AN INTRODUCTORY STUDY OF THE COSMOLOGICAL INFLUENCES ON THE ENVIRONMENTAL SETTLEMENT IN TRADITIONAL CHINA

Thesis for the Degree of M. U. P.

MICHIGAN STATE UNIVERSITY
DAVID CHENG - CHI SHIH

1970

ABSTRACT

AN INTRODUCTORY STUDY OF THE
COSMOLOGICAL INFLUENCES ON THE
ENVIRONMENTAL SETTLEMENT
IN TRADITIONAL CHINA

by David Cheng-chi Shih

A major problem of modern society has been a disassociation of men and nature. As a result of technological development and man's desire to conquer nature, the unbalanced ecological process has greatly threatened the survival of the human being and his quality of living. Hostility to nature is the root of our personal anxiety and loneliness.

In an age of machines, the city is beyond the human scale and has lost its symbolic meanings. While man is an "animal symbolicum," he is constantly in search of himself and the relationships between himself and the outside world. Disharmony between the inside world and the outside world is often a cause of frustration and, consequently, the brutality and crime in the urban scene.

In observation of the above, this study attempts to demonstrate the importance of unity of man and nature, and the symbolic meanings of form by exploration into the cosmology of traditional China. In general, while

the human mind is impressed with the image of cosmos, cosmology is a reflection of man's inner feelings. The image of cosmos models human actions - reflected in man's building of his city as a microcosm. The city space created is the symbolic expression of human feeling. Hence, forms are made to meet man's psychological needs.

Man does not live by bread alone. This ideal state of man's living conditions depends largely upon the fulfillment of his psychological needs and his harmony between the inner world and the outside world, as well as of his physiological needs. To serve this purpose, provision of meaningful urban form harmonious with the natural process is essential.

From study of the system of feng-shui (geomancy), it is noted that man and nature are in perfect harmony with each other. The thesis is that no man is fit to control nature unless he feels himself to be a part of it, fully aware that seemingly individual things, including himself, are in fact inseparably related to events.

AN INTRODUCTORY STUDY OF THE COSMOLOGICAL INFLUENCES ON THE ENVIRONMENTAL SETTLEMENT IN TRADITIONAL CHINA

by

David Cheng-chi Shih

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF URBAN PLANNING

School of Urban Planning
and Landscape Architecture

1970

ACKNOWLEDGMENTS

To the School of Urban Planning and Landscape Architecture of Michigan State University, I am grateful for the opportunity to learn from outstanding teachers. In particular, I would like to thank Professor Sanford Farness for his thoughtful criticisms and suggestions in preparation of this thesis.

My special acknowledgment to Professor Charles Barr, who directed, counselled and encouraged me deliberately during the years I studied at Michigan State University.

I also thank Professor Chang Sen-tou of the Department of Geography, University of Hawaii, for his valuable help in researching the sources of this study.

I wish to express my deep appreciation to my friends, Mrs. B-J Diamond and Mr. Kirk Hampton for their efforts in editing and proofreading this work. Also, I thank Miss Marla Martin for her help in typing this thesis.

Above all, I wish to thank my father for his everlasting encouragement during the time I studied in a foreign land. The necessary Chinese literature he delivered to me from Taipei, Taiwan, have been invaluable for the completion of this thesis.

TABLE OF CONTENTS

L I S T O F F I G U R E S

INTRODUCTION

PURPOSE

The purpose of this study is to examine the Chinese cosmological influence on the environmental settlements in traditional China. It attempts to demonstrate (1) the role of cosmology in determining the spatial form -- e.g., how the physical environment is associated with symbolic meanings; and (2) the attitude of the traditional Chinese people toward the universe -- e.g., how the Chinese view nature and live in harmony with it.

Selection of this topic as a field of study was motivated by the following factors:

A. Quest for the Human Nature

The cliché -- "planning is for people" -- really means that the major concern of planning is man himself. Understanding human nature is a prerequisite to sound, meaningful planning. In order to find the true nature, or essence, of man, we must first remove from his being all external and incidental traits. The human animal is endowed with consciousness, sense-perception, feeling, memory, imagination, and experience. "All that befalls man from without is null and void. His essence does not depend on external circumstances; it depends exclusively on the value he gives to himself."[1]

> In search for the nature of human beings, man has been declared "to be that creature who is constantly in search of himself - a creature who in every moment of his existence must examine and scrutinize the conditions of his existence."[2]

He is constantly seeking the relationships between himself and the outside world. He is always trying to identify his position in the universe. "He who lives in harmony with his ownself, his demon, lives in harmony with the universe; for both the universal order and the personal order are nothing but different expressions and manifestations of a common underlying principle."[3] Therefore, in order to understand the order of human things we must begin with a study of the cosmic order.[4]

B. Promotion of the Cultural Exchange

In Western culture cosmological influences on city form -- or the importance of symbolic meanings of form -- have been studied, particularly in this century, by Mircea Eliade, Earnest Cassirer, C. G. Jung, and others. However, it appears that the significance of the symbolic expression of city form has not been fully recognized by contemporary planners. The cosmological influences on the environmental settlement in traditional China is a field of

study rarely touched upon by either Western or Chinese scholars. A complete study in this field actually does not exist. It is the intent of the author, using his background as a native of China, (1) to introduce to Western culture some of the factors significant in determining the physical environment in China; and (2) to give new meaning to the Chinese city and building forms by applying modern theories developed in the Western world, such as C. G. Jung's theories of psychoanalysis. By bringing the West and the East together in this way, it is hoped that cultural barriers to mutual understanding will begin to crumble. Human nature is, in the final analysis, universal. Thus, it is also hoped that this study will serve as a mirror for both West and East, to reflect something meaningful.

HYPOTHESIS

There is a relationship between cosmology and the physical environment. The establishment of this relationship is based on the hypothesis that the image of man's outside world is, to a certain extent, a projection of his inner world. As will be reflected in this study, cosmology consists largely of man's psychic contents. It has been observed that "both our behaviour and the things we use 'express' something about ourselves."[5]

As in the plastic arts, the physical forms created by man are expressive of his feeling through an "architecture process."[6] The created space itself is a projected image and "something purely imaginary or conceptual translated into visual impressions."[7] Examples have been given by Susanne Langer in Feeling and Form:

> "Through the organism of his forms, he (the sculptor) creates a 'restricted space' as a symbol of the universe." (p. 91)
>
> "Architecture is the firm manifestation of man creating his own universe, creating it in the image of nature." (p. 97)

Meaningful man-made forms are, in essence, expressive of the form-maker's inner feelings, and in many instances, of his image of nature. In recognition of man's "symbolic reference in perceptive expression,"[8] Cassirer has defined man as an animal symbolicum,[9] a point of departure for exploration of the nature of man.

SCOPE

As the title reveals, this thesis serves only as an introductory study of the field concerned. It attempts to provide a general perspective of the cosmological influences on the physical environment of traditional China. The scope of the research will be limited to the following areas:

A. The Chinese conception of the universe as a

background for this study.

B. Philosophical interpretation of feng-shui (or, geomancy), which has had profound influence on the location and form of the cities, buildings, temples, and graves.

C. Cosmological influences on city forms, primarily in terms of the concept "heaven round and earth square," using two Chinese cities, Peking and Chang-an, as examples.

D. Cosmological influences on housing design in terms of the moral aspect of the universe, as conceived by the Chinese people.

LIMITATIONS

A. Urban Development in Modern China: The word "traditional" employed in this thesis is synonymous with "pre-industrial," denoting the long period of Chinese history before the immense impact of Western culture, beginning in the later part of the nineteenth century. Urban development and planning in modern China will not be covered.

B. Historical Development of Chinese Thought: As a result of the evolution of the cosmological concepts in Chinese history over a period of several thousand years, it is almost impossible to trace, in detail, the origin of each concept. Hence, it

lies beyond the scope of this study to explore the historical development of the concepts involved, such as the principle of yin and yang. To provide better understanding of some of the Chinese terms used in this thesis, the "Explanation of Terms" following the "Introduction" is offered as an aid to the reader.

C. Techniques Employed in the Practice of Feng-shui: In this study, feng-shui provides a philosophical background in terms of cosmology. The specific techniques of feng-shui will not be discussed, because they are quite involved and would require a professional geomancer to do justice to them. Also, this type of discussion is unnecessary for the purposes of this study.

D. Cities in the Southern China: The typical city form in China, as illustrated by Peking and Chang-an, is either square or rectangular. This is especially common in Northern China. Exceptions are found in Southern China, where the cities are largely irregular in shape, due to the "rugged terrain of the area as well as the relatively late date of urban development."[10] The cities of Nan-king and Hang-chow are good examples of the latter type. The irregular shape of the cities in the South are beyond the scope of this study.

CHINESE COSMOLOGY AND PHILOSOPHY

Chinese cosmology is interwoven with Chinese philosophy. They are in fact inseparable in the intellectual history of China. A brief review of the history of Chinese philosophy will reflect this fact.

Two major streams of philosophies permeated the Chinese mind for more than two thousand years. They are Confucianism and Taoism. Buddhism can be regarded as a third major stream of thought that has had dominant influence on the Chinese way of life. Since the complex religious systems of China are not the major concern in this study, they will not be discussed here.

Confucianism is the philosophy of ethics dealing with social organization and daily life. It emphasizes the social responsibilities of man, while Taoism emphasizes that which is natural and spontaneous in man. Chuang Tzu says that the Confucianists roam within the bounds of society, while the Taoists roam beyond it.

Despite the differences between these two schools, their basic concern is the same: human life. Both schools maintain that the highest achievement of a man is to be a sage and the highest achievement of a sage is to identify the individual with the universe.[11] Thus Confucianism and Taoism share the same concept of cosmology: the unity of man and universe.

The Chinese concept of cosmogony is based on a

dualism -- the principle of yin and yang, derived from the I Ching (the Book of Change). In his later years, Confucius delighted in the I Ching. He once said, "Give me a few more years like this, and I will come to a perfect knowledge of the I."[12] The influence of the I Ching on Lao Tzu is evident. His saying that "The ten thousand things carry the yin and embrace the yang, and through the blending of the material force (ch'i) they achieve harmony" (the Tao Te Ching) is just like the quotation from the I Ching. Thus, under the shadow of the I Ching, both the Confucianists and the Taoists shared a common view of cosmogony and of the relationship between man and universe. Also, it is striking that the cultural traditions reflected by the dominance of Confucianism and Taoism survived for several thousand years -- until very recent decades -- despite the numerous political changes of Chinese history.

DIFFERENT WAYS OF THINKING BETWEEN THE WESTERNERS AND THE TRADITIONAL CHINESE PEOPLE

Before discussing the Chinese conception of the universe, it would be helpful to relate some of the differences between Western and Chinese thought. It is the way of thinking that dictates the culture of a society.

Professor Northrop has said that there are two major types of concepts: those achieved by intuition and those achieved by postulation. "A concept by

intuition," he says, "is one which denotes, and the complete meaning of which is given by, something which is immediately apprehended. 'Blue' in the sense of the sensed color is a concept by intuition... A concept by postulation is one, the complete meaning of which is designated by the postulates of the deductive theory in which it occurs... 'Blue' in the sense of the number of a wavelength in electro-magnetic theory is a concept by postulation."[13]

Western knowledge tends to be formally and doctrinally expressed in logically developed scientific and philosophical treatise. On the other hand, the Chinese people look at things by immediate sense experience. They use bits of linguistic symbolism, largely denotative, and often purely idiographic in character, to point toward a component in the nature of things which only immediate experience and continued contemplation can convey. Philosophers such as Confucius and Lao Tzu were trying to designate something which is immediately apprehended. To use Professor Northrop's terms (in The Meeting of the East and West), there is an "immediately apprehended aesthetic continuum" between perception of the world and formulation of ideas.

It is this differentiation that sets Westerners and Easterners in two completely different worlds. While

the former shape their concepts by postulation, the latter shape theirs by intuition. While the Westerners gain knowledge by means of theoretical science, based on schemes of abstract concepts, the Easterners gain knowledge by immediate sense experience.

The origin of the concept of an "aesthetic continuum" is farming.[14] China is predominantly an agricultural country. The farmers have to deal with such things as the farm and crops -- all things which they immediately apprehend. And in their primitivity and innocence, they value what they thus immediately apprehend. It is no wonder that their philosophers likewise take the immediate apprehension of things as the starting point of their philosophy.

Footnotes:

[1]Earnest Cassirer, An Essay on Man (New Haven: The Yale University Press, 1944), p. 7.

[2]Ibid. pp. 5-6.

[3]Ibid. p. 7.

[4]Ibid. p. 6.

[5]Christian Norberg-Schulz, Intention in Architecture (Massachusetts: The M.I.T. Press, 1965), p. 63.

[6]Susanne K. Langer, Feeling and Form (New York: Charles Scribner's Sons, 1953), p. 72.

[7]Ibid. p. 93.

[8]Alfred North Whitehead, Symbolism, 6th impression (New York: MacMillan Co., 1959), p. 18.

[9]Cassirer, op. cit., p. 26.

[10]Chang Sen-dou, "Some Observations on the Morphology of Chinese Walled Cities," unpublished paper read in the 64th annual meeting of the Association of American Geography, 1969.

[11]Fung Yu-lan, A Short History of Chinese Philosophy, ed. by Derk Bodde (New York: The Free Press, 1948), p. 16.

[12]Analects. English translation adopted from Fung Yu-lan, A History of Chinese Philosophy, tr. by Derk Bodde (Princeton: Princeton University Press, 1952), Vol. 1, p. 44.

[13]F. S. C. Northrop, "The Complementary Emphasis of Eastern Intuition Philosophy and Western Scientific Philosophy," in Philosophy, East and West, ed. by C. A. Moore (Princeton: Princeton University Press, 1946), p. 187.

[14]Fung Yu-lan, A Short History of Chinese Philosophy, op. cit., p. 24.

EXPLANATION OF TERMS

Chang Tsai (1020-1077): An eminent Neo-Confucianist of the Sung dynasty. His fundamental idea was that the universe is one but its manifestations are many.

Ch'eng Hao (1032-1085): Also called Master Ming-tao. He and his brother Ch'eng Yi (also called Yi-ch'uan, 1033-1107) patterned Neo-Confucianism. Both brothers became outstanding philosophers of the Sung dynasty, reminding of the two brothers, Asanga (c.410-c.500) and Vasubandhu (c.420-c.520) in the history of Indian philosophy.

Ch'i: The cosmic or material force that produces all beings. It can also be interpreted as "subtle, incipient, activating force." Graham expresses the sense of the term most correctly in the phrases "inward spring of movement" and "incipient movement not yet visible outside."[1] In many cases, especially before the Neo-Confucian doctrine of li (principle) developed, ch'i denotes the psychophysiological power associated with blood and breath.

Chou Tun-yi (1017-1073): Generally called the pioneer of Neo-Confucianism. In two short treatises, the T'ai-chi-t'u Shuo (An Explanation of the Diagram of the Great Ultimate) and the T'ung-shu (Penetrating the I Ching), he laid the pattern of metaphysics for later Neo-Confucianism.

Chu Hsi (1130-1200): The greatest Neo-Confucianist, known as Chu Tzu[2] or Master Chu. No one has exercised greater influence on Chinese thought than Chu Tzu, except Confucius, Mencius, Lao Tzu, and Chuang Tzu. He was a philosopher of subtle argument, clear thinking, wise knowledge, and voluminous literary output. His Recorded Sayings alone amount to 140 chuan, or books. He synthesized Confucius' concept of jen (humanity, benevolence), Mencius' doctrine of humanity and righteousness, the yin-yang and the Five Elements doctrines of Han times, and practically all the important ideas of the Neo-Confucianists of early Sung. His most radical innovation was to select and group the Analects of Confucius, Book of Mencius, the Great Learning, and the Doctrine of the Mean (both of which are chapters of the Li Chi or Book of Rites, compiled in the Han dynasty) as the Four Books. He then wrote commentaries on them, interpreted them in a new light, and made them the foundation of his social and ethical philosophy. From 1313 to 1905 the Four Books were the basis of the civil service examinations. As a result, they have exercised far greater influence on Chinese life and thought in the last six hundred years than any other classics. Through his interpretations of the Four Books, Chu Hsi made Neo-Confucianism truly Confucian, stripped of the Buddhist

and Taoist influence which had been conspicuous in previous Neo-Confucianists.

Chuang Chou (c.369-c.286): Better known as Chuang Tzu, perhaps the greatest of the early Taoists. He is famous for his concept of Nature. To him, Nature was not only spontaneity but was also in a state of constant flux and incessant transformation. This is the universal process that binds all things into one, equalizing all things and all opinions. The pure man makes this oneness his eternal abode, in which he becomes a "companion" of Nature and does not attempt to interfere with it by imposing the ways of man on it. His goal is absolute spiritual emancipation and peace, to be achieved through knowledge of the capacity and limitations of one's own nature, nourishing it, and adapting it to the universal process of transformation. His works were compiled and entitled Chuang Tzu. He and Mencius were contemporaries, but evidently neither was aware of the other, in all likelihood because of geographical separation.

Confucius (551-479 B.C.): Confucius is the latinized name of the person known in China as K'ung Tzu. His family name was K'ung and his personal name Ch'iu. He is the greatest philosopher and educator in Chinese history. His influence on Chinese thought was so far-reaching as to justify the title often attributed to him of the "uncrowned emperor" of China. As a philosopher,

he was a ju and the founder of the Ju school, known in the West as the Confucian school. It emphasized matters concerning human-heartedness (jen) and righteousness (yi). On the basis of the Analects (Discourses), in which his sayings were recorded by disciples, we can see how Confucius determined the outstanding characteristic of Chinese philosophy, humanism. He did not care to talk about spiritual beings or even about life after death. Instead, believing that man "can make the Tao great," he concentrated on man. His primary concern was a good society based on good government and harmonious human relations. As an educator, Confucius was the first man in China to make teaching his profession, and thus popularize culture and education. It was he who opened the way for the many travelling scholars and philosophers of succeeding centuries. It was also he who inaugurated, or at least developed, that class of gentlemen in ancient China who was neither farmer, merchant, nor actual official, but was professional teacher and potential official.

Feng-shui: Known to Westerners as Chinese geomancy. It is "the art of adapting the residences of the living and the dead so as to cooperate and harmonize with the local currents of the cosmic breath."[3] Feng-shui is based on the concept that man is the product of the

universe. For more detailed descriptions, see Chapter Two.

Five Elements, the: Five dynamic and interacting forces resulting from the interaction of yin and yang -- wood, fire, earth, metal, and water. With these were correlated directions, seasons, colors, and forms, etc. They perform important roles in the practice of feng-shui.

Fu-Hsi: The mythological Emperor from whose reign the Chinese commence their chronology. It is said that he was the inventor of the Eight Trigrams, each containing three lines which multiply themselves to become sixty-four hexagrams. The I Ching says, "...In this manner, he invented the Eight Trigrams, as a means of demonstrating the virtues of spiritual beings, and illustrating the conditions of all things under heaven."

I Ching, the: The "Book of Changes" as it is known to Westerners. It is a book written by the people of the Chou dynasty. The author is unknown. It grew out of the ancient practice of divination. It is ascribed to Confucius by tradition but to unknown writers three or four centuries later by some scholars. The texts consist of the sixty-four hexagrams and judgments on them. The symbols of the hexagrams were supposed to mirror in some way all the process of Nature. Its

text is very cryptic and no definite philosophical conclusion can be drawn from it. In the commentaries, however, there is a clear outline of a rational approach to a well-ordered and dynamic universe.

K'ao Kung Chi: A Code Book of Work or the Artificers Record as a section of the Chou Li (Record of the Rites of the Chou dynasty), compiled by unknown writers in the Han dynasty.

Kuo P'u (276-324): A scholar of high attainments; a great patriarch of the art of feng-shui. His Tsang Ching (or Tsang Shu, the Book on Burial) takes rank among the products of feng-shui literature as a standard book.

Lao Tzu: The pioneer of Taoism and the author of the (approximately 5,250-word) Lao Tzu or Tao Te Ching (Classic of the Way and Its Virtue). It is a combination of poetry, philosophical speculation, and mystical reflection. No other Chinese classic of such small size has exercised so much influence. "No one can hope to understand Chinese philosophy, religion, government, art, medicine - or even cooking - without a real appreciation of the profound philosophy taught in this little book."[4] Regarding the person Lao Tzu (meaning "an Old Philosopher"), it is said that his family name was Li, private name Erh, and posthumous name Tan, that he was a custodian of imperial archives, and that Confucius

visited him for information on rituals. But in the past few decades, some scholars have dated Lao Tzu at the fourth or third century B.C., approximately 200 years after Confucius.[5]

Li: (1) 禮 originally meant a religious sacrifice, but has come to mean ceremony, ritual, decorum, rules of propriety, good custom, etc. (2) 理 means "principle" to govern the operation of ch'i. "When there is an agglomeration of ch'i, the li is also present within it." All things consist both of ch'i and of li which give them their form; yet in a sense the li is prior, since it existed before any objects had come into being.

Lu Chiu-yuan (1139-1193): A Neo-Confucianist of the Sung times.

Mandala: The Sanskrit word mandala means "circle." It is the Indian term for the circle drawn in religious rituals. Viewed in terms of psychology, "the true mandala is always an inner image, which is gradually built up through (active) imagination, at such time when psychic equilibrium is disturbed or when a thought cannot be found and must be sought for, because not contained in holy doctrine."[6] Historically, the mandala served (1) as a symbol to clarify the nature of the deity philosophically, or to demonstrate it in a visible form for the purpose of adoration, or (2) as in the

East, as a yantra for yoga practices.[7] The term "mandala" employed in the present study denotes the cosmic diagram of "three-heaven and two-earth," based on the concept of "heaven round, earth square" (see Fig. 8). The wholeness of the celestial circle and the squareness of the earth express completeness and union.

Mencius (371-289 B.C.?): Like Confucius, Mencius was born in the modern Shang-tung Province and was a professional teacher. He had studied under the pupils of the grandson of Confucius. Basically, Mencius' teachings were derived from Confucius. But, he took a big step forward by declaring definitely that human nature is originally good. He was the first to build an entire philosophy on this tenet.

Ming T'ang: A place in which the emperor offered sacrifices and gave audience to princes. Also, it may be used by the emperor as a dwelling place.

Neo-Confucianism: The full flowering of Chinese thought, developed during the last eight hundred years. Its major topics of debate, especially in the Sung and Ming periods, are the nature and principle (li) of man and things. Supplementary to these topics are the problems of ch'i, yin and yang, T'ai Chi being and non-being, and the unity of man and nature. It can be said that the Neo-Confucianists are the Cosmologists. There

are three lines of thought that can be traced as the main sources of Neo-Confucianism: (1) Confucianism; (2) Buddhism; and (3) the Taoist religion, of which the cosmological views of the Yin-Yang school formed an important element. The cosmology of the Neo-Confucianists is chiefly connected with this line of thought.

Tai Chen (1723-1777): Also called Tai Tung-yuan, a philosopher of the Ch'ing dynasty.

T'ai Chi: The Supreme Ultimate. For every kind of thing there is the li, which makes it what it ought to be. It is the ultimate standard. For the universe as a whole, there must also be an ultimate standard, supreme and all-embracing. This embraces the multitude of li for all things and is the highest summation of all of them. Therefore, it is called the Supreme Ultimate or T'ai Chi. Chu Hsi says, "The Supreme Ultimate is simply what is highest of all, beyond which nothing can be. It is the most high, most mystical, and most abtruse, surpassing everything."

