Philosophical Questioning of Architecture with an Emphasis on Feng Shui

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Submitted to the
Institute of Graduate Studies and Research
in partial fulfillment of the requirements for the Degree of

Doctor of Philosophy
in
Architecture

Eastern Mediterranean University
May 2013
Gazimağusa, North Cyprus

Approval of the Institute of Graduate Studies and Research

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ABSTRACT

Architecture, which in its most basic description creates space for human habitation, should take the human being as the core of initiation in order to be successful. In this respect, since the beginning of this profession, theories and philosophies have continuously evolved. All ideas in these terms and all described building forms in architecture are efforts to provide better living environments, and thus, conditions to improve the quality of life of human beings in the architecture created. Changes over time, including various world events – economical, social and political - affect the needs of humans with regard to the spaces they use, which in turn require continuous updating.

The main task of architecture is to create relevant spaces for people for determined functions. Together with the factors mentioned above, aspects like culture, social behavior patterns and lifestyle, as well as materials, production techniques and structural systems, are also causes of the ever-changing nature of architecture, just like life itself.

Throughout this continuous evolution and change, architecture has had as its primary objective the creative organization of materials and forms. This creative process is ultimately part of a mutual relationship with the aforementioned parameters. Feng Shui, on the other hand, is closely relative to the natural environment – a relationship based on the empirical observation of the land form consistent with the flow of chi (living energy) in nature to achieve well being. The aim of this study is to interpret the aspects of “living well” in created architecture

from the Feng Shui perspective to enhance the quality of living and contribute to the well being of humans on a scientific basis.

Keywords: Architectural Space, Human-being, Philosophy, Feng Shui, Quality of Life

ÖZ

Mimarlık, en temel tanımıyla, insanın yaşadığı çevre için mekanlar yaratmaktır ve başarılı olabilmesi için insanı merkezinde barındırmalıdır. Bu bağlamda, mimarlığın meslek olarak ortaya çıkmasıyla teoriler ve felsefeler geliştirilmektedir. Yaratılan mimarlıkta insanın yaşam kalitesini artırmak ve daha iyi yaşam çevresi ve koşulları oluşturmak için yeni fikirler üretilmektedir. Ekonomik, politik ve sosyal anlamda zaman içinde ortaya çıkan değişiklikler insanların mekan gereksinimlerinde de değişiklikliğe yol açmaktadır.

Mimarlığın temel görevi insanların ihtiyaç duyduğu fonksiyonları gerçekleştirebilmeleri için gerekli mekanları yaratmaktır. Daha önce belirtilen faktörlere ek olarak kültür, sosyal davranış modelleri, yaşam tarzları; malzeme, üretim teknikleri ve strüktürel sistemlerdeki değişim ve gelişimler, yaşamın kendisinde olduğu gibi, mimarlığın da sürekli değişen yapısı için girdi oluşturmaktadır.

Bu sürekli gelişim ve değişim sürecinde, mimarlık kendi yaratıcı sürecinde mekan organizasyonlarını oluştururken yukarıda belirtilen parametrelerle yakın bir ilişki içerisindedir. Öte yandan Feng Shui insan ve doğal çevresi konusuyla yakından ilişkilidir. Yaşam enerjisini (Chi veya Qi) kullanarak yerleşim bölgelerinin gözlemlenmesi ve analiz edilmesiyle insanın kendisini daha iyi hissetmesi için çalışmaktadır. Bu çalışmayla, Feng Shui bakışaçısıyla yaratılan mimarlıkta yaşam kalitesinin artırılmasına neden olabilecek durumlar bilimsel bağlamda ele alınarak insanın "iyi yaşaması" sorgulanmaktadır. Böylece, fiziksel varlığı olmayan "iyi

yaşam" kavramı ölçülebilir bir boyuta taşınarak bir değerlendirme metoduyla analiz edilmektedir.

Anahtar Kelimeler: Mimari Mekan, İnsan, Felsefe, Feng Shui, Yaşam Kalitesi

ACKNOWLEDGEMENT

This study is being formed in a long time as a recapitulation of architecture and philosophy through the perspective of an art and science: Feng Shui, in order to enhance the quality of living and contribute to the well being of humans on a scientific basis. Without my mother Dervişe Çeliker, my father Behzat Çeliker and my sister Mine Çeliker, who always support and encourage; my supervisor, mentor and sister A. Banu Tevfikler Çavuşoğlu, who performed an invaluable guidance, supplied advice, suggestions, enlightenment, encourage and be a model for me in every aspect of life; my friend Senih Çavuşoğlu, who always shared relevant articles and news regarding my study; my friends Didem Çelik Bay, Ahmet M. Saymanlıer, Nevter Zafer Cömert, Zeref Birsel, Nezire Özgece and Meray Taluğ who make me feel lucky and self-confident; my cousin Enver Kara who put deadlines for me throughout this long term and help me concentrate; Feng Shui consultant Esra Koyuncu, who shared her invaluable knowledge and make me feel more enthusiastic about Feng Shui; Mastery Academy Certified Instructor Hümeyra Tümay, who provided much-needed information about Feng Shui; and Ümit İnatçı who never refrained sharing his superb knowledge of philosophy, this study could have never been accomplished. Thank you.

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INTRODUCTION

Human-being is in the core of architecture and can sustain their lives through architecture. Starting from the existence of humans, all theories and philosophies developed help to create better living environments. The quests and efforts to achieve better living environments help to reveal the quality of life. As a result of this, human well being is acquired.

The main research question of this study is how human well being with all intangible aspects can be achieved and measured through architecture and Feng Shui in a tangible way. A relation should be formed between humanity and environment through architecture to serve quality of life from macrocosm to microcosm. To establish a connection between architecture and environment, the philosophy and practice of Feng Shui is introduced.

Feng Shui is the ancient Chinese principles and practices which for thousands of years have been very significant for the Chinese built environment. This subject has become one of the most popular subjects in the modern world (Mak, M.Y. & So, A.T., 2011). A harmonious built environment for human-beings to live in is aimed by the principles and practices of Feng Shui. It represents a traditional Chinese architectural theory for selecting “favorable” sites as well as designing cities and buildings (Lee, S.H., 1986). As a result of the impact of western

civilization and technology, it is seen that the limitations of the modern scientific paradigms failed to explain the whole realm of natural phenomena (Capra, F., 1975; Mak, M.Y. & So, A.T., 2011). Therefore, for deeper understanding of the relationships between human-beings and their surrounding, interpreting Feng Shui has become a recognized subject.

Lip (1986), He (1990), Xu (1990), Wang (1992), Cheng and Kong (1993), and Too (1996) used Form School approach of Feng Shui to examine the principles and practices in relation to the built environment. Rossbach (1987) related Feng Shui to interior design. Too (1996) published a book as an illustrated guide. Skinner (1998) bridged a gap between popular and serious Chinese Feng Shui. Hwangbo (1999) explained that the practice of Feng Shui is an intuitive matter involving site selection and spatial organization and added that it has strong parallels with the western concept of geometry in architecture. Wong (2001) created an in-depth program about Feng Shui for learning to choose, design and enhance the spaces and published her book *A Master Course in Feng Shui*. Hale (2001) used Feng Shui as a key to modern living to achieve harmony. Lynch (2003) used Feng Shui as a site design tool. Xu (2003) created a site analysis framework. Mak (2005, 2009, and 2011) categorized three main approaches of Feng Shui as anthropological, ecological and architectural and verified its principles scientifically.

The main argument of this study that makes it original, is that through the principles and practices of Feng Shui, an evaluation model can be created to interpret a building's design in relation to its environment for enhancing the quality of living and contributing human well being on a scientific basis. The

uniqueness of this study is that it reaches to an intangible question of "well being" with tangible answers and measures by sustaining the philosophical questioning of architecture.

1.1 Aim of the Study

The main concern of this study is requisitioning architecture, considering philosophy, design, and human well being and interpreting the aspects of living well in created architecture through Feng Shui to contribute to the well being of humans on scientific basis.

The evolution of philosophy is going to be interpreted to understand the seeking of human being for a relation between environment and humanity. Throughout this interpretation, western philosophers including pre-Socratic, Socratic and post-Socratic periods who questioned universe, nature, the place of humans and their happiness are going to be considered. Within the context, eastern philosophies and philosophers are going to be studied, as well, to create a better understanding for Feng Shui. In this regard, a theory is going to be constructed to establish a relation between architecture and human well being based on Feng Shui principles; as well as forming a method, an evaluation model, to analyze building's design in relation to its environment to enhance the quality of living. To do so, ten public buildings that are iconic and symbolic and designed by prominent architects are going to be evaluated according to the criteria set based on Feng Shui.

To understand what Feng Shui is; and how it is reflected in public architectural buildings is therefore going to be included. As philosophy and practice, Feng Shui is the only one that intersects with architecture for the well being of human.

As Shand (1993) states philosophy freely examines any subject based on presuppositions and assumptions that might have been stayed unquestioned. Moreover, it raises questions about human's very basic beliefs. By this way, philosophy prevents humans locked into a fixed system of ideas and beliefs, dogmatically (Shand, J., 1993, p.ix). Based on this argument, it is intended to use Feng Shui as a tool of evaluation.

Regarding the accumulated knowledge of architectural philosophy and evaluations that are going to be undertaken based on the philosophy and practice of Feng Shui this study will have a destination point to emphasize the necessity of human well being and enhance quality of living through a set of principles.

1.2 Limitation of the Study

This study is bounded by the philosophical interpretations of nature and humanity in relation to architecture. Through this perspective, recapitulations and evaluations under the light of Feng Shui principles are concerned. Philosophers who have contributed to the field of philosophy by questioning the nature of humans and their environment are focused in order to connect the field of philosophy with the profession of architecture. For that reason, western philosophers who are Thales and Heraclitus, Parmenides and Zeno of Elea; Pythagoras and Empedocles; Socrates, Plato, Aristotle, Strato, Aristarchus, Euclid, Archimedes, Apollonius, Hypathia, Roger Bacon, Copernicus, Hume,

Bruno, Descartes, Spinoza, Newton, Leibniz, Hegel, Kant, Nietzsche, Heidegger, Husserl and Sartre are included. To give a deep insight, understand Feng Shui and grasp the totality of philosophies, eastern philosophies are also in the context. The main emphasis is on the Chinese philosophy since Feng Shui has roots in ancient China. Therefore, Buddhism, Confucianism and Taoism are considered. Within the categories of Divinational Taoism, terrestrial divination that interprets the pattern of land is synonymous with Feng Shui.

Feng Shui with its basic principles, concepts, fundamentals and tools has principles, as mentioned earlier. These principles show diversity from macro-scale to micro-scale with a range of surrounding environment to interior arrangement. In this study, the principles that are related to environment and building are selected and grouped as external and internal principles to form a list for the analysis and later for the recapitulations. The formation of grouping the principles are original for this study.

For the external principles, hills and slopes, waterways and bodies of water, roads and streets, pathways and entrances, surrounding buildings, plot shapes and building forms are introduced. For the internal principles, ceilings, columns and beams, stairs, corners, doors and windows are considered. According to the illustrations done with reference to contemporary Feng Shui scholars (Post, S., 1998; Rossbach, S., 2000; and Wong, E., 2001), these principles are shown.

For the analysis and recapitulations, public buildings with different functions that are iconic and symbolic and designed by prominent architects are selected. The selection of the buildings is mainly based on the examples presented by the

institute of Feng Shui (http://www.feng-shui-institute.org/fengshuibuildings.htm) during the preliminary literature survey done for this study in 2002. These public buildings are the ones that are within the consideration of Feng Shui consultants and interpreted within the perspective of Feng Shui principles. The visual and theoretical information about these buildings collected for the assessments are extracted from the official websites of their designers and articles obtained from e-journals. They are Hong Kong and Shanghai Bank Headquarters designed by Lord Norman Foster in Hong Kong; Bank of China designed by I.M. Pei in Hong Kong; Getty Center designed by Richard Meier in Los Angeles; Waterside Building designed by Niels Torp in London; the Burj al Arab designed by Tom Wright of Atkins in Dubai; the City Hall designed by Lord Norman Foster in London; the Kingdom Center designed by Ellerbe Becket in Riyadh; Sydney Opera House designed by Jorn Utzon in Sydney; Kansai International Airport Terminal designed by Renzo Piano in Kansai; and Suntory Museum of Art designed by Kengo Kuma in Japan.

The other reason of the selection of these public buildings lies in the design approaches of their architects. Foster and Partners has a sustainable approach to architecture through a strikingly wide range of work, from urban master plans, public infrastructure, airports, civic and cultural buildings, offices and workplaces to private houses and product design (Foster & Partners, 2008). I.M. Pei has recognition of significant contributions to architecture and to the design of urban environments and shows diversity in terms of building type and setting. He has a central theme consistently evident in its built work is the conception of architecture as an art of place making and concern for the quality of public space

and public life (Pei Cobb Freed & Partners, 2012). Richard Meier has openness and clarity as his principles and believes that architecture connects the present with the past and the tangible with the intangible, as well as, has the power to inspire, to elevate the spirit, to feed both the mind and the body (Richard Meier & Partners, 2012). Niels Torp takes the human scale and need as the initial starting point and believes that the building and the landscape should form a conscious unity, where the surrounding landscape is molded to the design of the building (Niels Torp, 2012). Atkins approaches to the projects to create experientially exciting but also environmentally sensitive. Ellerbe Becket (AECOM) creates buildings and places uniquely connected to their larger physical, social and cultural context; and emphasize sustainability (Ellerbe Becket, 2008). Jorn Utzon has a sense of concern for nature (Utzon, J., 2002). Renzo Piano has an interest in technology and modern solutions to architectural problems, and finally Kengo Kuma thinks that establishing a relationship between a space and the natural round around it is significant (Bognar, B., 2005, p.104). He also states that is aim is to recover the place where the place is a result of nature and time and his architecture is some kind of frame of nature (Bognar, B., 2009).

