixir (*jindan* 金丹), symbolized by the moon's full luminosity, transitions the adept from refining bodily substances to dissolving cognitive constructs (*shishen* 識神). The *Diagram of the Precious Moon Wheel* will receive focused analysis below as a key example of visualizing the merging of cosmic and corporeal substances.

These classifications aim to outline the scope of Cheng Yiming's diagrams rather than impose rigid boundaries, as some diagrams may overlap categories. Cheng's diagrams exhibit four distinctive features. First, in form, they predominantly use circular diagrams (over 90%)—a large Taiji circle containing specific content, reflecting Cheng's intentional design. He regarded the Taiji circle (太極一圈) as the cosmic origin and universal law, with alchemical theories being its applied manifestations. Each diagram, while macrocosmically a Taiji circle, microscopically addresses fire phases, medicinal agents, or cultivation stages. Second, in theoretical application, they heavily utilize *Yijing* principles such as lunar phases, Yin–Yang dynamics, hexagram transformations, Five Phase arrangements (五行), and Four Symbol symbolism (四象). Cheng viewed *Yijing* symbols as natural expressions of cosmic order, necessitating their use in aligning alchemy with heavenly patterns. Third, in format, text is integrated into diagrams, either as annotations or as intrinsic components—a rare feature in other alchemical texts that enhances accessibility. Fourth, thematically, despite occasional forced interpretations, the diagrams offer greater intuitive clarity than purely textual descriptions in classical alchemical works. Due to space constraints, only select diagrams will be analyzed here, focusing on those that advanced the principles of Mundane Continuation vs. Alchemical Inversion (順凡逆仙) and the joint cultivation of Inner Nature and Vital Force (性命雙修), surpassing earlier contributions.

4.1. *Diagrams of Continuation–Inversion and the Three-Five-One* (《順逆之圖》《三五之一圖》): *A Visual Exposition of Foundational Alchemical Principles*

The fundamental principle of alchemy is “Mundane Continuation vs. Alchemical Inversion” (順凡逆仙), which takes ordinary human existence as the reference: following the mundane path is “mundanity” (凡), while reversing it leads to “transcendence” (仙). Specifically, the Precelestial Dao of Non-Being (先天虛無大道) generates ordinary humans through a “Continuation” (順) process of differentiation, while ordinary humans must return to this Precelestial Dao through an “Inversion” (逆) process—emphasizing “Continuation and Inversion” (順逆) in an ontological sense. The Dao, through sequential stages of differentiation, gives rise to humanity (順), and humanity, through sequential stages of refinement, returns to the Dao (逆)—highlighting “Continuation and Inversion” in an evolutionary sense. The *Illustrated Commentary* visually codified this principle for the first time.⁸

Chen Tuan’s *Wuji Tu* (無極圖, Figure 1) (Huang 1986, vol. 40, pp. 750–51) culminates in “returning to the original wuji” (復歸無極), interpreted from bottom to top, while Zhou Dunyi’s *Taiji Tu* (太極圖, Figure 2) (Cao 1986, vol. 697, p. 4) emphasizes “the generation of all things” (萬物化生), interpreted from top to bottom. The *Illustrated Commentary* synthesized these two diagrams, integrating the *Wuji Tu*’s concept of “returning to the precelestial” and the *Taiji Tu*’s “generative cosmology”, while refining both. Ontologically, the “Continuation” (順) process moves from the precelestial (先天) to the postcelestial (後天), while the “Inversion” (逆) ascends from the conditioned back to the precelestial. Evolutionarily, the “Continuation” clarifies the path of human formation, while the “Inversion” elucidates the method of alchemical refinement. This synthesized diagram is thus termed *The Diagram of Continuation-Inversion* (順逆之圖) (Cheng [1611] 1717, Wood Volume, folio 8). Cheng Yiming’s refinements primarily focus on the evolutionary framework, as illustrated in Figure 3.

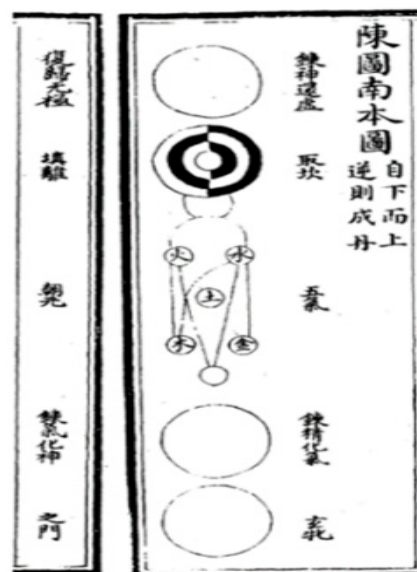


Figure 1. *Wuji Tu* (無極圖). This diagram is cited from Huang Zongyan’s *Clarifying Misunderstandings in Diagram Studies* 圖學辨惑. (Huang 1986, vol. 40, pp. 750–51).

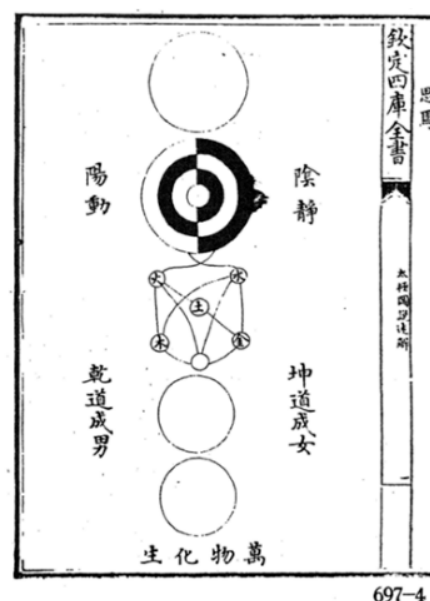


Figure 2. *Taiji Tu* (太極圖). This diagram is cited from Cao Duan’s *Explanation of the Taiji Diagram* 太極圖說述解. (Cao 1986, vol. 697, p. 4).



Figure 3. Diagram of Continuation-Inversion (順逆之圖). This diagram originates from The Illustrated Commentary (Cheng [1611] 1717, Wood Volume, folio 8).

Viewing the content in Figure 3 from top to bottom exemplifies the Method of Becoming Human through the Continuation Process (順則成人 *shunze chengren*), which aligns with the natural flow of cosmic differentiation. This method emphasizes Yin and Yang. Yang is pure and ascends, while Yin is turbid and descends. The ascending Yang and descending Yin constitute Qian 乾 (Heaven 天) and Kun 坤 (Earth 地). The Way of Qian brings forth the male, and the Way of Kun gives birth to the female. Through the union of male and female essences, the ten thousand things (*wanwu* 萬物) are generated. The topmost circle of the diagram is labeled *Taiji* (太極), which represents the undifferentiated Dao body of emptiness (虛無道體). The Dao gives birth to the precelestial Qi (一炁) from this state of emptiness, and from that the precelestial Qi, Yin and Yang are generated.

The next circle, Two Modes (兩儀), depicts intertwined black and white halves symbolizing Yin–Yang. Their interaction generates the Five Phases (五行): Wood and Fire (Yang) on the left, Metal and Water (Yin) on the right, and Soil (neutral) at the center. Wood and Fire reside above Soil, while Metal and Water lie below. Fire, being more dynamic than Wood, represents the Ultimate Yang (至陽); Water, positioned lower than Metal, represents the Ultimate Yin (至陰). Soil mediates between them. Water nourishes Wood, initiating the Five Phases’ mutual generation (五行相生): Wood → Fire → Soil → Metal → Water → Wood. Mutual generation and restraint reflect Yin–Yang dynamics. The Five Phases and Eight Trigrams (八卦) are further products of Yin–Yang interplay.