Tao: Usually translated as "the way." The earliest meaning of tao was "road" or "path." For Confucius, the Tao was "the Way" above all other ways that man should follow. For the Taoists the Tao was not the right way of life within human society, but the way in which the universe worked -- the Order of Nature.

Tao is what gives principles, whereas Tao brings the principles of all things into single agreement. Tao, then, is the all-embracing first principle of things. The goal of human wisdom is to fall in line with Tao or the ways and laws of Nature and live in harmony with them. A man who achieves this happy state is said "to have attained the Tao," or teh-tao.

Taoism: A philosophy which teaches the doctrine of following nature. The Taoist school tried to escape the disorders of its day by retiring into the world of nature. Among such men, living amid natural surroundings, there gradually developed the concept of Tao as the eternal way of Nature which all men should follow, and the consequent distrust of all human institutions as perverters of the natural order.

T'ien: According to Professor Fung Yu-lan, the word t'ien occurs in Chinese writings with the following five different meanings:

1. A material or physical t'ien or sky; such as t'ien ti (heaven and earth).
2. A ruling or presiding t'ien; such as Huang T'ien Shang Ti (Imperial Heaven Supreme Emperor).
3. A fatalistic t'ien, equivalent to the concept of ming (fate).
4. A naturalistic t'ien, equivalent to the English word "nature."

5. An ethical t'ien, one having moral principle, which is the highest primordial principle of the universe; such as t'ien li (the principle of universe).[8]

Thus, t'ien can be either personal or impersonal.

Tung Chung-shu (c. 179-c. 104 B.C.): Was chiefly instrumental in making Confucianism the state doctrine in 136 B.C. This supremacy excluded other schools, and lasted until 1905.

Yin and Yang: There are two aspects of ch'i: yin, the negative principle (female), and yang, the positive principle (male). The ch'i that moves is called yang; the ch'i that rests is called yin. Through interaction of these two principles, all phenomena of the universe are produced. The dualistic elements are the fundamental of the universe in Chinese cosmology.

Yin-yang School: Originated from men who had specialized in such occult arts as astrology and divination. This school represents a scientific tendency in the sense that it tried to give a positive interpretation to natural events in terms of natural forces.

Footnotes:

[1]A.C. Graham, Two Chinese Philosophers: Ch'eng Ming-tao and Ch'eng Yi-ch'uang (London: Lun Humphries, 1958), p. 35.

[2]The word "Tzu" or "Master" is a polite suffix added to names of the distinguised scholars, such as Chuang Tzu and Chu Tzu, etc.

[3]H. Chatley, "Feng-shui," Encyclopedia Sinica (ed. Chouling).

[4]Wing-tsit Chan, A Source Book in Chinese Philosophy (Princeton: Princeton University Press, 1969), p. 136.

[5]Ibid., p. 138.

[6]C.G. Jung, "The Symbolism of the Mandala," Psychology and Alchemy, the Collected Works of C.G. Jung, Vol. 12, 1944, p. 92.

[7]_____, Psychology and Religion (New Haven: Yale University Press, 1938), p. 96.

[8]Fung, A History of Chinese Philosophy, Vol I, p. 31.

CHAPTER ONE

BACKGROUND

In order to demonstrate the cosmological influences on environmental settlements in traditional Chinese society, provision of an analytical background regarding the cosmological ideas is necessary. Therefore, this chapter will present some fundamental concepts of cosmology (such as the yin-yang and Five Elements principles) to clarify the discussions of ensuing chapters.

THE NATURE OF UNIVERSE

The different modes of thinking of the Chinese and of Westerners, as stated earlier, can be further illustrated by the concept of universe. Joseph Needham has pointed out that Westerners have been dominated by a world view in which the cosmos -- far from being a self-contained, self-operating organism -- is conceived of as having been initially created, and since then externally controlled, by a Divine Power who "legislates" the phenomena of the non-human natural world.[1]

In China, on the contrary, quite a different situation prevailed. The most important divinity of the ancient Chinese, to be sure, was a purposeful ruling power known as T'ien or "Heaven," capable of exercising control over natural and human events in the religious

sense. However, T'ien is not a Creator of the universe. (The creation of the universe will be stated later on.)

As observed by Needham, the Chinese world view depended upon a totally different line of thought. The harmonious cooperation of all beings came not from the orders of a superior authority external to themselves, but from the fact that they were all parts of a hierarchy of wholes forming a cosmic pattern. What they obeyed were the internal dictates of their natures.[2]

Geographic factors have played a part in causing such cultural differences. China is a continental country. To the ancient Chinese their land was the world. There are two expressions in the Chinese language which can both be translated as "the world." One is "all beneath the sky" and the other is "all within the four seas." These conceptions of world are important because they led to the Chinese definition of "universe."

The word "universe" expressed in the Chinese language is yu-chou, denoting space and time. Lu Chiu-yuan says,

> "The four directions, together with what is above and what is below, are called yu; the bygone part and the coming future are called chou."[3]

Yu and chou taken together represent the primordial unity of the system of space with the system of time.

Yu-chou, as the Chinese philosophers have conceived it, is the unified field of all existence.

Space alone is static, but it becomes dynamic as soon as time streams through it. Both are inseparable. As time changes, the positions of all things in space change accordingly; consequently the nature of all things and their contents change, entirely or in part, into something else. Time, whose nature is change, like the mischievous spirit forever welcoming the new and bidding farewell to the old, cannot remain fixed. Since change is the nature of all things, including the universe itself, the universe is a changing one.[4]

In the Chinese mind, the universe is not a mechanical field of physical actions and reactions, but a magnificent realm of the concrescence of Universal Life. Nothing in the world is really dead. There lurks in every phenomenon an impetus of life. Thus, the Chinese philosophers do not use the term yu-chou very often, because they are unwilling to look upon the universe merely as a mechanical system of space and time. In the ancient classics, we constantly meet with such concepts as "heaven," "heaven and earth," and ch'ien and kun, denoting the creative and procreative functions of the universe. All these concepts and terms, though varied in meaning, are designed to give an adequate rational explanation of cosmic order and structure.

CH'I: THE COSMIC FORCE

The Chinese people believe that the formation of physical phenonmena is caused by ch'i, translated into English as Ether, cosmic force, material force, vital force, matter energy, subtle spirit, etc. The word ch'i literally means "breath" in the Chinese language. It can also be regarded as the "breath of nature" in terms of feng-shui.

The ch'i is an intangible ethereal substance, a supernatural force, and a dynamic power that can be conveyed in every thing. Heaven is nothing but the expression of ch'i. Huai Nan-tzu (c. - 120) says, "Before the heaven and the earth took shape, there was an abyss without form and void; hence...the Tao, the way of the universe, began with Emptiness and the Emptiness produced the universe. The universe produced ch'i...That which was clear and bright drifted up to become heaven, and that which was heavy and turbid solidified to form earth."[6]

The ch'i produces every thing including man. As noted by Chuang Tzu, "Man's life is due to the conglomeration of the ch'i, and when they are dispersed, death occurs...All through the universe there is one ch'i, and therefore the sage prized that unity."[7] Thirteen centuries later Chu Hsi remarks, "From the

point of view of material force, that which receives it in its perfection and is unimpeded becomes man, while those that receive it partially and are obstructed become things."[8]

The operation of ch'i does not perform arbitrarily or at random, but follows fixed and immutable law, or rational principle. Otherwise disaster would result. The law or rational principle in the Chinese language is li, which is the cosmic principle of organization - the dynamic order and pattern in nature. Li, which is exhibited in every object in nature, in its cosmic operations impels the vital energy, ch'i, to generate movement and change. The two interact in mutual dependence, and the process results in the creation of matter.

As noted earlier, ch'i is dynamic and can be conveyed in everything. Since everything is created by and composed of the ch'i, man and nature mutually interact through the operation of ch'i. To the Chinese, man can never live alone. Man's prosperity and happiness depend to a great extent upon the harmonious relationship between man and nature.

DUALISM: THE PRINCIPLE OF YIN AND YANG

There are two aspects of ch'i, negative force and positive force. The former is yin, and the latter, yang. The word yang originally meant sunshine, or what

pertains to sunshine and light; yin meant the absence of sunshine; i.e., shadow or darkness. In later development, the yang and yin came to be regarded as two cosmic principles or forces; Yang representing heaven, masculinity, activity, heat, brightness, dryness, hardness, etc., and Yin representing earth, femininity, passivity, cold, darkness, wetness, softness, etc.

According to the I Ching, there exists one Boundless Immutable Principle, one Absolute Reality, which antecedes all manifested conditioned Being. It is called T'ai Chi, or Supreme Ultimate. The Supreme Ultimate produced Two Forms, yin and yang. As Chou Tun-yi says:

> "The Supreme Ultimate through movement (tung) produces the yang. The movement, having reached its limit, is followed by quiescence (ching), and by this quiescence it produces the yin. When quiescence has reached its limit, there is a return to movement. Thus, movement and quiescence, in alteration, become each the source of the other. The distinction between the yin and yang is determined and the Two Forms stand revealed."9

When Chu Hsi was asked about the material forces, he drew a circle on the desk and said, "Principle is like a circle. Within it there is differentiation like this. All cases of material force which are coming forth belong to yang and are positive forces. All cases of material force returning to its origin belong to yin and the negative force."

In the cosmic symphony neither the yin nor the yang ever permanently triumphs; each grows from the other and needs the other as its partner in order to generate the universe as we find it. "That is why in the Yin-Yang symbol (Fig. 1), a black dot appears within the light-colored yang, symbolic of the embryonic yin, and a light dot within the dark-colored yin, symbolic of the embryonic yang."[10]

Fig. 1 The Yin-Yang Symbol

Yin and yang, the Receptive and the Creative, being inseparable parts of a unity, are always at work in space and time, interplaying and cooperating with each other; and it is the interplay and cooperation of these two cosmic forces that causes the ever-changing phenomena of the universe.

THE PRINCIPLE OF EIGHT TRIGRAMS

According to the I Ching, the two cosmic forces, yin and yang, constitute a stream of continuous change. They are mutually revolving and circulating through time and space without cease; this is the way of regeneration, of life begetting life. The image of change in the infinite complexities of phenomena has been represented by the symbols known as the Eight Trigrams (Fig. 2),

which are said to have been invented by the legendary figure, Fu Hsi.

Fig. 2 The Diagram of the Eight Trigrams

Behind the Eight Trigrams lies the concept that all substances embodied within yin and yang are subject to four sequential steps of change: growing - fullness - declining - destruction.[12] All beings move from one stage toward another without interruption. The Yin-Yang Symbol shown in Fig. 1 is strongly suggestive of this concept.

In the I Ching, the yang principle is represented by an unbroken line ———, and yin, by a line broken in two — —. The single lines were combined in pairs to denote the existence of a matter in terms of changing phenomena of yin-yang:

— — Less yang (shao yang)

——— Greater yang (tai yang)

⚋ Less yin (shao yin)

⚊ Greater yin (tai yin)

All of the movement of yin-yang is upward from the bottom. Thus, the "less yang" means that there is yin not yet overcome, and the yang is growing. This is the initial stage in formation of all beings before they reach maturity. The four stages derived from yin and yang, denoting the changing character of beings, are called Four Emblems. To each of the combinations, a third line was then added. In this way the Eight Trigrams came into being. The I Ching says:

> "Hence, there is in the system of metamorphoses of Nature the Supreme Ultimate, and this produces the Two Forms. The Two Forms produce the Four Emblems which again produce the Eight Trigrams."

Richard Wilhelm has explained the Eight Trigrams excellently. The following paragraph is from his notable book, the I Ching:

> "These eight trigrams were conceived as images of all that happens in heaven and on earth. At the same time, they were held to be in a state of continual transition, one changing into another, just as transition from one phenomenon to another is continually taking place in the physical world. Here we have the fundamental concept of the Book of Changes. The eight trigrams are symbols standing for changing transitional states; they are images that are constantly undergoing change."13

It is noted that each trigram possesses either yin or yang. It should also be remembered that the yang is the male principle, and the yin, the female principle.

The significance of the Eight Trigrams is shown in Table 1 on the following page. From this table it is observed that "there is an intermingling of the genial influences of heaven and earth, and the transformation of all things proceeds abundantly" (I Ching). While heaven and earth are the physical representations of the yin and yang, ch'ien and k'un are their symbolic representations. The yang is the principle that "gives beginning" to things; the yin is that which "completes" them. Thus, the process of the production of things by the yang and yin is completely analogous to that of the production of living beings by the male and female.

A human being is produced by the union of man and woman, and so by extension, the universe is also considered to have two uniting principles: the male, or yang, for which the trigram is ch'ien; and the female, or yin, for which the trigram is k'un. This is just as the Greek philosopher Protagoras says: "Man is the measure of all things."

As illustrated in Table 1, the Eight Trigrams are also associated with directions, seasons, human bodies, the Five Elements, etc. Again, the significance of these relationships lies in the unity of man and nature, the interplay of time and space, and the harmony of the cosmic order.

TABLE 1 SIGNIFICANCE OF THE EIGHT TRIGRAMS

SYMBOL	NAME	SEX	IMAGE	DESCRIPTION	ASSOCIATED COMPASS-POINT	ASSOCIATED SEASONS	FAMILY RELATION	ASSOCIATED FIVE ELEMENTS	ASSOCIATED PART OF HUMAN BODY
☰	CH'IEN	♂	HEAVEN	THE CREATIVE	S	LATE AUTUMN	FATHER	METAL	HEAD
☷	K'UN	♀	EARTH	THE RECEPTIVE	N	LATE SUMMER EARLY AUTUMN	MOTHER	EARTH	ABDOMEN
☳	CHEN	♂	THUNDER	THE AROUSING	NE	SPRING	1ST SON	WOOD	FOOT
☵	K'AN	♀	WATER	THE ABYSMAL	W	MID-WINTER	2ND SON	WATER	EAR
☶	KÊN	♂	MOUNTAIN	KEEPING STILL	NW	EARLY SPRING	3RD SON	WOOD	HEAD & FINGER
☴	SUN	♀	WIND	THE GENTLE	SW	LATE SPRING EARLY SUMMER	1ST DOUGHTER	WOOD	THIGH
☲	LI	♂	FIRE	THE CLIGING	E	SUMMER	2ND DOUGHTER	FIRE	EYE
☱	TUI	♀	LAKE	THE JOYOUS	SE	MID-AUTUMN	3RD DOUGHTER	WATER	MOUTH & TONGUE

In order to achieve a still greater multiplicity, these Eight Trigrams were combined with one another, whereby a total of sixty-four hexagrams was obtained (see Fig. 3). Each of the sixty-four

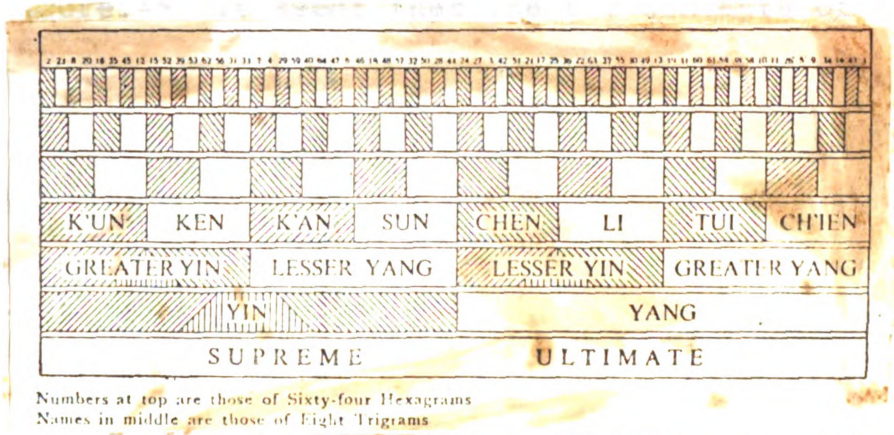


Fig 3 Diagram of Cosmic Evolution in Terms of the Sixty-four Hexagrams

Source: Fung, A History of the Chinese Philosophy, Vol. II, p. 459.

signs consists of six lines, either positive or negative. Again, each line is thought of as capable of change. All things in the universe proceed in a stream of change and continue to pass through stages of transmutation, implying renovation by regeneration.

THE PRINCIPLE OF THE FIVE ELEMENTS

As noted earlier, the yin-yang doctrine teaches that all things are produced by two forces: yin, the negative force, and yang, the positive force. This theory is associated with that of the Five Elements (wu-hsing), which may be taken as an elaboration of the yin-yang idea.

The Chinese word hsing means "to act" or "to do," so that the term wu-hsing, literally translated, would mean the Five Activities, or Five Agents. They are also known as wu-te, which means Five Powers. The origin of the concept of Five Elements is still obscure.[14] It seems that the two concepts of the yin-yang and the Five Elements go far back to antiquity and to quite independent origins. Tsou Yen (305-240 B.C.) is usually credited as the one who combined the two independent currents into one.[15]

The Five Elements, in the evolutionary order in which they came into being, are wood, fire, earth, metal, and water. They are conceived as five material forces derived from the yin and yang. As Chu Hsi says in his Conversations (Yu-lei), "The transformation of yang and congealings of the yin thus produce water, fire, wood, metal, and earth."[16] The Five Elements, as well as the yin and yang, are the matter energy, ch'i. It is believed that after the yin-ch'i and yang-ch'i are brought into being they form the Five Elements.

Based on the concept that interaction of the ch'i creates all things, the Five Elements are, in essence, five cosmic forces that produce or destroy all living or non-living beings through a process of movement. Tung Chung-shu remarks in his Spring and Autumn Annals

(Chuan Chui Fan Lu):

> "Collected together, the ethers (ch'i) of the universe constitute a unity; divided, they constitute the yin and yang; quartered, they constitute the four seasons; (still further) sundered, they constitute the Five Elements. These elements represent movement (hsing)."17

The relationship of the Five Elements and the yin and yang may be demonstrated by the Diagram of the Supreme Ultimate developed by Chou Tung-yi in Fig. 4. This diagram, in which Chou elucidated the origins of "Heavenly Principle" and probed into the beginning and end of all things, is in fact a summary of the Chinese concept of cosmology.

The fundamental idea of the Five Elements is that the substances in the universe never exist independently. Instead, they are closely related to each other, interacting mutually because of the operation of the cosmic force, ch'i. The principles of hsiang-seng, hsiang-sheng, hsiang-chih and hsiang-hua may well illustrate the characteristics of the Five Elements.

Hsiang-seng, a principle of mutual production, applies to the elements in that one will produce or generate another, in the following order:

Wood produces fire
Fire produces earth
Earth produces metal
Metal produces water
Water produces wood18

As seen from the above, the process is circular.

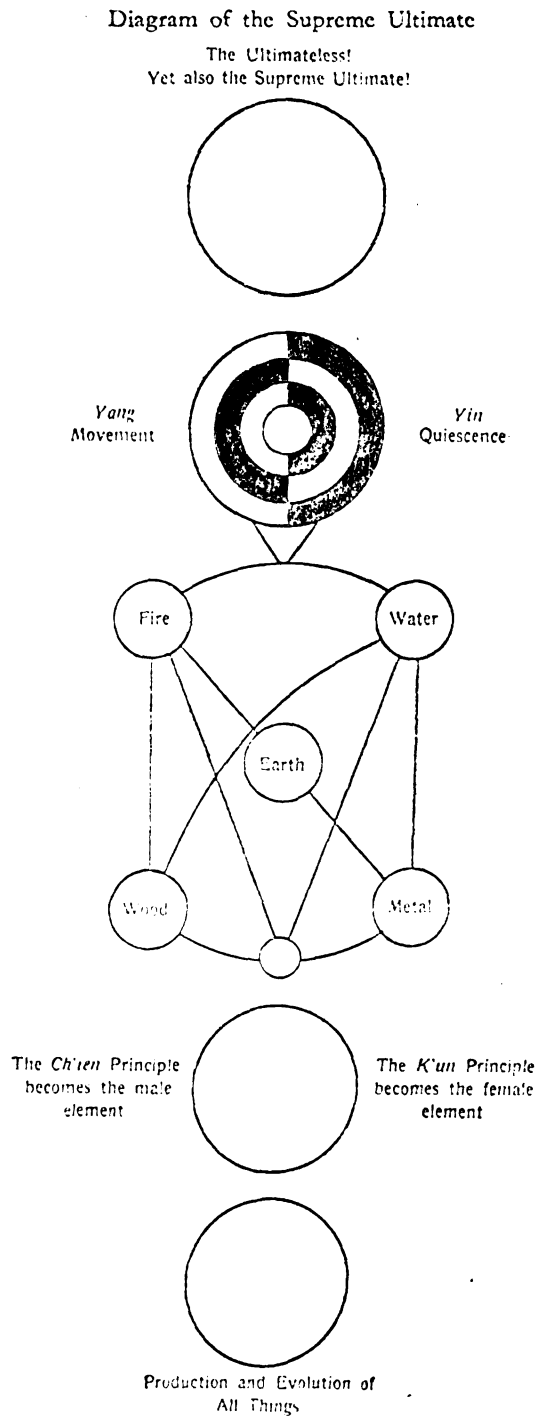


Fig. 4 Diagram of the Supreme Ultimate

Source: Fung, A History of the Chinese Philosophy, Vol. II, p. 436.

The logic behind this is that wood when burned produces fire; fire, by burning wood, produces ash, or earth; earth produces metallic ores within its rocks; metal, when melted, gives rise to liquid, or water; water gives birth to trees, or wood.

Hsiang-shen is the principle of mutual conquest:

Wood conquers earth
Metal conquers wood
Fire conquers metal
Water conquers fire
Earth conquers water

At this point the cycle begins all over again. The logic behind this is that wood, when growing, exhausts the supply of energy in the earth; metal cuts woods; fire melts metal; water extinguishes fire; earth, in the form of a dam, controls water.

Hsiang-chih, the principle of control, holds that a given process of destruction is controlled by the element which destroys the destroyer. For example:

Wood conquers earth, but metal controls the process
Metal conquers wood, but fire controls the process
Fire conquers metal, but water controls the process
Water conquers fire, but earth controls the process
Earth conquers water, but wood controls the process

Hsiang-hua, the principle of masking, holds that a process of change can be masked by some other process which produces more of the substrate, or produces it faster than it can be destroyed by the primary process Thus,

Wood conquers earth, but fire masks the process
Fire conquers metals, but earth masks the process
Earth conquers water, but metal masks the process
Metal conquers wood, but water masks the process
Water conquers fire, but wood masks the process

As with the Eight Trigrams, there are a number of symbolic correlations of directions, season, color, etc. with the Five Elements as shown in Table 2.

Table 2 Significance of the Five Elements

Element	Color	Directions	Season	Planets	Associated Sense Organ	Associated Form
Wood	green	E	Spring	Jupiter	eye	long
Fire	red	S	Summer	Mars	tongue	pointed
Earth	yellow	center	-	Saturn	mouth	thick
Metal	white	W	Autumn	Venus	nose	square
Water	black	N	Winter	Mercury	ear	round

The relationships of the Five Elements and the four seasons rest upon the concept that the four seasons result from the waxing and waning movements of the yin and yang. When the yang is in the ascendancy, it assists wood and fire to form Spring and Summer, whereupon all things are born and grow. But when the yin is in the ascendancy, it assists metal and water to form Autumn and Winter, whereupon all things are stored up or go into hibernation. To demonstrate the relationships between the Five Elements

and the directions and seasons, the following passages are quoted from Tung Chung-shu's Chuan Chiu Fan Lu:

> "Thus wood has its place in the east and has authority over the ch'i of Spring. Fire has its place in the south, and has authority over the ch'i of Summer. Metal has its place in the west, and has authority over the ch'i of Autumn. Water has its place in the north, and has authority over the ch'i of Water...
>
> "Earth has its place at the center and is (as it were) the rich soil of Heaven. Earth is Heaven's thighs and arms, its virtue so prolific, so lovely to view, that it cannot be told at one time of telling."19

As is seen in the following chapter, most of the relationships described above directly affect the practice of feng-shui. Many of the correlations are artificial and arbitrary. However, they illustrate the perfect cosmic order and the mutual influence of every thing.