Regarding these, the selected criteria of Feng Shui as external and internal principles are aimed to be an evaluation tool for the specifically selected public buildings in the formation of a new theory and an evaluation model for the consideration of human well being.

1.3 Methodology of the Study

This study is using a method of qualitative research that is Grounded Theory developed by Barney Glaser and Anselm Strauss. This method constructs theory

by focusing on an area of study and gathering data from a variety of sources to ground a theoretical statement about something (Haig, B., 1995). Therefore, data collection and analysis is critical. At the same time, the study is considered as an analytic study as well, since assessments are taken into consideration based on the selected principles in relation to the selected public buildings and evaluated in regards to a measured scale.

To argue about quality of life and human well being, first of all, architecture and philosophy need to be bonded. Evolution of philosophy, in terms of western and eastern, are stated. To do so, as mentioned earlier, the relevant philosophers and philosophies are interpreted. Then, as an evaluation tool, Feng Shui is introduced with its fundamentals and principles. These principles are grouped as external and internal principles, which is original for this study. By focusing on the external principles that cover the aspects of hills and slopes, bodies of water, roads and streets, plot shape and building form as well as pathways and entrances and surrounding buildings, commentary tables are formed based on the visual illustrations of Feng Shui scholars (Post, S., 1998; Rossbach, S., 2000; and Wong, E., 2001),. For the interpretation, design layout that covers internal factors such as ceilings, columns and beams, stairs, corners, doors and windows; and other factors such as light, color and plants are also included. Regarding the illustrative formations shown on the tables of external and internal factors, the selected public buildings are related to the Feng Shui principles and both architectural and Feng Shui assessments are undertaken. As a result, assessment tables are formed on a scale of 'most suitable, suitable, less suitable and unsuitable.' The 'suitability' scale is inspired from the former Feng Shui researches (Xu, P., 1990; and Mak,

M.Y., 2010). Within this scale, ‘most suitable’ means that the building is exactly fitting one of the ideal formations; ‘suitable’ means that the building is slightly fitting one of the ideal formations, but by checking the Five Element cycles and yin and yang balance, it shows positive features; ‘less suitable’ means that the building is slightly fitting of the negative formations, but again by checking the element cycles and environmental balance, it shows negative features; and ‘unsuitable’ means that the building is exactly fitting one of the negative formations. By the help of these assessment tables, a new evaluation model in relation to architecture and human well being is formed. Finally, through the deductions in relation to the selected public buildings and the philosophy of Feng Shui, a theory based on quality of life is constructed.

1.4 Scope

Under the scope, the evolution of architectural philosophy within the framework of human-nature relation, the place of Feng Shui in the profession of architecture, its fundamentals and principles are going to be investigated. The first chapter covers the main aims to point out the reason behind this study.

Chapter two examines philosophical requisitioning of human and his environment in relation to architecture. Within this aspect, western and eastern philosophers and their philosophies are investigated. This chapter introduces the definition of Feng Shui with its basic principles, concepts, fundamentals and tools.

The third chapter points out various dimensions of Feng Shui principles by addressing external and internal principles. The flexibility of these principles is discussed within the perspective of this chapter.

The fourth chapter examines the public buildings selected to comment on the causes and effects of Feng Shui. Visual images have been placed for the fulfillment of such an interpretation.

Chapter 2

PHILOSOPHY IN ARCHITECTURE

Humans cannot be thought of only as living creatures without considering their characteristics that will influence well being. Well being is most commonly used to describe what is ultimately good for a human being (Crisp, R., 2008). It is an intangible concept that cannot be measured. However, it is achieved through quality of life. In general terms, when a population has shelter, safety, freedom and rights, and a high level of economic prosperity, then quality of life is increased.

Before architecture became an industry, it was simply understood as being a shelter for security and safety reasons against enemies and the climate. However, as a profession, architecture is the creative activity of designing a total built environment from the macro level of how a building integrates with its surrounding man-made landscape to the micro level of construction details. The primary objective of the practice of architecture is to provide spatial and shelter needs for the human. Within this context, architecture shapes lifestyles.

The aim of architecture cannot be understood without taking into account philosophy. Literally, philosophy means “love of wisdom” that is derived from the Greek word "Φιλοσοφία," *philo-sophia*. In general terms, philosophy is an activity that is a way of thinking about a certain set of questions by using logical

arguments. This activity also includes analyzing and clarifying concepts, while inventing and criticizing arguments (Warburton, 2004, p.1).

Shand states that philosophy freely examines any subject based on presuppositions and assumptions that might have otherwise remained unquestioned. Moreover, it raises questions about a human being's very basic beliefs. Through this, philosophy prevents humans from being locked into a fixed system of dogmatic ideas and beliefs (Shand, J., 1993, p.ix).

In regards to philosophy, it is essential to understand the place of humans in relation to nature in order to extract ideas to analyze and to form a conclusion. In such a scope, this chapter interprets nature and human relationship through the perspectives of philosophers and philosophies, and introduces Feng Shui.

2.1 Interpreting Humans and Their Environment through a Philosophical Perspective

In Western philosophy, the aspects that have been questioned vary according to the general understanding of the era. The queries such as 'what is the universe?', 'how does the universe operate?', 'what is the place and significance of humans in this universe?', "what is the relationship of humans and nature?', 'what is the aim of life?' and "how can happiness be achieved?' are the main foci within this study. Although there were some similar views among philosophers, the focus of each philosopher was fundamentally different from the next.

Nature became a prominent aspect of inquiry for philosophers. It was thought that understanding nature would bring about some answers regarding the operation of

the world and the universe. Given this, philosophers attempted to define nature. Some addressed nature as good, whereas some did so as evil. Some argued that it was beyond good and evil. However, these arguments were put forward in terms of concentrating on the place and the role of humans in the world. Some accepted nature as part of the existentialism of humans and some defended ideas against it. On the other hand, some suggested that the universe is a machine where only atoms and the void exist, whereas some defended the contrary. These philosophers will be focused in detail, throughout this section of the study.

As has been expressed above, architecture was simply understood as being a shelter for security and safety reasons against enemies and the climate, specifically, nature. Since the primary objective of the profession is to provide spatial and shelter needs for human, the perspectives of philosophers towards nature and human will constitute a basis of this study's philosophical requisitioning.

The journey regarding humans and nature started long ago. In the west, starting from the pre-Socratic philosophers, the universe, world, nature and their relationship to humans have been part of the fundamental questions that arise from this journey. Within this journey, many questions have been raised and different fields of studies have emerged. As a matter of fact, the understanding of life and reality of each era has always affected these questions and their relevant answers. This section of the study aims at investigating these quests in order to capture the importance of philosophy and show how this field of science is important in understanding the relation of human and nature.

The pre-Socratic philosophers are very important in terms of their studies of nature that attempts to provide explanation of various phenomena of the world or universe (Shand, J., 1993, p.2). These philosophers like Thales and Heraclitus; Parmenides and Zeno of Elea; Pythagoras and Empedocles had sought important answers to these questions in the measurable world or physical world (Durant, W., 1953, p.9). This can be said to be their common concern, which was an attempt to find universal principles able to explain the whole of nature. 'Cosmology', 'science', and 'philosophy' can be related to their concern in today's language (Magee, B., 1987, p.14).

Regarding this, Heraclitus said that "all things forever flow and change; even in the stillest matter there is unseen flux and movement" (Durant, W., 1953, pp. 52-53). Indeed, he goes further in maintaining an identity of opposites, citing examples like day and night where a thing can convert to its opposite and back again; the process is an unbroken circle. In the case of Empedocles, the world is a plenum, that there is no void, and that nothing in the world could really come into being or be destroyed. He accepts the Parmenidean view of the world and the basic stuff of the world is four "roots" or elements: earth, water, air, fire (Shand, J., 1993, pp.9-16). Empedocles developed Heraclitus' proposition to a further stage which was the idea of evolution. With this idea, nature is said to "make many trials and experiments with organisms variously where the combination meets environmental needs the organism survives" and where it fails weeded out. In a likely manner, Leucippus put forward that "everything is driven by necessity". On the other hand, Democritus states "there are only atoms and the

void" and "the universe is a machine" where there is no design (Durant, W., 1953, pp. 52-53).

During the pre-Socratic period, Sophists, as well, contributed to the development of philosophy in a very fertile manner by asking questions about anything without getting afraid of the presence of religious or political taboos. Sophists are said to be divided into two schools. One of the school argued that nature is good, because by nature all men are equal and therefore civilization bad; and the other claimed that "nature is beyond good and evil", because by nature all men are unequal (Durant, W., 1953, p.6-9).

Unlike this context of inquiry of the pre-Socratic philosophers, Socrates asked questions about the mind of man. So, he dealt with human soul by raising moral and psychological questions. Moreover, it can be said that Socrates was in conscious rebellion against them, as Magee states. According to Socrates, first of all, human should understand how ought to live and the foremost should be the moral questions, therefore how nature works should not be considered first. Within this respect, Socratic discussions were about the definitions of courage, of beauty, and of justice (Magee, B., 1987, pp.14-23).

Plato, on the other hand, dealt with the questions and problems related to the ethics, politics, and psychology together with proposing and creating solutions for them. During this requisitioning process he also defines human behavior flowing from three main sources as desire, emotion, and knowledge, because without understanding human, it is not possible to deal with any aspect of world and life.

A fine Greek adage says “Life is the gift of nature; but beautiful living is the gift of wisdom” (Durant, W., 1953, p.16).

After Plato, Aristotle defines human as a rational animal, where this rationalism is his “specific difference” than all other animals. Against the Democritus’ “void” concept, Aristotle says that there can be no void in nature and “the supposed void turns out to have nothing in it”. He defines nature as “the conquest of matter by form, the constant progression and victory of life”. On the other hand, Aristotle raised some of the questions related to the nature of happiness, as well, such as ‘what is the best life?’ ‘what is life’s supreme good?’ ‘what is virtue?’ and ‘how shall human find happiness and fulfillment?’ Regarding these questions, Aristotle is said to create a perfectly sound human nature conception where “every ideal has a natural basis, and everything natural has an ideal development.” In a likely manner, Aristotle defines the aim of life as happiness, and “not goodness for its own sake”. Within this perspective, he presumes that human’s happiness will lie in the “full functioning of specifically human quality” that is his “power of thought”, with which he rules all other forms of life (Durant, W., 1953, p.16-99).

After Aristotle, Strato, Aristarchus, Euclid, Archimedes, Apollonius and Hypatia took role in creating perspectives for the development of Greek science. Strato believed in observation of natural phenomena and studied motion; Aristarchus, on the other hand, made observations of the sky. Euclid, Archimedes, Apollonius and Hypatia worked on geometry and mathematics (Lloyd, G.E.R., 1973). In 529 AD, the Byzantine Emperor Justinian closed the schools of Athens (Gill, N.S., 2013).

After a long time, with Roger Bacon a new perspective has grown. Bacon says "nature cannot be commanded except by being obeyed." He thinks that the Greek philosophers concentrated on theory much and spent little time in observation which was a great mistake. In this regards, Bacon says human "as the minister and interpreter of nature, does and understands as much as his observations on the order of nature… permit him; and neither knows nor is capable of more" (Durant, W., 1953, p.16-99). So, he lists seven special sciences which he regarded as superior to the traditional sciences taught in schools: perspective, astronomy, the science of weights, alchemy, agriculture, medicine and experimental science (Hackett, J., 1997, p.59).

With the work of Copernicus in the sixteenth century, developments in astronomy had already begun to change some notions regarding the place of humans in the universe. As such, the center of the planetary system now is not the Earth, but rather the Sun. Newton's synthesis of the astronomy of Copernicus and Kepler and the terrestrial mechanics of Galilei changed the laws of nature. Even the influence of God was affected in that sense and thus diminished, which led to tension. This period was correspondingly called the period of the first Enlightenment (Andronik, C.M., 2009, pp.12-4).

Further to this point, one of the great representatives of thought and the first metaphysician of the sixteenth century was Giordano Bruno. According to Bruno, space has no limits and has no "insurmountable barriers," where "Heaven is the infinite universe." Regarding the universe being infinite, God and the universe are one, but they are the same thing. Bruno distinguishes between the universe and God as follows: "God, the infinite Being, or the universe, is the principle or

eternal cause of the world: *natura naturans*; the world is the totality of his effects or phenomena: *natura naturata*". The beings Bruno distinguishes by the words "universe" and "world," *natura naturans* and *natura naturata*, really constitute one and the same thing (Weber, A., 1908).

The thoughts of Bruno are said to be nurtured by elements of speculation by Heraclitus, Parmenides, Democritus, and the Stoics, together with the doctrine of Neo-Platonic emanations and Nicholas of Cusa's theory of the coincidence of opposites, as well as the new heliocentric theory of Copernicus. According to the principle of coincidence of opposites of Nicholas of Cusa, Bruno claims that the two fundamental principles of the universe are those of matter, the passive principle, and, the soul, the active principle. These two principles represent two aspects of a single substance, "two indistinguishable powers of a single principle, in which they are reconciled and united, and in which their differences are annulled" (Radical Academy). Concisely, Bruno says that all things are one.

Descartes contributed to the revolution by considering how man viewed his place in the universe, and the proper way of pursuing truths. It is seen that his "basic view of the acquisition of human knowledge is theocentric and influenced by the particular revelation of the Bible and subsequent tradition" (Davies, R., 2001, p.12). Spinoza's philosophy, on the other hand, mainly focuses on the nature of substance. He claims that "the laws and rules of nature according to which all things happen and change from one form to another are everywhere and always the same" (Mason, R., 2007, p.1). Spinoza thinks that the universe as a whole must have no superfluous features in its nature or existence that are inexplicable

in being not deducible from its total concept. Regarding this, he is against the Descartes' notion of the created substances mind and matter.

