ECCOLOGICAL OUTLOOK IN CHINESE CLASSICAL DESIGN: FROM "UNION OF HEAVEN AND MAN" TO "FOLLOWING NATURAL RULES OF HEAVEN"

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Abstract

Originating from human thinking on the relation between man and nature, the ecological design outlook is a new concept that arose in recent years with great significance for the sustainable development of design. In fact, the same concept has always been running through Chinese classical design notions. From the ages when the principle that "in compliance with the rules under heaven, things are created for human use" dominated design notions, to the rise and prevalence of the later principle of "following natural rules of heaven", ancient Chinese had always dealt prudently with the relations among human, nature and zao wu (creation), which benefits the contemporary ecological design.

The ecological outlook is a new design concept, or a new design method or orientation that arose in recent years in design circles, which is of great importance in a sustainable course for the development of modern design. In essence, the ecological design outlook calls for harmony between man and nature. It insists that no design development should be achieved at the cost of the natural environment, and that design can be utilized as a method to better protect nature and develop the economy. Such a notion can be regarded as a product of lessons and experience gained from the witness of how the damaged natural environment threatens to choke the sustainable development of nature, the economy and society.

The notion of ecological design originates from human thinking on the relation between man and nature. Throughout the long history before the industrial age of modern machineries, the relationship between man and nature had always been a major issue in man’s life and creation. Because of the limited capability to change nature, the relation between man and nature had been generally in harmony and under control, whereas there is a lot of experience that should be carefully studied and used by people nowadays. Take China as an example. Chinese classical design was developed during a history of thousands of years with the tradition and notions of worshipping and respecting, befriending and learning from nature. The experience and underlying philosophy is worthy of study.

1. "Dominative Positions of Heaven and Earth": "In Compliance with the Rules under Heaven, Things are Created for Human Use"

Chinese people have worshiped heaven and earth, i.e. nature, since ancient times. The Book of Changes is one of the earliest Chinese classics, which records and reflects the understanding of and the respect for nature by ancient Chinese. The Book of Changes sets the trigrams on the basis of Qian and Kun (heaven and earth), the most important elements that govern all other things. The existence of natural orders is confirmed and given respect at the very beginning of the Book of Changes. From the expression of "dominative positions of heaven and earth" [1], as mentioned in the Treatise of Remarks, it can be understood that, rather than the other way around, it is nature that determines the human creation, that "with heaven and earth, all other things then came into being" [2] (The Orderly Sequence of Hexagrams). Nothing can exist without respect to nature or the basis of nature; there is no exception to human creations and designs, either. Even the abstract symbol of ba gua (eight trigrams) also came from the process of mimicking and learning from natural phenomena. It is mentioned in the Book of Changes: The Great Treatise states that:

"In ancient time, when Baoxi had come to rule all creations under heaven, looking up, he studied the patterns in the sky, and looking down, he surveyed the forms of the earth. He contemplated the ornamental appearances of the birds and beasts, and considered the different growths in the soil. From near at hand and in his own person, and from far at a distance and in everything of the universe, he created ba gua, to show the attributes of the spirit-like and intelligent operations that worked secretly, and to classify the qualities of the myriads of things" [3].

The paragraph above from the Great Treatise clarifies the origin of ba gua. It did not come from divination practice. Instead, it was created by Baoxi from natural and cultural phenomena in an abstract manner. That is, it is nature that gave birth to ba gua, which in turn reflects everything else of the universe.

As known to all, design is a kind of human activity, which first relates to nature and then changes and makes use of nature, and may cause damage to nature in the process. In order to avoid damages caused to nature, the Book of Changes proposes the idea that design and creation should be conducted with respect to both nature and natural rules. This is the so-called "in compliance with the rules under heaven, things are created for human use" [4]. In the Book of Changes, all human creations and designs are referred to as "things created", which can be understood as creation and design of products, while "for human use" means the "things created" can be and must be used by human in productive ways according to the rules (i.e. "in compliance with the rules under heaven"). There are two kinds of rules that should be observed: one is the natural rules, and the other is the cultural rules. To observe natural rules is to act at the right time and the right place in accordance with natural rules. Design is a human activity, a product of human life and human desire, behind which are the cultural rules.