CONCLUSION

The universe is conceived by the Chinese people as the combination of time and space. There are two fundamental principles or cosmic forces in the universe, the yin and yang, and Five Elements of which all beings are composed. Since the cosmic force, ch'i, is not static, but organic, the Chinese cosmology is characterized by the permanence of change and the mutual interaction of all things. The universe is a harmoniously functioning organism consisting of an orderly hierarchy of interrelated parts and forces.

Chinese cosmology is characterized by "correlative thinking," which can be best illustrated by the microcosm-microsm doctrine. On the one hand, all through the history of Chinese thought the universe-analogy goes on. As mentioned previously, the body of man and the cosmos are correspondent point-to-point. On the other hand, the creation of beings by the interaction of heaven and earth, or yin and yang, is inspired by human sexual experience. Thus, "man is parallel to the universe; a universe is a man and a man is a universe."[20]

Footnotes:

[1]Joseph Needham, "Human Laws and Laws of Nature," Journal of the History of Ideas, Vol. XII, 1951, pp. 3-30, 194-230.

[2]Ibid.

[3]Fung Yu-lang, A History of Chinese Philosophy, translated by Derk Bodde (Princeton: Princeton University Press, 1953), Vol. II, pp. 572-3.

[4]Chen Li-fu, Philosophy of Life (New York: Philosophical Library Inc., 1948), p. 15.

[5]Fung, A History of Chinese Philosophy, Vol. I, 1952, p. 31.

[6]Cf. Fung Yu-lan, The Spirit of Chinese Philosophy, tr. by E. R. Hughes (London: Kegan Paul, 1947), p. 112.

[7]James Legge (tr.), Texts of Taoism, Oxford, 1891, Vol. 2, p. 59. Adopted from Joseph Needham, Science And Civilization in China (Cambridge: The Cambridge University Press, 1956), Vol. II, p. 76.

[8]Adopted from Wing-tsit Chang, A Source Book of Chinese Philosophy, op. cit., p. 160.

[9]Quoted in Fung, A History of Chinese Philosophy, Vol. II, pp. 435-6.

[10]Derk Bodde, China's Cultural Tradition (New York: Holt Rinehart and Winston, 1959), p. 35.

[11]Cf. Chang Chi-yuan, "Fu Hsi: The First Chapter of Chinese History," Chinese Culture, Vol. III, No. 3, March, 1961.

[12]Fung Yu-lan, Hsing Li Hsieh (Shanghai: Commercial Book Co., 1938), pp. 94-6.

[13]Richard Wilhelm, The I Ching, tr. by Cary F. Bayne from German to English (Princeton: Princeton University Press, 1969), p. 2.

[14]Cf. Suetoshi Ikeda, "The Origin and Development of the Wu-hsing (Five Elements) Idea: A Preliminary Essay," East and West, 16, Sept.-Dec., 1967, pp. 297-309.

[15]Wing-tsit Chan, A Source Book in Chinese Philosophy, p. 245.

[16]Fung, A History of Chinese Philosophy, Vol. II, p. 943.

[17]Ibid., p. 29.

[18]William A. Lessa, Chinese Body Division (Los Angeles: United World, 1968), p. 20. For original text, see Tung Chung-shu, "On the Five Elements," Chuan Chiu Fan Lu. For English translation, see Needham, Science and Civilization in China, Vol. II, p. 249.

[19]Joseph Needham. Science and Civilization in China, Vol. II, p. 250.

[20]William A. Lessa, op. cit., p. 18.

CHAPTER TWO

FENG-SHUI AND COSMOLOGY

The system of feng-shui or geomancy has long played an extremely important role in determining the location and shape of houses, villages, and cities. To clarify the meaning of feng-shui, the following passages are quoted from E. A. Gutkind's Revolution of Environment:

> "Geomancy is the expression of the cosmic ideas of the Chinese; the cosmic forces of yin and yang, the constellation of the heavenly bodies, the configuration of the surface of the Earth in a given place as it has been shaped by water and mountains, the access of favourable or unfavourable winds, all the active forces of the air and the earth, and finally the well-being of the souls of those who have passed away and of living human beings, all these are inseparably interrelated. It is necessary, therefore, to pay attention to this interrelationship when tombs or houses are built where man is to live and work. The geomancer must find places where the conditions exist for the right working of all these forces or where they can be created artificially."1

The above statement reveals at least the following major facts regarding feng-shui: (1) Feng-shui is related to the concept of cosmology; (2) Feng-shui (literally, wind and water) deals primarily with wind and water in determining the environmental settlements; and (3) Man and Nature are inseparably interrelated.

Viewed in terms of modern branches of knowledge, the scope of feng-shui includes philosophy, psychology,

sociology, aesthetics, anthropology, etc. For the purpose of this study, discussion will be concentrated on the cosmological and psychological aspects of feng-shui to provide a philosophical background of the system.

RELATIONSHIPS OF CH'I TO FENG-SHUI

As noted in the preceding chapter, there is in the beginning one abstract principle, or monad, called the "Supreme Ultimte," which is the primordial cause of all existence. When it first moved, it produced the yang ch'i, the male principle. When it moved to its utmost, it rested, and in resting produced the yin ch'i, the female principle.

In view of the abstract nature of ch'i, it is by and large a symbolic rather than a concrete substance. It comes from man's unconscious rather than from consciousness. As noted by C. G. Jung, "Symbols were never devised consciously, but were always produced out of the unconscious by way of revelation or intuition."[2]

Psychic energy or hypothetical life-energy has been termed by C. G. Jung as "libido."[3] The concept of life-energy is shown by the primitive idea of magical potency, regarded both as an objective force and as a subjective state of intensity. Many examples have been given by Jung, such as the concepts of

wakonda in India, mana in Melanasia, wakan among North American Indians, and wong of the Gold Coast.[4] All of these concepts are, in one way or another, similar to the concept of ch'i in China.

While C. G. Jung does not connect any sexuality with the definition of "libido,"[5] the concept of ch'i does relate to sexuality. For ch'i is composed of yin and yang. The ch'i can be grouped into two categories: (1) the Celestial Breath (t'ien ch'i), the energy of yang identical with the Heaven; and (2) the Terrestial Breath (ti ch'i), the energy of yin identical with the Earth. By the interaction of these two energies, life is created. The yin and yang, alternately bearing sway in Nature and blending their influences together, are the cause of constant growth and decay, of life and death, of the annual rotation of production and destruction.

Thus, Nature is looked upon by the Chinese people as a living organism. The inhaling and exhaling breath of Nature is supposed to have influence on the cosmic order and on human life. As to the breath that pervades human beings, the energies of Nature must sometimes be exhausted, and death is that which no man can avoid. However, certain places in the landscape are supposed to have "life breath" (sheng ch'i). As Kuo P'u noted in his Tsang Ching, "Burying is to catch the life breath."[6] Potter also noted, "The pseudo-science of

feng-shui is merely one involved method of capturing mana."[7] Capture of the living breath, or mana, of the deceased will bring his descendants prosperity and happiness. Feng-shui holds that offspring can be showered with blessings from their ancestors because of the intangible interaction of ch'i, provided that the latter's grave is located at the sacred spot which holds the living breath. This is probably the origin of the cult of ancestor worship.

FENG-SHUI AND ANIMISM

The animal motif is usually symbolic of man's primitive and instinctual nature.[8] Before consciousness is highly developed, primitive races "populate the world with a multitude of spiritual beings which are benevolent or malevolent to them, and attribute the causation of natural processes to these spirits and demons; they also consider that not only animals and plants, but inanimate things as well, are animated by them."[9] This holds true in ancient China. Even today, the God of Gate (meng sheng), the Spirit (lung sheng), and the Spirit of Dragon (lung sheng) are familiar to Chinese children.

Among the animals, four possess a special symbolic significance. They are the unicorn, phoenix, tortoise, and dragon. These four animals are believed to be the

"aids of the spirit of the Sage."[10] Each is associated with a color and is situated at a given cardinal point. Man is in the center. "The world of man is a clearing marked off from the unknown on all four sides by symbols in animal form."[11] This is the Han world-image, as illustrated by the title design in the Han dynasty exhibiting the said four animals (Fig. 5).

South

East

West

North

Fig. 5 Design on a Title During Han period, 206 B.C.-A.D. 220.

Reading the design in a clockwise manner, oriented to the south (in ancient China, south was located at the top of maps, where north appears today), there is first the Green Dragon of the East, which stands for the blue-green color of vegetation and represents the element of wood and the upreaching tree. Occupying the direction of the rising sun, it is also the symbol of spring. To the south is the Red Phoenix of summer and of fire at the zenith. Next, there is the west and the White Tiger of the metallic autumn, symbolic of weapons, war, executions, harvest, of fruitful conclusion and the calmness of twilight, of memory and regret, and of unalterable past mistakes. It is the end of the road, but not the end of the cycle, for a new beginning will come from the all-inclusive darkness of winter. Its position is the cold region of the north; its color, black; and its element, water. Picture here is Hsuan-wu, a snake coiling around a turtle, two hibernating reptiles forming a picture, behind man's back, of life preserved underground.

Facing south, his feet firmly on the fifth element, the earth, is man. Via a negative approach - not knowing how high is up, how deep is down, and how far away is the end of the world in each direction - man fixes his position as equidistant from all sides; i.e.,

as squarely in the middle. He is not represented by any picture, but his desire is expressed clearly in writing. Scattered inside the square world of man are these words:

> One thousand autumns and ten thousand years,
> Enduring happiness, never to end.[12]

The importance of the four animals rests upon the concept that they are representative of the Celestial Breath. For "no part of the soil can be fully impregnated with the beneficial influences of Heaven unless those four quarters operate upon it conjointly, that is to say, unless it be surrounded by mountains, bluffs, boulders or buildings, which can be identified with those symbolic animals."[13] Thus, the most beneficial location of graves and edifices must be a site upon which the four animals can be identified, symbolically oriented to each side of the graves or buildings.

Among the four animals, the Dragon is the most important. "Capture of the Dragon" (hsun lung) is indeed the major task of the geomancers. Since the four animals are the symbols of the Celestial Breath, they are expressed by the "land forms" in nature (hsing, or ti-moh, the pulse of the earth). The essence of feng-shui is the configuration of land forms and bodies of water. It is believed that "the wind may

disperse the ch'i in the earth and the ch'i, in a moving state, may rest in confrontation of the bodies of water."[14]

Chinese people experienced nature spontaneously as an animated organism. There is an intangible movement or rhythm in the earth which is the breath of the dragon or tiger flowing underground. This movement or rhythm can be conceived, but cannot be perceived.

FENG-SHUI AND THE EIGHT TRIGRAMS

To identify favorable sites for graves and edifices, a "diat-plat" (lo-pan) is employed by feng-shui professors. It is a circular piece of wood approximately ten inches in diameter, rounded at the bottom, with a magnetic needle in the center. Radiating from the center, there are a number of circular lines representing the principal factors that play a part in the art of feng-shui. The first (innermost) circle gives the Eight Trigrams.

The Eight Trigrams are important in feng-shui, because each trigram has been associated with various meanings, as shown in Fig. 2 and Table 1 of Chapter One. Determination of the direction of a building, for example, should depend on the Eight Trigrams. Combined by the I Ching with a number of qualities, the trigrams

allow a wide play to the imaginative ingenuity of geomancers.

FENG-SHUI AND THE FIVE ELEMENTS

According to the Tsang Ching, the so-called "life breath" is nothing but the harmonious movement of the Five Elements. It should be remembered that the Five Elements, along with yin and yang, are the cosmic energies. Again, according to the Tsang Ching, the purpose of feng-shui is "to identify a site which is able to keep the eight types of malicious winds from the earth and to hold the ch'i of the Five Elements inside the earth."

While the Five Elements have numerous relationships with other factors, such as yin-yang, the Eight Trigrams, cardinal points, etc., the major function of the Elements is in their relation to land forms. In feng-shui, land forms have been classified in five categories. Each category is identical with one of the Five Elements, as shown in Fig. 6.

In any given locality, it is all-important to determine whether the elements represented by the configurations of the ground form a harmonious conjunction. It would, for instance, be highly detrimental if hills or boulders representing both fire and wood were in close proximity to graves or houses, as this would certainly render those houses liable to

frequent conflagration. However, based on the principle of hsiang-chih and hsing-hua, an unfavorable site could

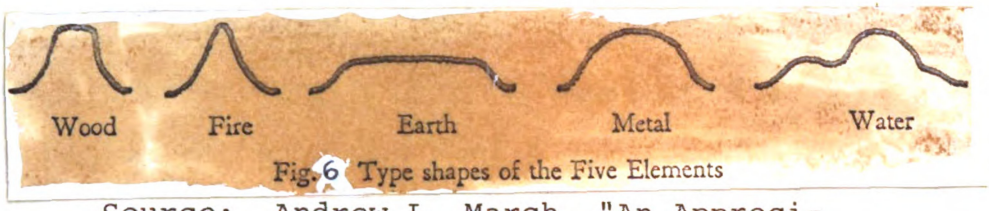


Fig. 6 Type shapes of the Five Elements

Source: Andrew L. March, "An Appreciation of Chinese Geomancy," Journal of Asian Studies, Vol. 27, No. 2, Feb., 1968.

be modified by changing the land forms. To serve this purpose, a number of methods could be applied, depending upon the judgment of the geomancers. Planting trees or erecting a pagoda at the strategic locations are typical solutions.[15]

FENG-SHUI AND ASTROLOGY

In the theory of feng-shui, everything terrestrial has its prototype, its primordial cause, its ruling agency in heaven. Some scholars tended to believe that the idea of the Five Elements were derived from the five planets (Venus, Jupiter, Mercury, Mars, and Saturn).[16] The geomancers see the planets' counterpart on earth in ceaseless interchange and permutation of the Five Elements (metal, wood, water, fire and earth). It is not uncommon in feng-shui literature to find the statement: "There are five Planets in the heaven, and there are Five Elements on the earth."[17] It seems that the Chinese look upon heaven as the ideal type, of which the earth is but the coarse material reflex.[18]

Further, the geomancers believe that the planets correspond to certain parts of the earth and determine its fate. An axiom of their system is that "the stars of the Heavens above, and the configurations of the Earth beneath correspond with each other." This dogma arises directly from the great fundamental principle of both ancient and modern astrology; i.e., that every human affair has a star or asterism controlling it.

As noted by De Groot in The Religion System of China, the four animals previously discussed have each been subdivided into seven constellations, called siu. These twenty-eight groups are irregularly distributed over the sphere as it is visible in China. Hills and mountain ranges being the embodiment of the influence of the four animals, their several parts are deemed to stand each under the influence of a siu. In this manner, feng-shui is ingeniously combined with astrology.

The reason for the interest in astronomy and astrology in relation to feng-shui is psychological. It is the existence of "classificatory thinking," or "associative thinking," combined with the belief in a "celestial-terrestrial parallelism."[19]

TIME AS AN ELEMENT IN FENG-SHUI

The association of the four seasons with the Five

Elements and the Eight Trigrams have been noted beforehand. Also, the Chinese developed the system of ten "heavenly stems" (t'ien k'an) and twelve "earthly branches" (ti chih). The latter are associated with twelve animals and twelve months, as shown below:

The Heavenly Stems	The Earthly Branches		
1. chia	1. tzu	- the rat	- November
2. yi	2. ch'ou	- the cow	- December
3. ping	3. yin	- the tiger	- January
4. ting	4. mao	- the hare	- February
5. wu	5. ch'en	- the dragon	- March
6. chi	6. ssu	- the serpent	- April
7. keng	7. wu	- the horse	- May
8. hsin	8. wei	- the goat	- June
9. jen	9. shen	- the monkey	- July
10. kuei	10. yu	- the fowl	- August
	11. hsu	- the dog	- September
	12. hai	- the pig	- October

The combination of these cyclical signs in pairs, beginning with chia-tzu, and continuing until each stem has been combined with each branch, yields a total of sixty different combinations before chia-tzu, the first pair, reappears. Also, the single day is divided into twelve time periods, and each period corresponds with an earthly branch. The significance of the "heavenly stems" and the twelve "earthly branches" lies in the

fact that they are associated with the Five Elements:

Five Elements	Stems	Branches
Wood	chia, yi	yin, mao, ch'en
Fire	ping, ting	ssu, wu, wei
Metal	keng, hsin	shen, yu, hsu
Water	jen, kuei	hai, tzu, ch'ou
Earth	wu, chi	

Since the Five Elements are also associated with four directions, and land forms, time and space are interrelated as well. In practice, there are many examples of postponing the date of a building construction merely because of feng-shui.

SOME EXAMPLES OF THE INFLUENCE OF FENG-SHUI ON CITY FORM AND LOCATION

Examples of the influence of feng-shui on the environmental settlement are ample. Many have already been touched upon in the discussion of the city of Chang-an. The examples given below are primarily for cities.

A. The City of Peking: Peking is protected on the northwest by the Kin-shan or Golden Hills, which represent the Tiger and ensure the city's prosperity. These hills contain the sources of a felicitous water source, called Yuh-ho or Jude River, which enters Peking on the northwest and flows through the grounds at the back of the Imperial Palace, then accumulates its beneficial influences in three

large reservoirs (or lakes) dug on the west side, and finally flows past the front of the inner Palace. Its course is in perfect harmony with the principles of feng-shui. Also due to the feng-shui, the wall at the northwest corner of the city was cut for several feet in order to receive the beneficial breath of nature from the northwest.

B. The City of Canton: According to Eitel's Feng-shui, Canton enjoys a favorable situation because it is placed in the angle formed by two chains of hills running in gentle curves towards the Bogue, where they almost meet each other, forming a horseshoe. The chain of hills known as the White Clouds represents the dragon, while the undulating ground on the other side of the river forms the white tiger. The most favorable site of Canton is therefore the ground near the north gates, while tiger and dragon run out to the right and left.

C. Feng-Shui and City Design: There was a story in the Annals of the States of Wu and Yueh (composed approximately in the first century A.D.) illustrating how the King Hoh Lü established the state power by consulting with his minister Wu Tszĕ-sü, who employed the feng-shui principles and accomplished the King's will. The text was translated by

De Groot in his The Religious System of China:

"Hoh Lü said (to his minister Wu Tszĕ-sü, see page 349): 'In what does the art of ensuring peace to princes and good rule to their people consist?' The answer was: 'He who wishes to ensure peace to the prince, to have the people ruled in a proper way, to make strong government prevail, and to cause perfect rulers to bear sway from close by over those who live far off, he certainly ought to start by erecting city walls and moats, by appointing military chiefs, by filling the granaries and stores, and by properly attending to the arsenals: in this the art in question consists.' 'This is all very well and good,' retorted Hoh Lü; 'but, though in building fortifications, store-houses and arsenals we really take notice of what ought to be taken notice of with regard to the terrestrial influences, still there must exist in the domain of the Celestial Breath some factors of which we may avail ourselves to keep neighboring kingdoms in fear and awe; is it not so?' -- 'Yes,' was the reply. 'I charge you to put those factors into practice,' said Hoh Lü.

"Tszĕ-sü now gave orders for the investigation of the ground and the examination of the watercourses, and, imitating the configurations of Heaven and Earth, he built a large city, forty-seven miles in circumference. It had eight land-gates in imitation of the eight winds of Heaven, and just as many water-gates corresponding to the eight good qualities of the Earth. He also built a smaller city (inside the other), ten miles in circumference. It had three land-gates; but that on the east (where light is born) was not opened, in order that the lustre and glory of the (inimical) realm of Yueh might be exterminated. The Gate of Effulgent Sunlight was built as a representator of the gate of the heavens, and to admit the winds of the Gates that are shut upon the Effulgent Sunlight; and they made also a Serpent Gate in imitation of the door of Earth. Desiring westward to defeat the kingdom of Ch'u, which was situated northwest from his, Hoh Lü had the Gate of Effulgent Sunlight built, to admit the Breath of the heavens; therefore, they called it also the Gate to defeat Ch'u. And as he desired to pacify eastward the kingdom of Yueh, which was situated to the southeast, he erected the Serpent

Gate, in order to subdue his hostile country.

> "Wu (Hoh Lü's realm) being situated in Ch'en, which point of the compass corresponds to the Dragon, a pair of i-yao fishes with reversed fins were placed over the southern gate of the small city, to represent the horns of the Dragon. And Yueh being situated in Szĕ, a point of the compass corresponding to the Serpent, there was over the great south gate a wooden snake, stretched towards the north and pushing its head into the gate, thus indicating that Yueh belonged to Wu."[20]

THE GEOMANCER

The Yin-Yang School of Chinese Philosophy finds its origin in the occultists, known as fang shih, or practitioners of occult arts.[21] Geomancy is a profession classified as fang shih.

Because of the importance in Chinese society of determining the location of buildings or graves, geomancers enjoyed unusual popularity in traditional China. Although the system of feng-shui has a profound philosophical background, "scarcely any of them (the geomancers) have acquired their skill by profound and serious studies of the books written by the sages and philosophers of the nation."[23] A geomancer, as a rule, learned to read and write at school; but for the rest, he largely acquired the knowledge of feng-shui from a professor who had adopted him as a disciple.

THE PSYCHOLOGY OF FENG-SHUI

The system of feng-shui is, to be sure, based on Chinese philosophy -- particularly in relation to cosmology. Eital says, "The history of the leading ideas and practices of feng-shui is the history of Chinese philosophy."[24] Chinese philosophy is, as noted by Richard Welhelm, "Built on the premise that the cosmos and man, in the final analysis, obey the same law. Man is a microcosm and is not separated from the macrocosm by any fixed barriers. The very same laws rule for one as for the other, and from the one a way leads into other. The psyche and the cosmos are to each other like the inner world and the outer world. Therefore, man participates, but nature, in all cosmic events, and is inwardly as well as outwardly interwoven with them."[25]

As mentioned before, the two cosmic forces, yin and yang, on which the feng-shui system is developed, originated from the sexual relationships of human beings. This type of psychic projection was termed by C. G. Jung as the "argument of correspondence."[26] When the psychic energy of ch'i is transferred into a physical form, such as a dragon or a tiger expressed by the land forms, the dragon or tiger is nothing but a symbol.

The concept of feng-shui is shaped unconsciously. It develops from intuition rather than postulation. As C. G. Jung says, "The transformation of libido through the symbol is a process that has been going on ever since the beginnings of humanity and continues still. Symbols were never devised consciously but were always produced out of the unconscious by way of revelation."[27]

In China, many physical objects (such as heaven and earth) are conceived in terms of yang and yin. The human body is also thought to be activated by the interplay of two psychic structures: hun, which belongs to the yang principle; and p'o, which belongs to the yin principle. Hun can be translated as aminum, the male character in a woman's mind. P'o is anima, the female character in a man's mind. The traditional Chinese people believe that at man's death, the hun and p'o are separated but still exist. The concept of immortality and the dualism of yin and yang provide the foundation of the feng-shui system.