Hume has a different perspective. He says that nature has taken care that humans hold their most fundamental beliefs. They irresistibly believe in causation and inductive inference, and believe in the existence of independent continuous external bodies and a persistent self, even though humans have no rational justification for the beliefs from reason or experience (Shand, J., 1993, p.76-156).

During the first Enlightenment, as Shand puts forward, Newtonian mechanics seemed to give a completely unifying explanation of the workings of the universe. Regarding this, the universe does not operate in different ways for different regions of the world under special laws, but "as being unified under one objective set of laws" (Shand, J., 1993, pp.157-163).

Being an eighteenth century rationalist, Leibniz contributed to philosophy with his theory of *monads*, which is known as Leibniz's monadology. Regarding this theory, the universe consists of an infinite number of substances called monads that cannot be divided in parts. Leibniz claims that every monad is produced from a primary unit, which is God. Additionally, he declares that every monad is eternal, and contributes to the unity of all other monads in the universe (Scott, A., 2002). Leibniz also admits that every created being, which is consequently every monad, is subject to change, and this change is continuous in each (Leibniz, G. W., 1898). Specifically, Leibniz's monadology defends undividable unity.

According to Kant, some final answers had been generated in some areas of human inquiry. Within this perspective, Newton's laws were the laws that the world did obey. The logic of the Aristotle suggesting that the space was three-dimensional and "time was classical and stretched like an infinite straight line towards the future and back into the past" did apply universally. So, modern thinking investigates all these aforementioned things where Newtonian space, time and motion were questioned by Einstein and universal causality was questioned by quantum physics (Shand, J., 1993, pp.157-163).

Through observation of nature and organic existence, Hegel relates inner and outer. The general moments of the inner aspect of organic life, sensibility, irritability and reproduction are thought as the inner; and the laws of these moments are the relation of the inner aspect to its outer expression. In that sense, the inner and the outer constitute an organic individual form. Therefore, observation of nature is revealed as an organic whole (Hegel, G.W.F., 2003).

Nietzsche's view of the world, on the other hand, is that "world is a never-ending flux or becoming with no intrinsic order" and humans are part of this flux. As it is seen, this world view has an affinity to the Heraclitus, one of the Pre-Socratic philosophers, whom Nietzsche admired (Shand, J., 1993, pp.195-6).

Husserl's philosophy grounded on his theory of intentionality, where he proposes a method that includes "a kind of internal reflection, called 'epoché,' that 'brackets' concern with the external world and focuses on the internal structures of experiences, on the 'contents' of consciousness." By doing so, he develops the interlocking doctrines of epistemology, ontology, logic, and phenomenology.

This phenomenology has been succeeded in European thought by existential (Smith, D.W., 1982).

Heidegger has an existentialist point of view. He claims that the world is first a place which has human significance "and there is no reason to denigrate the world as a network of significant objects for human beings in order to replace it by a detached view of the world "as it really is" rendered alien and devoid of human significance" (Shand, J., 1993, pp. 250).

According to Sartre, humans exist as active beings-in-the-world, not as pure egos. He also suggests that humans are consciousness who thrown into and are embedded in the world: the-world-as-it-is-for-humans. Briefly, it can be said that Sartre defends existentialism (Shand, J., 1993, pp. 251).

As has been expressed above, philosophers concentrated on understanding humans in order to be able to understand the world and life in general. From this, they noticed the fact that humans are rational and, as such, there is a specific difference between humans and other animals. This notion brought about a new interpretation where humans were claimed as significant beings in nature. Regarding this, humans should be protected from nature with its wild animals, bad weather conditions and unknown threats. The need for shelter can be said to have emerged as a result of this awareness. Although humans are part of nature, they also need protection against it in order to survive. This contradiction revealed the queries of philosophers, in a sense, to relate the fields of philosophy and architecture.

Within the rationalist perspective of Western philosophy, the laws of nature were changed by the studies of Copernicus, Kepler, Newton, Galileo and Einstein. During this first Enlightenment, humans had become aware of their strength in terms of intelligence and had started to overcome nature consciously. How the universe, the world and nature operate was not in question anymore. Understanding the mechanics and laws of nature had led to many emerging fields of science, as well. Improvements in technology also gained momentum. Humans began to forget that they were part of the nature, and started to control it.

Eastern philosophy, on the other hand, concentrates on the place of humans in the universe as Western philosophy does, but with a different perspective. The ancient cultures of India, China, Persia, Japan, Korea, Egypt, Tibet and many different traditions and forms of thoughts constitutes a vast collection of philosophical and religious ideas that shape the development of the East from earliest recorded times. As Osborne states "Eastern philosophy is a multi-faceted set of ideas that deeply reflect the complex societies they grew out of" (Osborne, R. & van Loon, B. 1996, pp. 4-5).

The main concerns of the Eastern philosophy are "the suffering, the self, the sublime and the nature of everlasting being". Regarding these concerns human has an important place in "being part of the never-ending cycle of being and death" and should not be ignored as a being in the society, as well. Under the light of these, the Eastern philosophy has a different perspective than the Western philosophy in terms of the notion of the human who is accepted as "the never-ending reality of an all-existing truth" (Osborne, R. & van Loon, B. 1996, p.10).

Within the perspective of the Western philosophy ever since Aristotle, the departmentalization – analysis – of the totality of truth, experience, life, and philosophy itself has been needed. However, in the Eastern philosophy and tradition, philosophy and life have been dealt in totality, not in its parts (Moore, C. A. (ed.), 1967, p.3). Likewise, it can be said that "the search for knowledge in Eastern philosophy has always been more holistic, and less scientific, in the strictly empirical sense, than in Western philosophy", where the main concern of Western philosophy has been the truth, logic, reason and independence. The Absolute truth has been sought in rationality by the Westerners as aforementioned, whereas the Eastern philosophy has sought complete Enlightenment through reflection. Moreover, the individual and the individual thing have always been tended to over-emphasize in Western philosophy. During the Enlightenment period in the West, once God has abandoned only reason remained, and science has become the new God.

For the essential answers about the human, Eastern tends to look inward, whereas Western looks outward to the absolute and to the social and political. This can be determined as a general description of the difference between the two traditions

Feng Shui is one research focus, is under the influence of Taoism, and originates from China; Eastern philosophy is needed to bind Chinese philosophy and Taoism to be able to grasp the whole. In this respect, Chinese philosophy is said to incorporate many diverse veins and philosophical strategies that stretch over thousands of years and demonstrate complexity and unity. These key features of longevity and uniqueness make the Chinese culture one of the most ancient and self-contained cultures in existence (Osborne, R. & van Loon, B. 1996, pp.14-92).

However, there are many misunderstandings of Chinese thought and culture. It is thought that Chinese philosophy has no interest in metaphysics. Likewise, it is accepted that there is no logic in Chinese philosophy and intuition dominates China. Philosophy and religion are assumed to be identical and additionally to be pessimistic. The individual is seen to have no significance, but the family and the filial piety. On the other hand, it is thought that "there is no genuine philosophy in China; that the very earliest philosophers – Confucius, Lao Tzu and their contemporaries who are the essence of Chinese philosophy and that they, because of the 'peculiar' ways in which they expressed their thought, are not genuine philosophers". As a result of this, it is accepted, generally, that "science and the scientific method are non-existent in China; and that Chinese philosophy has nothing to contribute either to the West or to philosophy as such". First of all, as Moore puts forward, these misapprehensions must be corrected in order to understand the Chinese thought and the philosophy (Moore, C. A. (ed.), 1967, pp.8-9).

Chinese philosophy is said to be humanistic, in which it keeps humans in the center of the universe. Accumulating facts has not been the task of Chinese philosophy, but rather elevating the nature of humans. It is also said that Chinese philosophy is a down-to-earth philosophy with which God or absolute truth are not concerned, but rather how to live properly on earth, ethics, and the principles of social living and government (Osborne, R. & van Loon, B. 1996, pp. 96-101). Likewise, Chinese thought and culture, and in turn Chinese philosophy, can be characterized with "an inner tranquility of spirit that pervades life in both prosperity and adversity, a tranquility born of a sense of harmony with Nature"

where a person is considered as the core as described above (Moore, C. A. (ed.), 1967, p.8).

China is under the influence of Buddhism, Taoism and Confucianism, where all interact with one another (Osborne, R. & Loon, B. 1996, p.97), and humanism is the keynote (Chan and Moore (ed.), 1967, p.16). Regarding this, and as it was questioned in Western philosophy, understanding the universe was one of the concerns of the aforementioned philosophies of China, as well, but with a different point of view.

Being and non-being were a problem among Buddhism, Taoism and Confucianism. Buddhism denied these two aspects, whereas Taoism reduced to non-being and Neo-Confucianism synthesized.

As Chan (1967) puts forward, to *be* is impossible, according to Buddhism, because, in order to *be*, a thing has to be produced. However, a thing has to come either from itself or from another, where both cases are accepted as absurd, in order to *be* produced. Above all, to *be* means to have self-nature where a thing is nothing but an aggregate and as such has no self-nature, consequently making being an illusion. Likewise, non-being is an illusion too, where the Void transcends them all. As it is seen here, the notion of Void suggested by the Pre-Socratic Western philosopher Democritus had been one of the aspects in understanding the universe for the Easterners too. However here, the Buddhist philosophers such as Seng-chao interpreted the Void as "not true Void", since everything involves entire universe. In regards to these, the Buddhist schools so-called the "Schools of Being" and the "Schools of Non-Being" were established.

According to the "Schools of Non-Being", all matter and form is identical with the Void, and the Void is identical with all matter and form where both being and non-being are negated.

From a different perspective, Taoism reduced all to non-being which is called *wu*, instead of denying both being and non-being. Within this respect, "Heaven and Earth and all things come from being and being comes from non-being" which led the *wu* to mean "having no name" and that Tao cannot be described. Later, *wu* is identified with nothingness.

Neo-Confucianists, on the other hand, neither deny being nor non-being, but affirmed both. According to them the nature of a thing or human consists in production (Chan & Moore (ed.), 1967, pp. 133-4).

Early Neo-Confucianists created a dichotomy of their own, "the bifurcation of *li* and *chi*", in synthesizing being and non-being, where "*li* is the universal principle underlying all things, the universal law governing all things, the reason behind all things" and "c*hi*, on the other hand, is the material, particularizing principle, the concretion, expression, and operation of *li".* If it is concentrated on the meaning of the *li* deeper, it is "the cause, the form, the essence, the sufficient reason for being", and the highest standard of all things, that is, their Great Ultimate, or *T'ai-chi*. Moreover, "it is self-caused, indestructible, and eternal" that combines all things as one. It is manifest everywhere and fully embodied in the mind. On the other hand, chi provides the conditions for the production, evolution, and destruction of things and has always meant force, energy, breath, and power.

Under the light of these aspects, the position of the human as an individual in relation to the universe is said to be clear, where, human, as an individual, has his place, and can also be identified with the universe (Chan & Moore (ed.), 1967, p. 137-140). In that sense, human and the universe has been in unity through the entire history of Chinese philosophy that supports the holistic view of this philosophy as Leibniz defends in his Leibniz's monadology.

In Taoism, human and the universe are seen in a microcosm-macrocosm relation and this identification with Nature has always been held as an ideal. Regarding this holistic view, Taoist understandings of life still reverberate in modern practices such as *feng shui* and *t'ai-chi ch'uan.*

In establishing a bond between Chinese philosophy and Feng Shui, Taoism requires an in-depth analysis. In this regards, Taoism can be said to differ from, and overlap with other Chinese traditions such as Confucianism and Zen Buddhism (Kirkland, R., 2004), and *Lao Tzu* represents the Taoist understanding through the book *Tao Te Ching* which is one of the most widely translated classics of all time throughout the world. Tao Te Ching includes the aspects such as human affairs, life, the universe and the nature of the good. Here, it is attempted to reveal "the path to right relations between humans and to right relations between humans and the universe" (Tzu, L., 2005, p. xiii).

Taoism, like the other abovementioned Chinese philosophies, has some misleading depictions as being "a tradition practiced by people who stood outside the normal social order and attacked it, whether philosophically or politically". Likewise, for hundreds of years, "cultivating the heart/mind (*hsin*)" or

"integrating humans' inherent nature (*hsing*) with their destined lives (*ming*)" have been thought as the principles of Taoist practice. Moreover, throughout the twentieth century, Taoism was defined as "set of ideas and values that complement and/or correct humans' own cultural/religious heritage; yet do not require humans to learn anything that they do not already believe; or to do anything that they would find difficult or unpleasant to do". Briefly, Taoism was generally described in terms that made 'humans' feel good about themselves.

It was common, through the twentieth century, to come across with the terms "popular religion" and "escapist" assigned to Taoism and to read that "Taoism after *Lao-tzu* and *Chuang-tzu* had no intellectual content"; and that "Taoists had no real regard for the realities of social life, no interest in government, and no moral teachings". In a similar perspective, during the same century, Taoism was called historically "marginal" to the Chinese 'mainstream' since that mainstream was essentially "Confucian". The misleading conception was that Taoism was developed among those in China who rejected 'Confucianism". However, it was not. The main difference is that Taoism did not begin from the efforts of a community to practice the teachings of a great leader, unlike Buddhism, Confucianism, or Christianity (Kirkland, R., 2004, pp.5-17).

Under the light of this, the truths of Taoism are said to be evident in the most basic and natural phenomena such as the movement of water, the growth of plants, the plain facts of human nature, and other obvious aspects of the world. As such, Taoism is intended to address the very heart of ordinary concerns, such as the protection of life and peace of mind (Tzu, L., 2005, p. xxvi).

According to some traditional Chinese interpretations, the *I Ching* (the Book of Change) was a prime inspiration for Taoism. In regards to the *I Ching*, humans are allowed "to peer into the processes that operate in the ever-changing world, and to determine how to bring their activities into alignment with those processes" and have been considered as diviners. These diviners whose understanding of life was handed down in the *I Ching* were skilled technicians working at the highest level of the socio-political order. Kirkland suggests that by the symbology of *I Ching*, useful tools were provided for the Taoists, as well as the non-Taoists, "who wished to explain the life's subtle forces and unseen processes".

