

A Narrative Study of Architectural Construction From the Perspective of Ancient Geomancy Science

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ABSTRACT

Over thousands of years of time and space evolution, the ancient building construction theory/technology based on geomancy science has not only shaped the linear multiplication of ideas/knowledge in textual space, but also linked the multi-level three-dimensional logic relationship hidden behind the real space and spatial metaphor, including architectural narrative, phenomenon knowledge, history and culture, physical consciousness, and construction power, becoming a reference system and symbolic metaphor in-kind construction system having both function and signifying. Its architectural narrative theory system is divided into four dimensions: "Qi", "Yi", "Li" and "Shu (data)", and constructs the construction order of two dimensions: Yi-image and buildings, and "Yi-data" and buildings, forming the series of construction narrative having symbolic connotations in fields, landscapes and spaces in the history of ancient Chinese architecture.

Keywords: *geomancy science, narrative, architecture, space*

I. INTRODUCTION

As one of the five methods applied under the guidance of "The Book of Changes" in the ancient "Axial Age" of China, geomancy science is also known as geography, Qingniao method, Qingwu method, and Qingnang method, and commonly known as Feng Shui. It is a divination method used for measuring and judging fortune and misfortune, benefit and harm, according to the geography and environment of a house and tomb under the guidance of thoughts such as yin and yang, eight-diagram tactics, harmony between man and nature, inhibition generation in five elements and theory of Qi in "The Book of Changes"¹. This is theory/technology practically used in ancient architectural construction. Over thousands of years of time and space evolution, it not only shapes the linear multiplication of ideas/knowledge in textual space, but also links the multi-level three-dimensional (including architectural narrative, phenomenon knowledge, history and culture, physical consciousness, and construction power) logic relationship hidden behind the real space

and spatial metaphor, becoming a reference system and symbolic metaphor system having both function and signifying. "The Book of Changes", as the core of the ideology of geomancy science, contains two parts: Jing and Zhuan. 64 divines and 384 spans constitute Yi Jing. Later, Yi Jing was used as the basis for the annotation and interpretation. There are 7 categories and 10 articles, commonly known as the "Shi Yi (十翼, namely Yi Zhuan)". Jing is divided into part A and part B, composing 64 divines. Each divine is composed of divinatory symbol, divinatory name, hexagram-records, and line-records. "Zhuan" is the annotation of "Jing" and gives a detailed and profound explanation on the generation of "Jing" and the method of divination by divines. "The Book of Changes" has a close relationship with geomancy science, so some terms in Yi-ology are often borrowed by geomancer as terms in studying the Feng Shui of a house². Hence, the main architectural narrative dimensions of geomancy science theory system are constituted, namely "Qi", "Yi", "Li" and "Xiang".

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¹ Chen Juyuan. Jiao Xun [M]. Xi'an: Shaanxi Normal University Press, 2017: 82.

² Zhang Wei, Zheng Zhidong, Zheng Xiangnan. History of Imperial Garden in the Ming Dynasty [M]. Beijing: The Forbidden City Press, 2015: 729.

II. THE NARRATIVE OF "DESTINY" EMBODIED IN A BUILDING IN THE ECOLOGICAL ENVIRONMENT

"Qi", the theory of Qi in geomancy science originated from the inference schemata in "The Book of Changes", "the original of the Book of Changes is Tai Chi (a chaos), then Tai Chi is divided into two poles (yin and yang), further divided into four images (gold, wood, water, fire), and then divided into eight diagrams"³. Yin and yang are two opposite and unified energies and the root of theory of Qi. The combination of yin and yang is vigor. Vigor is divided into yin and yang which are further divided into five elements (gold, wood, water, fire, earth); the five elements constitute all things⁴. Namely, all things in the world is composed of gold, wood, water, fire and earth. This is the simple materialistic world view in ancient China. The theory of Qi in geomancy science believes that the ideal architectural construction environment must have the following conditions: first, it has the function of "maintaining fresh air and collecting Qi". Its four-image pattern should be such that the architecture has backing mountain (Xuanwu) in the back, guarding mountains (blue dragon and white tiger) on two sides and water boundary (Zhuque) in front of it. The backing mountain (Xuanwu) is "the place collected with all good pneuma; the guarding mountains are used for shielding wind and protecting pneuma; water around it can prevent pneuma from dissipating, namely, the so-called "pneuma is scattered by the wind, and stopped at water boundary". Therefore, this place has the tendency of retaining pneuma. Second, it can generate pneuma from harmonious flow of yin and yang. As recorded in "The Book of Burial", "earth is the body of pneuma; where there is earth, there is pneuma" and "where there is pneuma, there is raised earth". Specifically, the architectural environment should have mountainous terrain, deep water, thick soil, plenty of sunshine, lush vegetation. Just as recorded in "Di Li Huo Wen Xu (地理或问叙)", "Mountain must open to sunshine to collect pneuma; water body must be zigzag to retain pneuma. Mountain must rise and fall to generate pneuma; water must have a reserving place to produce pneuma". Hence in geomancy science, looking for dragon vein, observing the position, looking for star peak, identifying water source, measuring the orientation and positioning the cave field are all for the purpose of gathering pneuma. Third, it complies with the theory of space-time "destiny" in the integration of architectural space. The theory of Qi held by the school regulating