The next circle in the diagram is the “Eight Trigrams.” The *Illustrated Commentary* asserts that “yin and yang recombine to form the Three Bodies” (陰陽再合成三體), and that the “Three Bodies” correspond to the “three lines” (三爻) of the trigrams. As illustrated, Qian (☰) forms males (Father), Kun (☷) forms females (Mother), while Gen 艮 (☶), Kan 坎 (☵), and Zhen 震 (☳) each inherit one *Yang* line (陽爻) from Qian, becoming Younger Son, Middle Son, and Elder Son; Dui 兌 (☱), Li 離 (☲), and Xun 巽 (☴) each inherit one *Yin* line (陰爻) from Kun, becoming Younger Daughter, Middle Daughter, and Elder Daughter. These “Father, Mother, and Six Children” constitute the Eight Trigrams. The phrase “threefold synthesis generates all flourishing things” (三體重生萬物昌) refers to the

64 hexagrams (via overlapping trigrams), symbolizing all phenomena, including humans, depicted in the final circle labeled “myriad things” (萬物)—completing the “Continuation” process of human creation.

Conversely, approaching it from bottom to top embodies the Method of Attaining Immortality through Inversion Practice (逆則成仙 *nize chengxian*)—a path where adepts reverse their vital processes to return to primordial authenticity and merge with the Dao, thereby ascending as transcendent beings (*xian* 仙). This method emphasizes Inner Nature and Vital Force (*xing* and *ming* 性命, also termed Water–Fire, Kan–Li, Lead–Mercury, etc.). Inner Nature (性) pertains to the mind; restless and scattered, it must be stabilized through stillness and nurturing warmth. Vital Force (命) pertains to the body: essence (精) and *qi* (氣) form its foundation. Essence tends to dissipate downward, *qi* to scatter outward; thus, *qi* must be regulated and essence preserved. The lowest circle, the Gate of the Vital Force (*xuanpin zhi men* 玄牝之門, or Gate of the Mysterious Female), denotes the Mysterious Pass (玄關一竅)—the meditative focus for entering stillness. Guarding the Pass (守竅, also called guarding the One 守一 or Centering 守中) initiates inner meditative alchemy. This practice nourishes essence, *qi*, and spirit (精氣神), culminating in essence plenitude, *qi* sufficiency, and spirit vigor, enabling progression.

The next circle, “refining essence into pneuma, refining pneuma into spirit” (煉精化氣, 煉氣化神), involves circulating refined essence and pneuma through the Control Channel and Function Channel (任督二脈), merging them with spirit to form Precelestial *Qi* (炁, or “Great Medicine” 大藥). Further refinement fuses this *qi* with the Precelestial Spirit (元神), coalescing into the “Elixir” (丹). The middle circle, labeled “the five pneumas have audience at the Origin” (五氣朝元), interconnects Wood–Fire (left), Metal–Water (right), and Soil (center). In internal alchemy, Fire represents spirit; since Wood generates Fire, Wood symbolizes Precelestial Spirit and Fire Postcelestial Spirit. Water symbolizes essence; as Metal generates Water, Metal represents Precelestial Essence and Water Postcelestial Essence. Wood–Fire and Metal–Water depend on spirit (the True Intention, *zhenyi* 真意) as the mediating agent, termed “True Soil” (*zhentu* 真土). The convergence of Wood–Fire (one family), Metal–Water (second family), and Soil (third family) constitutes “the five pneumas have audience at the Origin”.

The subsequent circle, with interlocking black and white halves, is labeled “Extracting Kan to Replenish Li” (取坎填離). Kan (☵, Water) and Li (☲, Fire) are symbolic pairs, also termed Lead–Mercury 鉛汞, Essence–*Qi* 精氣, Heart–Kidneys 心腎, Water–Fire 水火, Ghost–Deity, 鬼神 Dao–Virtue 道德, Sun–Moon 日月, Inner Nature and Vital Force, Above–Below 上下, Pure–Turbid 清濁, Movement–Stillness 動靜, Ascent–Descent 升降, etc. In the postcelestial Eight Trigrams, Kan (☵) occupies the North and Li (☲) the South. However, in the Precelestial Eight Trigrams, North corresponds to Kun (☷, Earth) and South to Qian (☰, Heaven). During cosmic evolution (Dao generating phenomena 道化萬物), the central Yang line of Qian and the central Yin line of Kun exchanged positions. Thus, alchemists regard Kan’s inner Yang and Li’s inner Yin as precelestial residues (先天之物). To revert from postcelestial to precelestial (humanity returning to Dao), Kan’s Yang is extracted to replenish Li’s Yin, restoring the precelestial Qian and Kun—summarized as “Extracting Kan to Replenish Li”.

The topmost circle is labeled “refining spirit and reverting to Emptiness; reversion to the origin” (煉神還虛, 復歸無極). Refining spirit to return to emptiness means that the three treasures condensed through the refinement of *qi* into spirit are further refined into emptiness. In this way, the Golden Elixir (金丹) is achieved, culminating in a return to the precelestial Dao of the Wuji.

The *Diagram of Three-Five-One* (三五一之圖, Figure 4) (Cheng [1611] 1717, Wood Volume, folio 34) directly corresponds to the stages of alchemical practice. “Three-Five-One”

(三五一) is a core concept in Daoist internal alchemy, fundamentally revealing the cultivation principles of essence (精), qi (氣), and spirit (神) through the fusion of Five Phases' mutual generation/restraint and the numerology of the *Hetu* 河圖 (Chart of the [Yellow] River). The number two corresponds to Fire, three to Wood; Wood–Fire as one family (木火一家) sums to five, associated with the Precelestial Spirit (元神) in alchemical terms. The number one corresponds to Water, four to Metal; Metal–Water as one family (金水一家) sums to five, associated with the Precelestial Qi (元氣) in alchemy. The number five corresponds to Soil, forming its own family, associated with True Intention (真意) in humans. Through the mediation of True Intention, the three families harmonize, coalescing into the “inner Infant” (*Ying'er* 嬰兒)—the Great Elixir (大丹). These layered correspondences are central to Cheng Yiming’s vision of inner alchemy, in which physiological processes are symbolically synchronized with cosmological forces. The diagrammatic representations of this model interweave numerology, elemental dynamics, spatial orientation, and temporal cycles. In this view, bodily cultivation proceeds through harmonizing these dimensions, and the diagrams serve as both maps and manuals for initiating such transformation. Thus, the correspondences listed here are not merely categorical—they articulate the metaphysical architecture of the inner elixir. The *Diagram of Three-Five-One* is as follows:



Figure 4. *Diagram of Three-Five-One* (三五之一圖). This diagram originates from the *Illustrated Commentary* (Cheng [1611] 1717, Wood Volume, folio 34).