As Kirkland (2004) states, bio-spiritual cultivation was the main concern of the "Classical Taoists" where the world would be transformed through this cultivation. Under the light of this, "Inner Cultivation" and "Inner Development" were aimed and this is called *Nei-yeh* where *nei* means inside and, in ancient times, *yeh* meant "cultivation of production (as of a crop)". *Nei-yeh says* "what gives life to all things and brings them to perfection is called *Tao"*. There is the assumption of a powerful ambient reality called *chi*, which can be translated as "life-energy"; and the teachings of the *Nei-yeh* seem to begin with this assumption. *Chi* exists within all things and their surroundings. As it is mentioned in the book *Taoism: the Enduring Tradition*, within each being, *chi* is centered in the "vital essence" which is called the *ching*. On the other hand, *Ching* is described by Harold Roth as "the source of the vital energy in human beings (and) the basis of humans' health, vitality, and psychological well being". As a result of this understanding, all these energies or essences are fundamental for the humans and the world they live in, which consequently evidenced the

holistic view of Taoism based on the idea that all living things are interconnected with the same subtle life-force.

The Taoist approach to life can be summarized and characterized as consisting of a *holistic worldview* and an ethos centered upon *holistic transformation* of self, society, and 'all the concentric spheres of the organic Chinese universe, which contained nature as well as society', through a variety of interrelated *moral activities and religious practices* (Kirkland, R., 2004, pp.28-215).

In the Taoist view of the universe, all things are said to originate from the Tao and return to the Tao. The coming and going of things are set in motion by change. Within this perspective, divination is a way of seeing the patterns of change. Divination, here, is not simply predicting the future and relying on these predictions to live, as Wong (1997) states, but rather "it is a way of appreciating the flux and the permanence of the Tao and directly perceiving the interdependency of all things".

The meaning of change is very important in understanding the Taoist Divinational arts, where the Chinese calendar has a big role. The notion of time is cyclical in the Chinese calendar. "Events and change follow cycles, and to know the order of the cycles is to understand how changes occur".

Divinational Taoism is a sophisticated art that can be said to be a way of seeing changes in the universe that are deeply rooted in Taoist philosophy and cosmology. Therefore, seeing the patterns of nature and understanding the notion

of change will affect the actions of humans accordingly. Briefly, seeing these changes and living in harmony with them are the essence of Divinational Taoism.

Within the various categories of Divinational Taoism, terrestrial divination interprets the pattern of the land, which is synonymous with Feng Shui. As a system of Divinational Taoism, it can be said that what is practiced today within the respect of Feng Shui is the product of centuries of development of the art.

As Wong (1997) states, in the center of Feng Shui philosophy and practice lies the idea that the land is alive and filled with energy. Under the light of this idea, depending on the forms of the land taken, this energy in a region can be positive or negative, and consequently affects humans who live there (Wong, Eva, 1997, pp.119-138).

2.2. Understanding Feng Shui

Feng Shui is an ancient Chinese geomancy dating back as early as the fourth century BC (Clarck, J. D., 1994). Understanding Feng Shui requires defining its meaning as the first step, which, literally, means "wind and water" (Webster, 1998, p. xi).

Feng Shui has become one of the most common research foci recently, since it is in close relation to the natural environment and humanity based on empirical observation of the land (Chen, B., 2008). Feng Shui has been understood and treated differently at different times and from various points of views since Yates (1868) more than 100 years ago. Feng Shui was interpreted by Eitel (1873) as a "black art," "superstition," and by de Groot (1897) as "charlatanism." However, in the twentieth century Western world, Feng Shui has attracted more scholars and

gained higher status (Clarck, J. D., 1994). By pointing out the importance of the relationship between human dwellings and their immediate environment as well as the cosmos at large, Feng Shui has gained a modern flavor of ecology, geography and ecological design (Lip, E., 1979).

The principles of Feng Shui are considered to be universal and can be practiced equally in the West and the East (Skinner, S., 1982). On the other hand, Feng Shui is taken as a keystone that links humans and their environment, ancient ways and modern life and is argued that it encompasses both the rational and logical, the irrational and the illogical (Clarck, J. D., 1994). Awareness of worldwide ecological and environmental crises and studies on the quality of life and well being has changed negative attitudes towards this philosophy and practice since the 1960s (Chen, B., 2008).

To begin with, Feng Shui is definitely not an art of placement, or interior design. It is not decorating buildings with good luck object or living in harmony with nature. It is not about enhancing wealth or enriching lives. According to Collins, Feng Shui is the study of how to arrange a person's environment to enhance the quality of life (Collins, T.K., 1999, p.1). In a similar manner, Yap (2003) defines Feng Shui as an art of assessing the quality of life through observations and analysis of a person's living environment. He claims that in order to understand what really Feng Shui is one needs to refer to the old Chinese manuscripts. In these manuscripts, there are five categories of study in the world of Chinese Metaphysics that are Mountain, Medical, Divination, Destiny and Physiognomy. Feng Shui is classified under the category of physiognomy of living environment, where "physiognomy refers to observation of appearances

through formulas and calculations in order to assess the potential and outcome of a person, or in this case, the outcome of a person living in a certain property" (Yap, J., 2003). That is how Feng Shui is a metaphysical science that is related to cosmic energies (*Chi* or Q*i*) of the living environment.

On the other hand, the second aspect of Feng Shui is "forecasting". Since the cosmic energy chi is cyclical, it can be calculated and, thus, predictions can be made by the help of these calculations on the influence of chi upon a particular living environment. By the help of the "predictive" part of Feng Shui, one can be prepared for the best or worst situation at the particular day, month or year (Yap, J., 2003, p.4). After all, Feng Shui is not a miracle cure for certain situations. The Chinese people have a saying: "First comes destiny, and then comes luck, third comes feng shui, which is followed by philanthropy and education" (Webster, 1998, p. xi). With this saying, it can be understood that only Feng Shui does not help to cure everything and solve problems.

From another perspective, the roots of Feng Shui is based on an "interpretation of the natural world" for the creation of efficient agricultural systems of China, and also "the study of the movement of heavenly bodies in order to determine the passage of time" (Hale, G., 2004, p.8) and in the past, the first applications of Feng Shui were done for the burial sites and graves. At this point, it should be pointed out that there are two types of Feng Shui, that are, Yin Zhai Feng Shui (Graveyard Feng Shui) and Yang Zhai Feng Shui (Living Residence Feng Shui).

In the ancient time, when Feng Shui was first used, it was known as *kan yu* which means "cover" and "support" and loosely translated as "under the canopy of

heaven" (Rossbach, S., 2000, p. 1). Chinese philosophers passed down their collective knowledge to disciples through centuries of empirical research, statistical analysis and experimentations. By this way, new findings were added and old theories redefined by every generation. As a result of this, one particular ideology emerged: the San He System. This is the oldest form of Classical Feng Shui. Environmental features like the direction, shape, flow and appearance of mountains, terrains and water are the features that is placed great emphasis by this system of *San He*. Later on, a new system has emerged with a new ideology: the *San Yuan* System. This system is mainly based on mathematics and numerical logic, and the main difference between two is the latter one considers "time" as well, beside the physiognomy, appearance, forms and flow of water in the environment. Under the light of this information, it can be summed up that there are two ideologies in the Classical Schools of Feng Shui: "San He" and "San Yuan" (Yap, J., 2003, pp.4-5).

On the other hand, there are different approaches in Feng Shui to "connect with the energy or 'feel' of a place, as Hale suggested (Hale, 1999, p.10). One of them is 'environmental approach'. In the ancient times, people's needs were basic such as food and shelter. They obtained their food through agriculture, so watercourses are very important for them in order to grow and transport their crops. For this purpose, not only the place of the watercourses (like rivers) are important, but also the direction of the flow. Besides, environmental features like the position of the mountains, or the direction of prevailing wind were very important for being secure and safe while constructing their shelters (Fig. 1, Skinner, S., 2003, p.11)). People lived by their wits and knowledge of local conditions that were gained

through their observations. So, this branch of Feng Shui is called the *Form School* and it is the earliest approach. With this Form School of Feng Shui, an ideal site was also determined.

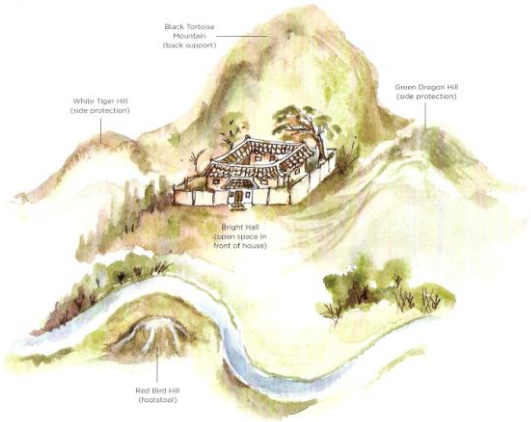


Figure 1: An ideal site

The other approach is the compass approach, which is known as the *Compass School*. Hale pointed out that in ancient China, earth formations and watercourses were investigated by geomancers, whereas the skies were charted by astronomers. As a result of all the findings, a special compass called *luo pan*, which is a special instrument that has all the recorded information of the knowledge of ancestors, was formed (Fig. 2, Skinner, S., 2003, p.12). By the help of the readings on luo pan, the directions, the energy of each direction depending on the landform or heavenly body can be found. Since Feng Shui is based on a philosophical book, *I Ching*, which interprets the energies of the universe, luo pan includes those 64 images from the yearly nature cycle at its outer ring. Hale said that "with the wisdom of ancient sages added to it over the centuries, I Ching offers us a means to connect to the natural flow of the universe" and luo pan is one of the most important instruments (Hale, G., 2004, pp.10-11).

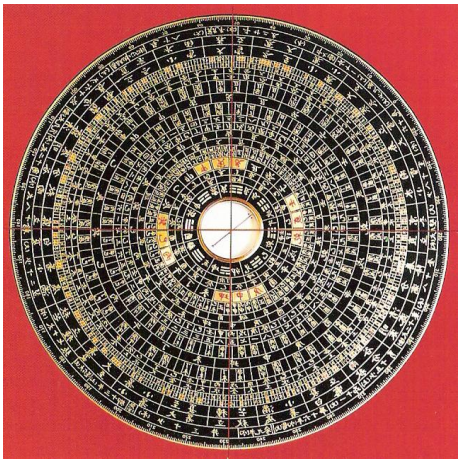


Figure 2: Luo pan

To sum up, Classical Feng Shui involves the following factors:

- Environment (included in both San He and San Yuan)
  - Mountain
  - Water / Road
- Building (included in both San He and San Yuan)
  - Shape, Design, Layout
- Residents (included in both San He and San Yuan)
  - The people living or using the property
- Time (included only in San Yuan)
  - Chi is dynamic and its influence changes through time

Under the light of the knowledge of the schools and systems of San He and San Yuan, Feng Shui has being applied. While applying Feng Shui, there is a key point that is every formula has a specific function either corrective, or constructive or predictive. Corrective is used to remedy existing problems; constructive is to enhance wealth, health or create certain positive results; and predictive is to reveal the past, explain the present and predict the future (Yap, J., 2003, pp.2-4).

Beside the Classical Feng Shui that is the original form of Feng Shui with all the schools and systems based on I Ching, a new form of Feng Shui has been introduced to the West world, as well. This is called *New Age Feng Shui* or *Western Feng Shui*.

Western Feng Shui is defined as blending traditional Feng Shui wisdom with one's intuitive, investigative, diagnostic, and communicative skills, as Collins (1996) suggested. The reason behind this is described as the impossibility to control the location, the direction, or the configuration of other buildings and streets in the area. So, in Western Feng Shui, a new set of principles has presented, mainly focusing on the flow of chi (Collins, 1996, pp.2-3).

Western Feng Shui can be understood through many books whose writers summarize the actual information and form a new kind of points related to 'easy tips' that can be used by many people. Through Western Feng Shui, it is observed that, the main aim of Feng Shui has lost its importance and with magical numbers, identified sectors like Career Sector, Fame Sector, or Love Sector, and lucky objects; the main ingredients of this philosophy have changed meaning. So, in this study, the only consideration will be on the Classical Feng Shui, that is the traditional one.

2.2.1 Basic Principles and Concepts

The philosophy of Feng Shui fosters basic principles and concepts. Regarding this, harmony and balance are said to be both crucial factors in Feng Shui, and are suggested to pervade the process linking humans and the universe. This process is called the *Tao* and is translated as the "way" or "path" (Rossbach, 2000, pp. x-9). Regarding this, this philosophy underlies Feng Shui; that is to say that the *Tao* of

Feng Shui lies in the cosmic trinity, where the cosmic trinity is considered to be *Heaven, Man,* and *Earth*.

By mentioning the *Heaven*, destiny of human is referred. The Heaven Luck is an unchangeable aspect, and affects human as an amount of 33.3% from the birth. *Man* can be defined as the luck of human and refers to the choices of human and all the efforts for shaping lives. *Man* luck affects human as an amount of 33.3%, as well. Additionally, *Earth* luck is the essence of Feng Shui. This is to employ energy (chi) and natural forces of the universe for a better living. This affects human at a same amount of percentage: 33.3% (Yap, J., 2003, p.11). Tao shows how ancient people of China regarded the heavens, the earth and themselves as part of one system. This holistic view of life interconnects all the aspects necessary for living in one ecological system, and shows how Feng Shui finds a place and a duty for itself until today, having spread all over the world (Hale, G., 2004, p.12).