The Rites of Zhou: Department of Winter: Book of Diverse Craft, is one of the most ancient Chinese classics on creation and design. According to this book, almost all creative and designing activities should be conducted in compliance with natural rules. For example, in the Book of Diverse Craft: Bow Crafter, it is mentioned that, "horns are to be boiled in spring, sinews are to be prepared in summer, the components are to be combined together in autumn and the wooden structures are to be built in winter" [5], and "all three kinds of materials are to be readied in their seasons" [6]. It is determined by production conditions that creative activities must be conducted to accommodate natural seasons, i.e. natural rules. Otherwise, "the product will not be satisfying, if materials are fine, skills are supreme but the time is wrong" [7] (the Book of Diverse Craft). For the same reason, the Book of Rites finds "Order of Qi" to be the first and foremost rule which governs all crafting activities. In the ancient time, creative and designing activities were conducted under limitations imposed by nature. Each material had its own origin, and can only be used under different conditions, including weather conditions and other requirements. Therefore, it is a basic and inherent request of creative and designing activities that natural orders and natural rules be observed and followed. For example, handicraftsmen usually commence their jobs in the fifth month of the lunar calendar: "In this

doi:10.1162/LEON_a_00735 ©2014 ISAST

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month, orders are given by the Craft Masters, to charge the handicraftsmen from every department to check the materials stored in all five warehouses for any shortages and inferiors: copper, iron, skins, hides, sinews, horns, ivories, feathers, arrows, wood bodies of bows, grease, glue, cinnabar and varnish. Then, the handicraftsmen shall set about doing their task under the daily inspections and directions by the Craft Masters. All must be in compliance with time schedules" [8]. When "check(ing) the materials stored in all five warehouses" [9], the "handicraftsmen should classify them by their shapes and difference degrees of curvature" so as to select proper ones for production. In interpreting "in compliance with time schedule", Kong Yingda said, "All those produced by the handicraftsmen should accord with the order of Qi. Nothing can hold strong if its production is in conflict with the timing requirements" [10]. The handicraftsmen should finish their tasks in the month of Beginning of Winter (the 19th Solar Term): "In this month, Craft Masters are given orders to examine the products" [11] when "all jobs are completed as the handicraftsmen finish their tasks on the Frost’s Descent (the 18th Solar Term)" (Order of Months) [12]. It is thus clear that, from commencement to completion, the handicraftsmen conducted their annual tasks in accordance with timing and solar terms. Their compliance reflected how ancient society respected nature’s rules as well as their views on nature.

2."Union of Heaven and Man" and "Following Natural Rules of Heaven"

"Union of heaven and man" is the fundamental rule adopted by ancient Chinese to deal with man and nature. This rule mainly came from Confucianism. But Chuang Tzu went a step further in thinking and creation and put forward the idea of "following natural rules of heaven".

There is an item of "Ziqing made Ju [a kind of musical instrument] out of wood" in The Full Understanding of Life of Chuang Tzu.

Ziqing made ju out of wood. The work was so extraordinarily completed that those who saw it thought it was done by spirits. Seeing it, Duke Lu asked him: "what special technique did you use to make the ju?" He answered: "I am only a craftsman. How can I have any special technique? However, I have my own experience. Before I made the ju, never did dare to divert my attention. I will surely fast and practice meditation. When I fasted for three days, I freed myself from the thought of getting any reward, position or fortune; for five days, I removed the thought of others’ ideas on my work; for seven days, I was in anatta, and I forget that I still have arms and legs. And at that moment, I had no idea of presenting myself in the royal court or getting any praise, reward or punishment; then I got into the forest, observed the nature of wood; with a well-thought-out form, I began to make ju. Or else, I will not make ju. Following natural rules of heaven is the reason why the ju is regarded as the work of spirit. This is the origin of the ju!" [14].