Nongwanzi (弄丸子, Appellation of Cheng Yiming) writes the following:

The immortal masters elucidated Three-Five-One beneath the fourteen verses, anticipating that ordinary people could not grasp it. Truly, few can comprehend the Three-Five-One within the *Hetu* 河圖. The numbers of the *Hetu*, decoded by Fuxi伏羲 into the precelestial Eight Trigrams, form the foundation for cultivating the Dao and refining the Elixir, as well as the root of self-cultivation and life-nourishment. Thus, the numbers are divided into three families: East-3, South-2, North-1, West-4, and Center-5. Guanjianzi (管見子) states: “This Three-Five-One encompasses the Three-Five-One of cosmic creation, the Three-Five-One of Yin–Yang division and union, the Three-Five-One of bodily fire-times (火候), and the Three-Five-One of Dragon-Tiger intercourse

(龍虎交媾). The Three-Five-One of cosmic creation refers to the numerological interplay of the three families in the *Hetu*; the Three-Five-One of Yin–Yang division and union refers to the transformative numerological shifts in the *Zhouyi*; the Three-Five-One of bodily fire-times corresponds to the Taiji’s numerical principles of “threefold celestial and twofold terrestrial” (參天兩地); the Three-Five-One of Dragon-Tiger intercourse pertains to the numerical dynamics of “Gate of Wu” (戊門) and “Door of Ji” (己戶) in the interplay of self and other. Though the Three-Five-One shares the same numerical structure, its applications differ profoundly.” Thus, *the Cantongqi* states in Chapter 11: “When Three and Five harmonize...”; in Chapter 24: “Three-Five and One are the supreme essence of Heaven and Earth”; in Chapter 26: “If Three-Five fail to interact, rigidity and softness split apart”; in Chapter 32: “At root, there are but two substances; at the branches, they become Three-Five”; and in Chapter 33: “A circle of Three-Five inches and one part” —reiterating these principles to illuminate practitioners. Ignorant adherents fixate on one interpretation, recklessly concocting external practices like furnace-refining, altar-building, and chamber-construction, or internal practices like solitary cultivation and silent meridian-counting, oblivious to the inherent Three-Five-One synergy within Kan (☵) and Li (☲).

Boyang Weng (伯陽翁) clarifies: “Zi-Wu (子午) numbers sum to Three; Wu-Ji (戊己) are named Five. When Three-Five harmonize, the Eight Minerals (八石) are regulated.” Further commentaries by immortals, such as Shangyangzi’s (上陽子) precise deductions and Xue Daoguang’s (薛道光) exquisite analyses, elucidate that Kan’s inner Yang and Li’s inner Yin combine to form Three, while Kan’s Wu-Soil (戊土) and Li’s Ji-Soil (己土) each constitute Five. The harmony of Three-Five coalesces into One.”

Ziye (子野) explains: “Three-Five-One signifies the numerical essence of the Five Phases (金木水火土). One is the Taiji. When the Five Phases disunite, they retain their individual natures; when united, they revert to the Taiji. If humans can unify the Five Phases into One, they return to primordial chaos—the inner Infant emerges. Such is the profound meaning of “three families meeting.” After ten lunar months of cyclical refinement, timing and qi align naturally with the sages’ mechanisms. Additionally, Three-Five-One denotes 15 days for advancing fire (進火) and 15 days for retreating the tally (退符), or the synthesis of Three-Five-One into the Ninefold Reverted Golden Elixir (九還金液大還丹). Practitioners must contemplate this deeply, not dismiss it.”

仙師發明三五一，於十四詩下者，料世人不能知也。實然稀者，世人難測《河圖》中之三五一也。蓋《河圖》之數，伏羲演為先天八卦以為造道作丹之基，修身立命之本。故以東三、南二、北一、西四、中五分為三家……管子曰：“此三五一者有天地生成之三五也，有陰陽分合之三五也，有人身火候之三五也，有龍虎交媾之三五也。”蓋天地生成之三五者，河圖中三家相見之數也；陰陽分合之三五者，《周易》中三五一變之數也；人身火候之三五者，太極中參天兩地之數也；龍虎交媾之三五者，彼我中戊門己戶之數也。三五一數雖同，而其用各有興。故《參同契》十一章：“三五既和諧。”二十四章云“三五與一，天地至精。”二十六章云：“三五不交剛柔離分。”三十二章云：“本之但二物兮末而為三五。”三十三章云：“圓三五寸一分。”如此重重發明無非使人洞曉。愚者執其一說，妄猜妄作為，外而燒煉鼎爐，立壇築室；內而獨修自己，默數周天。不思坎離二物之中，自有三五為一之妙。

伯陽翁云：“子午數合三，戊己號稱五；三五即和諧，八石正綱紀。”又加眾仙注釋忒殺分明，上陽子推理最精，薛道光分析極妙。孰知坎中一陽，離中二陰，合而為三。坎中戊土，離中己土，各稱為五。三五和諧，總名曰：一。

子野曰：三五一者，金木水火土五行之數也。一者，太極也。五行不合則各一其性，合則複為一太極。人能以五行合而為一，則複為混沌，嬰兒有兆矣，所謂三家相見之義其妙如此。十月數周，時至氣化，自然符合先聖之機也，又有三五一十五日為進火，三五一十五日為退符，又有三五一合為九還金液大還丹也，學者思之不可

(Cheng [1611] 1717, Wood Volume, folio 34–36)

This section focuses on Cheng Yiming’s Three-Five-One numerological model in alchemical practice. Cheng Yiming interprets the Three-Five-One as a development of the numerological principles from the *Hetu* and *Luoshu* (洛書 Writ of the Luo [River]), combined with the “Three-Five” theory from the *Cantongqi*. However, the Three-Five-One concept fundamentally stems from the *Hetu* (河圖, *Diagram of the Five Agents’ Generation* 五行生成圖) transmitted by Chen Tuan, which serves as the foundational numerological framework for Internal Alchemy (*Neidan*). Chen Tuan’s *Diagram of the Five Agents’ Generation* integrates ten numbers with the Five Directions, Five Phases (*Wuxing* 五行), Yin–Yang, and cosmic symbolism. Its structure is as follows: white circles represent *Yang*, Heaven, and odd numbers; black dots represent *Yin*, Earth, and even numbers. Heaven–Earth corresponds to the Five Directions: one and six are paired in the North—since Heaven’s one generates Water, and Earth’s six completes it (天一生水, 地六成之). Moreover, two and seven are in the South—Earth’s two generates Fire, Heaven’s seven completes it (地二生火, 天七成之). Furthermore, three and eight are in the East—Heaven’s three generates Wood, Earth’s eight completes it (天三生木, 地八成之). Four and nine are in the West—Earth’s four generates Metal, Heaven’s nine completes it (地四生金, 天九成之). Five and ten are in the Center—Heaven’s five generates Earth, Earth’s ten completes it (天五生土, 地十成之). This schema forms the core numerological model for alchemical theory. When alchemical terminology is mapped onto this framework, the following system emerges:

East-3 (Dong-3): In the *Yijing* it corresponds to Zhen 震 (Thunder) and the Eldest Son; in the Five Phases (*wuxing*) it is Wood; in the Heavenly Stems and Earthly Branches (*ganzhi* 干支) it is Jia-Yi 甲乙 and Yin-Mao 寅卯; in the human body it represents the Hun 魂 (Ethereal Soul), *Xing* 性, and Pre-Heaven Spirit (*Yuanshen* 元神); among the Four Symbols (*Sixiang* 四象) it is the Azure Dragon (*Qinglong* 青龍); in External Alchemy (*Waidan*) it is called True Mercury (*Zhengong* 真汞.) Alchemical texts also refer to it as “Wood’s Fluid” (*Muye* 木液), “Jade Rabbit” (*Yutu* 玉兔), “Green-Robed Maiden” (*Qingyi nüzi* 青衣女子), and “Turquoise-Clad Foreign Youth” (*Bifu hu’er* 碧服胡兒). East-3 (Wood-3) combines with South-2 (Fire-2) to form five, both rooted in the Heart.

South-2 (Nan-2): In the *Yijing* it corresponds to Li 離 (Fire) and the Middle Daughter; in the Five Phases it is Fire; in the *ganzhi* it is Bing-Ding 丙丁 and Si-Wu 巳午; in the human body it represents Postcelestial Spirit (*Houtian shen* 後天神, i.e., Consciousness); among the Four Symbols it is the Vermilion Bird (*zhuque* 朱雀); in *waidan* it is Cinnabar (*Zhusha* 朱砂.) Alchemical texts also call it “Red Snow” (*Hongxue* 紅雪), “Solar Essence” (*Rijing* 日精), “Crimson Phoenix” (*Danfeng* 丹鳳), “Vermilion Fire Palace” (*Zhuling huofu* 朱陵火府), and “Scarlet-Robed Envoy” (*Chiyi shizhe* 赤衣使者). South-2 (Fire-2) combines with East-3 (Wood-3) to form five, both rooted in the Heart.