Feng-shui is associated with the cult of ancestor worship. The Chinese character for the word "ancestor" is 祖 (tsu). The left portion of this character 礻 means temple (miao). One of the meanings of the word "temple" in the Chinese language is "appearance" or "the place where the appearance of the ancestors has

exhibited."[28] The archaic form of the character 祖 is 且. 且 was written as ⇧ or ⇞ in oracle bones and archaic bronze.[29] Thus, many scholars, such as Kuo Mo-jo (1919-) and B. Karlgren, have maintained that the hieroglyphic form of the character was originally phallic.[30] Thus, the cult of ancestor worship and the concept of yin-yang illustrate the role of sexuality in the system of feng-shui. Sexuality is not merely instinct; it is an indisputably creative power that is not only the basic source of our individual lives, but a very serious factor in our psychic life as well.[31]

Belief in the immortality of human beings can be interpreted as "animation of human individual." In this conception, as Freud once noted, "Human beings have souls which can leave their habitation and enter into other beings; these souls are the bearers of spiritual activities and are, to a certain extent, independent of the bodies."[32] This concept is very close to the feng-shui of the Chinese mind.

According to Freud, animism was natural and self-evident to primitive man; he knew how the things of the world were constituted and how he conceived himself to be. "We are therefore prepared to find that primitive man transfered the structure relations of his own psyche to the outer world."[33] Animism "gives not

only the explanation of a single phenomenon, but makes it possible to comprehend the totality of the world from one point, as a continuity."[34] Nature in the Chinese mind has been conceived as a unified and organic system. Man, as a living creature within the system, should be harmonious with nature. This is the underlying meaning of feng-shui. The motives which created feng-shui from its animistic origins can be recognized very easily. They are the wishes of man. In the final analysis, feng-shui is a psychic act to fulfill human desire. Thus, when De Groot says that feng-shui is "not generous, but selfish," he is correct in the psychological sense.

CONCLUSION

Feng-shui is a psychic process in search of a meaning. Unconsciously, the Chinese people applied a series of symbols (such as the Eight Trigrams) for self-protection and self-expression. The principle of yin-yang is nothing but a psychic projection. Through the equilibrium between the inside world and the outside world, man's conscious and unconscious mind achieved a state of balance. To maintain the integrity of nature, houses are built at a site in harmony with the built-in rhythm of nature, resulting from the movement of ch'i. Thus, the "intuition" of space is not a "reading" or apprehension of the

properties of objects, but, from the very beginning, an action performed on them.[35]

Many Western writers have typically been less kind to feng-shui. "A ridiculous caricature of science," "farrago of absurdities" (De Groot), and a "perverse application of physical and meterological knowledge,"[36] are among the names that feng-shui has been called. The scoffers looked down upon feng-shui because it was based on superstition.

However, the value of feng-shui should not be overlooked in terms of its psychological meanings. "In feng-shui, as in alchemy, a main purpose is to achieve certain results in the psyche, and, hence, material things are evaluated above all in terms of their psychological properties."[37] One cannot make sense of it by regarding it as just a defective natural science, a king of superstitious fortune-telling, or an adjunct of social organization -- although it undoubtedly does have all these aspects.[38] If we admit that "any activity has to take place with a psychologically satisfactory frame," we will be able to appreciate more the psychic act of feng-shui.

Footnotes:

[1]E. A. Gutkind, Revolution of Environment (London: Kegan Paul, Trench, Trubner & Co., 1946), pp. 211-2.

[2]C. G. Jung, On the Nature of the Psyche, translated by R. F. C. Hull (Princeton: Princeton University Press, 1969), p. 48.

[3]Ibid., p. 17.

[4]Ibid., p. 62.

[5]Ibid., p. 30.

[6]Kuo P'u, Tsang Ching (Hsing Chu, Taiwan: Ch'uang-yi Publishing Co., 1968), p. 81.

[7]Jack M. Potter, "Wind, Water, Bones and Souls: The Religious World of the Cantonese Peasant," Journal of Oriental Studies (Hong Kong University Press), Vol. VIII, No. 1, January, 1970, p. 151.

[8]Aniela Jaffe, "Symbolism in the Visual Arts," in Man and His Symbols, ed. by C. G. Jung, et. al., A Laurel ed. (New York: Dell Publishing Co., 1964), p. 237.

[9]Sigmund Freud, Totem and Taboo, translated by A. A. Brill, A Vintage Book (New York: Alfred A. Knopf, Inc., 1946), p. 99.

[10]Needham, op. cit., p. 269.

[11]Nelson I. Wu, Chinese and India Architecture (New York: George Braziller, 1963), p. 11.

[12]Translated by Wu, Ibid., p. 12.

[13]J. J. M. De Groot, The Religious System of China (Leiden: E. J. Brill, 1897), Vol. III, p. 949.

[14]Kuo P'u, op. cit., p. 11.

[15]Juliet Bredon, Peking (Shanghai: Kelly & Walsh, Ltd., 1922), p. 315.

[16]Suetoshi Ikeda, op. cit., p. 304.

[17]For a typical example, see Yang Yün-sung (T'ang dynasty), Ch'ing Nang Ching.

[18]Earnest J. Eital, Feng-Shui (London: Trübner & Co., 1873), p. 10.

[19]Wolfram Eberhard, "The Political Function of Astronomy and Astronomers in Han China," in Chinese Thought & Institutions, ed. by John K. Fairbank, Phoenix edition. (Chicago: The University of Chicago Press, 1967), p. 35.

[20]J. J. M. De Groot, op. cit., pp. 985-6.

[21]Fung Yu-lan, A Short History of Chinese Philosophy, p. 129.

[22]John T. Howard, "Planning Is A Profession," American Institute of Planners Journal, Vol. XX, No. 2, Spring, 1954, p. 58-59.

[23]J. J. M. De Groot, op. cit., p. 1,011.

[24]Earnest J. Eital, op. cit., p. 61

[25]Richard Wilhelm, The Secret of the Golden Flower, A Harvest Book (New York: Harcourt, Brace & World, Inc., 1962), p. 11.

[26]C. G. Jung, Psyche and Symbols (Garden City, New York: Doubleday & Co., 1958), p. 250.

[27]C. G. Jung, On the Nature of the Psyche, p. 48.

[28]Shung-Sheng Ling, "Origin of the Ancestral Temple in China," Bulletin of the Institute of Ethnology (Taipei: Academia Sinica), Vol. 7, Spring, 1959, p. 177.

[29]Ibid., p. 145.

[30]Ibid., p. 178.

[31]C. G. Jung, On the Nature of the Psyche, p. 57.

[32]Sigmund Freud, op. cit., p. 99.

[33]Ibid., p. 119.

[34]Ibid., p. 101.

[35]J. Pigat & B. Inhelder, The Child's Conception of Space (London, 1956), p. 449. Adopted from Charistian Norberg-Schulz, Intentions In Architecture (Cambridge: The M. I. T. Press, 1965).

[36]George Sarton, Introduction to the History of Science (Baltimore, 1927), Vol. 1, p. 345.

[37]Andrew L. March, "An Appreciation of Chinese Geomancy," Journal of Asian Studies, Vol. XXVII, No. 2, February, 1968.

[38]Ibid.

CHAPTER THREE

CITY FORM AND COSMOLOGY

This chapter will deal with the Chinese city form from the cosmological point of view. It is interesting to note that the people in traditional China believe that "the heaven is round, the earth is square." (T'ien-yuan ti-fan.) Created collectively and hardened into a fairly rigid form through generations, the cosmic diagram, the square and the circle, has exerted profound influence on city form. This chapter will examine the concept of t'ien-yuan ti-fan and its impact on the physical environment in traditional China.

T'IEN-YUAN TI-FAN: THE CHINESE MANDALA

A. The Cycle and the Square: Probably the earliest literature recording the concept of t'ien-yuan ti-fan is the I Ching: "The Creative is heaven. It is round....It is father...The Receptive is the earth, the mother." The I Ching did not specify that the earth is square. However, the square-earth idea can be traced back as far as the second century before Christ to another Chinese classic, the Ta Tai Li Chi, a paragraph of which reads as follows:

> "Tseng Tzu said, "That to which Heaven gives birth has its head on the upper side; that to which Earth gives birth has its head on the under side. The former is called round, the latter is called square....The square is dark and the round bright. The bright radiates ch'i, therefore, there is light outside it. The dark imbibes ch'i, therefore, there is light within it. Thus, it is that fire and the sun have an external brightness, while metal and water have an internal brightness. That which irradiates is active (shih), that which imbibes irradiation is reactive (hua). Thus, the yang is active and the yin reactive."[1]

Here, Tseng Tsu, the disciple of Confucius, not only introduced the idea of t'ien-yuan ti-fan, but also related this concept to the principle of yin and yang.

The square symbolizes the four cardinal points, four seasons, and the Four Emblems which are derived from the Two Forms (yin and yang). The square motif is an expression of man himself. As shown in the square-shaped "Han tile" design (Figure 4), with the four animals in the four directions, man is in the center. Similar examples regarding the four creatures at the cardinal points have been given by C. G. Jung in his article, "Concerning Mandala Symbolism," in Archetypes and the Collective Unconscious, 1959. Jung holds that "Animals generally signify the instinctive forces of the unconscious, which are brought into unity within the mandala. This integration of the instincts is a

prerequisite for individuation." (p. 366)

The concept of "round heaven" was symbolized by the circle. The significance of the circle can be interpreted as (1) representation of Tao or One; and (2) the symbol of the Self.

1. Circle as representation of Tao or One: Lao Tzu says, "Heaven and Earth and the ten thousand things are produced from Being; being is the product of Non-being." It can be assumed that for the universe to have come into being, there must exist an all-embracing first principle, which is called Tao. The role of Tao in the cosmic order has also been noted by Lao Tzu:

> Tao produced the One.
> The One produced the two.
> The two produced the three.
> And the three produced the ten thousand things.

The "One" can surely include everything. Tung Chung-shu termed it as "yüan" (origin). "Yüan is the root of all things, and it has man's own origin." Chuang Tzu says,

> The universe and I came into being together;
> I and everything are One.[2]

The great One is the term given to that which has nothing above it. It is the Supreme Ultimate, the void, the empty infinity without beginning, without end, without past and without future. The conception

of "Oneness" has been symbolized by a circle. Chu Hsi says, "Principle is like a circle."

2. Circle as the Symbol of the Self: The original meaning of mandala is "the ritual or magic circle used in Lamaism and also in Tantric yoga as a yantra or aid to contemplation."[3] The true mandala is always an inner image, which is gradually built up through "active imagination, at such times when psychic equlibrium is disturbed or when a thought cannot be founded and must be sought because it is not contained in holy doctrine."[4] The mandala, reflecting man's mental image, is "metaphysical" in nature. "Unless everything deceives us, it signifies nothing less than a psychic centre of the personality not to be identified with the ego."[5] The center acts like a magnet on the disparate materials and processes of the unconscious and gradually captures them as in a crystal lattice. For this reason the center is often pictured as a spider in its web (Fig. 7), especially when the conscious attitude is still dominated by fear of unconscious process."[6] Thus, C. G. Jung called the center the "Self." The circular symbols of the magic dance, the crowned dragon, the Golden Flower, and the dream of a snake with its tail in its mouth are all examples of the mandala motif.[7]

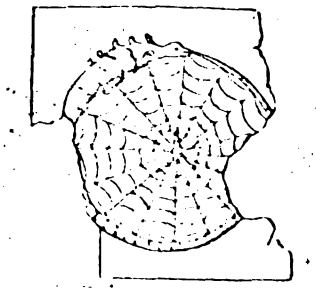


Fig. 7 Maya, the eternal weaver of the illusory world of the senses, encircled by the Uroboros.

Source: Jung, Psychology And Alchemy, 1944, p. 208.

As a psychic content, the image of roundness is found almost in every corner of the world. Recalling Chu Hsi's remark that "principle is like a circle," Van Gogh says, "Life is probably round."[8] Joe Bousquet also says, "He had been told that life was beautiful. No! Life is round."[9] And the concept of "center" and "round heaven" is also found in Rilke's Poèmes francais:

> Tree always in the center
> Of all that surrounds it
> Tree feasting upon
> Heaven's great Dome. [10]

Here, around a lone tree, which is the center of a world, the dome of the sky becomes round. This conception is not a question of observing, but of experiencing being in its immediacy. It is a psychic projection. "Images of full roundness help us to collect ourselves, permit us to confer an initial constitution on ourselves, and to confirm our being intimately, inside."[11]

The square and the circle, while they have their own meanings, are not separate entities. The imaginative cosmic order can never be perfect without the

integration of heaven and earth, i. e., the circle and the square. They are not in conflict but complement each other.

B. The Mandala of "Three-heaven and Two-earth":

It should become clear that the Supreme Ultimate is One, symbolized by the circle. The four Emblems, four seasons, and four cardinal points are all derived from the One (the Supreme Ultimate). Then comes the squaring of the circle. This has been "one of the many archetypal motifs which form the basic patterns of our dreams and fantasies."[12] C. G. Jung called it the "archetype of wholeness."[13]

As symbolized by the sixty-four hexagrams, all things are growing and decaying endlessly in the stream of the universe. It is a process of ceaseless evolution. The I Ching introduces this concept of evolution by designating a series of numbers as below:

> Heaven is one, earth is two;
> Heaven is three, earth is four;
> Heaven is five, earth is six;
> Heaven is seven; earth is eight;
> Heaven is nine, earth is ten.

There are five heavenly numbers and five earthly numbers. The number for the heaven is odd, for the

earth is even. The continued interaction of heaven and earth may be symbolized by squaring the circle and then circling the square (Fig. 8). This is known to the Chinese as the mandala of "three-heaven and two-earth" (tsan-t'ien lian-ti). The reason for designating three circles and two squares is, according to K'ung Yung-ta (574-648), that "two is the even number; and three the beginning of odd number." The One is not regarded as the beginning of

Fig. 8 Mandala of "three-heaven and two-earth"

odd number, because "three" (heaven) is covering "two" (earth, and "two" covering "one" heaven).[15] One is supreme over anything. One includes and is independent of all numbers.

CITY FORM AND THE MANDALA

As Mircea Eliade says, "The chief difference between the man of the ancient and traditional societies and the man of the modern societies with the strong imprint of Judaeo-Christianity lies in the fact that the former feels himself indissolubly connected with the Cosmos and the cosmic rhythm, whereas, the latter insists that he is connected only with History."[16] The meanings of human acts in traditional societies "are not connected with their crude physical datum but with their property of reproducing a primordial act, of repeating a mythical example."[17] For traditional man, reality is a function of the imitation of a celestial archetype.[18]

Eliade's theories, cited above, prove to be strikingly valid, when used to interpret Chinese city form in relation to the cosmic pattern, as reflected by the Chinese mandala. Most ancient Chinese cities are, like ancient Roman towns, walled in a square or rectangular shape. With the exceptions of the cities in southern China, "all important imperial capitals in Chinese history were of square or rectangular form symbolizing the miniature of the known world."[19] It is perfectly true when Gutkind says that "The rectangular form in general and the internal division by the main

streets connecting the gates were conditioned by the conception of the Earth as a square and by the symbolism attached to the idea of a town and to its foundation."[20] Also, William Willetts remarks, "Choice of the square was probably dictated by cosmological belief. Earth was thought of as square, and was worshiped by means of a square altar at sacrifices presided by the ruler."[21]

To illustrate the symbolic expression of cosmology through city form, the Cities of Peking and Chang-an, together with the "Ming T'ang" development, will be discussed below.

1. The City of Peking: Peking continued to be the seat of the capital of Liao, Yüan, Ming, and Ch'ing (Manchu) dynasties for nearly 1,000 years from the latter part of the tenth century. It shows all the characteristics of a Chinese town, from the magical symbolism to the bustling economic life of modern China.[22]

As shown in Fig. 9, Peking is a combination of square and rectangular shapes. It consists of five walled-in districts, three of which are enclosed concentrically one within the other. The innermost part, the Forbidden City, is surrounded by a wall and a moat. Surrounding it as the next zone is the Imperial City, the old home of the lesser members of the Court

Fig. 9 Peking Plan
(See next page for description of the numbers.)

Source: Willetts, Foundation of Chinese Art, p. 373.

Description of the Numbers in Figure 9

1. Te-sheng Gate
2. Bell Tower
3. Drum Tower
4. Hou Men (Gate)
5. Prospect Hill
6. San Ta Tien
7. Wu Men (Gate)
8. Central Park
9. Working People's palace of Culture
10. T'ien-an Men Square
11. Observatory
12. Ch'ien Gate
13. Temple of Agriculture
14. Temple of Heaven
15. An-ting Men (Gate)

(bounded on the north by Hou men and on the south by T'ien-an Men, or the Gate of Heaven's Peace). Then comes the Tartar City with its lakes. The Chinese City adjoins on the south.

The city walls have special meanings. According to the Chinese concept of cosmos, the reality of the universe is understood as the combination of "a six-sided world" (top, bottom, and four sides) plus the time element: past, present and future. Chuang Tzu called this six-sided world "liu ho" (six-side enclosures). Thus, the Chinese universe is actually a cube. As this cube of a universe spins down the central axis of time, Chinese history unreels, the four seasons revolving with the Chinese cyclical calendar. There are good years and bad years, but the nation is forever the "Central Kingdom" -- which is, in fact, the

meaning of "China" in the Chinese language. The walls, in addition to other functions, reinforce the sense of space, denoting the central location of the city in the six-sided world.

Examples of the "center" conception are abundant. Chuang Tzu's friend Hui Shih says, "I know the center of world; it is north of Yen and south of Yüeh." Here Hui Shih implied that northern China was the center of the world. Aside from the "han title" design revealing man's location in the center of the world, the image of center has also been symbolized by the location of one of the Five Elements, earth, in the center. Eliade adds that "The capital of the perfect Chinese sovereign is located at the center of the world."[23] With the center concept in mind, the city of man was always walled to separate it from the outside world.

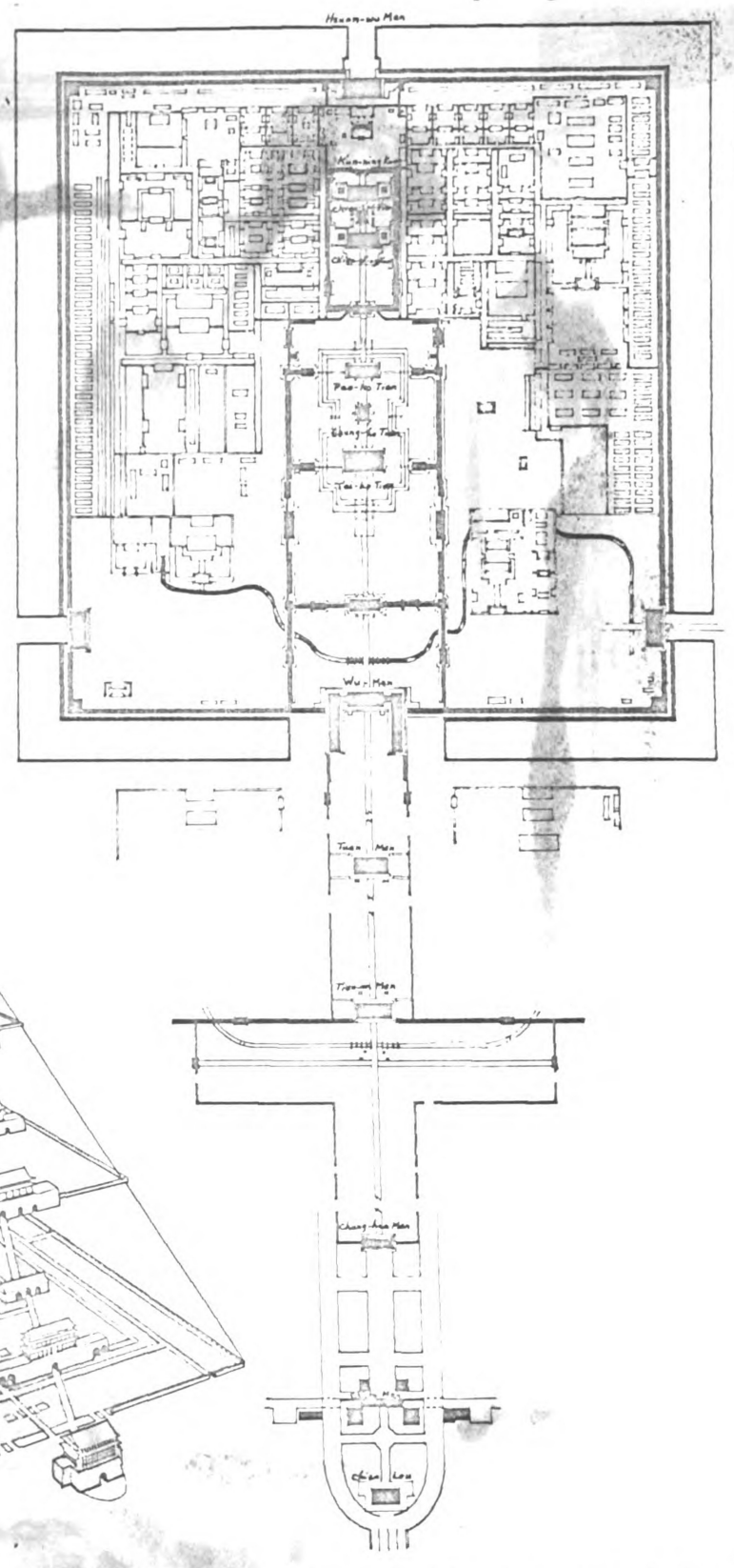
In the Chinese mind, because of the situation at the center of the cosmos, the temple or the sacred city is always the meeting point of the three cosmic religions: heaven, earth, and hell. The center, then, is preeminently the zone of the sacred, the zone of absolute reality.[24] The road leading to the center is a "difficult road."[25] The Forbidden City, abode of the Son of Heaven (T'ien Tzu), the Emperor, is not accessible to the common people. As shown in

Fig. 10, the access, which is "forbidden," is through a number of Gates. The area depicted in this figure is identical to the area of Numbers 6 to 12 in Figure 9.

Although the actual height of the palace is not very striking, the length of the long southern avenue must be interpreted as height. The long avenue of approach from the south, with all the gates and yards, enhances the significance of each stage of procession to the Forbidden City. No matter how the natural terrain of China is formed, one always goes up to Peking (shang Peking). The psychological height of the Forbidden City is illustrated in Figure 11. The area depicted in this figure is identical with that of Figure 10 from the bottom. The roof of the central square building, T'ai-ho Tien, on the top indicates a meeting point of the axis, a point leading to Heaven. T'ai-ho Tien, therefore, is the climax coming after a sequence of nine important doorways. The emperor's Audience Hall is, therefore, "high;" and we shall see how the height of heaven is expressed.