vital energy, one of the two branches of geomancy science, believes that being surrounded by mountain and water is the macro geological condition for architectural construction, and the situation of mountain and water determines the vigor of Qi in architectural environment. With the running of the universe and the advancement of astronomical time, Qi and destiny will also change, producing the changes of four seasons, the 24 solar terms, constellations and the influence on human beings. Hence this school of theory get geomancy science and universal order integrated, forming the dynamic change model of residential buildings in the operation space of heaven and earth.

III. THE NARRATIVE OF YI-OLGY AS THE OCCASION DEMANDS IN ARCHITECTURAL CONSTRUCTION

Many terms in Yi-ology are used in geomancy science⁵. Yi becomes a key element in geomancy science based architectural construction. With the rise of prophetic Yi theory, geomancy science system derived five elements and directions, four images and aspect astrology and the image of nature and the image of architecture (architectural landscape) on the basis of Hetu Luoshu. Meanwhile, the geomancy science changing from being used for choosing a home to taking a look at a house or tomb is a Feng Shui method for looking at eight types of houses as produced on the basis of "The Book of Changes" (span changes of acquired eight diagrams). It includes the method of looking at eight types of houses (respectively four types in the east and the west) and five-tone house looking method⁶. Eight diagrams and five lines are used for construction and internal arrangement of architecture. The "exploration method" of geomancy science based building construction often consists of person, method and instrument. The so-called person is the geomancer; the so-called method is the specific operation method used in the exploration; the so-called instrument is compass, an important instrument used in geomantic omen⁷. Ancient geomancer studied Yi for lifelong time and must master the techniques of weather divining, astrology divining, appearance observing, vigor observing, fortune and misfortune divining by wind, and migration divining and the like that calculates destiny by "Yi". Under the guidance of the theory of "Yi", it also derives Hetu Sijv and Luoshu Sijv for measuring water, the "Luoshu grid positioning method" for determining the optimum vigor field position in a house, the Hetu Luoshu digital coloring method for

³ Zhang Wei, Zheng Zhidong, Zheng Xiangnan. History of Imperial Garden in the Ming Dynasty [M]. Beijing: The Forbidden City Press, 2015: 729.

⁴ Zhang Yaotian, Cui Ruikan. A Discussion on the Origin of Geomantic Omen Theory by Three Levels of "Qi", "Yi" and "Li" [J]. Journal of Changzhou University. 2012 (4): 8.

⁵ Cai Jie. A Brief History of Geomantic Omen in Ancient China [M]. Beijing: China Changan Press, 2015: 57.

⁶ Liu Yi. Geomantic Omen Methods [M]. Shanghai: Shanghai Academy of Social Sciences Press, 2018: 111.

⁷ Bian Li. History of Huizhou Culture [M]. Hefei: Anhui People's Publishing House, 2015: 129.

selecting color of building, and the like techniques relevant to architectural construction. The so-called geomantic omen "method", whether it is for "seeking the dragon vein, inspecting sand, observing the water, cave pointing, orientating", or "taking a looking at water, printing wood, rising fire, and breaking ground", its programmatic technological advancement is an empirical technical judgment generated taking Yi as the core. The so-called "instrument", compass, "carries many aspects of cultural information of China such as traditional astronomy, geography, environmental science, philosophy, Yi-ology, and architecture, and inherits the magnetic guide technology and related skills"⁸. It is more an important means for putting into practice the theory of geomancy science. The first type is the compass taking the three plates including heaven plate, earth plate and person plate based on 24 azimuths and the three pointers including "positive pointer", "middle pointer" and "suture pointer" as the basic framework; it includes many factors such as divinatory symbols, five lines and six Jia (六甲, the six combinations beginning with the first Heavenly Stem of the sixty combinations of the ten Heavenly Stem and the twelve Earthly Branches), heavenly stems and earthly branches, and 24 azimuths in Yi, as a whole constituting a quantitative indexing system of the time and space information of the architecture's environment and body; the second type is the compass used in practice of every step for rising vigor, positioning, siting, layout setting and construction to realize the way of "Yi" in building construction.