North-1 (Bei-1): In the *Yijing* it corresponds to Kan 坎 (Water) and the Middle Son; in the Five Phases it is Water; in the *ganzhi* it is Ren-Gui 壬癸 and Hai-Zi 亥子; in the human body it represents Postcelestial Essence (*Houtian jing* 後天精, i.e., Generative Essence); among the Four Symbols it is the Black Tortoise (*Xuanwu* 玄武); in *waidan* it is Black Lead (*Heiqian* 黑鉛.) Alchemical texts also term it “Lunar Essence” (*Yuehua* 月華), “Mystic Tortoise” (*Xuangui* 玄龜), “Aged Ren” (*Renlao* 壬老), and “Golden Duke” (*Jingong* 金公). North-1 (Water-1) combines with West-4 (Metal-4) to form five, both rooted in the Body, forming one family.

West-4 (Xi-4): In the *Yijing* it corresponds to Dui 兌 and the Youngest Daughter; in the Five Phases it is Metal; in the *ganzhi* it is Geng-Xin 庚辛 and Shen-You 申酉; in the human body it represents *Po* 魄 (Corporeal Soul), *Qing* 情 (Emotions), and Pre-Heaven Essence (*Yuanjing* 元精); among the Four Symbols it is the White Tiger (Baihu 白虎); in *waidan* it is True Lead (*Zhenqian* 真鉛.) Alchemical texts also name it “White Metal” (*Baijin* 白金),

“Lunar Soul” (*Yuepo* 月魄), “Golden Crow” (*Jinwu* 金鳥), “White-Haired Elder” (*Baitou laozhi* 白頭老子), and “Plain-Robed Lord” (*Sulian langjun* 素鍊郎君). West-4 (Metal-4) combines with North-1 (Water-1) to form five, both rooted in the Body, forming one family.

Center-5 (Zhong-5): In the *Yijing* it is associated with Kun 坤 (Earth) as the Mother; in the Five Phases it is Soil; in the *ganzhi*, it is Wu-Ji 戊己 and Chen-Xu 辰戌; in the human body it represents True Intention (*Zhenyi* 真意), mediating and harmonizing the Four Symbols and Five Phases. Alchemical texts refer to it as “Yellow Chamber” (*Huangfang* 黃房), “Yellow Sprout” (*Huangya* 黃芽), “Yellow Court” (*Huangting* 黃庭), “Polaris” (*Gouchen* 勾陳), “Yellow Matron” (*Huangpo* 黃婆), “True Oneness” (*Zhenyi* 真一), “Matchmaker” (*Meiren* 媒人), “Sacred Embryo” (*Shengtai* 聖胎), and “True Soil” (*Zhentu* 真土). Center-5 (Soil-5) has no counterpart and stands alone as its own family.

Cheng Yiming’s discourse, as seen in the cited text, expounds the principle of “Three Families’ Convergence” (*Sanjia xiangjian* 三家相見) through the three dimensions of the Five Phases, human physiology, and stages of practice.

In terms of the Five Phases, East-3 (Wood-3) and South-2 (Fire-2) form the Wood–Fire family (*Muhuo yijia* 木火一家), as Wood generates Fire and serves as its “mother”; North-1 (Water-1) and West-4 (Metal-4) form the Metal–Water family (*Jin shui yijia* 金水一家), as Metal generates Water; Center-5 (Soil-5) stands alone as the Soil family (*Tu yijia* 土一家). The convergence of these Three Families yields the Great Medicine (*Dayao* 大藥).

From the perspective of human physiology, East-3 (Wood) corresponds to *Xing* 性 (Innate Nature), West-4 (Metal) to *qing* 情 (Emotions), South-2 (Fire) to *shen* 神 (Spirit), North-1 (Water) to *jing* 精 (Essence), and Center-5 (Soil) to *yi* 意 (Intention). *Xing* governs the Heart, and *Shen* resides within it, forming the Heart family; *Jing* governs the Body and aligns with *Qing*, forming the Body family; *Yi* mediates the Four Symbols and Five Phases, standing alone as its own family. The convergence of Heart, Body, and Intent likewise yields the Great Medicine.

Regarding stages of practice, the harmonization of *qing* and *xing* merges Metal and Wood (情合性即金木並); the union of *jing* and *shen* unites Water and Fire; and the Great Stability of Yi (*Yi dading* 意大定) completes the Five Phases. Refining Essence into Qi (*Lianjing huaqi* 煉精化氣), the Initial Pass (*Chu guan* 初關), involves North-1 (Water) and West-4 (Metal) stabilizing the Body—Body quiescence ensures Jing is replenished. Refining Qi into Shen (*Lianqi huashen* 煉氣化神), the Middle Pass (*Zhong guan* 中關), involves East-3 (Wood) and South-2 (Fire) stabilizing the Heart—Heart quiescence ensures Qi is consolidated. Refining Shen into Emptiness (*Lianshen huaxu* 煉神化虛), the Final Pass (*Shang guan* 上關), involves Center-5 (Soil) returning to its root number (5)—Intent quiescence ensures Shen becomes numinous. When Jing is replenished, Qi consolidated, and Shen numinous, the Three Primordials (*Sanyuan* 三元) unite and the Elixir (*Dan* 丹) is perfected.

4.2. True Lead, Fire Phases, and the Precious Moon (真鉛, 火候, 寶月): Refinement of Neidan Practice Theory (內丹工夫論)

The theory of practice, or the operational system for cultivating *neidan* (inner alchemy), revolves around *xing* (性, Inner Nature) and *ming* (命, Vital Force). The transformations of *xing* are governed by the heart (*xin* 心), while those of *ming* are rooted in the body (*shen* 身). The heart serves as the sovereign of spirit (*shen* 神), and the body harbors essence (*jing* 精), pneuma (*qi* 氣), and spirit. The dual cultivation of *xing* and *ming* entails refining and nurturing the “essence, pneuma, and spirit” within the human body. These terms—*jing*, *qi*, and *shen*—are specialized concepts distinct from ordinary “fluids, breath, and thoughts.” To clarify this distinction, they are often modified by qualifiers: *jing* is categorized as precelestial essence (*xiantian jing* 先天精, or Original Essence 元精) versus postcelestial essence (*houtian jing* 後天精, or “generative essence”); *shen* is divided into

precelestial spirit (*xiantian shen* 先天神, or Original Spirit, *yuanshen* 元神) versus acquired consciousness (*shishen* 識神).

Peng Xiao's *Mingjing tu* (明鏡圖, Figure 5) pioneered the use of diagrams to systematically elucidate *neidan* theory, emphasizing the regulation of *huohou* (火候, "fire phasing," or temporal cycles in alchemical practice). Later, Yu Yan expanded this framework by deconstructing each ring of the *Mingjing tu* into multiple diagrams, yet his work remained within Peng's original paradigm. The *Illustrated Commentary* further integrated the theoretical contributions of the *Mingjing tu* and Yu Yan's expansions while offering broader interpretive flexibility. By illustrating each verse of the *Wuzhen Pian*, the *Illustrated Commentary* not only absorbed existing theories but also advanced them, ultimately constructing a unique *neidan* theoretical system.