In order to apply Feng Shui, there are some concepts that must be understood. These include the *Chi (Qi)*, the concept of Y*in and Yang* and the *Five Elements*. Skinner (2003) defines Feng Shui as "the art and science of changing the quality and flow of chi within a building, in order to benefit the health, wealth and happiness of the people living or working there" like the other practitioners and masters of the philosophy (Skinner, S., 2003, p.10). Within this aspect, it is observed that even the simplest definition of Feng Shui should include chi to give the actual meaning.

In addition, there are three basic principles that make up the foundation of Feng Shui as stated by Collins (1999). These principles are said to provide guidelines for living, which are "everything is alive; everything is connected; and everything is always changing". From these basic principles, *Chi* is defined as the vital energy that animates, connects, and moves everything through the cycles of life (Collins, 1996, pp.9-14).

Chi mainly exists in the East. As such, it is difficult to reconcile the concept of chi with Western philosophy, although it is "the life force of all animate things, the quality of environments, the power of the sun, the moon and weather systems, and the driving force in humans" as described by Hale (Hale, 2004, p.13). Furthermore, chi can be expressed as a "breath" that flows through water, the earth, and all living things (Skinner, S., 2003, p.10), such that it cannot be seen, but can be perceived and felt.

Chi is the core and heart of Feng Shui. It cannot be created or destroyed, like energy. Classical Feng Shui redirects, re-channels, refreshes or revitalizes chi for assessing and harnessing the right type of chi for the right purpose (Yap, J., 2003, pp.12-13). If the flow of chi is stuck in a body, acupuncture needles are used to unblock and free the flow of chi through the body. If this flow of chi is stuck in buildings, Feng Shui is used to create environments in which chi flows smoothly to achieve more qualified spaces and physical and mental health.

On the other hand, the concept of *Yin and Yang* is one of the important concepts in Feng Shui (Fig. 3, Mak, M.Y. & So, A.T., 2011, p.44). Yin and Yang are opposing, but interdependent, concepts that act together in order to create energy

as Hale points out (Hale, G., 2004, p.13). In a similar manner, they are said to be the two primordial forces that govern the universe (Rossbach, 2000, p.9). The Yin and Yang are "natural forms of energy that are in a constant state of change, movement and interaction." Yin is represented as dark, feminine, negative, and passive, whereas Yang is represented as light, masculine, positive, and active. This interaction of Yin and Yang relates to the Five Phases of Chi, known as the Five Elements.

In Feng Shui, unmoving and still water, mountains or landscape are classified as Yin; the rivers, sea or lakes with active, moving water are classified as Yang (Yap, J., 2003, p.14). Therefore, achieving a balance between them is the aim.

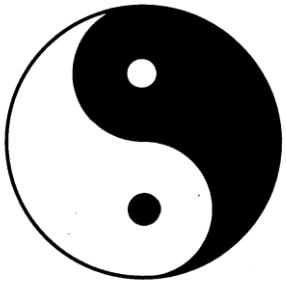


Figure 3: Yin and Yang

The *Five Elements* represent a classification system for everything in the universe, including people and represent different manifestations of chi, as well. The Five Element theory is said to be the backbone of all Chinese Metaphysical studies, which believes that all matters in the universe are composed of a blend of the Five Elements, although they are not physical. As a result of the interaction between the two fundamental universal forces that are Yin and Yang, the five phases of chi are known as the Five Elements (Yap, J., 2003, p.15). These elements are *wood, fire, earth, metal* and *water*. As it is in the concept of Yin and Yang, there should also be a balance of all elements. As Hale (2004) indicates, "interpreting and

balancing the elements plays a major part in the practice of Feng Shui" (Hale, G., 2004, p.14).

Each element can be associated with shapes, colors, times, seasons, directions, planets, and so on and represented by physical rudiments or objects (Rossbach, 2000, p.13). Below, some of the associations are listed as:

- Earth: Mountain, rocks, bricks, stones.
- Wood: Plants, trees, flower, grass, bamboo.
- Metal: Sword, axe, jewelry, gold, iron, silver.
- Fire: Fire, candles, red lamps, lightning, electricity.
- Water: Ponds, swimming pools, fountains, lakes, seas, aquariums.

There are different cycles corresponding to the elements those are *productive cycle*, *controlling (destructive) cycle* and *weakening cycle*. Productive cycle of elements is used to activate chi; whereas controlling cycle is the opposite and can be enormously destructive, in terms of the relationship among the elements.

In the *productive cycle*, water produces wood; wood produces fire; fire produces earth; earth produces metal; and metal produces water (Fig. 4, Yap, J., 2003, p.6). This means that the first element mentioned above helps to activate the second element, in other words, the required type of energy.

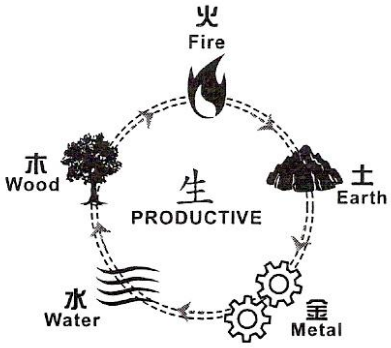


Figure 4: Productive cycle of Five Elements

In the *controlling cycle*, fire controls metal; metal controls wood; wood controls earth; earth controls water; and water controls fire (Fig. 5, Yap, J., 2003, p.6). In this cycle, the first element destroys the second element. This cycle is avoided to use while applying Feng Shui, since destruction of a type of energy is considered. Rather using the controlling cycle, weakening cycle is preferred to use for lessening the negative effects of any element like a safety valve.

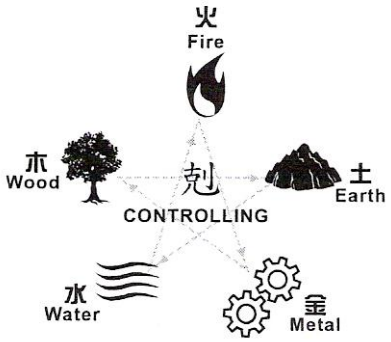


Figure 5: Destructive cycle of Five Elements

In the *weakening cycle*, on the other hand, water weakens metal; metal weakens earth; earth weakens fire; fire weakens wood; and wood weakens water (Fig. 6) (Yap, J., 2003, pp.6-17).

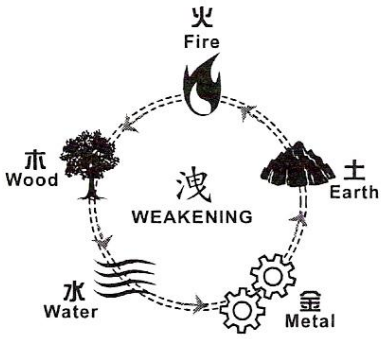


Figure 6: Weakening cycle of Five Elements

The Five Elements are not physical elements in the Western sense, but type of chi that can be strengthened and activated or weakened for a specific purpose in the process of applying Feng Shui.

To sum up, the basic principles and concepts of Feng Shui light the way to put this philosophy in practice. The aim and the application of Feng Shui can only be realized under the light of the knowledge of these principles and concepts.

2.2.2 Fundamentals and Tools

The principles and fundamentals of Feng Shui always collaborate together. Indeed, there is not a definite boundary to separate them. This means that, at many references, the basic concepts, that are chi, the concept of Yin and Yang, and the Five Elements are seen among the definitions of Bagua and the Trigrams of I Ching with the He Tu and Luo Shu that are the fundamentals and tools of Feng Shui.

Without chi, the concept of Yin and Yang, and the Five Elements, it is almost impossible to describe the meaning of Feng Shui. On the other hand, in order to analyze and apply Feng Shui, Bagua and Luo Shu are necessary like an instrument to work with. As mentioned earlier, the luo pan helps the Feng Shui consultant to

verify the necessary data about a building, and this information contained in the luo pan forms the basis of the Bagua.

The Bagua map (or Pa Kua) is said to originate from the *I Ching*, or book of Changes, an ancient Chinese book of divination. As Collins (1996) states the word *Bagua* describes the eight basic building blocks of the I Ching, called *trigrams* (Collins, 1996, p. 63). In parallel to this description, Hale (2004) defines the Bagua as a tool that holds some of the images to describe the energies of the eight directions and central position, in other words, trigrams (Hale, G., 2004, p.24). Each energy is associated with the directions and the five elements. These energies are indicated with symbols (-) that is the *yin*, and (+) that is the *yang* quality, as well.

Briefly, it can be said that Bagua is used as a tool that works as a map on the plans of buildings to identify the directions, the energy sectors, yin and yang qualities specific to the user and the building (Fig. 7, Skinner, S., 2003, p.14). The general outlook is in the form of octagon, but the information contained may be increased or decreased.

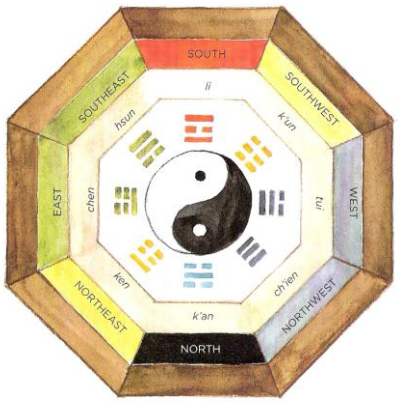


Figure 7: An example of a Bagua

The eight trigrams (or gua numbers) are assigned for each individual depending on year of birth and gender. These trigrams or gua numbers identify the ideal facing direction for the individual's house and for him/herself (Skinner, S., 2003, p.14). Without calculating the gua number of an individual, it is not possible to put Feng Shui in practice. These trigrams are not only a number. They represent an element, weather, geography, people, matters, body parts, animals, jewelry, house zone, family home, marital relations, food, production, reputation, plan, connection, seeking prosperity, travel, meeting, sickness, in work, color, direction/location, surname/position and taste. They are named as *Kan (1), Kun (2), Zhen (3), Xun (4), Chian (6), Dui (7), Gen (8),* and *Li (9)*. Since the number *5* is the central palace, according to the Bagua, a person's gua number cannot be identified as *5*. So, there is no number *5* within the trigrams.

He Tu and Luo Shu are the basis for Feng Shui. It is said that "all Feng Shui formulas are derived from the numerology of the He Tu and Luo Shu" (Yap, J., 2003, p.21). However, the Luo Shu square is the one that is being used for the Xuan Kong theory, that is to say, The Nine Flying Stars (Fig. 8, Skinner, S., 2003, p.14).

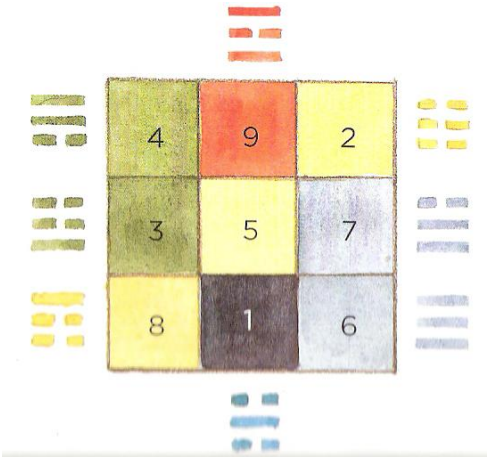


Figure 8: Luo Shu square

The Luo Shu square consists of the stars representing by the first nine digits. And these Luo Shu Numbers are said to represent "the constant and seasonal changes of Chi". As Yap mentions; "these numbers depicts the dynamic universe and the flow of Chi in our living environment and time" (Yap, J., 2003, p.22).

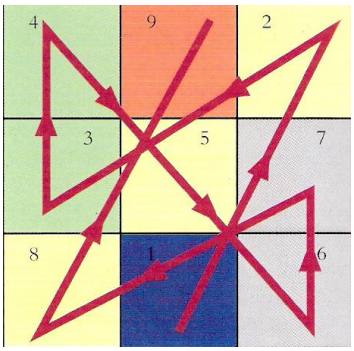


Figure 9: Flying Stars indicating direction

Like trigrams, each number represents a meaning, a color, and an element. These numbers in the Luo Shu squares are called stars. However, they are not real stars, rather, they are types of chi, and they may define a positive sector or a negative sector. Differentiation of the positive and negative sectors is based on the change of time, as the flow of chi changes constantly.

The Luo Shu square is like a template that forms the basis of Feng Shui analysis called as Flying Star Analysis (Fig. 9, Hale, G, 2004, p.24). Skinner states that this square is also used "to track the changes and passage of energy" in a building over time (Skinner, S., 2003, p.14).

Within the scope of the abovementioned aspects, here are the meanings and the elements of the stars:

- Star # 1: Appreciation, progress in work (water)
- Star # 2: Diseases (earth)
- Star # 3: Arguments, gossips, stress (wood)

- Star # 4: Love, relationships (wood)
- Star # 5: Danger, accidents (earth)
- Star # 6: Authority, power (metal)
- Star # 7: Competition, stealing (metal)
- Star # 8: Prosperity (earth)
- Star # 9: Future happiness and prosperity (fire)

Under the light of the information about the basic principles, the concepts, the fundamentals and the tools of Feng Shui, first analysis and then the application of this philosophy can be practiced. All the related data can be gathered within this knowledge. However, the real action will start afterwards. Only having the necessary information about the user and the building is not enough.

To start the practice of Feng Shui, first of all, the site of the building should be analyzed within a wide perspective. There are principles related to the site analysis to determine whether the site is positive or negative. Then, all the rooms of a building should be evaluated in terms of the chi flow, type of energy existed, yin and yang concepts and directions. For different functions, the general principles of Feng Shui do not vary.

Specifically, Feng Shui and the built environment are in close relationship in terms of ecological and functional effects. Since the context of Feng Shui covers the entire cycle of built environment from town planning to interior design (Mak, M. Y., 1995), the profession of architecture also finds a place in achieving a higher quality of life with respect to the natural environment and humanity.

It is claimed that the future world will be a man-centered, designed and humanist world. This world will be constructed by the design models created by the spiritual efforts of humans. These design models will surrender all epistemological products of science, philosophy and arts and will put forward contemporary humanist examples (Tunali, 2004, p.10).