IV. THE NARRATIVE OF LI IN ARCHITECTURAL GEOMANTIC OMEN THEORY

Geomantic omen theory was born in the context of Chinese culture. The mainstream consciousness theory dominated by this unique culture is the concept of "Yin, Yang and the Five Elements". Driven by this concept and the mutual fusion with three-talent (heaven, earth and people) theory, the doctrine of the mean, the fatalism and the Confucian school of idealist philosophy of the Song and Ming dynasties, an important theoretical support oriented to architectural construction practice techniques, namely three principles abided by Fengshui theory: the harmony between heaven, earth and people, the balance between yin and yang, and the mutual promotion and restraint between the five elements⁹. In practical siting of a building, the "harmony between heaven, earth and people" principle reflected in the three-talent theory includes the principle of integrity, the principle of

adapting to local conditions, the principle of "near the mountain and by the river", the principle of observing terrains, the principle of geological inspection, and the principle of sitting north and facing the south, the principle of maintaining moderate balance, the principle of spatial security. Geomantic omen is to realize the harmony between individual and the universe to the maximum extent on the basis of life experience accumulated from astronomy, geography, hydrology and other natural knowledge and human history, by virtue of Hetu, Luoshu, Eight Diagrams, Five Elements and other Yi-ology system and in combination with a building's spatial layout, azimuth adjustment and custom taboo¹⁰. In terms of the principle of balance between yin and yang, the concept of "yin and yang" reflected in "The created universe carries the yin at its back and the yang in front" and "with mountain in the back and water in front" is the basic pattern points in siting of Chinese traditional building. In terms of looking for dragon vein and observing water, in ancient times, mountain belonged to "yang" and could hide wind and collect pneuma; water belonged to "yin" and could nourish all things; a building maintaining balance between yin and yang complies with the law of nature. In actual construction, ancient buildings are distinguished by the theory of "yin and yang": large and high building is superior and small and low building is inferior; in direction, the south is yang, the north is yin, yang is superior and yin is inferior. Hence, most ancient Chinese buildings are sitting north and facing the south, abide by the principle of "superior in the left and inferior in the right; maintaining yang in front and yin in the back"; buildings located in yang position should be arranged in odd number and those in yin position should be arranged in even number. In terms of the mutual promotion and restraint between the five elements, in the system of geomancy science, all things in the world system can correspond to the five elements. The colors corresponding to the five elements are the five colors, namely green, red, yellow, white and black. Hence in ancient times, many imperial buildings and common residences adopted the five colors to decorate the building. In the architectural shape, the five elements in the geomancy science system are described as follows: "the high and rectangular thing is wood; the short and square thing is earth; the spherical and sharp and angular thing is gold; the tall and pointed thing is fire; the round thing is water"¹¹. So when building an overall landscape community, ancient Chinese architecture paid great attention to the theory of the applying the techniques of the five elements of building shape.

⁸ Zhou Jing, Li Tian. *Traditional dwellings and vernacular architectures* [M]. Xi'an: Xi'an Jiaotong University Press, 2013: 46.

⁹ Zhang Yaotian, Cui Ruikan. A Discussion on the Origin of Geomantic Omen Theory by Three Levels of "Qi", "Yi" and "Li" [J]. *Journal of Changzhou University*. 2012 (4): 8.

¹⁰ Wang Bingzhong, Song Baoquan. *Feng Shui Planning Guide for Feng Shui Real Estate in Buildings* [M]. Beijing: Culture and Art Publishing House, 2006: 205.

¹¹ Engels. *Dialectics of Nature* [M]. Beijing: People's Publishing House, 1977: 4.