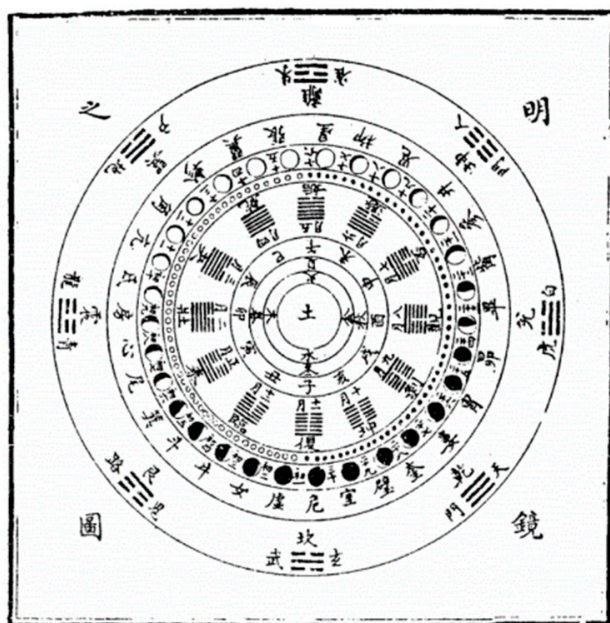


Figure 5. *Mingjing tu* (明鏡圖). This diagram is cited from Peng Xiao's *Real Meaning of the token for the Agreement of the Three According to the Book of Changes* 周易參同契分章通真義 (Peng 1986, vol. 1058, p. 556). The Daozang also contains a version of the *Mingjing tu*, but it is unclear and incomplete, missing the fourth ring of "fifty black dots and fifty white dots." (DZ, vol. 20, p. 159).

Neidan doctrine posits that to return from the postcelestial (後天) conditioned state to the precelestial (先天) Daoist primordial void, one must rely solely on the precelestial residues (先天之物) endowed by the Dao. Thus, in the cultivation of *ming* (命功, Vital Force cultivation), only the precelestial essence is employed. Alchemical texts universally use *qian* (鉛, "lead") as a metaphor for *jing* (精, essence). Hence, understanding *zhenqian* (真鉛, "True Lead," or true essence) is the first step in *ming* cultivation. The *Wuzhen Pian* states: "Employ not ordinary lead; even True Lead must be relinquished once used," underscoring the criticality of *zhenqian*. The commentator Wumingzi (無名子, sobriquet of Weng Baoguang 翁葆光) explains: "Zhenqian is the *zhenyi zhi qi* (真一之氣, True Unity Pneuma), the precelestial True Yang energy (DZ, vol. 4, p. 724)". Other commentaries align with this view. The *Illustrated Commentary* acknowledges these perspectives while introducing novel developments, as illustrated in the *Diagram of Ordinary Lead and True Lead* (凡鉛真鉛之圖, Figure 6) (Cheng [1611] 1717, Water Volume, folio 12), which can be seen below:



Figure 6. Diagram of Ordinary Lead and True Lead (凡鉛真鉛之圖). This diagram originates from the *Illustrated Commentary* (Cheng [1611] 1717, Water Volume, folio 12).

The diagram centers on the thirty phases of the moon's waxing and waning, symbolizing the monthly cycle of huohou (火候, "fire phasing" or temporal regulation). Nongwanzi states: "Observe my diagram to grasp the subtlety of using Lead, which lies within the monthly huohou" 觀吾圖中則知用鉛之妙是一月火候也 (Cheng [1611] 1717, Water Volume, folio 12). The secret of employing Lead resides precisely in this monthly huohou. Nongwanzi explains: "Lead is the Yang pneuma (yi yang zhi qi 一陽之氣) within the Kan 坎 trigram. Its application distinguishes the True from the Ordinary. For instance, on the third day of the lunar month, the moon emerges at Geng 庚; on the twenty-eighth day, it sets at Yi 乙. The union of Yi and Geng (乙庚合) forms the precelestial True Lead (xiantian zhenqian 先天真鉛), which is usable. From the fourth to the twenty-seventh day, it remains postcelestial ordinary Lead (houtian fanqian 後天凡鉛), which must not be used. This is the true secret of employing Lead" (Cheng [1611] 1717, Water Volume, folio 12).

In *neidan* symbolism, "Water" represents postcelestial essence (houtian jing 後天精). The Kan trigram (☵) contains a Yang line, embodying the precelestial essence (xiantian jing 先天精, or True Essence) concealed within postcelestial essence. This is zhenqian (真鉛, True Lead), consistent with other commentaries. However, the *Illustrated Commentary* uniquely integrates this concept with the monthly huohou, specifying that only the third and twenty-eighth days—when Yi and Geng unite—yield precelestial True Lead, while all other days are invalid.

Why must Yi and Geng combine (乙庚合)? Though Nongwanzi does not explicitly state this, the diagram hints that "Geng (虎, Tiger) initiates first; Yi (龍, Dragon) concludes afterward" (庚虎始先, 乙龍終後) (Cheng [1611] 1717, Water Volume, folio 12). In *neidan*, the Tiger symbolizes precelestial essence (Metal phase 五行屬金), and the Dragon represents precelestial spirit (xiantian shen 先天神, Wood phase 五行屬木). The Dragon arises from Fire, the Tiger from Water (龍從火裏出, 虎向水中生)⁹. Yet Metal and Wood clash, as do Fire and Water, preventing cyclical harmony. By incorporating "Soil" into the framework, the mutual generation of the Five Agents (wuxing) is established. This configuration gives rise to the phenomenon of Dunjia 遁甲 (Hidden Stem) (Zhan 2001): Jia (甲, Wood Yang) conceals itself within Wu (戊, Soil Yang); Yi (乙, Wood Yin) assumes the role of active

governance; and Geng (庚, Metal Yang, symbolized as the Tiger) and Yi (乙, Wood Yin, symbolized as the Dragon) form the Yi–Geng combination (乙庚相合), representing the alchemical union of Metal and Wood through their celestial stems. Unlike prior theories that equated zhenqian 真鉛 solely with precelestial essence, Nongwanzi redefines it as the fusion of precelestial essence and spirit, introducing the critical role of precelestial spirit—a significant advancement.

If zhenqian is the union of precelestial essence and spirit (i.e., the “medicine” 藥 for alchemy), how does this “medicine” coalesce into the “elixir” (dan 丹)? What principles govern the huohou required to refine it? Nongwanzi’s *Diagram of Celestial and Terrestrial Transformations in Huohou* (天地變化火候之圖, Figure 7) (Cheng [1611] 1717, Wood Volume, folio 18) elaborates further on the cyclical interplay of *yin* and *yang* energies within *neidan* practices, delineating the precise temporal phases (huohou 火候) of cosmic and bodily transmutations as codified in the *Zhouyi cantongqi*.



Figure 7. *Diagram of Celestial and Terrestrial Transformations in Huohou* (天地變化火候之圖). This diagram originates from the *Illustrated Commentary* (Cheng [1611] 1717, Wood Volume, folio 18).

The diagram is divided into four concentric rings (from outer to inner). The first ring represents the twenty-four orientations (二十四方位); the second ring consists of fifty black dots and fifty alternating black-and-white dots; the third ring displays twelve hexagrams (十二卦); the fourth ring illustrates twelve lunar phases (十二圓缺). The second, third, and fourth rings inherit principles from Peng Xiao’s *Mingjing tu* (明鏡圖):

“The fifty black and fifty alternating dots correspond to the hundred marks of Yin talismans and Yang fire, aligning with celestial rhythms. The twelve hexagrams manifest the monthly progression of hexagram lines and the undulations of Dragon and Tiger energies. The twelve time periods (twelve lunar phases) govern the ascent-descent and convergence-divergence of fire phases, operating celestial mechanisms.” 五十點黑，五十黑白，乃陰符陽火百刻之數，應天符動靜也；十二卦者，明逐月爻象進退，龍虎起伏也；十二辰（十二圓缺）者，火候升降鑽合，運天符也 (DZ, vol. 20, p.160)—all describing the principles of advancing and retreating fire phases (火候進退).