Discussion of Peking in relation to cosmology would be incomplete without including the various altars in the city. In the ancient religions of China, the gods and spirits which were generally worshiped

Fig.10 *The Forbidden City and the buildings on the Central Axis. Map.*



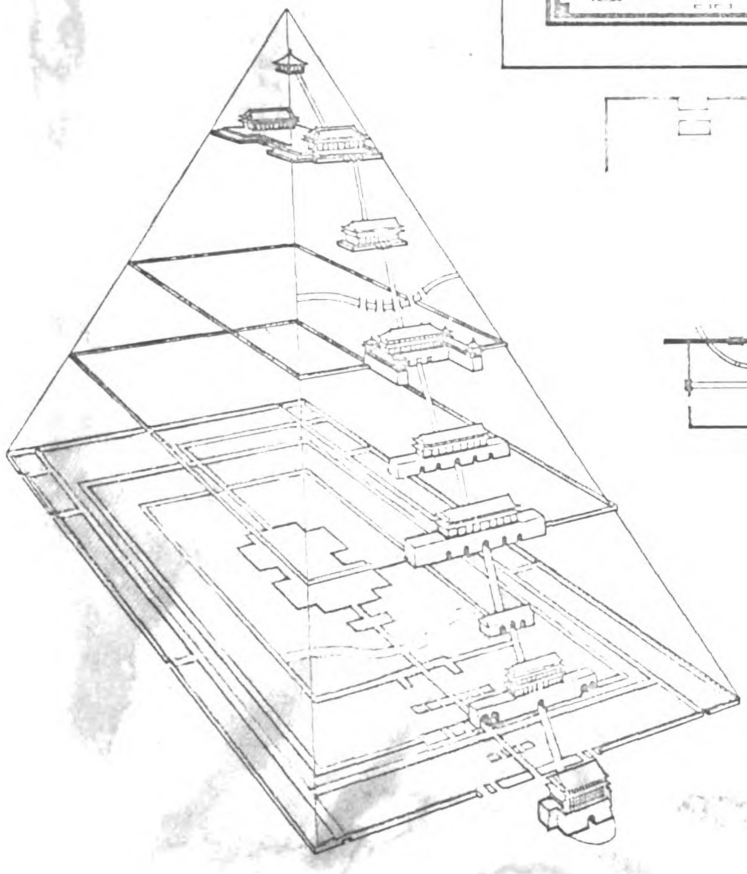


Fig.11 *Plan of Peking interpreted as volume, with the front and rear courts of the palace superimposed, (shaded area).*

Source: Wu, Chinese And India Architecture, 1963.

were divided into four classes: Shang-ti (the Supreme Being), Heavenly Gods, Earthly Gods, and Human Ghosts.[26] Sacrifices were made to these supernatural beings either at a tan (raised platform, or alter) or a shan (level spot, or court). According to Professor Shun-sheng Lin, "Rank differentiation was mandatory in ancient China for the performance of sacrificial rituals; only the emperor and his princes were allowed to sacrifice to Shang-ti, Heavenly Gods, worldly deities, and Human Ghosts; and the sacrificial ritual for Shang-ti, in particular, had to be performed by the Son of Heaven, the emperor, himself. Naturally, the ancient tan's and shan's were built in the capital areas.[27]

The tan or shan provides spiritual relief to the city dwellers. As Sylvia Thrupp contends, when men first began to build cities, they were concerned with more than shelter, convenience, and defense. The temples and alters of early cities were centers of communication with a people's gods - centers in which kings and priest, with appropriate rituals, called upon the gods to favor and defend the city. From this cult function of the city came the idea of "cosmicizing" the city's design, of making it a model and a symbol of an ordered universe.[28]

As shown in Fig. 12, the Temple of Heaven complex (No. 14 in Fig. 9) at the southeastern portion of

Peking is composed of the following structures, viewed from south to north:

A. Yuan-chiu Tan (commonly known as the Alter of Heaven).

B. Huang-ch'iung Yü (the Imperial Firmament).

C. Chi-nien Tien (the Hall of Annual Prayer, or the Temple of Heaven) on Chi-ku Tan.

The tan and shan were unsheltered, and all sacrifices were made in the open.[29] The openness of the Alter of Heaven is a typical example. The circular structure of three tiers with a central plan (Fig. 13, identical with the southern squared portion in Fig. 12) does not belong to any courtyard, but is simply situated under heaven and on earth. As Nelson Wu remarks,

> "On this Alter man has no privacy from heaven and the roof is removed as if it were a hat from his head. There is a mute message in the rectangular plan with its northern end rounded off. The traditional idea of t'ien-yuan ti-fan (heaven round and earth square) is here a vertical volume sitting squarely on earth and terminating in the firmament of heaven."[30]

The Alter of Heaven, the small intermediate building, and the Chi-nien Tien are therefore the humble efforts of man to arrange on a horizontal axis elements that should rise in succession one above the other, with the necessary gateways to heaven in between.

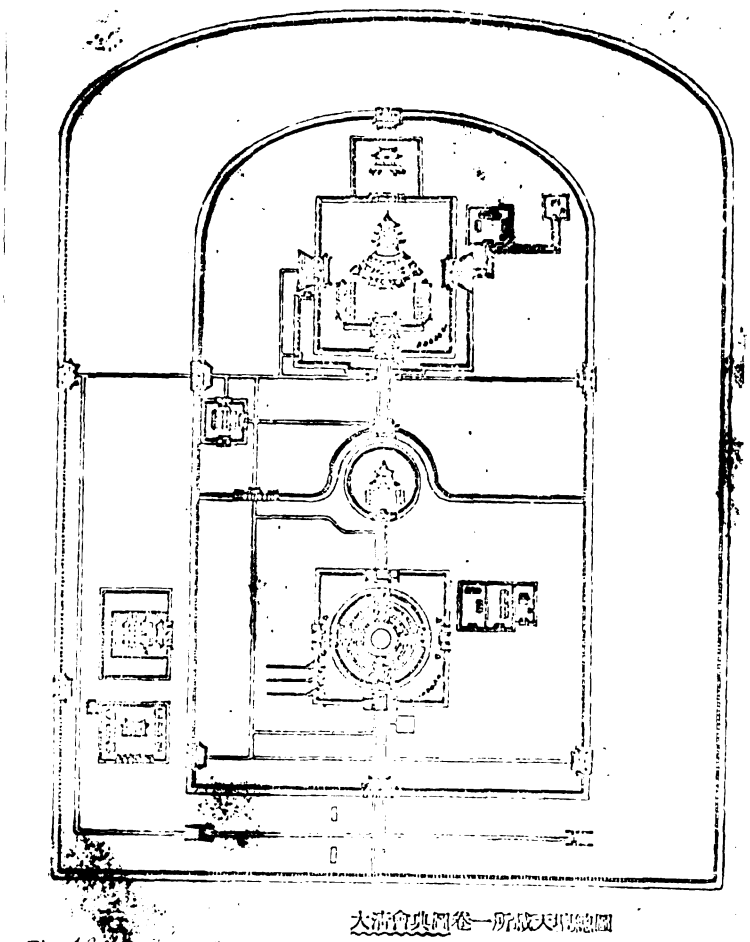


Fig. 12 General View of the Altar of Heaven (as contained in Vol. 1, Pictorial Book of the Various Rituals of Ching Dynasty).

Source: Ling, "The Sacred Enclosures and Stepped Pyramidal Platforms of Peking," p. 44.

A divisional wall, separating north and south, symbolically separates above from below (Fig. 14). Significantly, this wall is semicircular, and therefore may be interpreted as a semi-spherical dome which the passage to the Temple must penetrate. The glazed tiles roofing the Temple are the roof of the entire composition - the azure sky.[31]

The intermediate small buildings, the Huang-ch'iung Yü, housed the tablets representing various gods and ancestors of the royal house. It is the intermediary station between earth and heaven, just as the ancestors and gods are perhaps the links between man and the mysterious energy of nature. In the ceiling of this small building, the square motif of earth is transformed into the circular motif of heaven as it progresses to the center (Fig. 15). The building is walled on three sides, excepting the entrance from the south, and the journey north is blocked -- for from here, the way leads heavenward.

The temple of Heaven also has a domed ceiling inside its unusual three-tier roof construction. But here the circular motif in the middle rises above the dome leaving an "eye" in the ceiling similar to that of the Pantheon in Rome. Man's physical passage

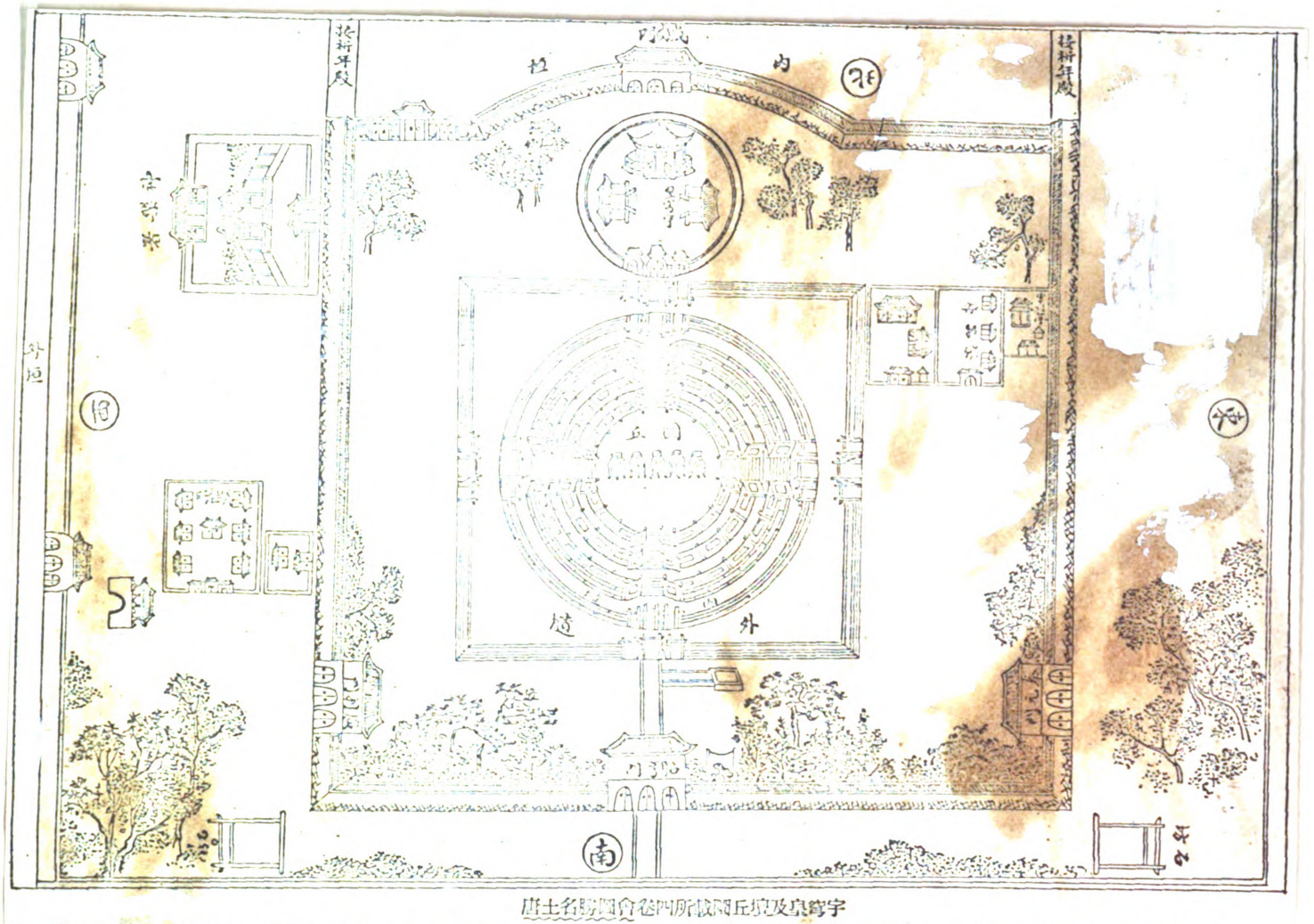
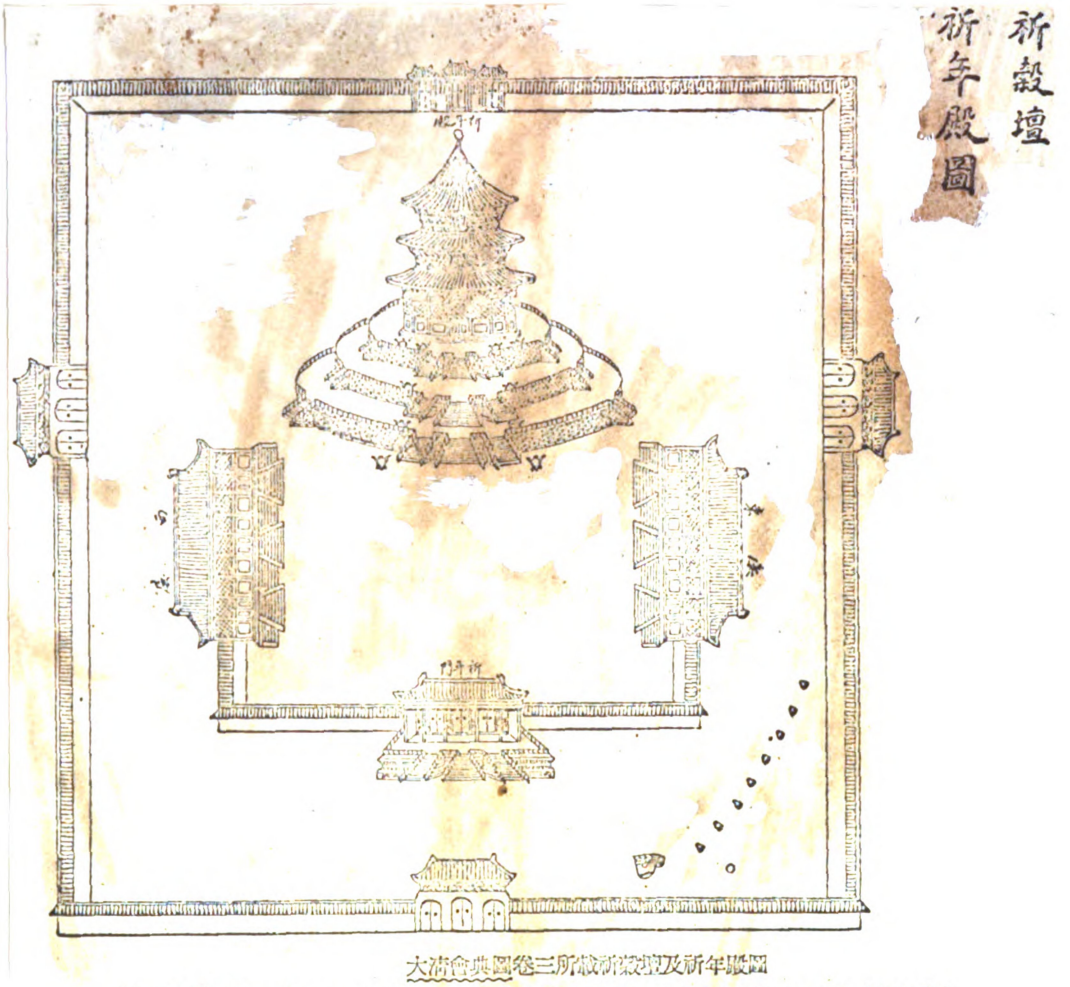


Fig. 13 The Round Terrace of Heaven and the Hall to the Vast Heavens (as contained in Vol. 4, Drawings of Famous Scenes of China).

Source: Ling, "The Sacred Enclosures and Stepped Pyromidal Platforms of Peking," p. 42.



大清會典圖卷三所載祈穀壇及祈年殿圖

Fig. 14 The Altar and the temple of Grain (as contained in Vol. 3, Pictorial Book of the Various Ritual's of Ching Dynasty).

Source: Ling, "The Sacred Enclosures and Stepped Pyramidal Platforms of Peking," p. 49.

Fig. 15 Ceiling of Huang-ch'iung Yü.

Source: Wu, Chinese And India Architecture, 1963.

in the ceremony ends here, beneath it. He looks up and spiritually soars through the opening.

Whereas the Alter of Heaven is round, the Alter of Earth at the northeast side of An-ting Men (Number 15 in Fig. 9) in Peking is square in shape (Fig. 16).

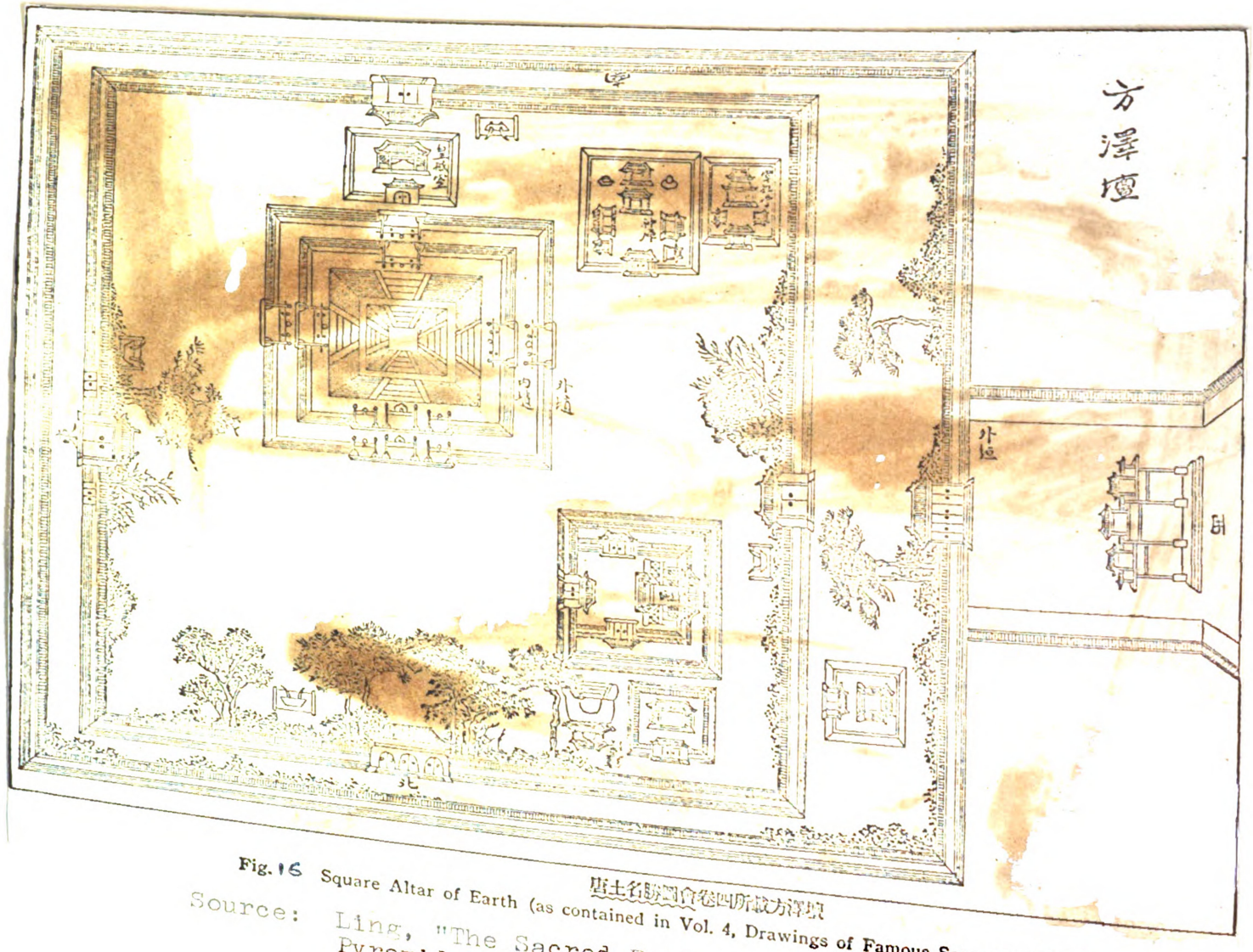


Fig. 16 Square Altar of Earth (as contained in Vol. 4, Drawings of Famous Scenes of China)
皇朝瑣屑錄卷四所載方澤壇

Source: Ling, "The Sacred Enclosures and Stepped Pyramidal Platforms of Peking," p. 51.

As mentioned earlier, the earth was worshipped on a square altar with sacrifices presided over by the emperor. The graphics make it clear that the physical form was an expression of idealogy (the mandala motif).

2. The City of Chang-an: Chang-an is located by the Wei River in Shen-si province. It was founded in 1327 B. C. and was the capital of "Western Han," Sui and T'ang dynasties.

As shown in Fig. 17, the location of the city has shifted over time. During the earlier period of Sui dynasty, Emperor Wu (for mystic reasons) decided to found the new capital at a site southeast of the old Chang-an. Feng-shui was one of the important factors. Astronomers were no doubt employed as well, to assure that the orientation of the new capital was attuned to the cosmic order. Recent excavations of the walls have shown that the north-south axis is only sixteen minutes west of true north.[32]

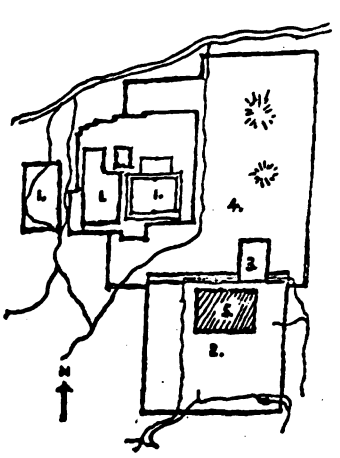


Fig. 17

Relation of various parts of Ch'ang-an
1. Han city
2. T'ang city
3. The Ta-ming Palace of the T'ang period
4. Imperial Park
5. Sian of the Ming and Ch'ing periods

Source: Boyd, Chinese Architecture And Town Planning, 1962, p. 53

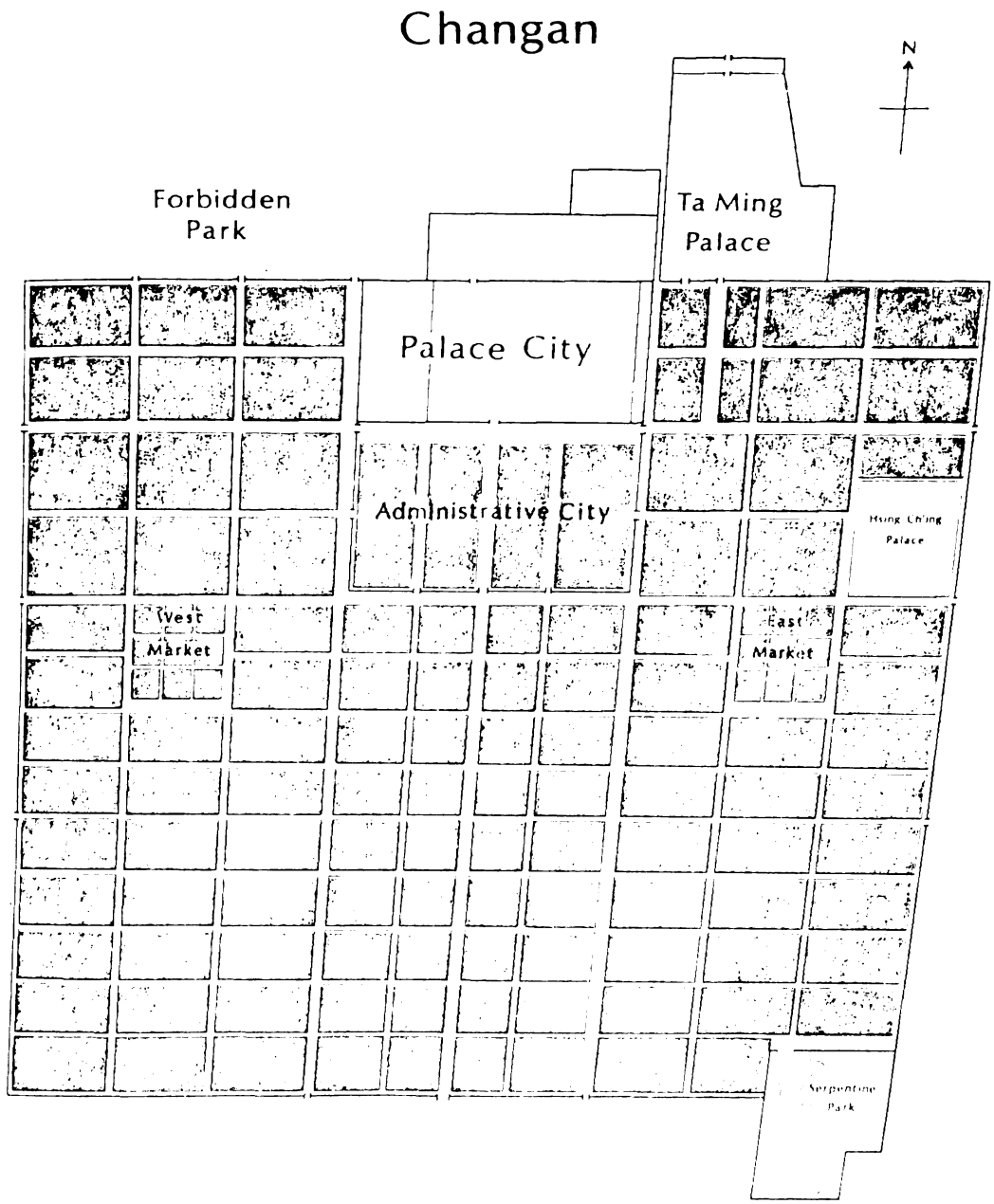


Fig. 18

The original city plan as reconstructed from historical accounts and recent archeological excavations. Adapted from K'ao-ku 1963, No. 11, Plate 1.