V. THE NARRATIVE OF "DATA" THEORY CONFORMING TO DESTINY IN PRACTICAL ARCHITECTURAL GEOMANTIC OMEN

Geomancy science uses "data" as the technique to construct a correlation model and operation rules of all things. "Data" is regarded as an information medium that symbolizes the order and laws of the universe. This "dialectical auxiliary tool and expression"¹² is fully introduced in geomancy science system and becomes an important theoretical practice and principle to solve the problem and environment and human's house and tomb in the principle of "applying Tai Chi's yin and yang, eight diagrams and five elements, heavenly stems and earthly branches, five elements' motion and six kinds of natural factors, Hetu and Luoshu" and in combination with certain special phenomena of nature and human society¹³. The theoretical concepts in geomancy science system contain a wealth of "mathematics" knowledge. The three elements of heaven, earth and people, the four images, the five elements, the eight diagrams, the nine stars, the twelve heavenly stems and earthly branches, the twenty-four solar terms and the like all use "mathematics" as the medium to establish the evaluation system in the process of building construction. The mathematical and physical design incorporated into the geomancy science system is used in architectural construction, which fully applies the principles of symbolic aesthetics. The symbolic shape and physical perspective representation of data is used in natural environment planning and architectural entity design, which implies the "golden rate" of the "order of man and the universe", and the ideological harmony between the natural environment, human (body), and architecture. For example, the Temple of Heaven and the Temple of Earth's mathematical shape fitting between square and circle ducts, the application of footages of yin and yang in architectural planning, construction and decoration, the time-space meaning of the Altar of Land and Grain with five orientations and five colors and the horoscope orientations of folk house all demonstrate the mysterious nature of "mathematics" in geomantic omen. Yu Xixian believes that "every knowledge that can establish mathematical model must be scientific. Divination itself is a very strict mathematical model"¹⁴. The simulation form used by this mathematical model is also reflected in the geomancy science system and can be comprehensively used in building construction.

¹² Chen Ke. Chinese stream of thought "listen to both sides and choose the middle course" and "Out of Three, the created universe" [M]. Beijing: Shanghai University Press, 2015: 233.

¹³ Zhang Zhichun. Mysterious door: unfolding the mystery of the art of becoming invisible [M]. Urumqi: Xinjiang People's Publishing House, 2004: 34.

¹⁴ Zhang Zhichun. Mysterious door: unfolding the mystery of the art of becoming invisible [M]. Urumqi: Xinjiang People's Publishing House, 2004: 34.

The congenital eight-diagram mathematical model is a three-dimensional dynamic model that simulates human beings living on the earth and establishing relations with objective external natural movement laws. The acquired eight diagrams derived from Luoshu nine-grid pattern is the objective living environment and all things of Chinese people positioned and simulated from any aspects such as astronomy, calendar calculation, geography, time, and space based on mathematical models. In addition, the "64-span Najia model, Taiyi model, Qimen model, Liuren model, four-column model, geomantic compass model and so on"¹⁵ are all in the form of "numerical" models, becoming important evidence and assistance in geomantic omen measuring of a building. Moreover, the combination of geomantic omen mathematical logic and Confucian ethical order, and its application in building construction makes it playing a symbolic role in restraining and regulating social order like the "Ritual" system. For example, the "modular system" of geomantic omen emphasized in "Building Method (Yingzao Fashi, 营造法式)" is essentially the secondary solidification and regularization of the "ritual" order in the micro-architectural space and the building itself. The so-called modulus is the technical standards for building construction set in accordance with the ritual system; for example, palace, temple, the minor palace should be of three feet, main palace, temple and tomb should be of five feet, and some super-large palaces should be of ten feet. This reflects that architecture as a geomantic omen mathematical system and spatial product having the "generation" feature of life transcends the original meaning of the building and becomes a cultural rule and normative landscape in aspect of humanity in social order and communication due to "mathematical model".

VI. CONCLUSION

Over thousands of years of time and space evolution, the ancient building construction theory/technology based on geomancy science has not only shaped the linear multiplication of ideas/knowledge in textual space, but also linked the multi-level three-dimensional logic relationship hidden behind the real space and spatial metaphor, including architectural narrative, phenomenon knowledge, history and culture, physical consciousness, and construction power, becoming a reference system and symbolic metaphor in-kind construction system having both function and signifying. Its architectural narrative theory system is divided into four dimensions: "Qi", "Yi", "Li" and "Shu", and constructs the construction order of two dimensions: Yi-image and buildings, and

¹⁵ Wang Jinyan. Time-space Dimension Planning Series: Spatial Planning System and Spatial Governance [M]. Nanjing: Southeast University Press, 2017: 131.

"Yi-data" and buildings, forming the series of construction narrative having symbolic connotations in fields, landscapes and spaces in the history of ancient Chinese architecture.

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