This section focuses on the symbolic system of the fifty black and fifty alternating dots, which corresponds to the dualistic structure of yin and yang as distributed through temporal cycles. Rooted in the calendrical logic of the Stems-and-Branches system and the Five Phases, this model encodes the alternation of energetic rhythms in both cosmology and human physiology. In the diagrams, these points mark temporal thresholds for energetic transformations within the body, particularly in regulating fire phases, breath cycles, and the alchemical balance of inner agents. Their systematic presentation shows how the *Illustrated Commentary* constructs an inner calendar, aligning human refinement with cosmic order.

The first ring constitutes Nongwanzi's original innovation. How should this ring be interpreted? Nongwanzi quotes an annotation by Wumingzi 無名子 (sobriquet of Weng Baoguang 翁葆光) inscribed within the diagram:

“When lead encounters the birth of Gui, ‘birth of Gui’ signifies the Chou hour (丑時). When Metal meets ‘distant gaze,’ ‘distant gaze’ denotes the moon approaching waning. The fullness of the moon resides in oral formulae; the subtlety of the midnight hourlies in heart-to-heart transmission. The cosmic breath-count follows faint numerics, while the jade clepsydra’s chill echoes rhythmic drips. These are secret teachings orally transmitted by perfected beings.”

铅遇癸生，癸生者，时将丑也。金逢望远，望远者，月将亏也。月之圆，存乎口诀：时之子，妙在心传，周天息数微微数，玉漏寒声滴滴符。此真人口口相传之密旨也。

(See upper half of the diagram) (DZ, vol. 4, p.717)

This serves as the key to deciphering the first ring, with its crucial information concerning the timing of medicinal substance collection (採藥) and fire phase modulation. Careful analysis reveals that Nongwanzi adapts the Daoist geomancy method of “Twenty-Four Mountains” in this ring, aligning it with the “hundred marks” system through specific derivations to represent the “cosmic fire phases” (Zhou Tian huo hou 周天火候) in *neidan* practice.

The “Twenty-Four Mountains Method” (二十四山法) refers to the system of twenty-four directional orientations. Specifically, it arranges the “Eight Celestial Stems,” (八天干) “Twelve Earthly Branches,” (十二地支) and “Four Corner Trigrams” (四維卦) in a cyclical pattern, as stated in *Qing Nang Xu* 青囊序: “The innate compass holds twelve divisions; the acquired framework adds the Stems and Corners.” 先天羅經十二文，後天再用干與維 (Zeng 1986, p. 85). Orientations include Mao (east), Wu (south), You (west), Zi (north), Kun (southwest), Xun (southeast), Qian (northwest), and Gen (northeast). Starting from the east, the sequence proceeds as follows: Jia 甲, Mao 卯, and Yi 乙; Chen 辰, Xun 巽, and Si 巳; Bing 丙, Wu 午, and Ding 丁; Wei 未, Kun 坤, and Shen 申; Geng 庚, You 酉, and Xin 辛; Xu 戌, Qian 乾, and Hai 亥; Ren 壬, Zi 子, and Gui 癸; and Chou 丑, Gen 艮, and Yin 寅. Nongwanzi quadruples these twenty-four orientations to obtain ninety-six divisions, then inserts a “Wei 維” character between each of the Four Corner Trigrams (Xun, Kun, Qian, and Gen), perfectly matching the “hundred marks” (百刻) numerical framework.

These “twenty-four orientations” (hundred-mark orientations) carry auspicious or inauspicious attributes based on interactions among the Five Phases, hexagram principles, and conjunctions/conflicts of Celestial Stems and Earthly Branches. Nongwanzi ingeniously repurposes this system; auspicious positions (吉位) mark times for medicinal substance collection and elixir refinement, while inauspicious ones signify phases of natural operation. As shown in the diagram, the Kun trigram position (southwest) corresponds to the third lunar day—the moment of medicinal substance generation—while the Gen trigram position (northeast) aligns with the twenty-eighth day—the time of elixir completion. These two orientations are “auspicious positions,” coinciding with the emergence of zhenqian (真鉛 True Lead, the medicinal substance) described earlier.

How does the huohou (火候, fire phasing) operate between the “medicinal substance” of the third day and the “elixir” of the twenty-eighth day? Nongwanzi states: “A full cycle of huohou completes through 384 zhu (銖, ancient weight units).” 火候一週三百八十四銖圓成 (Cheng [1611] 1717, Wood Volume, folio 18). To count 384 zhu, the text adds the various hours together as follows. From the Zi to Si hours (子至巳), “the progression of Yang Fire進陽火”.¹⁰ This corresponds to 216 ce (策, counting rods)¹¹ of Qian, excluding 36 ce reserved for the “bathing period” (沐浴, muyu, a time of purification or decontamination in which Fire and Water neither rise nor descend) during the Mao 卯 hour, resulting in 180 actualized zhu. From Wu to Hai hours (午至亥), “the descent of the Yin Fire 退陰符”.¹² This aligns with 144 ce of Kun, excluding 24 ce for the You-hour (酉時) bathing period, yielding 120 actualized zhu. Including the 60 zhu for bathing and 24 zhu as intercalary surplus, the total sums to 384 zhu.

Both diagrams feature a central “white dot within a black circle” derived from the *precelestial Lingji Diagram* (先天靈極圖). Precelestial signifies the Dao of precelestial emptiness (虛無大道), while Lingji (靈極, “spiritual pivot”) denotes “When the Dao is empty 虛, it becomes vast 大; when the mind is empty, it attains spiritual potency 靈. Thus, the precelestial spiritual pivot (靈極) is the foundational aperture 始竅 of Heaven and Earth, and the transformative source of all things” (Shi 2015, p. 559). By adopting this motif, Nongwanzi symbolizes zhenqian as the return to the root of the precelestial Dao.

After “obtaining the medicinal substance and coalescing the elixir (得藥結丹),” one enters xinggong (性功, Inner Nature cultivation)—the refinement of mental–spiritual nature where the heart governs spirit. This marks the “spirit-refining” stage. Spirit (shen 神) divides into shishen (識神, conscious spirit) and zhenshen (真神, true spirit). Post-elixir formation, conscious spirit recedes, and true spirit assumes sovereignty. Nongwanzi illustrates this through his *Diagram of the Precious Moon Wheel* (一輪寶月之圖, Figure 8) (Cheng [1611] 1717, Soil Volume, folio 22), which is as follows:

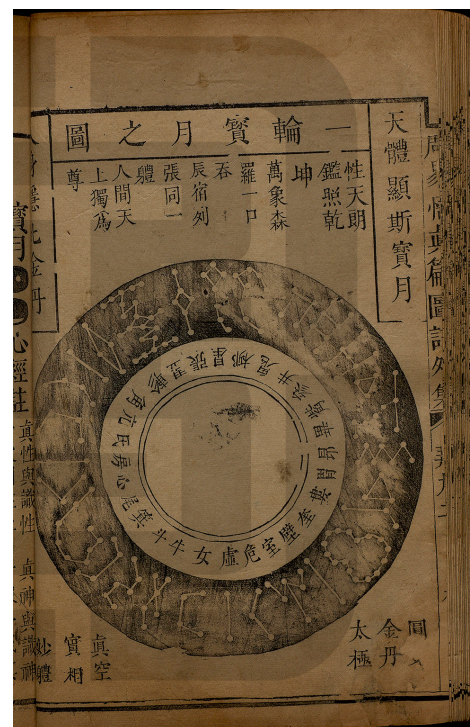


Figure 8. *Diagram of the Precious Moon Wheel* (一輪寶月之圖). This diagram originates from the *Illustrated Commentary* (Cheng [1611] 1717, Soil Volume, folio 22).