These words first describe the whole process of producing ju, from the craftsman’s fast and meditation to material selection, where fast and meditation were critical phases to free himself from utility, cleverness and get into the state of anatta. Only after that did he get into the forest and observe the nature of wood. Only after freeing oneself from utility, cleverness and even the ego can man return to the “natural” and plain state, become a “natural” man without sociality and dialogue with nature to “observe nature”. A man with fame, fortune and cleverness can not truly have dialogues with nature, i.e. integrate with nature and heaven. "Following natural rules of heaven" is “following the naturalness of nature”. Naturalness refers to the state of man and the "object" unaffected by man. Only the pure state, i.e. "the pure naturalness", can be integrated with "heaven". "Heaven" refers to rules or Tao.

This is symbolic description. Chuang Tzu’s ideal pursuit of the understanding of heaven and man as well as following natural rules of heaven is fully expressed through the narrative of Ziqing’s production of "Ju", which compresses Chuang Tzu’s ideas on creation and design and thus is the epitome of Chuang Tzu’s thought.

In understanding the above argument of Chuang Tzu, we first come across two questions: “what is heaven?” and “what is man?” The exact answer can be found in the dialogue between Hebo and Bei Hairuo in Autumn Floods: "It is heaven that endows animals with four legs, while it is man that bridles a horse and pierce its nose" [15]. Therefore, do not violate the natural rules for personal wills, do not change the mandate of heaven for unruliness, do not lose reputation for gain, do not cross ethical lines, or do not abandon moral integrity. Only by doing so can one return to nature. "It is obvious that heaven is nature and naturalness, and "man" refers to “manpower”, or “artificial”, “man-made” by Han Feituz. Man is opposite to nature, and tends to hurt passive nature in an active manner. Chuang Tzu advocates “do not violate the natural rules for personal wills, do not change the mandate of heaven for unruliness, do not lose reputation for gain, do not cross ethical lines, or do not abandon moral integrity in order to return to the natural state of man”. However, in this world, few do know what heaven does and what man does. Those who really get the truth are “true men”. “A true man” is special for he is not greedy, feeling great, or scheming, and he is not afraid of heights, the depth of water or the heat of fire. Especially, “he will not harm nature with intentions or being over-enthusiastic” ([Great Master). Only in doing so can man “forget everything around him, and stay indifferent and relaxed...his emotions change as the course of the year, suitable to all creatures, but no one can reach the truth of his spirit” [16].

For the isolation between man and heaven, Chuang Tzu believes that “man is born with heaven and earth, and all creatures and man are equally the same” (On the Equality of all Creatures) [17]. Therefore, he advocates “reification”, i.e. “anatta” and fusion with all creatures, and “man becoming an integral part of nature” (The Full Understanding of Life) [18]. According to Chuang Tzu’s idea, there are two methods and states: “mental regulation” by “everyday cultivation”, which helps one to reach the real of “sitting oblivion”; the so-called “mental regulation” can be explained in Confucius’ words “If you are concentrated, you do not listen with your ears, but your heart, and get a step forward, you do not listen with your heart but Qi! The listening function of ears are lost, nor does the heart. The essence of Qi is void for the acceptance of other matters. Only by integration of Tao and Qi of the great void, the mental regulation is achieved” (Worldly Life) [19]. Here, Chuang Tzu pursued a state of void to accept, to hold and to integrate with everything. In "Ziqing made ju out of wood", Ziqing “fast and meditation” before getting into the forest, which is regarded as “cultivation when needed”. It is difficult for workers, like craftsman, to maintain “everyday cultivation”. In order to produce excellent objects, “mental regulation” is demanded to reach the state of “sitting oblivion”, i.e. the realm of self-
lessness and anatta. But “sitting oblivion” is not the ultimate end of “mental regulation”. The real end is the integration of man and nature, i.e. “the integration of man and heaven”.