Source: Wright, "Viewpoints on a City: Chang-an (583-904): Chinese Capital and Asian Cosmopolis," p. 19.

The Sui-T'ang Chang-an was 5.92 miles east and west, 5.27 miles north and south - fairly square in shape (Fig. 18). The division of the city into three main precincts - the outer city (with its 106 walled wards and two markets[33]), the administrative (or the imperial) city, and the palace city - represents a logical development of ideas that had been common in northern China. The layout of the city, showing the grid street plan and the orientation to the four points of the compass, is a typical one in traditional Chinese city design.

As a capital city, Chang-an has been symbolized as the center of the earth, as well as playing a leading role throughout the empire as a political, cultural, and socio-economic center. It is interesting to note that the square or rectangular shape and the north-south axiality of both Chang-an and Peking symbolize exactly the Chinese character "center," written as 中 (ch'ung).[34]

The royal palace in the center dominates the whole city and, symbolically, the universe. The Son of Heaven, facing south in the great audience hall known as the Palace of the Supreme Ultimate (T'ai-chi Tien), dominates the bureaucrats working in their special precinct directly below him.

Tribute missions or returning provincials who entered the city through the monumental central gate, the Gate of Luminous Virtue (Min-te Men), in the south wall were subjected to a spatial dramatization of the powers that presided over the city and the empire. On both sides of the broad treelined avenue were the populous walled residential wards, then - to the right and left, the metropolitan temples of Buddhism and Taoism - centers of the state's control of these religions. Then came the great gate that led into the main north-south street of the Imperial City.

Then, passing out the north gate of the administrative city, the traveler would pause before the imposing gate of the palace city - the "Gate of Acquiescence to Heaven" (Ch'eng-t'ien Men). When the Gate swung open, the splendors of the great palace on its terraced foundations lay before him. "Here was the seat of earthly power and here was the center of the cosmos."[35]

The gate to the administrative city from the south is the Gate of Red Phoenix (Chu-ch'iao Men). The gate to the palace city from the north is called Hsuan-wu Men (Gate of the Black Serpent). The Red Phoenix and Black Serpent are among the four animals depicted on the "Han tile." The "Han tile" is a rigid and finite design. When circumstances permit, this image is readily translated into the classical city plan of

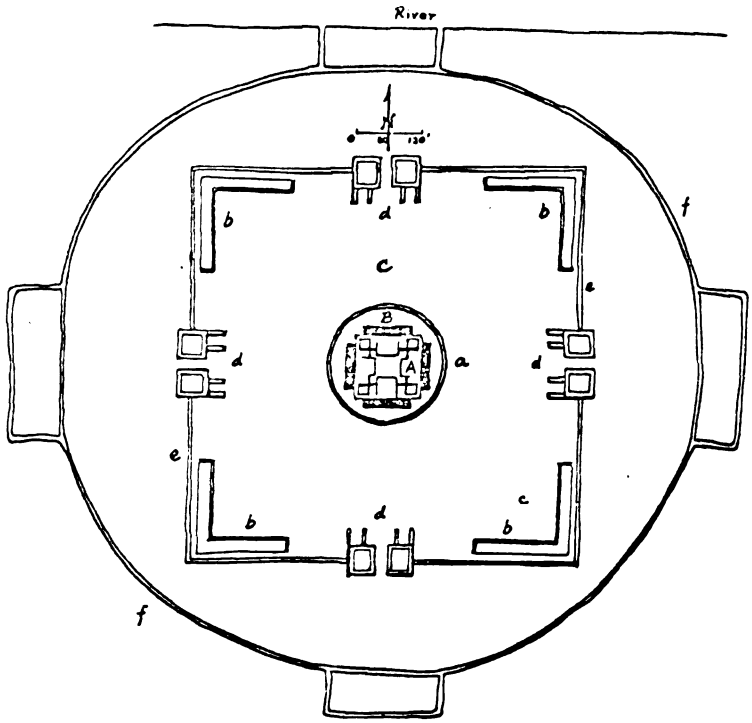
China, sometimes using the same animal symbols to name the gates at corresponding cardinal points. It manifests an intellectual order superimposed upon a natural terrain. The Sui-T'an Chang-an and its Japanese copies, Nara and Kyoto, together with many other traditional Chinese cities, are such expressions.

The Han dynasty Chang-an was a makeshift capital (Fig. 16). The city was not a square or rectangular one because of irregular terrain. The high and steep terrace was made by shaping the top of a natural hill, such as the Dragon Head Hill for the Han palace. According to the K'ai Kung Chi (a "Code Book of Works") in the Li Chi, the Han Chang-an had "three gates on each side... The Altar of Ancestor is to the left (east), and that of Earth, right (west). The court is held in front, and marketing is done in rearing," forming a Chinese mandala of nine squares with a man in the center.[36]

3. The Ming T'ang Development

Probably the most typical architectural design reflecting the Chinese mandala motif is a well-planned site founded in a recent excavation in the vicinity of the City of Sian.[37] It is believed that the site was developed in the Han dynasty. As shown in Fig. 19, its central plan is

accentuated by a sequence of concentric circles and squares, as might be expected. Circled by a moat, the square-shaped walls have four gates on each side. Within the walls there is another moat 195 feet in diameter. Surrounded by said moat, there are terraces and buildings in the four directions.



Ming T'ang Pi-yung, Sian, early first century. A. Square terrace. B. Circular terrace (195 feet in diameter). C. Square terrace (673 feet north-south, 676 feet east-west, about 5 feet 4 inches above ground level). a. central buildings, b. corner buildings, c. well, d. gates, e. wall, and f. moat.

Fig. 19 Plan of a Ming T'ang in the Han dynasty.

Source: Wu, Chinese and India Architecture, 1963.

The use of the subject site is still uncertain. Some authors believed that it was a Ming T'ang. According to Nelson Wu, a Ming T'ang is a place where the emperor performed religious ceremonies for the state.[38] As noted by Cammann, the Ming T'ang usually had a square plan to resemble the earth, and it was covered by a circular roof to resemble the sky.[39] It was also the emperor's living place. As Needham remarks, "In the proper pavilion of the Ming T'ang or Bright House, no less his dwelling place than the temple of the universe, the emperor, clad in the robes of color appropriate to the season, faced the proper direction, caused the musical notes appropriate to the time to be sounded, and carried out all the other ritual acts which signified the unity of heaven and earth in the cosmic pattern."[40] In the Chou dynasty, the Ming T'ang usually had five rooms (Fig. 20). Each room represents one of the Five Elements in accordance with the cardinal points. According to the K'ao Kung Chi, the "wood room" was located at the

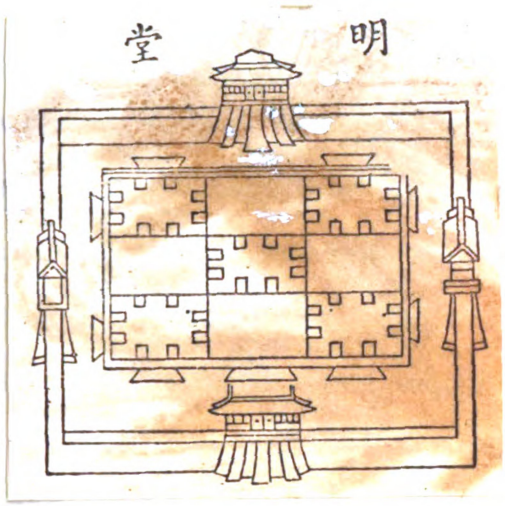


Fig. 20 Ming T'ang in the Chou dynasty

Source: Yi-tung Ch'ung-Tai, The History of Chinese Architecture, p. 81.

northeast corner, the "metal room" southwest, the "water room" northwest, and the "earth room" in the middle.[42] The room in which the emperor resides corresponded with the Five Elements in relation to the four seasons. Accordingly, he lived in the room at the northeast corner in Spring, at the southeast in Summer, at the southwest in Autumn, at the northwest in Winter, and at the center in the last month of Summer.[43]

CONCLUSION

The form of Chinese cities is a repetition of a divine model. The origin of the square or rectangular city form is by and large creditable to the concept that the earth is square. Cities were designed to reflect the cosmic pattern and the proper position of man in the universe. They were miniature representations of the universe.

The symbol is not merely a means of expression. It creates an effect in its maker.[44] Expressing man's inner self through the mandala motif, the making of a city form is a process of unconscious activities. Therefore, within the city's built-up space, there lies a hidden dimension which conveys a certain intangible meaning. The city is not merely a place of living and working but also a symbolic expression of psychic contents. In addition to performing socio-economic functions, cities should also be designed to meet man's psychological needs.

Footnotes:

[1] Translated by Needham, Science and Civilization in China, Vol. II, p. 269.

[2] Translated by Lin Yu-tang, The Wisdom of China and India (New York: Random House, 1942), p. 638.

[3] C. G. Jung, "The Symbolism of the Mandala," in Psychology and Alchemy, The Collected Works of C. G. Jung, Vol. 12 (New York: Pantheon Books Inc., 1944), p. 91.

[4] Ibid., p. 92.

[5] Ibid., p. 94.

[6] Ibid., pp. 209-210.

[7] Cf. Richard Wilhelm, The Secret of the Golden Flower, op. cit., and C. G. Jung, "The Symbolism of the Mandala," op. cit.

[8] Gaston Bachelard, The Poetics of Space, translated by Marla Jolas (Boston: Beacon Press, 1964), p. 323.

[9] Ibid., p. 232.

[10] Ibid., p. 239.

[11] Ibid., p. 234.

[12] C. G. Jung, "Concerning Mandala Symbolism," in Archetype and the Collective Unconscious, The Collected Works of C. G. Jung, Vol. 9 (New York: Pantheon Books Inc., 1959), p. 389.

[13] Ibid.

[14] Ch'ien Chi-po, Chou-I Jai-Ti Chi-Ch'i Tou-Fa (Taipei: Commercial Book Co., 1967), p. 91.

[15] Ibid.

[16] Mircea Eliade, Cosmos and History, translated by Willard R. Trask, A Harper Torchbook (New York: Harper & Row, 1959), p. vii.

[17] Ibid.

[18]Ibid., p. 5.

[19]Chang Sen-dou, "Some Observations on the Morphology of Chinese Walled Cities," unpublished paper read in the 64th annual meeting of the Association of American Geography, 1969.

[20]Gutkind, Revolution of Environment, op. cit., p. 296.

[21]William Willetts, Foundation of Chinese Art (London: Themes & Hudson Ltd., 1965), p. 362.

[22]Gutkind, op. cit., p. 321.

[23]Mircea Eliade, The Sacred and Profane, translated by Willard R. Trask, Harper Torchbook ed. (New York: Harper & Brothers, 1961), p. 39.

[24]Ibid., p. 17.

[25]Ibid., p. 18.

[26]Shung-sheng Ling, "The Sacred Enclosures and Stepped Pyramidal Platforms of Peking," Bulletin of the Institute of Ethnology Academia Sinica (Taipei), No. 16, Autumn, 1963, p. 83.

[27]Ibid.

[28]Cf. Sylvia Thrupp, "The City as the Idea of Social Order," in The Historian and the City, ed. by Handlin and Burchard, (Cambridge: The M.I.T. Press, 1963), p. 121.

[29]Shung-sheng Ling, op. cit.

[30]Nelson Wu, Chinese and India Architecture, op. cit., p. 44.

[31]Ibid.

[32]Arthur F. Wright, "Symbolism and Function," Journal of Asian Studies, Vol.24, No. 4, August 1965, p. 670.

[33]Arthur F. Wright, "Viewpoints on a City, Chang-an (583-904): Chinese Capital and Asian Cosmopolis," Ventures, Vol. V, No. 1, Winter 1965, p. 17.

[34]Cf. Lin Yutang, My Country and My People, rev. illustrated ed., a John Day book (New York: Reynal & Hitchcock, 1937), p. 315.

[35]Wright, "Symbolism and Function," op. cit., p. 672.

[36]Nelson Wu, op. cit., p. 37.

[37]Editorial Board of, Ch'ung-kuo Chien-chu Chien-shih (Peking: Ch'ung-kui Kung-yeh She, 1962), p. 35.

[38]Nelson Wu, op. cit., pp. 41, 45 and footnote 59 on page 119.

[39]Schuyler Cammann, "Types of Symbols in Chinese Art," in Studies in Chinese Thought, ed. by Arthur Wright (Chicago: University of Chicago Press, 1953), p. 199.

[40]Needham, Science and Civilization in China, Vol II, p. 287.

[41]Adopted from Shang Ping-ho, Li-tai She-huei Feng-su Shih-wu Kao, 2nd printing (Taipei: Commercial Book Co., 1967), p. 157.

[42]Yi-tung Ch'ung-tai, The History of Chinese Architecture, translated by Cheng Ching-chuan from Japanese to Chinese, 3rd printing (Taipei: Commercial Book Co., 1968), p. 83.

[43]Wilhelm, The Secret of the Golden Flower, op. cit., p. 102.

CHAPTER FOUR

HOUSING COMPOSITION AND COSMOLOGY

Chinese people look at the universe not as a mechanical entity but as an orgasm endowed with moral ideals, as represented by Tao. Modeling the heavenly moral ideal, man has shaped his living space to maintain congruent social order and to meet his psychological needs.

THE MORAL ASPECT OF THE UNIVERSE

The universe, seen in the light of Chinese wisdom, is filled with the attribute of morality. The I Ching says:

> "One yin and one yang constitute what is called Tao. That which is perpetuated by it is good. That which is completed by it is the individual nature (hsing). The benevolent see it and call it benevolence (jen). The wise see it and call it wisdom."

The above statement is explained by Chiao Hsün (1763-1820) and Professor Fung Yu-lang. Chiao says, "That which is divided from Tao is called Fate (ming). That which is manifested in the individual is called his nature. The unity of Tao is divided so as to give completeness to the nature of individual man. The natures of all things are united so as to give completeness to the whole of Tao. One yin and one yang are what make Tao never ending."[1]

Human nature is expressed by acting in accordance with Tao, the universal principle. The nature of Tao and its relationship to man have been noted further by Professor Fung, "....The relation given here between Tao and the individual nature is exactly that of the Taoist between Tao and Te (morality). Tao is the all-embracing first principle through which all things are produced, and the natures of individual men and things are parts separated from this Tao. There is nothing evil produced by Tao and so the I Ching says: 'That which is perpetuated by it (Tao) is good.' It is only after Tao separates that it becomes defined and gives completion to something, and, therefore, the I says: "That which is completed by it is the individual nature.'"[2]

From the above it is seen that the universe in the Chinese mind is not a mechanical one but one endowed with moral spirit. The significance of this concept lies in the fact that the cosmic moral ideal has been modeled by man.

THE UNITY OF MAN AND UNIVERSE

It is seen from the above that human nature is derived from Tao. Thus, the nature of man and the nature of the universe are virtually unified. Cheng

Hao (1032-1086) says, "The human-hearted man is one with heaven and earth and all the myriad things." Chang Tsai (1020-1077) also says,

> "The nature pertaining to Heaven exists in man precisely as the nature of water exists in ice. Although freezing and melting are different (states), the substance (thus frozen or melted) remains one and the same."[3]

He further remarks,

> "Ch'ien is called the father and k'un the mother. We, these tiny beings, are commingled in the midst of them. I, therefore, am the substance that within the confines of Heaven and Earth, and my nature is that of two (two) commanders, Heaven and Earth. (All) people are my blood brothers, and (all) creatures are my companions."[4]

Here Chang not only emphasized the unity of man and universe, but also introduced the root of the Chinese concept that "all of the people within the four seas are my brothers." This concept -- that man and universe are -- one is reflected in housing as well as city development.

We are clearly told the attitude we should take toward the universe and the creatures in it. Not only is the body a micro-cosmos, as reflected by the correspondence of the parts of the human body with aspects of nature, but also, man's individual nature is identical with that of the universe. The universe is one great stream of life, and one great benevolence; therefore, it is the men imbued with this

benevolence who are capable of achieving oneness with the universe.

> "All things are complete with us." (Mencius)
>
> "The universe is my mind, and my mind is the universe." (Lu Chiu-yuan)
>
> "Man is never set apart from the universe, and the universe is never set apart from man." (Chu Hsi)
>
> "The excellence of the universe can be summed up in one word, namely, benevolence; the spirit of men can be equally summed up in one word, namely, benevolence." (Tai Chen)

Underlying the concept of the unity of man and universe is the implication that man should act according to the universal Tao. The Chinese way of being man is to strive to the utmost for the attainment of the supreme good in imitation of the cosmic splendour. This is very similar to the Indian religious idea, "Thus the gods do, thus men do."[5] "The great men and sages, so inspiring to the Chinese people, are the most ideal personalities, being identical in attributes with Heaven and Earth, coextensive with the wondrous infiltration of Tao, and conductive to the eminent deeds of universal love."[6]

In short, man and the universe in their common drift of life are so harmoniously interrelated that they take similar creative steps to arrive at the same destination. Human relationships are based on the unity of man and universe, and thus the Chinese family system has developed.

THE TRADITIONAL CHINESE FAMILY SYSTEM

The family is the fundamental unit of society. The major characteristics of the traditional Chinese family are: subordination -- of the individual to the group, the young to the aged, the living to the ancestor (through ancestor worship), the wife to the husband, the daughter-in-law to the mother-in-law; emphasis on progneny -- not romantic love -- as the prime reason for marriage, with the resulting commitments of arranged marriage and (for the wealthy, not the poor) concubinage; intense family solidarity -- giving to the individual the psychological and economic security that comes through membership in a tightly-knit group, but at the same time leading to frequent nepotism or parasitism.[7]

Probably the most distinguishing characteristic of the traditional Chinese family system is the tremendous household size. It is not surprising to find a rich family house of fifty persons under a single roof.[8] It should be noted that the joint family is achievable only by the upper class. The size of the family increased with the accumulation of wealth. Poverty and disease kept the families of the humbler villagers down to small numbers.[9] In modern China, the average peasant household size rages from 4.9 to 7.6 individuals in twelve hsiens (counties) of Fukien and Kwangtung Provinces.[10] It is

found that the "limited" extended family is the common pattern in the rural areas and the "true" extended family is an urban trait.

To understand better the Chinese family system, it is essential to note the ethics of social relationships which dictate the position of the individual in the family as well as in society.

Traditional Chinese society was organized with what were known as the five social relationships. They were those between sovereign and subject, father and son, husband and wife, elder and younger brother, and friend and friend. Each relationship was governed by a moral principle. As Mencius says, "Father and son should love each other. Sovereign and subject should be just to each other. Husband and wife should distinguish their respective spheres. Elder and younger brothers should have a sense of precedence. Between friends there should be good faith." These relationships and the moral principles governing them were considered as "the duties of universal obligation" (the Doctrine of Mean) which should be followed by all men.

Of these five social relationships, three are family relationships. The remaining two, the relatipnships between sovereign and subjects and between friends, though

not family relationships, can be conceived in terms of family. The relationship between sovereign and subject can be conceived of in terms of that between father and son. The relationship between friends can be conceived in terms of that between brothers. Indeed, this is the way in which the Chinese people usually conceive these relationships.

According to Tung Ch'ung-shu (c. 179-c. 104 B. C.), all things are correlated. The yin is the correlative of the yang, the wife of the husband, the son of the father, the subject of the ruler. There is nothing that does not have such correlates, and in each such correlation there is the yin and yang, Thus, the relationships between ruler and subject, father and son, and husband and wife, are all derived from the principles of the yin and yang. The ruler is yang, the subject yin; the father is yang, the son yin; the husband is yang, the wife yin. Thus, Tung concluded, "The regulations for love, righteousness, and social institutions are wholly derived from Heaven."[11]

Man's imitation of the cosmic pattern can be best examplified by the conception of marriage as the union of heaven and earth. Eliade says, "Marriage rites, too, have a divine model, and human marriage reproduces the

hierogamy, more especially the union of heaven and earth." "I am Heaven," says the Indian husband, "thou art Earth."[12] Similarly, the old Chinese saying goes:

> Heaven and Earth are the great husband and wife;
> Husband and wife are the small Heaven and Earth.

Marital union is a rite integrated with the cosmic rhythm and validated by that integration.[13] Marriage is a repetition of the union of Heaven and Earth.

According to the Chinese tradition, one of the rites during the wedding ceremony is to "worship Heaven and Earth" (pei-t'ien-ti). Unlike the Western custom, the traditional Chinese wedding ceremony takes place in the bridegroom's own home (chia), instead of the church. Chia, literally translated as "family," is not merely a place to live -- it is also a place for worship of the gods and ancestors. "The dual quality of the house, as a setting for ceremony and as a home, is a most important characteristic of the house as an image of human relationship."[14]

In this sense, the traditional Chinese people are living in the cosmos and are open to the world. This means (1) that they are in communication with the gods; and (2) that they share in the sanctity of the world. The dwelling is a microcosm.[15] The universe comes to inhabit man's house.[16]

HOUSING COMPOSITION IN TRADITIONAL CHINA

The traditional Chinese family system is governed by the five social relationships which are believed to correspond with the cosmic order. Following these social relationships is called li (obeying social norms). The essence of li is to humble oneself in order to honor others. The use of li is, therefore, "to assure security. Li-lessness means danger."[17] Li is integrated into the physical housing design, and, thus, the housing composition reflects these human relationships.

Our discussion will be proceeded by a description of housing composition in the following areas: (1) Taipei, Taiwan; (2) Peking; and (3) Fukien and Kwangtung Province. The scope of research has been limited to domestic dwellings.

A. Housing Design in Taipei, Taiwan: Discussion of the housing composition in Taipei, Taiwan is based on Lin Heng-tao's article, "Old Mansions of Taipei City."[18] Unless noted otherwise, the data used are cited from said article.