The diagram's main body comprises the following twenty-eight lodges (or constellations) (the system of the *ershiba xiu* 二十八宿): the Azure Dragon of the East (角 Jiao, 亢 Kang, 氐 Di, 房 Fang, 心 Xin, 尾 Wei, and 箕 Ji); the Black Tortoise of the North (斗 Dou, 牛 Niu, 女 Nü, 虛 Xu, 危 Wei, 室 Shi, and 壁 Bi); the White Tiger of the West (奎 Kui, 婁 Lou, 胃 Wei, 昂 Mao, 畢 Bi, 觜 Zi, and 參 Shen); and the Vermilion Bird of the South (井 Jing, 鬼 Gui, 柳 Liu, 星 Xing, 張 Zhang, 翼 Yi, and 軫 Zhen). Unlike the Mirror Diagram, which uses these to represent “cosmic fire numerics of celestial cycles” (周天行度火數), Nongwanzi interprets them as “the celestial precious moon and the bodily golden elixir” (天上之寶月, 人身之金丹), correlating the twenty-eight lodges with the natural rhythms of human organs.¹³ The set of correspondences relates to the twenty-eight lodges, an astral schema traditionally used for calendrical regulation and cosmography. In the *Illustrated Commentary*, this star system is mapped onto the human body, correlating each constellation with an internal site or energetic node. The integration of this system reflects a hallmark of Daoist visual alchemy: the embedding of celestial rhythms within the practitioner's physical form. Such correspondences allow the practitioner to embody the cosmos through a coded map of the stars, achieving an internal microcosm that mirrors macrocosmic order. This mapping is an essential example of how Yijing-based numerology and Daoist physiology are joined in the visual logic of the *Illustrated Commentary*.

Specifically, ordinary people are burdened by incessant thoughts and worries—this is the work of shishen (識神, postcelestial spirit). Zhenshen (真神, true spirit)¹⁴ abides in perpetual clarity and stillness, free from mental agitation. Both spirits coexist within the body. During the minggong (命功, Vital Force cultivation) stage, shishen must guide and harmonize the mind–body to stillness, allowing zhenshen (precelestial spirit) to emerge. After elixir coalescence, only zhenshen remains sovereign, enacting the method of vacuous stillness and non-action. Among the twenty-eight lodges, the Azure Dragon governs the East, the White Tiger the West, the Vermilion Bird the South, and the Black Tortoise the North. Aligning these with human physiology, East corresponds to Liver–Wood, South to Heart–Fire, West to Lung–Metal, North to Kidney–Water, and Center to Spleen–Soil. The Liver governs blood, the Heart governs spirit, the Lungs govern qi, the Kidneys govern essence storage, and the Spleen governs transformation. The natural cycles—Wood (Liver) generating Fire (Heart), Fire generating Soil (Spleen), Soil generating Metal (Lungs), Metal generating Water (Kidneys), and Water generating Wood—proceed spontaneously, requiring no intervention to refine the “bodily golden elixir (renshen jindan 人身金丹).” By correlating the celestial movements of the twenty-eight lodges with the autonomous functions of bodily organs, Nongwanzi demonstrates that this stage demands adherence to non-action (無為), aligning with natural spontaneity. As Li Daochun 李道純 (fl. 1288–92) of the Yuan dynasty states in *Zhong He Ji* (中和集 Anthology of Central Harmony): “At this stage of practice, not a single word is needed” (DZ, vol. 4, p. 489). Through inner contemplation, stable illumination, nurturing warmth, returning to the origin, and realizing the mind's true nature, one may ultimately shatter emptiness and unite with the Dao.

5. Conclusions

The *Illustrated Commentary* is currently the only known commentary on the *Wuzhen Pian* that centers on alchemical *Yijing* diagrams, as well as the sole extant inner alchemy text structured around such diagrams.¹⁵ The emergence of the *Illustrated Commentary* offers a new perspective for studying *Yijing* diagram studies within the broader field of images–numbers *Yijing* studies.

The *Zhouyi* comprises two systems: the images–numbers hexagram system and the textual hexagram statement system. Historical commentaries on the *Zhouyi* have similarly

bifurcated into image–number studies and philosophical exegesis. The *hetu* and *luoshu* studies of the Song dynasty and the *Yijing* diagram studies prevalent in the Ming dynasty both represent distinctive branches of images–numbers *Yijing* studies. Their uniqueness lies in their use of *Yijing* diagrams as vessels for theoretical explication.

The early Song Daoist Chen Tuan employed diagrams like the *Hetu*, *Luoshu*, *Yilongtu* (易龍圖), *Xiantiantu* (先天圖), and *Wujitu* (無極圖) to articulate his theories of “images” (象) and “numbers” (數). His teachings later diverged into the following two streams: one absorbed by Daoism as a foundational framework for alchemical *Yijing* studies (丹道易學), becoming instrumental in interpreting inner alchemy theories; the other following the path of images–numbers *Yijing* studies to elucidate the Zhouyi’s principles of “images” and “numbers.” While differing in focus—the former prioritizing alchemical theory, the latter the *Zhouyi*’s philosophical and images–numbers principles—both streams belong to the broader domain of images–numbers *Yijing* studies through their shared use of *Zhouyi* symbolism.

The latter stream, through centuries of scholarly elaboration from the Song to Qing dynasties, produced over a thousand *Yijing* diagrams. These evolved from simple forms to complex systems, exemplified in works like Liu Mu’s 刘牧 (1011–1064) *Yishu Gouyin Tu* (易數鉤隱圖, *Diagrams for Uncovering Hidden Principles in Yijing Numerology*), Zhu Zhen’s 朱震 (1072–1138) *Hanshang Yizhuan·Guatu* (漢上易傳·卦圖, *Hexagram Diagrams from the Han River Commentary on the Zhouyi*), Zhang Li’s 张理 (fl. 314–20) *Yixiang Tushuo* (易象圖說, *Illustrated Discourses on the Symbols of the Changes*), Lai Zhide’s 来知德 (1525–1604) *Yijing Laizhu Tujie* (易經來註圖解, *Annotated Diagrams of the Yijing with Commentary*), and Huang Zongyan’s 黄宗炎 (1616–1686) *Tuxue Bianhuo* (圖學辨惑, *Clarifying Misunderstandings in Diagram Studies*). These works collectively expanded the theoretical framework of Yi diagram studies.

Consequently, modern academia generally defines “*Yijing* diagrams” as visual tools for interpreting the *Zhouyi*’s profound meanings, with their interpretive focus rooted in the *Zhouyi*’s image–number systems and philosophical principles. This consensus stems partly from the lack of representative works in Chen Tuan’s alchemical *Yijing* studies lineage compared to the prolific achievements in mainstream images–numbers *Yijing* studies, which dominated academic discourse.

The *Illustrated Commentary*’s emergence clarifies and enriches Chen Tuan’s legacy within alchemical *Yijing* studies. Serving as both a transitional work and a definitive theoretical milestone, it completes a developmental arc as Zhang Boduan’s *Wuzhen Pian* first assimilated Chen Tuan’s theories into inner alchemy through textual exposition; Yu Yan later integrated Han dynasty image–number Yi studies with Song era diagrammatic traditions to bridge text and diagrams; and the *Illustrated Commentary* ultimately achieved full diagrammatic systematization of alchemical theory. Subsequent works like Shui Jingzi’s 水精子 *Qingjing Jing Tuzhu* (清靜經圖注) and the *Lingbao Mifa Quanben (Tujie)* (靈寶秘法全本·圖解) further demonstrate this diagram-centric approach to inner alchemy, sharing striking similarities with the *Illustrated Commentary*’s methodology. Thus, the *Illustrated Commentary* fundamentally reorients *Yijing* diagram studies by establishing inner alchemy theory as its primary interpretive framework.