As for design, Chuang Tzu put forward “following natural rules of heaven” in “Ziqing made ju out of wood”. It is a new proposition, which on one hand reflects his philosophy, outlook on life and view of nature, and on the other hand embodies Chinese classical design ideal and principles. It demonstrates the most essential, simplest and loftiest spiritual pursuit of ancient Chinese design—a higher reality based on “union of heaven and man” and beyond “union of heaven and man”. This fundamental idea that governed ancient Chinese design and creation profoundly reflects ancient Chinese respect for nature. They worshiped nature, and regarded nature as the One that governs everything, including man and man’s creations. Historically speaking, “following natural rules of heaven” was original with Chuang Tsu, but a mirror of the historical moods of the whole nation. For example, the Book of Changes regards heaven and earth as the governor of everything. However, Chuang Tsu fully, profoundly and collectively expresses and interprets the great reverence of ancient Chinese for nature as well as the major essence of historical facts and design ideas of ancient Chinese design.

Fundamentally speaking, design and creation are human activities, opposite to or different from “nature”. Compared with the naturalness and plainness of nature, “human activities” and “man-made” are cutting and polishing, which occupied a special position in ancient Chinese design. But “cutting and polishing return to nature” (The tree on Mountain) [20]. Ancient Chinese design acknowledged the necessity and importance of cutting and polishing, but they were not the ultimate end or the highest pursuit, which was in fact “returning to nature”. The greatness of this design idea summarized and preserved in Chuang Tzu not only lies in that “cutting and polishing” are “man-made” activities, but also the returning of human affairs back to nature. And “cutting and polishing return to nature” (Becoming Emperor) [21], by a different way, which reaches the same objective with “following natural rules of heaven”.

We hereby can reorganize Chuang Tzu’s definition mentioned above into the following narrative structure:

1. The design idea of “following natural rules of heaven” is based on ancient Chinese views of the world and nature.
2. Men are isolated from nature, when more creations are increasingly produced, arising therefrom, Chuang Tzu’s questions: “what is heaven and what is man?”
3. As for his achievement on personality, Chuang Tzu has put forward the idea of “true man”, whose differences from normal men lies in his quality or idea that “heaven differs from but agrees with man” (Great Master), who does “not hurt anything”, and who has wisdom but never abuses it. He is a model of normal people.
4. In terms of methodology, Chuang Tzu came up with “mental regulation”. “You should preserve your inherent qualities and pure mental state, integrate your physical condition and vitality into quietness, and follow the natural course without any selfish motives” (Becoming Emperor). From mental regulation, selflessness and anatta are achieved so that man and object and heaven are fused into one.
5. By teleology, it reaches the realm of being one of “following natural rules of heaven”.

The views of nature and creation of “following natural rules of heaven” in the analysis and description of creation and design are extremely profound and individual. As the core of Chuang Tzu’s philosophical ideas, they also represent the mainstream view of nature and ecological outlook of Chinese classical design. "Following natural rules of heaven" is more profound and transcendent, compared with Confucian "union of heaven and man". Confucius said: “heaven has emotions and interacts with man”. In this way, man and heaven become one” (Tung Chungshu Yin Yang Yi of Spring and Autumn Fanlu) [22]. Li Zehou regards the aim of the Confucian outlook of “union of heaven and man” as “humanized nature” [23], which confirms the role of “man’s action” and “human affairs”, and believing that only the combination of the two can “live” and produce “good” results”. Hsun Tzu and Han Feitzu emphasized “naturalness is beauty”. Only being natural and with the combination of “heaven” and man can good results be brought out. Chuang Tzu’s “following natural rules of heaven” aims to "naturalize man". As what Li Zehou points out, “the former emphasizes that a man can become a man when his nature conforms to and is penetrated with sociality, while the later insists that man should abandon his sociability so that he can be a true man after his nature is not contaminated and integrates with the universe” [24]. Therefore, Chuang Tzu’s thought is more distinctive and profound.

Chinese classical design and creation advocate the view of nature and ecological outlook with “union of heaven and man” and "following natural rules of heaven" running through. There are many more contents but this article only gives a touch of them for a systematic overview and interpretation in the future.

**References and Notes**

* This article is based on a paper presented at the 3rd Art and Science International Exhibition and Symposium, 1–3 November 2012, Tsinghua University, Beijing, P.R.C.


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