The traditional housing composition in Taipei has been in a uniform pattern which disregards the social status of the dwellers. The basic features can be summarized as follows:

1. Shape: square or rectangular
2. Orientation: face to the south
3. Proportion: symmetry
4. Story: flat

It is seen that the Chinese people are particularly in favor of the south. Both the emperor's palace and the domestic dwellings are predominantly orientated to this direction. In addition to the physical advantages of weather, there are psychological factors. In the sixty-four hexagrams, the south is symbolized by the hexagram ䷝ . According to the I Ching, "Its omen is a mare, symbolizing advantage. The superior man has an objective and sets forth to gain it. At first he goes astray, but later finds his bearings. It is advantageous to gain friends in the west and the south, but friends in the east and the north will be lost to us. Peaceful and righteous persistence brings good fortune."[19]

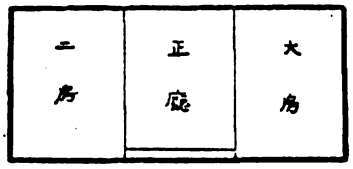
The basic floor plan in Taipei is the three-room dwelling. This type of house is called chen-sheng (main body, principal building) or tsan-chien-chi (three-room dwelling). As shown in Fig. 21, the room in the center is the main hall (chen-t'ing), which serves as a living room. Ancestor worship also takes place here. The room to the right side

is called ta-fang (first chamber), which is occupied by the head of the family. The room to the left is called erh-fang (second chamber), which is occupied by younger members of the family.

If the living space is not enough for the family, two wings, which are called wu-chien-chi (five-room dwelling) are added to the main building, a shape shown in Fig. 22. The newly added wings at each side of the main building are called hsiang-fang or hu-lung (safeguarding dragons). Usually, the parents live in the main building, and the sons and their wives live in the "safeguarding dragon." Again, the older brother and his wife live in the right side of the "safeguarding," and the younger brother in the left side.

Between the "safeguarding dragon" there is a yard called ta-cheng, which is used for children's recreation, family gatherings (especially during summer evenings), and exposing agriculatural products to the sun. If the family can afford to erect fences in the front, the entrance gate will be in the middle leading to the main hall. The yard, surrounded by the buildings, creates a "socio-petal space"[20] to encourage the social interaction of family members.

If further living space is needed, additional



埕大

Fig. 21 Three-room dwelling in Taipei

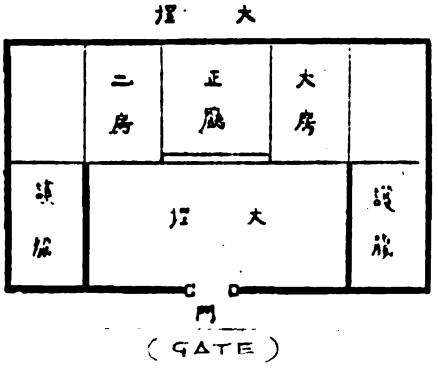
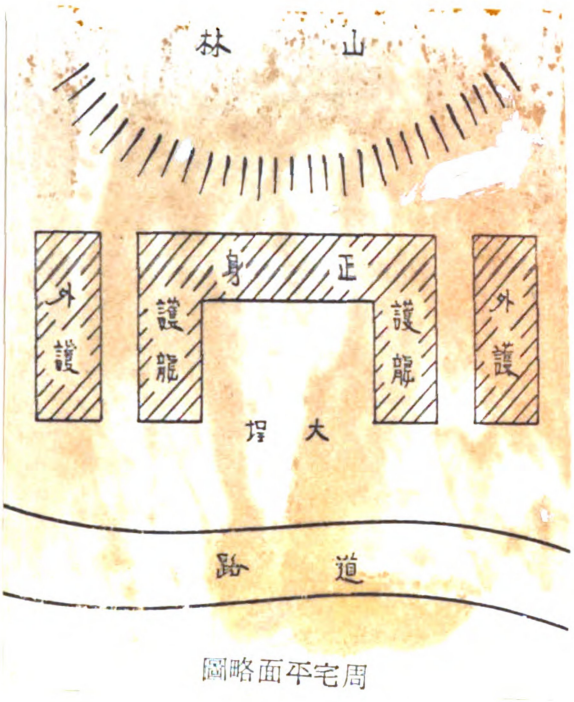


Fig. 22 Five-room dwelling in Taipei

buildings are added to, and, in certain instances, are separated from the "safeguarding dragon." These buildings are called wei-hu (outer safeguards), and are usually occupied by the younger generations of the family, the family's remote relatives, or the domestic servants. The Chou's mansion at Hsing-yi Road, Taipei, as shown in Fig. 23, is a typical example of this type of dwelling. At the back of the house there are hills and forests. In the front there is a road at a reasonable distance.

Further additions to the wei-hu are illustrated in Fig. 24, showing the Lin's mansion at Ta-an Ward, Taipei. This is rather a complicated housing composition. The three small courtyards surrounded by the buildings are called Heaven's wells (t'ien-ching). The room in front of the courtyard in the



圖略面平宅周

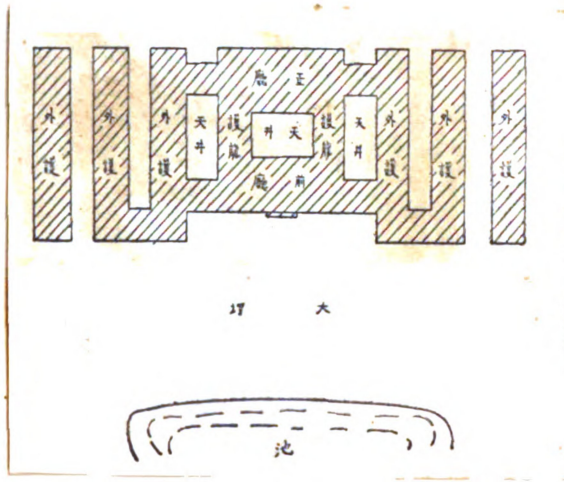
Fig. 23

Chou's mansion in Taipei

middle of the building is the front hall (ch'ien-tien), and the room at the back of the courtyard is the rear hall (hou-tien). The quarters between the courtyard are "safeguarding dragons," and the quarters to the left and right sides of the courtyards are all the "outer safeguards." A pond is in front of the house.

Theoretically, the number of courtyards one could have, and the accompanying sense of privacy, was determined by one's status. Sitting in his hall and facing his courtyard, the Heaven's well, the Chinese sees beyond his walls. Through the courtyard he is emotionally able to communicate with the outside world, the unbounded universe.

It appears that the courtyard is the window of the soul, through which the unification of man and universe is realized.



大安林宅平面略圖

Fig. 24

Lin's mansion in Taipei

Separation of the front and the rear halls by the courtyard echoes the distinction between respect and intimacy in Chinese etiquette. The honored guest is received with great respect in the rear hall facing the main courtyard; but the private quarters of the house where the family dwells is beyond, and only intimate guests and relatives may enter there.

B. Housing Design in Peking: The residential layout in Peking is essentially similar to that in Taipei: a walled enclosure composed of one or more courtyards. A typical dwelling plan is called tze-ho-yuan (four-side-enclosre-court). As shown in Fig. 25, kitchen and servant's quarters are in the front.

The entrance gate is usually at the right side corner. The entrance always has some form of screen on the inside for privacy. As noted by Lin Yutang:

> "No Chinese mansion allows an outsider to look through the iron gates at a long drive, for that would be against the principle of concealment. Facing the gate, we see perhaps a small courtyard or a mound giving no idea whatever of the expansiveness of space inside, and leading one step by step into new and bigger views, in a continued series of surprises and astonishments. For we wish to show the small in the large, and show the large in the small."[21]

The quarters for the younger generations of the family are at the side suites. The parents' suite is on the north. Again, whether guests are received in the front or rear room depends greatly upon the intimacy of the guests to the family. The long guestroom or reception hall which separates the two courtyards marks a definite division between the other half of the house, where acquaintances come and parties are held, from the inner hall, where only relatives and intimate friends are welcome.

The most private places in this very private house are the two little open-air courts surrounded by high walls, one at either end of this main suite. One may be the special retreat of the father, and

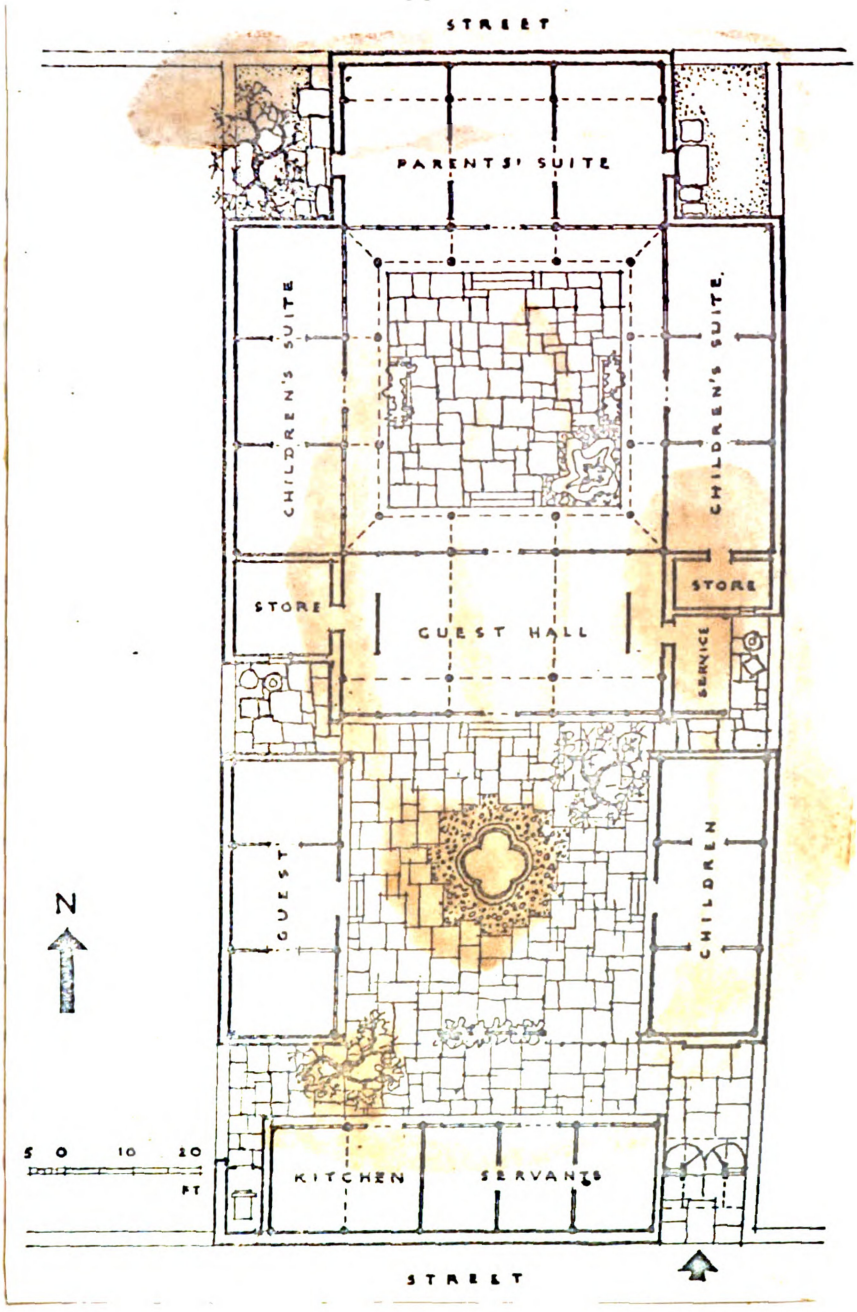


Fig. 25 Plan of a typical Peking house

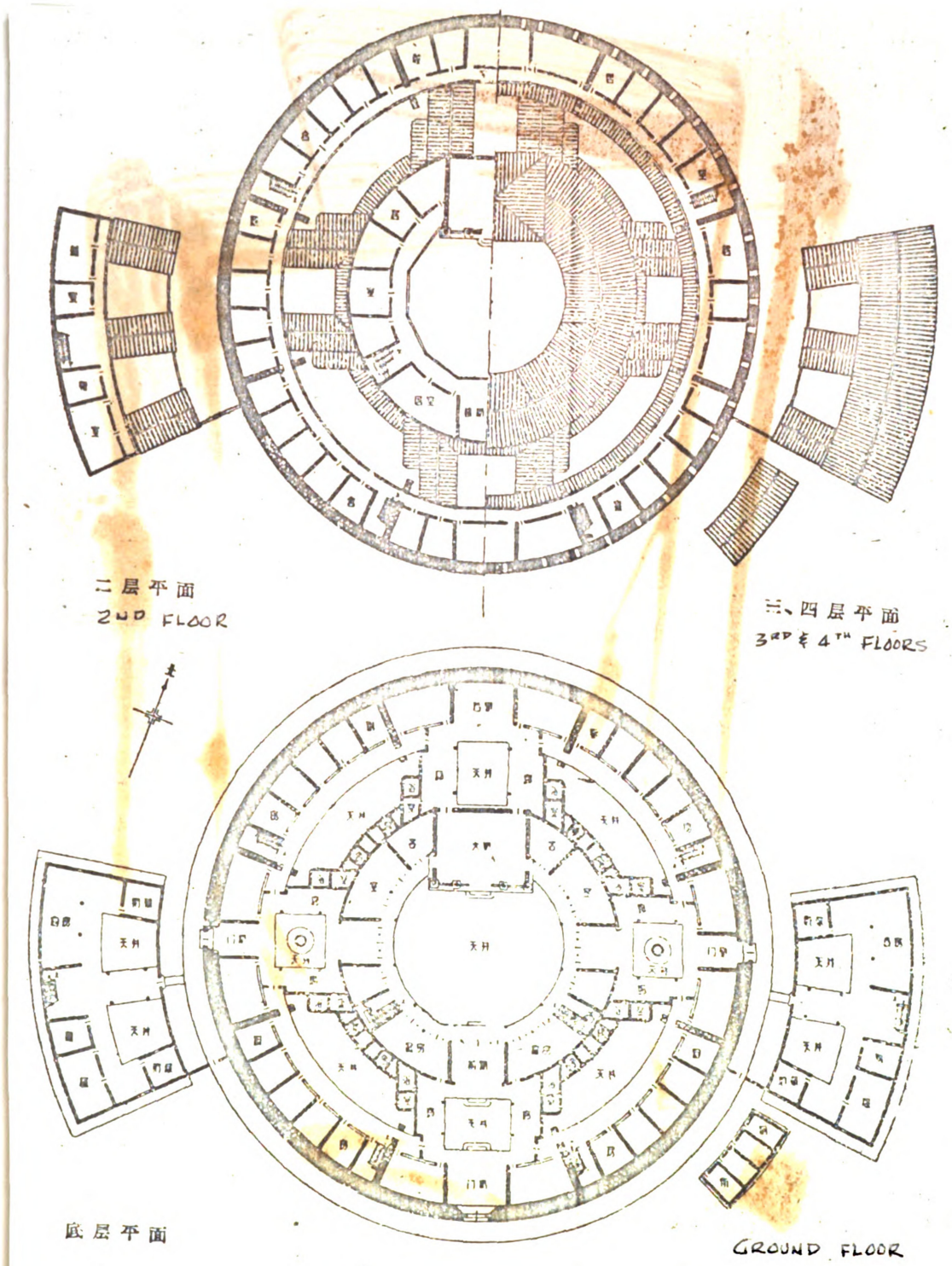
Source: Boyd, Chinese Architecture and Town.

the other may be for the gathering of the female members of the family.

The sequence of courtyards from the south to the north yields a depth of space, Usually, the principal building on the north (the parents' suite) is higher than the rest of the buildings. Like the city design of Peking, people always go up the the principal building on the north, which yields a dramatic climax when one enters there.

C. Ke-Chia's Housing Composition in Fukien and Kwangtung Provinces: The Ke-Chia people in Fukien and Kwangtung Provinces in southern China migrated to these areas from central China at various times from the third century onwards. Because of their hostile reception by the local people, they developed a tradition of living in collective, large-walled, often multi-story, communal buildings. The circular plan is the most population shape of these communal buildings. The example discussed below is a house located in Jung-ting Hsien, Fukien Province.

As shown in Fig. 26, the circular house consists of a four-story ring block. There is a circular courtyard in the center, and four small square yards at each side. The ground floor is



福建永定县丰盛乡住宅——振成楼平面图

Fig. 26 A Circular House in Fukien Province

Source: Ch'ung-kuo Chien-chu Chien-shih, 1962.

mainly for guest reception, storage, kitchen, etc. The smaller out-building contains privies.

Living-rooms and bedrooms are on the upper (third and fourth) floors. The second floor is mainly for food storage.

CONCLUSION

The houses in Taipei and Peking are predominantly square or rectangular in shape, and the Ke-chia's house in Fukien and Kwangtung Provinces are characterized by a circular plan. Similar to the city form, the housing design has also been dominated by the mandala motif -- both round and square. To a certain extent, there is a similarity between the building form and city form, for both the house and the city are the extension of man.[23] Both the city and the house are the same cultural object manifesting man's inner feelings. Modeling the cosmic pattern, the Chinese is neither living in his own house nor the city; he is living in the cosmos. By so doing, he is always able to attain emotional comfort by identifying his inner world with the outside world.

Chinese houses are more than shelters serving physiological needs. The physical design of the houses allows the expression of human relationships and social norms, and thus attempts to meet man's psychological needs.

As seen from the housing composition in Taipei, additional buildings can be erected any time without destroying any parts of the original structure. The new buildings are always complementary, never conflicting, to the original ones. This illustrates the flexible and dynamic nature of the Chinese housing design.

Footnotes:

[1]Fung, The History of Chinese Philosophy, Vol. I, 1952, p. 384.

[2]Ibid.

[3]Fung, The History of Chinese Philosophy, Vol. II, p. 490.

[4]Ibid., p. 493.

[5]Eliade, Cosmos and History, p. 21.

[6]Thomas H. Fang, The Chinese View of Life (Hong Kong: The Union Press, 1957), pp. 150-1.

[7]Derk Bodde, China's Cultural Tradition, op. cit.

[8]Sideon Sjoberg, The Preindustrial City (New York: The Free Press), p. 157.

[9]Maurice Freedman, Chinese Lineage and Society (London: The Athlone Press, 1966), p. 43.

[10]Maurice Freedman, Lineage Organization in Southeastern China (London: The Athlone Press, 1958), p. 19.

[11]Fung, The History of Chinese Philosophy, Vol. II, p. 43.

[12]Eliade, Cosmos and History, p. 23.

[13]Ibid., p. 25.

[14]Wu, Chinese and Indian Architecture, p. 172.

[15]Eliade, The Sacred and the Profane, p. 172.

[16]Gaston Bachelard, The Poetics of Space, p. 51.

[17]Wu, op. cit., p. 33.

[18]Lin Heng-tao, "Old Mansions of Taipei City," Taipei Wen Hsien, Journal of Local History Research of Taipei City, Vol. III, 1963.

[19]John Blofeld (tr.), I Ching (New York: E. P. Dutton Co., 1968), p. 90.

[20]Edward T. Hall, The Hidden Dimension (Garden City: Doubleday & Co., 1966), p. 96.

[21]Lin Yutang, My Country and My People, p. 332.

[22]Andrew Boyd, Chinese Architecture and Town Planning, 1500 B.C.-A.D. 1911 (Chicago: The University of Chicago Press, 1962), p. 82.

[23]Marshall McLuhan, Understanding Media: The Extensions of Man (New York: The New Library, 1963), p. 117.

CHAPTER FIVE

SUMMARY AND CONCLUSION

The following has been show in the previous analysis of cosmological influences on the environmental settlement in traditional China:

- There is a close relationship of man, forms and cosmology;
- The Chinese people live in harmony with nature;
- The city and building forms are characterized by their symbolic expression of inner life.

MAN-FORM-COSMOLOGY RELATIONSHIPS

As with Plato, Dante, Thomas Aquinas, and other philosophers of Western culture, the universe in the Chinese mind is regarded as more than a mechanical entity, subject to casual and physical laws. Rather, the universe is endowed with moral qualities. Tao is the natural law that governs everything. As Lao-tzu says:

> Man models himself after the Earth
> The Earth models itself after Heaven
> The Heaven models itself after Tao
> Tao models itself after Nature.

The above **saying** implies that the cosmos and man are obeying the same law. Heaven is a divine model for human conduct. Man is only repetition of the Creation.

To the Chinese people, man is the universe in miniature; man is the microcosm, Nature the macrocosm.

Man creates an image of the universe according to his image of his own nature, as illustrated by the principle of yin and yang, corresponding to the union of man and woman. Once this image is formed, he shapes his living environment in accordance with his image of the cosmos, as illustrated by the city forms corresponding to the concept of "heaven round, earth square."

The relationships of man, cosmology, and the physical forms are shown in Fig. 27. Their mutual influences are stated below:

A. Man-Cosmology Relationships: Mental

Man Influences Cosmology: The human mind is imposed with the image of cosmos; cosmology is a reflection of man's inner feelings.

Cosmology Influences Man: The cosmos models human actions as relfected by the building of cities as microcosms. The word "mental" in Fig. 27 denotes that man-cosmology relationships result from man's consciousness.

B. Man-Form Relationships: Social

Man Influences Form: Man creates form in accordance with his own conceptions, including the image of cosmos.

Form Influences Man: Forms are made to meet man's psychological needs as well as physiological needs. The word "social" in Fig. 27 denotes that man-form relationships are established through social institutions.

C. Form-Cosmology Relationships: Symbolic

Form Influences Cosmology: Forms are analogous to the cosmic pattern.

Cosmology Influences Form: Cosmos is symbolized by form. Their relationships are "symbolic" because they are abstract representations of man's mentality.

The idea of the physical universe as a symbol for human society has had a great influence upon human behavior; because, at every moment of history, man has an individual picture of the universe; practically, the complete chain of reasoning is not conscious to man when he has to make a decision.[1]

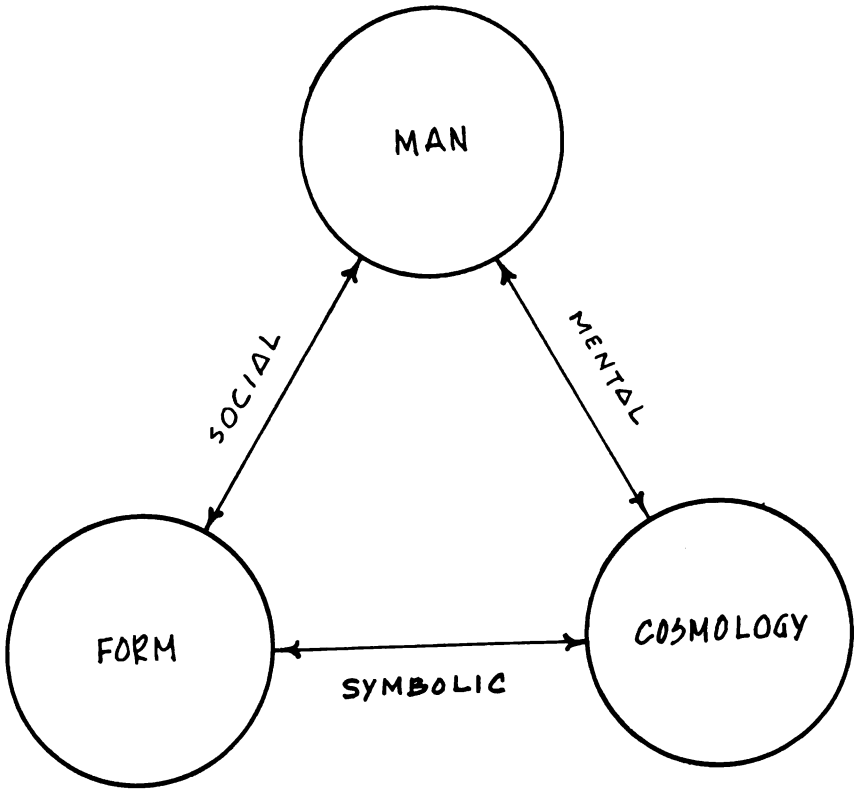


Fig. 27 Man-Cosmology-Form Relationships

THE UNITY OF MAN AND NATURE

A. The Chinese View of Nature

From the previous chapters the following man-nature relationships have been demonstrated:

1. Heaven (denoting nature) and man are one.
2. The human body is identical with the non-human world.
3. From the standpoint of *feng-shui*, nature is organic, possessing *ch'i*, the cosmic force.
4. Man and nature are in perfect harmony.