The philosophy and practice of Feng Shui tells about a unification of human and nature. Although human needs man-made inhabitable spaces to survive, the configuration of these spaces should not be designed against nature, but as part of it. In this regards, an attempt to protect nature, to struggle with environmental problems and global warming will be started. By considering the flow of chi within spaces as paid attention by Feng Shui, the quality of life and well being of humans will be enhanced, as well. Through this holistic view of life, all the aspects necessary for living in one ecological system are interconnected where Feng Shui finds a great role for itself.

Within this perspective, it is inevitable to observe the unification of the fields of sciences, philosophy, art and therefore architecture to serve for the human well being.

Chapter 3

THE ROLE OF FENG SHUI PRINCIPLES IN THE ARCHITECTURAL DESIGN PROCESS

Feng Shui is an ancient Chinese philosophy that has been practiced for thousands of years in order to achieve harmony between one's environment and to enhance quality of life. However, it has been mainly researched after the 1960s by Western researchers in anthropological and folklore studies, ecological and environmental studies or in architectural studies (Chen, B., 2008).

Location and spatial arrangement of the built environment has been the main concern. Along with this, Feng Shui's significance in architectural design has also been discussed by Feng Shui researchers. Hwangbo (1999) explained that "the practice of Feng Shui as an intuitive matter combined with cosmography and has strong parallels with western concepts of geometry in architecture." He also suggested that the aim of Feng Shui is to create a harmonious and positive existence in architectural design. On the other hand, it is demonstrated that the natural ventilation of bathroom design is similar to the chi flow pattern according to Feng Shui principles. Tam et al (1999) found that Feng Shui has an impact on the economic values of properties in villages in Hong Kong. Mak and Ng (2005) suggested that there is no perceptual difference between Western and Eastern architects regarding the preferred surrounding environment, irrespective of the existence of the ideal Feng Shui model (Mak & Ng, 2005). He gave a historical

description of Feng Shui theory in house building, where Feng Shui principles are commonly being guided unconsciously by the Chinese population during habitat choice, planning and building during ancient times, as well as today. Similarly, Wang (1992) provided the first comprehensive research on architecture theory based on Feng Shui culture, as Chen (2008) stated, including the theory and methodology of site choice, planning and building, geographical and geological research, and landscape and ecological research (Chen, B., 2008). Other Feng Shui scholars and researchers (Lip, E., 1986; He, X., 1990; Xu, P., 1990; Wang, Q.H., 1992; Cheng, J. & Kong, S., 1993; Too, L., 1996 & Mak, M.Y. & So, A.T., 2011) examine the principles and practices of the Form School approach in relation to the built environment. Among the methodologies they use are three basic criteria (Lee, S.H., 1986), site selection procedures (Xu, P., 1990), major criteria for the best location (Han, K.T., 1995), design rules-of-thumb (Lip, E., 1979, 1986), design criteria checklist (Choy, H., 1999), interior design diagrams (Rossbach, S., 1984, 1987, 2000), site design tool (Lynch, E., 2003), and site analysis framework (Xu, J., 2003). On the other hand, Mak (2010) relates preliminary design stages to Feng Shui (Table 1) and grouped Feng Shui criteria in four design modules (Table 2) (Mak & Ng 2005).

Table 1: Preliminary design stages related to Feng Shui

Preliminary Design Stages	**Feng Shui Design Modules**
Site Analysis	Surrounding Environment
Concept Design	External Layout
Sketch Design	Internal Layout
Schematic Design	Interior Arrangement

Table 2: Feng Shui criteria grouped in four design modules

Surrounding Environment	External Layout	Internal Layout	Interior Arrangement
Topography	Shape of Site	Layout	Door Openings
Front of Site	Entrance	Doors	Bedroom
Rear of Site	Shape of Building	Windows	Kitchen
Sides of Site	Orientation	Shape of Rooms	Living Room
Street Location	Trees	Staircase	Bathroom
Water View	Pond	Ceiling	
Wind Direction			

Under the light of these aspects and researches made, another group of Feng Shui criteria has been formed for this study (Table 3) and they will be interpreted in this chapter as the factors that create principles of Feng Shui. It is also significant to mention that Rossbach (2000), Hale (2004), Wong (2001) and Post (1998) are used as main research resources for this study, especially for the visual illustrations.

Table 3: Feng Shui criteria grouped in this study

Surrounding Environment	External Layout	Internal Layout	Interior Arrangement
	Hills and slopes	Ceilings	Light
	Waterways & bodies of water	Columns & beams	Colour
	Roads & streets	Stairs	Mirrors
	Pathways & entrances	Corners	Plants
	Surrounding buildings	Doors & windows	
	Plot shapes		
	Building forms		

3.1 The Various Dimensions of Feng Shui Principles

Whether designing a new building or moving to an existing one, the principles of Feng Shui do not change. This situation is valid for homes, office buildings and other type of buildings with different functions.

While considering Feng Shui, there are some principles as guidelines with which the process of analysis and application can be in progress. These can be expressed as external and internal principles. First attempt to analysis lies in the evaluation of external factors. These factors are related to the surrounding

environment and include landforms, buildings, and natural and artificial features, in general means.

This practice starts from selecting an appropriate site. Within this aspect, the natural formations of land carry high priority in relation to the existing trees, bodies of water and the surrounding buildings. Then, all the factors while approaching the site are investigated such as roads, pathways, and entrances in order. Afterwards, these principles start working inside the building room by room, as the flow of chi is the main consideration for well being. Indeed, there are certain principles for the proportions of doors with the building, location of the windows, and the other structural elements, as well.

3.1.1 External Factors

An ideal site was defined by the first masters of Feng Shui (Fig. 10, Hale, G., 2004, p.40). Since China is located in the Northern Hemisphere, south-facing houses get sunlight more, and are protected from the cold north winds better. For this reason, in ancient China, doors and windows were oriented towards south, and it was a custom for towns to be laid on a north-south axis. By this way, they got benefit from the good energy of south. That is why, the direction south is always located at the top, in the Chinese geomantic compass.

5000 years ago, building palaces were very important for the emperor to protect the Dynasty. So, when palaces were built, "their shaman advisers planned the layout of the palaces so that the four protector animals" of Chinese mythology – Green Dragon, White Tiger, Red Raven, and Black Tortoise- surrounded the seat of government like an "armchair". According to the Form School approach, the four cardinal directions, north, south, east and west are correspondingly referred

to back, front, left and right (Lee, S.H., 1986). Regarding this protection, "the Green Dragon (east) would be to the emperor's left; the White Tiger (west) would be to his right; the Black Tortoise (north) would be at his back; and the Red Raven (south) would be in front" (Wong, E., 2001, p.10). So, based on climatic conditions and protection needs, early Feng Shui masters set the principle of an ideal site.

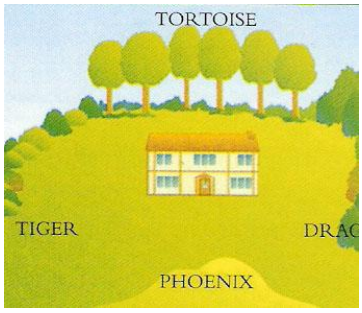


Figure 10: The locations of the protectors at an ideal site

As it is guided by Feng Shui, the first principle of having a location according to this ideal site definition is suggested. Nowadays, it is hardly to find such a natural site in big cities or towns. However, buildings or high trees instead of mountains and hills; and roads instead of watercourses work similarly, surround and protect a site.

Collins (1996) points out that if a building is lack of the features of an ideal site naturally, in other words somewhere between the mountaintops and flood plains with harmonious representations of all five elements around them, then this can be created artificially. Planting trees or installing fences in the back and around the sides of a property may create the ideal "armchair" shape around a building to protect it; just it is at the formation of an ideal site. Furthermore, by placing a water feature or by creating a meandering path that provides flow of water in front of a building will affect chi in a positive way (Collins, 1996, p.30).

While assessing a location, Hale (1999) who is the writer of the book "*the Practical Encyclopedia of Feng Shui*" gives a list that deals with the natural phenomena around the site in addition to the positive and negative aspects of the immediate environment. Within this scope, she draws attention to wind direction, sun direction, rainfall, flood areas, geological faults, soil type, and height above sea level as natural phenomena. As a matter of fact, these points are the points that an architectural designer should examine before starting a design. Since, site analysis is the preliminary step of an architectural project; it is preliminary for the Feng Shui consultant, as well.

Under the heading of immediate environment; proposed road developments, proposed building developments, land use plans, previous land use, tree preservation orders, local architecture, and neighbors exist. The information gathered by the search of the abovementioned aspects will guide the designer and the Feng Shui consultant for future plans.

For the positive aspects, Hale (1999) points out that local amenities, trees, street lighting, good street maintenance, good schools, community spirit, local shops, clubs and classes, playgroups and nurseries should be checked out. These amenities add good spirit, happiness, and lively atmosphere. So, without any doubt, beneficial surrounding facilities and functions feed the environment with good energy.

On the other hand, factories, petrol stations, all-night cafes, pubs and discos, police stations, fire stations, airports, cemeteries and crematoriums, motorways and highways, electricity sub-stations and pylons are given as negative aspects,

since different kind of pollutions and noises may be created. As a result, these may cause some diseases and poor sleeping conditions (Hale, G., 2004, p.35). As a matter of fact, the positive and negative aspects are the aspects that the user should consider before selecting the site and getting in touch with the architect.

In a similar manner, Wong (2001) who is the writer of the book "*A Master Course in Feng Shui*" mainly considers the natural formations as it was defined as an ideal site, in the ancient China. Wong (2001) does not suggest to live on a slope without vegetation, since vegetation is a form of protection; and to live in a house on top of a ridge or a mountain, because of lack of protection. She stated that the site should have the feel of "security".

Wong (2001) gives a list of destructive energies that should be avoided at the immediate surroundings of a site, as well. These are the cliffs, rock overhangs, loose rocks, tall buildings that are like cliffs, buildings with sharp edges, irregularly shaped buildings, power plants, land and buildings associated with death, illness and decay. The buildings with sharp edges and irregularly shaped buildings are not suggested around the site. However, by using natural vegetation like high trees, the *sha* energy (bad chi energy) can be blocked coming from the sharp edges.

Apart from this, Wong (2001) mentions how chi can be received and points out landforms and building structures that carry chi, as Hale (2004), Post (1998), and Rossbach (2000) do. In this list, gentle rolling hills, gentle water, groves and forests, parks and gardens, round buildings, and land and buildings that bring life energy such as playgrounds, nurseries, shopping plazas, and religious buildings

are considered (Wong, E., 2001, p.30). When mosques are considered, it is seen that the buildings have dome formed roofs to give the feel of spiritual peace. In this regard, it can be said that these types of buildings carry positive energy.

Beside the negative and positive natural formations and phenomena, Hale (2004) points out the unseen energies that should be avoided at the immediate surroundings, as well. She lists them as geopathic stress, underground streams, leys or ley lines, radon, earth grids, and human activity below ground level (Hale, G., 2004, pp.36-7). So, she draws attention to abstract factors. Wong (2001), by the way, takes attraction to the objects that carry destructive energy with a more concrete look. She lists these as sharp and pointed objects, large objects that dwarf the house, and shiny and reflecting objects (Wong, E., 2001, pp.19-22).

Whether seen or unseen, the energies, the objects, the buildings, the landforms, and the human activity may be harmful if the meaning they have disturbs any individual, as it is at cemeteries. The meaning it has is related to death, not to life.

Within the same context, Professor Lin Yun (2000) has listed some external factors to be analyzed too, as the foreword of the book "*Interior Design with Feng Shui: New and Expanded*". In this regard, he listed down these factors as road direction, bridges, trees, roof top, corners, temple or shrine in front or back of house, rivers and streams, telephone or electricity poles, colors of surrounding and others (Rossbach, 2000, p. xv). Similarly, Rossbach (2000) has classified some factors for exteriors, as well. She points out the location as one of the necessary aspect to search for. Grass and plants, lawn, animals and neighbors are given within the context of natural elements to be observed. Mountains and rivers are

included in the classification of natural earth shapes; whereas for the man-made landscape, land plots, roads, driveways, entrance/exit, trees and ponds are stated to be the first to analyze (Rossbach, 2000, p.26).

Contemporary Feng Shui researchers have considered these aspects as simplified diagrams and created key criteria for the external factors (Shang, K., 1992; Cheng, J. & Kong, S., 1993; Han, K.T., 1995; Yi et al., 1996; He, X., 1998; Mak, M.Y. & So, A.T., 2011). To sum up, assessing a site or selection of a location should be analyzed in consideration to the surrounding environment in terms of positive and negative aspects. In this consideration, beside the topography of the site and existence of bodies of water, trees, form and function of the surrounding buildings, and every physical aspect should be dealt. However, different writers and consultants of Feng Shui may expand this list by giving details about these physical aspects. In this study, external physical aspects cover hills and slopes, waterways and bodies of water, roads and streets, pathways and entrances, plot shapes and building forms. In Classical Feng Shui, environment and building are very significant as well as the user and the time. In architectural point of view, environment that is defined as mountain and water /road; and building that is defined as shape, design and layout should be prominently considered. Today, buildings and trees can be related to hills and slopes; roads and streets can be related to rivers or waterways and also should be considered as they are. Ponds and pools can be related to lakes or bodies of water.