Funding: This research was funded by National Office for Philosophy and Social Sciences (Beijing, CN) through its Late-Stage Funding Program (Project: *A Study of Six Ming–Qing Annotated Editions of Wuzhen Pian* 明清六種《悟真篇》注本考論), grant number 24FZJB009” and the APC was funded by the same grant (24FZJB009).

Data Availability Statement: No new data were created or analyzed in this study. Data sharing is not applicable to this article.

Conflicts of Interest: The author declares no conflicts of interest.

Abbreviation

DZ	<i>Daozang</i> 道藏 [Daoist Canon]. Beijing: Cultural Relics Press, Shanghai: Shanghai Bookstore; Publishing House, Tianjin: Ancient Books Publishing House, 1988 (Daozang 1988).
<i>Illustrated Commentary</i>	<i>Illustrated Commentary</i> . Cheng Yiming (Ming dynasty), <i>Illustrated Commentary on the Wuzhen Pian Based on the Zhouyi</i> (周易悟真篇圖注), Metal, Wood, Water, Fire, and Soil volumes (5 vols). First published in 1611 (39th year of the Wanli era, Ming dynasty), with the Qing dynasty reprint dated to 1717 (56th year of the Kangxi reign). This edition preserved at National Library of China, Beijing. All citations to the <i>Illustrated Commentary</i> in this paper are from this edition. For ease of reference, page numbers correspond to the scan images, with each image encompassing two folios.

Notes

- ¹ For other examples of Daoist inner alchemical diagrams that incorporate *Yijing*-inspired symbolism, see the *Illustrations of the Sealed Verification of the Golden Elixir of the Reverted Cinnabar*, reproduced in *Taoism and the Arts of China* (Eichman and Little 2000, pp. 346–47). These images, while rich in neidan iconography and cosmological references, are typically situated within ritual or liturgical frameworks and do not explicitly articulate the structural principles of *Yijing* cosmology. In contrast, the *Illustrated Commentary* examined here integrates *Zhouyi* numerology and exegesis at a foundational level, treating the hexagrammatic and symbolic systems of the *Yijing* not as peripheral references but as an essential organizing matrix for both cosmological reasoning and inner alchemical transformation. This point was brought to my attention by one of the reviewers, to whom I am grateful.
- ² An example is the uncritical conflation of Daoist mythological tropes with local chronicle legends to reconstruct the biography and key events of Zhang Boduan (张伯端), resulting in hagiographic narratives that blur historical and doctrinal boundaries, see Davis and Chao (1939, 1940).
- ³ Feng Youlan 馮友蘭 once described *the Yijing* as an “algebra of the cosmos.” In his congratulatory message to the 1984 *Yijing* Academic Conference, he wrote: “The philosophy of the *Yijing* may be called cosmic algebra. Algebra is a branch of mathematics, but it contains no actual numbers; it is composed of formulas, and these formulas are represented by symbols. For numbers, these formulas are empty forms. It is precisely because they are empty forms that any number can be substituted into them. That is what I mean when I say the *Yijing* is a kind of cosmic algebra. The *Yijing* itself does not speak of specific things in Heaven and Earth, but only about empty forms; yet anything can be substituted into them. This is what is meant by ‘the spirit has no fixed method, and the Yi has no fixed form’ (神無方而易無體)” (Feng 1986).
- ⁴ Literally speaking, Alchemical-*Yijing* Diagram Studies (易圖學) refers to the study of *Yijing* diagrams within Daoism. However, the use of Yi diagrams in Daoism is not limited to internal or external alchemy; they are widely applied across many other domains as well.
- ⁵ “Form” (形) refers to the physical body, one among the myriad things; “essence, qi, and spirit” (精氣神) represent the “three”; yin and yang are the “two”; “emptiness” (虛) is the “one.” The process of mutual transformation—form ⇄ essence ⇄ qi ⇄ spirit ⇄ emptiness ⇄ Dao—can be regarded as the forward and reverse sequences of the cosmological model “The Dao gives birth to One, One gives birth to Two, Two to Three, and Three to the myriad things.”
- ⁶ Previous scholars (Wang 1997; Xiao 1997) have already conducted detailed research on why the *Cantong qi* uses the *Yijing* to express the Dao, and on the theoretical features of Daoist *Yixue* as established by *the Cantong qi*.
- ⁷ The “Diagram of Water and Fire in Harmonized Framework” and “Chart of the Three-Five Supreme Essence” are absent from the *Daozang* version of *the Cantong qi tongzhen yi*. Qing Confucian scholar Mao Qiling 毛奇齡 believed that the second and third layers of the Taiji Diagram originated from these two diagrams (Hu 1986, p. 680).
- ⁸ In *Jindan dayao tu* 金丹大要圖 (Great Essentials of the Golden Elixir: Diagram), *the Taiji Diagram of Reversal and Compliance* (太極順逆圖) is actually a combination of *the Wuji Diagram* (無極圖) and *Taiji Diagram* (太極圖) arranged side by side, without detailed differentiation (DZ, vol. 24, p. 71).
- ⁹ In *neidan* (internal alchemy) cosmology, the phrase “the dragon emerges from fire, the tiger arises from water” encapsulates the interplay of precelestial (先天) and postcelestial (後天) energies. The dragon (龍), symbolizing Wood’s Yang essence (木龍), represents precelestial spirit hidden within postcelestial fire (Li 離). Though Fire is generated by Wood, it paradoxically nurtures its source via the alchemical principle “the child harbors the mother” (子藏母胎), allowing the dragon to manifest from flames. Conversely, the tiger (虎), embodying Metal’s Yin essence (金虎), signifies precelestial essence latent within postcelestial water (Kan 坎). Water, born of Metal, inversely regenerates its origin through “the mother concealed in the child” (母隱子宮), causing the tiger to ascend from aquatic depths. This mirrors the kan-li (坎離) inversion central to refining the elixir, where opposing trigrams catalyze the return to primordial unity.

- 10 The Kun hexagram consists entirely of Yin lines. In the Fu hexagram 復, a single Yang line is born 一陽爻生, and by the time of
the Guai hexagram 夬, Yang energy has filled five lines 陽氣已滿五爻.
- 11 “Cè” (策) refers to milfoil stalks, i.e., divining rods or counting chips. In *Yijing* divination, the Qian hexagram uses 216 stalks,
and the Kun hexagram uses 144 stalks. Together, Qian and Kun account for 360 stalks—exactly corresponding to the number of
days in a year.
- 12 The Qian hexagram consists entirely of Yang lines. In the Gou hexagram 姤, a single Yin line begins to recede 始退一陰爻, and
by the time of the Bo hexagram 剝, Yin energy has filled five lines 陰氣已滿五爻.
- 13 This diagram can also be correlated with the human body’s system of essence (精), qi (氣), and spirit (神). It uses these
to symbolize trigrams, Five Phases (五行), *Hetu* numerology (河圖數字), and names of external alchemical agents, among
others. The various metaphorical systems are translatable into one another, but they all ultimately emphasize the notion of
“nonaction” (無為) at this stage.
- 14 Regarding the “true spirit” (真神), the metaphor of “playing with the golden pellet” (弄丸子) describes it thus: “It is like a pure,
numinous nature that appears within the human body, like a lotus rising from water unstained by dust.” The true spirit arises
from the cognitive spirit (識神), like a lotus flower emerging clean from the water. Unlike the cognitive spirit, which is easily
scattered, the true spirit “stands independent and unchanging, upright and unbiased” (Cheng [1611] 1717, Soil Volume, folio
22).
- 15 Many other alchemical texts also contain diagrams, but these are generally auxiliary and have not been developed into the
primary medium of exposition.

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