Generally speaking, "The cosmos is Heaven, Earth, and Man. Man is in it and of it."[2] To an observer, the landscape is more than *out* there, and he enjoys it. His appreciation of the landscape is cosmological. For him, the viewer and the viewed interact. Through the landscape he finds comfort and contentment in its beauty. Ideally, the landscape affects him directly, making him feel relaxed and confident. Man is *in* nature. Thus, Maurice Freedman remarks that the Chinese people "are asserting a human response to forces working in the cosmos."[3]

The Chinese view of nature can best be expressed by paintings. Painting may serve as an "unspoken language." The Chinese people believe that man has to be "put in his place," and he is always put in place against nature's background.[4] This is why Chinese landscape artists always paint the human figure so small. With the cosmic spirit in mind, the Chinese people "live in heaven and earth as in home." As Yüan Tsi (210-263) asserted, "The Chinese landscape painters, unlike the Western painters applying the law of perspective,"[5] always tried to express the rhythm of life and attempted to express the unique quality of a place. According to Chiang Yee, "rhythm" denotes "nothing disturbing or extraneous. It is the power which we feel keeps nature working in fullness, unity, and balance. Man, in such an environment, becomes diminished to the proportions of one live creature among all the host of nature."[6] It can be said that the Chinese people are prone to see what lies behind their eyes rather than what appears before them.

The feeling for this rhythm of life in nature has a cultural background. Confucius expressed his belief about nature in his famous and typically moral

saying, "The wise take pleasure in rivers and lakes, the virtuous in mountains." Lao Tzu, at the time of social disorder, urged every individual to go back to the original natural state of being by following the principle of wu-wei; or non-action, or non-interference. An essential point of wu-wei is "not changing of man-made things and of Nature,"[11] for "nature does nothing, yet everything is done."[7] Taoism imposes upon its believers the obligation to see life whole, and to understand the balance in the relations of living things with one another, which constitutes the rhythm of life.

According to Lao Tzu, it is the eternal or universal law responsible for the rhythm of life in nature. He says:

> He who knows the Eternal Law is tolerant;
> Being tolerant, he is impartial;
> Being impartial, he is kingly;[8]
> Being kingly, he is in accord with Nature;
> Being in accord with Nature, he is in accord with Tao;
> Being in accord with Tao, he is eternal.
> And his whole life is preserved from harm.[9]

As mentioned earlier, Lao Tzu says, "Tao models itself after nature." In other words, to identify oneself with Tao is to identify oneself with nature. The Chinese love of nature thus differs from the Western love of nature in that its aim is identification

with her, not imitation or "conquest" of her. And to identify oneself with nature is to find one's own place in the rhythm and, thus, preserve the integrity of one's being and the complete freedom of the soul.

To give sense of living in nature, Chinese gardens and architecture always remain in harmony with nature. As Lin Yutang says, "The best architecture is that which loses itself in the natural landscape and becomes one with it, belongs to it... and is that in which we are not made to feel where nature ends and where art begins."[10]

B. Dissociation of the Modern Western Man with Nature

While the people in traditional China sharpened their sense of place-possibility and discovered some of the joys in nature, it seems that modern Western men have moved in the other direction: conquest of nature. With the advent of machine and increasing improvement of technology since the nineteenth century, the urban landscape has grown beyond human scale, and the natural environment has become polluted. This violation of nature has resulted in physical disorder, and the ecological balance of man

and his environment has been destroyed. Lewis Mumford's lament about the urban environment thirty years ago is still valid today, "As the pavement spreads, nature is pushed farther away...the rhythm of the seasons disappeared...millions of people grow up in this metropolitan milieu who know no other environment that the city streets."[11]

C. G. Jung also complained, "Our present lives are dominated by the goddess Reason, who is our greatest and most tragic illusion. By the aid of reason, so we assure ourselves, we have conquered nature."[12] Modern man attempts to conquer nature and has freed himself from "superstition," but "in the process he has lost his spiritual values to a positively dangerous degree. His moral and spiritual tradition has disintegrated, and he is now paying the price for this break-up in world-wide disorientation and dissociation."[13] As scientific understanding has grown our world has become dehumanized. Man feels himself isolated in the cosmos because he is no longer involved in nature and has lost his emotional "unconscious identity" with natural phenomena.[14]

Biological studies lead to the belief that man can not really master the environment. Rene J. Dubos, a microbiologist, points out that ancient man naturally lived in intimate contact with nature, and his activities were therefore governed by natural rhythms, such as the daily change from light to darkness and the recurrence of the seasons. As a result, his body and mental functions exhibited diunal, lunar, and seasonal cycles linked to those of the cosmic order.[15]

Dubos contends that "man retains many biological and mental characteristics of his remote ancestors."[16] Thus, the biological cycles become inextricably woven in the human fabric during evolutionary times, and they still link modern man to cosmic events. The dissociation of modern life from the natural cycle is likely to exert deleterious effects on the human organism. In fact, man is likely to suffer from many of the new environmental forces he has set in motion because he has not encountered them in his evolutionary past.[17]

C. Remedies to the Modern Society

Disasters caused by man's interference with nature have posed great challenges to today's society. It is imperative for urban planners to exert every effort to determine what constitutes a balanced and self-renewing environment, containing all the ingredients necessary for man's biological prosperity, social cooperation, and spiritual stimulation. Aware of the unbalanced ecological process between man and his environment, planners have started to attack the problem by conscientious design in accordance with nature and the ecosystem.[18]

There is no doubt that modern technology will be able to provide useful tools to attack the disasters mankind faces today. However, any physical approach -- even with the aid of computers -- can only cure the urban disease superficially. The root of the problem of man's interference with nature is spiritual rather than physical. In other words, the fundamental problem in today's Western society is not merely whether we can use our knowledge, but how people feel about nature. Man's decision either to conquer nature or

to live in it is a matter of attitude, a state of mind, or a value judgment. For the betterment of urban life, a change of attitude and revival of the spirit of naturalism would be more important than mere technological improvement. It is probably high time for Western man to consider the development of a new cosmology to achieve a balance with ecological processes.

THE SYMBOLIC MEANINGS OF THE CITY FORM

A. The Traditional Chinese City As A Symbol

With the cosmic diagram as expressed by the mandala, Chinese cities were designed to pattern the image of cosmos. Through this symbolic expression, the cities become symbols. Thus, city dwellers were living in the universe, and the universe "lived" in the city dwellers. Through the unity of man and universe, symbolized by the conception of the city as a microcosm, there is no Outside or Inside, nothing Active or Passive. It is, therefore, true that the symbolic form is an expression of man himself. Suzanne Langer contends, "Architecture creates the semblance of that World which is the counterpart of a Self."[19] In sculpturing the world

of symbolic forms, man sculptures and forms his own soul. What he looks at in the variety of form is his own inner life.[20] Within the cities, space has been structured to achieve a particular purpose. For example, when one goes up to Peking he will find that the access to the Forbidden City and the Temple of Heaven is "difficult." Even domestic dwellings have a depth of space which gives different degrees of privacy and reflect human social relationships. Thus, the space created is "meaningful" to the users or observers. "Meaning" is "anything which, for some mind, stands as a sign of something else."[21] The meaning of the form may be interpreted as a symbolic expression of human feeling. Langer has defined art as "the creation of perceptible form expressive of human feeling."[22] Thus, a creative symbolic city form is virtually a work of art. And any form of art is symbolic form.

B. Needs in Symbolic City Form for Today's Society

One of the differences between human beings and animals is that man is able to think

abstractly and to use symbols. Langer has defined a symbol as "any device whereby we are enabled to make an abstraction."[23] "That symbolic thought and symbolic behavior are among the most characteristic features of human life, and that the whole process of human culture is based on these conditions, is undeniable."[24]

It can be said that symbolic forms are the state of man's soul. In China, the concept of feng-shui, the image of the mandala motif, and the plan of Ming T'ang, are nothing but spiritual expressions. The process of physical design of the artifact is really man's psychic search for a soul. "Man is the sculptor of the symbolic forms - forms of his own conscious."[25] Thus, symbolic form is the language of the emotion." Primarily, language does not express thought or ideas, but feelings and affections.[26] It is, therefore, true that symbolic forms may meet man's psychological needs. Through visible and symbolic space, man is able to express inner experience or life and thus achieve a state of balance between conscious

and unconscious. Psychologists contend that the unbalance of conscious and unconscious is the fundamental cause of mental disorder. What modern man really needs is a cultural world to give meaning to his life and enable him to find a place for himself in the universe. In this sense, city form may reveal meaningful, spatial relationships, to help serve man's ego needs, and to create a really "human" world. When man is identified with his works, he is moral -- for then he is identified with the works of all mankind.

CONCLUSION

As noted in the beginning of this thesis, planning is for people. In this sense, it is imperative to search for the nature of human beings. Previous studies reflect that man is what Cassirer termed as animal symbolicum, and has psychological needs as reflected by the symbolic expression of the city and building forms. This illustrates the importance of the study of humanity as well as of pure science for the improvement of society. Man does not live by bread alone. The ideal state of man's living conditions depends largely upon the fulfillment of his

psychological needs and his harmony between the inner world and the outside world, as well as on his physiological needs. To serve this prupose, the provision of meaningful urban forms, harmonious with natural processes, is essential.

Footnotes:

[1]Philip G. Frank, "The Physical Universe as a Symbol," in Symbols and Society, op. cit., p. 7.

[2]Freedman, Chinese Lineage and Society, op. cit., p. 122.

[3]Ibid.

[4]Lin Yutang, The Importance of Living (New York: Reynal & Hitchcock, 1937), p. 281.

[5]Cf. Gibson, The Perception of the Visual World (Boston: Houghton Mifflin, 1950).

[6]Chiang Yee, "The Philosophical Basis of Chinese Painting," in Idiological Differences and World Order, op. cit., p. 64.

[7]E. A. Gutkind, Revolution of Environment, p. 211.

[8]Wang; a possible translation is "cosmopolitan," i.e., regarding the world as one.

[9]Lin Yutang, The Wisdom of Laotse.

[10]_____, My Country and My People, p. 321.

[11]Lewis Mumford, The Culture of Cities (London: Secker & Warburg, 1935), p. 253.

[12]C. G. Jung, "Approaching the Unconscious," in Man and His Symbols, p. 91.

[13]C. G. Jung, "Approaching the Unconscious," op. cit., p. 84.

[14]Ibid.

[15]Rene J. Dubos, "Man Adapting: His Limitations and Potentialities," in Environment for Man, ed. by William R. Ewald, Jr. (Bloomington: Indiana University Press, 1967), p. 14.

[16]Ibid., p. 13.

[17]Ibid., p. 15.

[18]To give a few examples, William H. Whyte, The Last Landscape (New York: Doubleday & Co., 1968); Ian Mcttarg, Design with Nature (Garden City: The American Museum of Natural History, 1969); and the article in Ekistics, Vol. 29, No. 175, April, 1970.

[19]Susanne K. Langer, Feeling and Form, p. 98.

[20]Robert Hartman, "Cassirer's Philosophy of Symbolic Forms," in The Philosophy of Earnest Cassirer, ed. by Paul A. Schilpp (Evanston, Ill.: The Library of Living Philosophers, Inc., 1949), p. 324.

[21]P. I. Sorokin, Society, Culture, and Personality (New York: Cooper Sq. Publishers, 1969), p. 40.

[22]Susanne K. Langer, Philosophical Sketches (New York: The New American Library, 1962), p. 77.

[23]Ibid., p. 60

[24]Earnest Cassirer, An Essay on Man (New Haven: Yale University Press, 1944), p. 27.

[25]Schilpp, op. cit., p. 321.

[26]Earnest Cassirer, op. cit., p. 25.

APPENDIX

CHINESE DYNASTIES

	Name	*Dates*	*Centuries (approximate)*	*Remarks*
	(Mythical)	2697-2206 B.C.	XXVII-XXIII	Legendary
	Hsia	2205-1784 B.C.	XXII-XIX	Together with Chou, called "Santai" or "Three Dynasties"
	Shang (Yin)	1783-1123 B.C.	XVIII-XII	
	Chou	1122-222 B.C.	XI-III	Classic period; Ch'unch'iu period 722-481; Chankuo period 403-221
	Ch'in	221-207 B.C.	end of III	Reunified China
	Han	206 B.C.-A.D. 219	II B.C.-A.D. II	"Eastern Han" from A.D. 25
	Wei	220-264	middle III	Wei, Wu and Shu forming the "Three Kingdoms" from about A.D. 200
	Chin	265-419	mid. III-IV	"Eastern Chin" from 317. Barbarians' kingdoms in North China 304-439
"N & S"	Sung	420-478	V-VI	These are called "North and South" Dynasties for distinction. Together with preceding Wu and Eastern Chin, called "Six Dynasties," a term referring to southern culture
"N & S"	Ch'i	479-501		
"N & S"	Liang	502-556		
"N & S"	Ch'en	557-588		
	Sui	589-617	round A.D. 600	Reunified China
	T'ang	618-906	VII-IX	
"Wutai"	Liang	907-922	first half X	These are called "Wutai," or "Five Dynasties" for distinction from other dynasties of the same name
"Wutai"	T'ang	923-935		
"Wutai"	Chin	936-946		
"Wutai"	Han	947-950		
"Wutai"	Chou	951-959		
	Sung	960-1276	latter half X-XIII	"Southern Sung" from 1127 onward, with Northern China under Manchus and Mongols
	Yüan (Mongol)	1277-1367	end of XIII-mid. XIV	Foreign rule
	Ming	1368-1643	mid. XIV-mid. XVII	Restored to Chinese rule
	Ch'ing (Manchu)	1644-1911	mid. XVII-XIX	Foreign rule
	Republic	1911-	XX	

BIBLIOGRAPHY

NOTE: Those works marked with an asterisk (*) are written in the Chinese language.

Bachelard, Gaston. The Poetics of Space. Boston: Beacon Press, 1964.

Bodde, Derk. China's Cultural Tradition. New York: Hott, Renehart & Winston, 1957.

Boyd, Andrew C. Chinese Architecture and Town Planning 1500 B. C. - A. D. 1911. Chicago: University of Chicago Press, 1962.

Bredon, Juliet. Peking. Shanghai: Kelly & Walsh, Ltd., 1922.

Bryson, Lyman (ed.). Symbols and Society. New York: Harpers & Brothers, 1955.

Cassirer, Earnest. An Essay on Man. New Haven: Yale University Press, 1944.

Chan, Wing-Tsit. A Source Book in Chinese Philosophy. Princeton: Princeton University Press, 1963.

Chang, Chi-yüen. "Fu Hsi: The First Chapter of Chinese History," Chinese Culture. Vol. III, No. 3 (March, 1961).

Chang, Sen-dou. "Some Observation on the Walled Cities of China." Unpublished paper read in the 64th Annual Meeting of the Association of American Geography, 1969.

Chatley, H. "Feng-shui," Encyclopedia Sinica, ed. by Couling.

*Chi, Ju-shan. Peking. Taipei: Cheng-Chuang Book Co., 1957.

Chiang, Yee. Chinese Calligraphy. London: Methuen & Co., Ltd., 1938.

*Ch'ien, Chi-po. Chou-I Jai-Ti Chi-chi Tou-Fa. Taipei: Commercial Book Co., 1967.

De Groot, J. J. M. The Religious System of China. Leiden: B. J. Brill, Vol. IV, 1892.

*Editorial Board of. Chung-kuo Chien-chu Chien-Shih, Vol. I. Peking: Chung-kuo Kung-yeh she, 1962.

Ewald, William R. (ed.). Environment for Man. Bloomington: Indiana University Press, 1967.

Eitel, Earnest J. Feng-Shui. London: Trubner & Co., 1873.

Eliade, Mircea. Cosmos and History. New York: Harper & Row, 1959.

_____. The Sacred and the Profane. New York: Harper & Brothers, 1959.

Fairbank, John K. Chinese Thought & Institutions. Chicago: University of Chicago Press, 1967.

Fang, Thome H. The Chinese View of Life. Hong Kong: The Union Press, 1957.

Freedman, Maurice. Lineage Organization in Southeastern China. London: The Athlone Press, 1958.

_____. Chinese Lineage and Society. London: The Athlone Press, 1966.

Freud, Sigmund. Totem and Taboo. New York: Random House, Inc., 1946.

*Fung, Yu-lan. Hsin Li Hsieh. Shanghai: Commercial Book Co., 1939.

_____. The Spirit of Chinese Philosophy, Tr. by E. R. Hughes. London: Kegan Paul, Trench, Trubner & Co., Ltd., 1947.

_____. A Short History of Chinese Philosophy, ed. by Derk Bodde. New York: The MacMillan Co., 1948.

_____. A History of Chinese Philosophy, Tr. by Derk Bodde. Princeton: Princeton University Press, Vol. I, 1952, Vol. V, 1953.

Giedion, Sigfried. Space, Time and Architecture, 5th ed. Cambridge, Massachusetts: Harvard University Press, 1967.

Graham, A. C. Two Chinese Philosophers: Ch'eng Ming-tao and Ch'eng Yi'ch'uan. London: Lund Humphries, 1958.

Gutkind, E. A. Revolution in Environment. London: Kegan Paul, Trench, Trubner & Co., Ltd., 1946.

Hall, Edward T. The Silent Language. Greenwich, Connecticut: Fawcett Publications, Inc., 1959.

_____. The Hidden Dimension. Garden City, New York: Doubleday & Co., 1966.

Howard, John T. "Planning Is a Profession," American Institute of Planners Journal, Vol. XX, No. 2 (Spring, 1954).

Iketa, Suetoshi. "The Origin and Development of the Wu-hsing (Five Elements) Idea: A Preliminary Essay," East and West, 16 (September-December, 1967).

Jung, C. G. Modern Man in Search of A Soul. New York: Harcourt, Brace & World, Inc., 1933.

_____. Psychology & Religion. New Haven: Yale University Press, 1938.

_____. Psychology and Alchemy. The Collected Works of C. G. Jung, Vol. 12. New York: Pantheon Books Inc., 1944.

_____. Psyche and Symbols. Garden City, New York: Doubleday & Co., Inc., 1958.

_____. Archetypes and the Collective Unconscious. The Collected Works of C. G. Jung, Vol. 9. New York: Pantheon Books Inc., 1959.

_____, (ed.). Man and His Symbols. New York: Dell Publishing Co., 1968.

_____. On the Nature of the Psyche. Princeton: Princeton University Press, 1969.

Kepes, Gyorgy. "Notes on Expression and Communication in the Cityscope," Daedalus (Winter, 1961).

*Kuo, Pu. Tsang Ching. Taiwan: Ch'uang-yi Publishing Co., 1968.

Langer, Susanne K. Feeling and Form. New York: Charles Scribner's Sons, 1953.

_____. Philosophical Sketches. New York: The New American Library, 1962.

Lessan, William A. Chinese Body Division. Los Angeles: United World, 1968.

Lin, Yutang. My Country and My People. New York: Reynal & Hitchcock, 1937.

_____. The Importance of Living. New York: Reynal & Hitchcock, 1937.

_____. The Wisdom of Laotse. New York: Random House, 1948.

*Ling, Chung-sheng. "The Sacred Enclosures and Stepped Pyramidal Platforms of Peking," Bulletin of the Institute of Ethnology Academic Sinica. Taipei: Academia Sinica, No. 16 (Autumn, 1963).

*_____. "Origin of the Ancestral Temple in China," Bulletin of the Institute of Ethnology. Taipei: Academia Sinica. Vol. 7 (Spring, 1959).

*Ling, Heng-tao. "Old Mansions of Taipei City," Taipei Wen Hsien, Vol. III (1963).

Lynch, Kevin. The Image of the City. Cambridge: The M. I. T. Press, 1960.

March, Andrew L. "An Appreciation of Chinese Geomancy," Journal of Asian Studies (February, 1968), pp. 253-67, Vol. XXVII, No. 2

McHarg, Ian L. Design With Nature. Garden City, New York: The American Museum of Natural History, 1969.

Moore, Charles A., (ed.). Philosophy: East and West. Princeton: Princeton University Press, 1946.

Mumford, Lewis. The Culture of Cities. London: Secker & Warburg, 1935.

Needham, Joseph. "Human Laws and Laws of Nature in China and the West," Journal of the History of Ideas, Vol. XII (1951), 3-30, 194-230.

_____. Science & Civilization In China, Vol. II. Cambridge: Cambridge University Press, 1956.

Norberg-Schulz, Christian. Intentions in Architecture. Cambridge, Massachusetts: The M. I. T. Press, 1965.

Northrop. F. S. E. The Meeting of East and West. New York: The MacMillan Co., 1946.

_____. Idiological Differences and World Order. New Haven: Yale University Press, 1949.

Plopper, Clifford H. Chinese Religion Seen Through the Proverb. Shanghai: Shanghai Modern Publishing House, 1935.

Potter, Jack M. "Wind, Water, Bones and Souls: The Religious World of the Cantonese Peasant," Journal of Oriental Studies, Vol. VIII, No. 1 (January, 1970).

Schilpp, Paul A. The Philosophy of Earnest Cassirer. Evanston, Illinois: The Library of Living Philosophers, Inc., 1949.

Sjoberg, Sideon. The Preindustrial City. New York: The Free Press, 1960.

*Shang, Ping-ho. Li-tai She-huei Feng-shü Shih-wu Kao, 2nd printing. Taipei: Commercial Book Co., 1967.

Sorokin, Pitirim I. Society, Culture, and Personality. New York: Cooper Square Publishers, 1969.

Waley, Arthur. The Way and Its Power: A Study of the Tao Te Ching and Its Place in Chinese Thought. New York: Grove Press, Inc., 1958.

Whitehead, Alfred N. Symbolism, Sixth Impression. New York: MacMillan Co., 1959.

Wilhelm, Hellmut. Change: Eight Lectures on the I Ching. New York: Harpers & Row, 1960.

Wilhelm, Richard (Tr.). The Secret of the Golden Flower. New York: Harcourt, Brace & World Inc., 1962.

Willets, William. Foundation of Chinese Art. London: Themes and Hudson Ltd., 1968.

Wright, Arthur F. "Symbolism and Function: Reflections on Ch'ang An and Other Great Capitals," Journal of Asian Studies (August, 1965).

_____. "Viewpoints on a City, Changan (583-904): Chinese Capital and Asian Cosmopolis," Venture, Vol. V, No. 1 (Winter, 1965).

_____. Studies in Chinese Thought. Chicago: University of Chicago Press, 1953.

Wu, Nelson I. Chinese and Indian Architecture. New York: George Brajiller, 1963.

*Yang, Chia-lo (ed.). Lao Tzu Tao Te Ching Chi. Taipei: World Book Co., 1963.

*_____. Chuang Tzu Chi Shih. Taipei: World Book Co., 1967.

*Yi-tung Ch'ung-tai. The History of Chinese Architecture, translated by Cheng Ching-chuan from Japanese to Chinese. Taipei: Commercial Book Co., 1968.