The conditions that are identified as suitable or unsuitable are according to the recommendations established with reference those contemporary Feng Shui

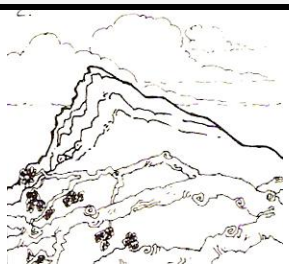
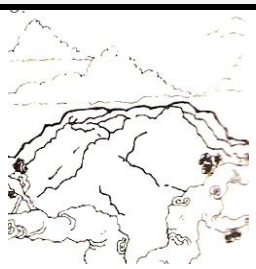
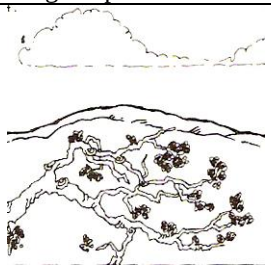
scholars (Rossbach, S., 1984, 1987, 2000; Post, S., 1998; Wong, E., 2001; Hale, G., 2004)

Hills and Slopes

Many Feng Shui writers (Shang, K., 1992; Cheng, J. & Kong, S., 1993; Han, K.T., 1995; Yi et al., 1996; He, X., 1998; Mak, M.Y. & So, A.T., 2011) consider hills and slopes to assess a location in terms of its positive and negative aspects. Regarding the existence of chi, hillsides are the most suitable places to live, since flat, featureless land is lack of good chi. It is also mentioned that in ancient China, when the surrounding setting does not have hills, their man-made versions were created to enhance the area's Feng Shui (Rossbach, 2000, p.31). For this reason, mountains, hills and slopes have significance in terms of Feng Shui. According to He (1998), the meaning of this model extends beyond natural physical satisfaction as it also satisfied the needs for security with the dragon hills provided a defense.

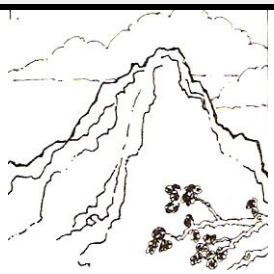
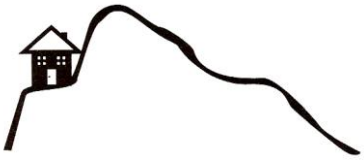
In case of slopes, there are many principles to identify the positive energy sectors (Table 4, Rossbach, S., 2000, p.34; Post, S., 1998, pp. 122-4) and the unsuitable ones with poor and negative energy (Table 5, Rossbach, S., 2000, p.34; Post, S., 1998, pp. 122-4). Regarding this, both cases are shown with examples and descriptions in order to underlie some of the principles based on location in order to get benefit from chi at a maximum level.

Table 4: Suitable slopes

ENERGY TYPE: POSITIVE ENERGY	
HILLS & SLOPES - DESCRIPTIONS	
 A - Gentle grades carry positive energy beside to have good protection.	 B - This slope carries the same features as the previous one has.
 C - This slope is a rather flatter one, however it carries positive energy.	 D - In this case, the orientation of the building is significant. If it faces down the slope with its back to the hill, then it is positive. If the situation is vice versa, then it is not suitable.
LOCATIONS ON HILLS & SLOPES	
 E - The best choice is to locate the building on the flat part of the hill	 F - Orienting the door of the building towards down the slope is good even if the slope is not much steeper just like in figure D.
 G - In this building, placement of the door carries importance. Orientation of the door towards a flat part is good.	 H - This location is good, because the building sits on a flat part and the orientation of the steep part is away from the building.
 I - Providing a flat area to the building makes this situation positive.	 J - This placement is neither negative, nor positive. But it does not affect the inhabitants in a bad way, so accepted as good.

 K - The building sits on a flat area which is good.	 L - This placement and orientation is appropriate.
 M - The trees provide a security, but an adequate distance should exist between the building and the trees to make this example appropriate.	 N - This positioning of building is appropriate as well.
 O - Without the vegetation here, this location is negative, since it is at the tail of the slope. However, vegetation makes it to carry positive energy.	

Table 5: Unsuitable slopes with poor energy

ENERGY TYPE: NEGATIVE ENERGY	
HILLS & SLOPES - DESCRIPTIONS	
 A - Since steep slopes and abrupt hills conduct chi so quickly and can cause mudslides, such locations should be avoided.	
LOCATIONS ON HILLS & SLOPES	
 B - In such locations, the orientation and position of doors are important. Doors facing towards the hill is critical.	 C - This facing is similar to the previous one, however, here, the slope is not that steep. Yet, this situation is not good.
 D - In this case, the situation is similar with the previous examples. Orientation of the door makes the location non-desirable.	 E - The location of the building is like on top of the hill which is too steep. It is not good.
 F - The road and the slope together make this location poor in terms of energy.	 G - Placing the building on top of a hill is one of the locations that should be avoided.
 H - Since there is a feeling of sharpness towards the building, this configuration of mountain and the building is very critical.	 I - This positioning on top of a steep hill with sharp edges is very bad positioning according to Feng Shui principles.

	
J - Placement of a building at the end of the slope is weak.	K - In this case, there is no protection. It symbolizes a "fall-off" which is undesirable.

Waterways and Bodies of Water

Water is called as "the blood of the universe" and one of the "most responsive natural elements as Post (1998) states. In Feng Shui, it is associated with wisdom, money and the social context. Besides, water is considered to be the path of chi (Post, S., 1998, p.125). Anderson and Anderson (1973, p.50) also advocated the ideal site model for the water feature. On the other hand, He (1998) states that the river meandering and embracing the site added to it a general sense of security and enclosure.

As a rule, it is suggested that a building located near to and with a view of water will thrive. By stating water, a building that faces a river, a pond or a sea can be understood. Therefore, the lifelines and links of early Chinese settlements were analyzed through analysis of rivers.

In ancient times, transportation of people and transfer of the crops to commerce was held via waterways. That is why waterways have a significant role in terms of Feng Shui principles.

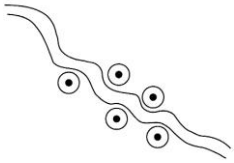
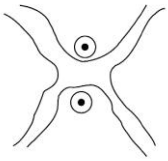
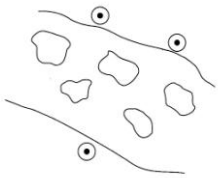
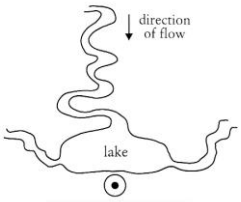
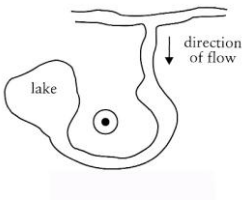
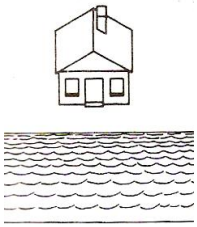
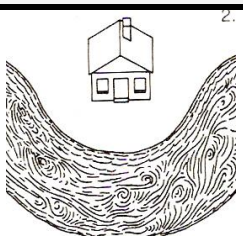
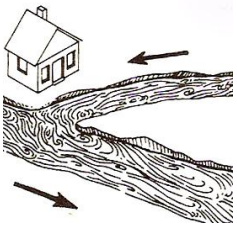
The form of a waterway should be considered in order to find out how chi flows through. A meandering river is more suitable than a straight one with sharp bends, since the latter helps chi to flow too quickly. In a similar manner, the

quality of water is also important. Clean and active body of water carries pure chi, whereas a stagnant and murky one does not (Rossbach, 2000, p.35). Within the same perspective, Wong (2001) mentions, fast-flowing rivers carry destructive energy, since positive energy can be swept away, on the contrary, stagnant waters are destructive as well, because, these are the places where negative and decaying energy gathers (Wong, E., 2001, p. 23).

Having man-made bodies of water like ponds and pools affects Feng Shui, as well. These kinds of water help the inhabitants of a building to reach prosperity. On the other, there are some certain factors in terms of chi where attention needs. Similar to the waterways, ponds and pools should be kept clean and fresh, since stagnant water brings sha energy (Rossbach, S., 2000, p.53). On the other hand, the size and placement of a pond should be well considered. Balance within the plot of land is essential. This kind of body of water should not be too close to the building and too large in comparison to the building and the plot. If the shape is square or rectangle, any sharp edges should not point the building. Besides, having fountains and waterfalls brings positive energy to the inhabitants of a building with a feeling of life and joy (Post, S., 1998, pp.80-128).

To sum up, there are certain considerations in terms of all kinds of bodies of water in order to obtain positive energy. The water should be clean, fresh and alive (Table 6, Wong, E., 2001, p.35; Rossbach, S., 2000, p.37) instead of being stagnant and muddy (Table 7, Wong, E., 2001, p.27; Rossbach, S., 2000, p.37). By this way, well being of inhabitants can be enhanced.

Table 6: Rivers that carry positive energy

ENERGY TYPE: POSITIVE ENERGY	
WATERWAYS & BODIES OF WATER - DESCRIPTIONS	
 A - Locating buildings on the concave curve of a meandering river is very good.	 B - Buildings which are situated at the confluence of several rivers can get benefit from positive energy.
 C - The buildings that face an area of river protected by islands are desirable.	 D - In this case, the building is protected by two streams which is very good.
 E - The arrow here shows the direction of flow of the river. The building in front of a lake in such a situation receives all the positive energy gathered at the river.	 F - In this situation, the arrow shows the direction of the river once more. The building here receives both the energy of the river and the energy gathered in the lake as well.
LOCATIONS AROUND BODIES OF WATER	
 G - If a building faces a river, this is good.	 H - In this situation, the building is embraced by water, which symbolizes money.
 I - A building facing a waterfall receives positive energy in terms of good fortune.	 J - Here, since the direction of flow is towards the building, the energy is good. If the situation is vice versa, then the result is just the opposite.

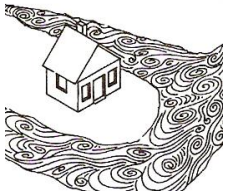
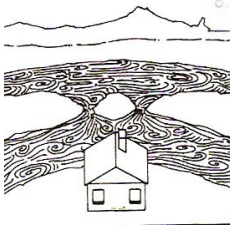
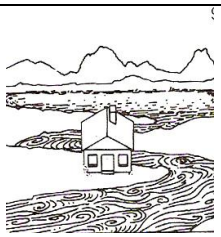
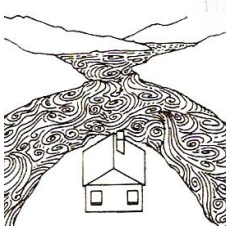
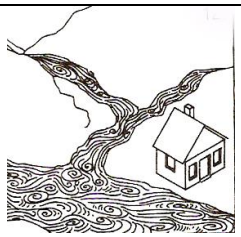
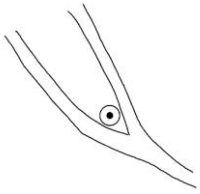
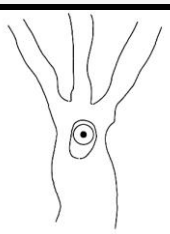
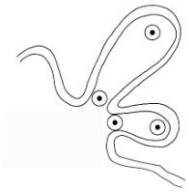
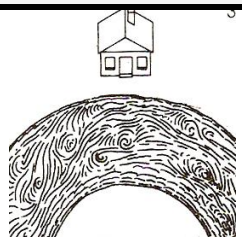
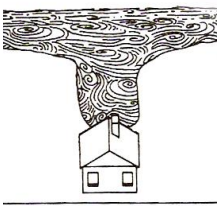
 K - Since the building is embraced by water once more, the location is suitable and desirable.	 L - This positioning is good, especially because of the island in front.
 M - Since the building is embraced by a river bend, the configuration is said to be one of the good sites.	 N - A building at a bay is one of the good locations in terms of wealth.
 O - In this case, direction of flow is very significant. If the flow is towards the building, it is accepted as good.	 Q - Here, as well, if the flow of water is towards the building, the situation is good.

Table 7: Rivers that affects buildings negatively

ENERGY TYPE: NEGATIVE ENERGY	
WATERWAYS & BODIES OF WATER - DESCRIPTIONS	
 A - In this positioning, the building is squeezed by two swift rivers which make it to get negative energy.	 B - This building settled on an island is not good, since it "speared" by waterways.
 C - In this type of location, the buildings are squeezed by "noose and necks of meandering rivers" and cannot receive positive energy.	 D - Here, the building is affected by the sharp bend of the river.
LOCATIONS AROUND BODIES OF WATER	
 E - The inhabitants of the building do not get beneficial energy since the river inverts away from the house.	 F - The river threatens the building, unless the body of water is not a man-made canal and quite docile.

Roads and Streets

Too (1996) suggested that ancient Feng Shui features should be translated into relevant terms and are analogous in different physical settings. In that sense, roads have been substituted for rivers and meandering waterways. Therefore, roads are significant in channeling chi (Fig. 11, Wong, E., 2001, p.34). In this regard, they can be said to have the same influence as the flow of water. Many of the same basic rules applied to waterways are valid for roads and streets in Feng Shui.

Facing a stream or a street, confluence and elevation are accepted as positive (Table 8, Wong, E., 2001, p.36; Post, S., 1998, p.134), whereas curving away, running away; diverging and sharp angles of flow are not (Post, 1998, p.129).

Figure 11: Good road pattern

Steep roads, roads with fast flowing traffic, mazelike roads, entrances to high-speed thruways, bridges and elevated roads, train tracks and airport runways are the road patterns that carry sha (Wong, E., 2001, p.23). Therefore the user should avoid living around such places (Table 9, Wong, E., 2001, p.28; Post, S., 1998, pp.132-4). Similarly, Hale (2004) points out the same waterway and road patterns, because those kinds of patterns either help chi to sweep away quickly, or block it. Rossbach (2000) also expresses that dead ends like cul-de-sacs and perpendicular streets are the worst of all the roads (Rossbach, 2000, p.56). Similarly, Mak & So (2011, p.82), He (1998) and Lee (1986) emphasizes that in order to assess a building roads are considered in relation to the ideal Feng Shui model.

Table 8: Roads that carry positive energy

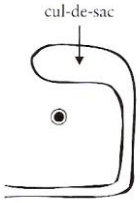
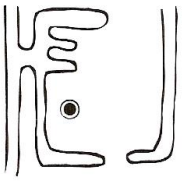
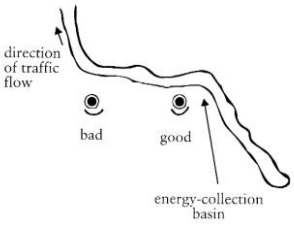
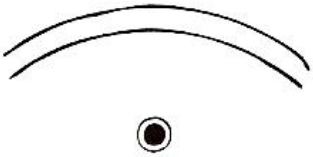
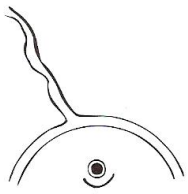
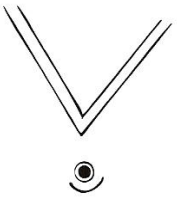
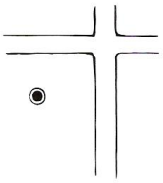
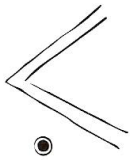
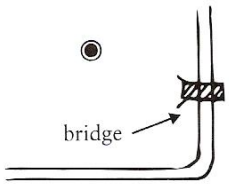
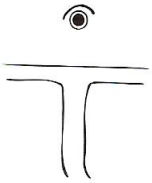
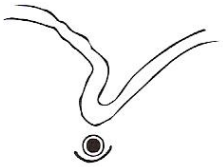
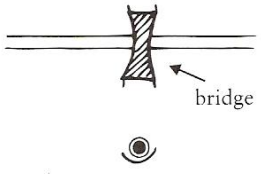
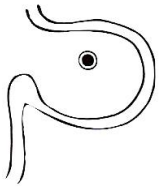
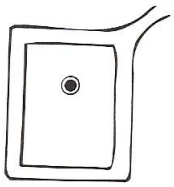
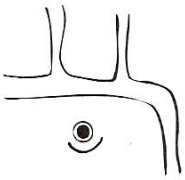
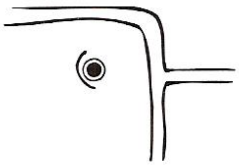
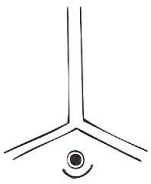
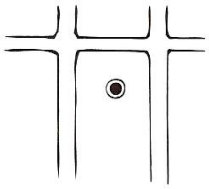
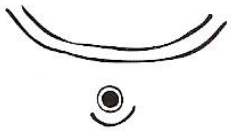
ENERGY TYPE: POSITIVE ENERGY	
ROADS & STREETS - DESCRIPTIONS	
 A - The arrow shows the cul-de-sac. Although cul-de-sacs are not good in terms of energy, in this case the building receives energy collected in the cul-de-sac.	 B - The building is surrounded and protected by "arms" formed by the road which is good.
 C - Concave curve of the road protects the building here.	 D - In this configuration, the building is once more protected by the "arms" formed by road.
 E - The left arrow shows the direction of the traffic, whereas the right one shows where energy is collected. In this regard, the building on the right receives good chi from the energy-collection basin; on the other hand, the left building does not receive.	 F - Because of the concave curvature of the road, the building receives good energy.
LOCATIONS AROUND ROADS & STREETS	
 G - Both buildings receive positive energy and such configuration is very desirable for wealth.	 H - This configuration affects the inhabitants' wealth, as well, if the roads embrace the building like three coins.

Table 9: Roads that affects buildings negatively

ENERGY TYPE: NEGATIVE ENERGY	
ROADS & STREETS - DESCRIPTIONS	
 A - A building situated at open noose, at T junction and on inside loop of road has a destructive road pattern.	 B - A sharp edge is pointing the building.
 C - Situating on a corner is not good.	 D - Settling anywhere near a V shape is not desirable.
 E - Here, the building is situated on a corner and near a bridge.	 F - Constructing a building at T junction is not good.
 G - Sharp bend in road disturbs the inhabitants of the building.	 H - The building here is facing a dead end of road, which is one of the undesirable situations.
 I - Facing towards a bridge is not good.	 J - Having a building inside a noose is not desirable.

 K - In this case, the building is located in a noose completely, which is unsuitable than the previous one.	 L - Two junctions exist here, which is not good for the building.
 M - Both situating at corner and T junction affect the building in a bad way.	 N - Locating a building at a Y junction is not good either.
 O - The building here is squeezed by roads on three sides.	 P - The building placed on outside loop of road gets affected as if a blade cuts it.
LOCATIONS AROUND ROADS & STREETS	
 Q - Here, the road curves away from the building which is not good and has the same effect of the previous case.	 R - This is a classic negative situation, because of the intensity of the flow of chi.
 S - This is a very negative situation in Feng Shui. The effects are undesirable than the previous one.	 T - Here, the road curves away from the building.

 U - The situation here is similar with the previous one.	 V - This formation may result in financial difficulties and separations.
 W - Because of the formation of road that becomes narrower as it leaves the building, fortune is said to decrease.	 X - This situation is not good either. If the roads embrace the building, then the result will be beneficial.
 Y - This formation is not desirable since it is said to lead argumentations.	

Pathways and Entrances

Mak & So (2011, p.82) state that pathways and entrances through which the building is approached are traditionally important aspects. In that sense, pathways and entrances channel chi to a building. Above all, they are said to reflect the identity of the inhabitants and represent the image of the owner, as well (Hale, 2001, p.44). On the other hand, especially pathways are linking a building to the main artery of a road. Similar to waterways and roads, pathways carry nearly the same principles of Feng Shui. Within this aspect, pathways are required to be smooth, meandering, and relatively away from the road to filter negative exterior chi. Straight pathways are not positive as they carry chi too quickly (McCandless, C., 2011, pp.36-7).

In a similar manner, the exterior entrance to a building is a key factor in Feng Shui. For all kinds of buildings, entrances are recommended to be accessible with unobstructed view and pathways. Column, trees, walls, or utility poles that close the entrance should be avoided. Regarding this, Lee (1986) and Cheng & Kong (1993) classify pathways and entrances as one of their design modules to be checked for the ideal Feng Shui layout.

Surrounding Buildings

Xu (1990), Choy (1999, p.19) and Han (1995) set up criteria for the selection of an ideal Feng Shui location, where they suggest the area to be enfolded by high buildings or dragon hills. Topography of the site whether flat or sloppy, embraced by a river or a road and easy access through pathways and entrances are said to affect the positive energy, as well as the surrounding buildings. The shape, angle, height and nature of adjacent buildings affect a building (Rossbach, 2000, pp.45-58).

As it is mentioned earlier, buildings which are associated with happy, and lively functions and people always bring the site good chi like nurseries, good schools and shopping plazas. On the other hand, buildings such as hospitals and police stations that associated with illness, chaos and death are not good in terms of chi.

Nevertheless, buildings with sharp edges or roofs like pyramidal buildings carry destructive energy, since their sides are like knives cutting into the adjacent building. Irregularly shaped buildings are not accepted as positive since they carry "unpredictable flow of destructive energy" (Fig. 12)[1]. Similarly, tall

[1] Retrieved from en.wikiarquitectura.com (5 May, 2013)

buildings that dwarf a building are said to behave like cliffs and are not desirable, as well.

Figure 12: An irregularly shaped building

Wong (2001) argues about some of the buildings with aggressive Feng Shui by pointing out the China Bank and the HSBC Bank Building in Hong Kong (Fig. 13)[2]. She points out that these two buildings were designed deliberately to carry aggressive Feng Shui.

Figure 13: Feng Shui battle between Hong Kong and Shanghai Bank and Bank of China

In this regard, it is said that the China Bank building has an ax with bladelike edges in order to be harmful for the HSBC Bank building. On the other hand, the HSBC Bank building has a structure mounted on top resembling a machine gun towards the China Bank building. External triangular bracements of the China Bank building are considered as aggressive, and the designs of these building are

[2] Retrieved form www.hongkonghustle.com (5 May, 2013)

evaluated as “antithetical” (Wong, E., 2001, pp.4-18). Under the light of the Feng Shui principles, these buildings will be studied and recapitulated in the next chapter.

Plot Shapes and Building Forms

Lee (1986), Lip (1979) and Mak & So (2011) recognized that Feng Shui covers important principles of Chinese domestic architectural theory and guides architectural practice. Based on the Form School approach, site selection and building location within the site are derived when applying Feng Shui principle to the building-process. There are certain principles for plot shapes to point out what kind of plot is suitable or unsuitable as well (Table 10 & 11, Rossbach, S., 2000, p.43). Square and rectangular plots are said to be preferable. However, it is important to know whether the plot is on a flat area or a sloped one. In case of slopes, it is mentioned that the height, width, degree and direction of slope need consideration (Rossbach, 2000, p.38).

Moreover, placing a building on a plot depends on the relationship to the road, as well. The distance between the road and the building is significant. On the other hand, a balance should exist between the dimensions of the building and its plot. Under the light of these, it should be added that the orientation of the main entrance door also carries importance.

Table 10: Plots with positive energy

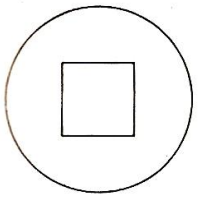
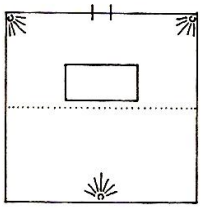
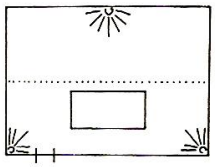
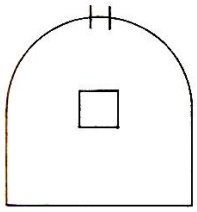
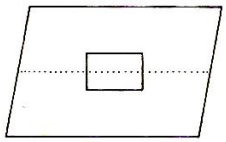
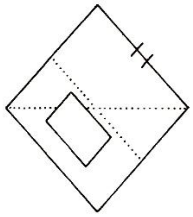
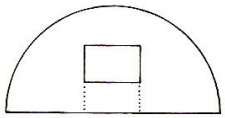
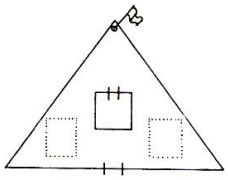
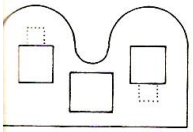
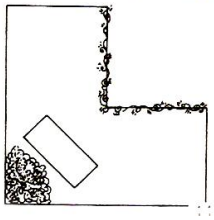
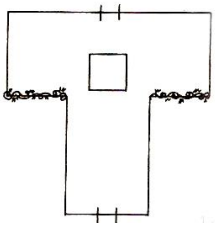
ENERGY TYPE: POSITIVE ENERGY	
PLOT SHAPES - DESCRIPTIONS	
 A - A circular plot shelters opportunities to develop and advance. For this reason, it is accepted as good.	 B - A square plot is said to be good generally. The building is supposed to locate in the center.
 C - A rectangular plot generally has the same features of a square plot and is good.	 D - In such plots, a building should be located in the center. Such plots have growth in potential.
 E - Such rhombus plots are good if the building is situated in the center of the front section.	 F - At diamond-shaped plots, the entrance door should not face any corners. The building should sit parallel to the sides.
 G - If a building is located in the middle, semi-circular plots are accepted very good.	

Table 11: Plots with negative effect

ENERGY TYPE: NEGATIVE ENERGY	
PLOT SHAPES - DESCRIPTIONS	
 A - Triangular plots are difficult to handle, since it is not desirable for doors to face a corner. If a building is situated to face an angle, it is negative for the inhabitants.	 B - In this situation, the buildings on the left and right are affected in a negative way. In such cases, it is advised to locate the building in the center, if there is enough area.
 C - Such plots have missing areas that can be unsuitable. So having such shapes should be avoided.	 D - This shape is not desirable either, since has missing corners.

Feng Shui is said to be a language of symbols. Regarding this, Rossbach (2000) mentions that from ancient times to the present, Feng Shui has been used to interpret natural and man-made signs and shapes like buildings, mountains, plots, rivers or roads and divine their effects on human. It is stated that shapes can mold a human's life. Therefore Feng Shui techniques are applied to a shape either to enhance it or to alter its negative effects. Death-oriented symbolism such as tombstone-shaped buildings or twin towers reminiscent of incense sticks placed on ancestral altars is avoided by the Chinese, traditionally. Based on the abovementioned aspects, the destruction of Twin Towers in New York has created an attention among the Feng Shui consultants, at the time being.

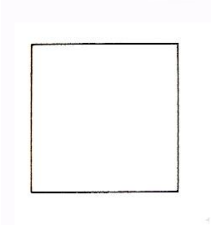
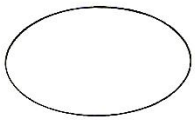
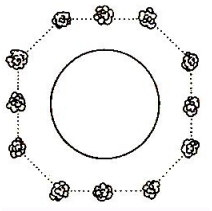
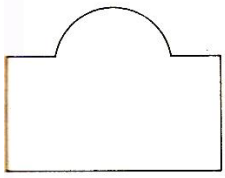
The shapes and forms of a human's surrounding are said to be recognized and reacted both consciously and subconsciously. That is why, it is important to

analyze and apply Feng Shui principles for man-made shapes ranging from rooms to apartments, from offices to houses and entire buildings.

Similar to the land plots, square, rectangular or round shapes are suggested best in terms of building shapes (Table 12, Rossbach, S., 2000, pp.75-6). In a likely manner, inner courtyards are suitable, since they activate the flow of chi in a good way. On the other hand, L- and U-shaped buildings (Table 13, Rossbach, S., 2000, pp.75-6) have missing sectors and are not recommended by Feng Shui (Rossbach, 2000, pp.65-66).

In order to understand how shapes of buildings affect human, here is a table to compare the negative and positive aspects.

Table 12: Positive building shapes

ENERGY TYPE: POSITIVE ENERGY	
BUILDING FORMS - DESCRIPTIONS	
 A - Square is one of the best shapes.	 B - Regular shapes are said to be very good.
 C - Circular shapes shelter development for future, so they are very good.	 D - This shape is suggested to be one of the lucky shapes.

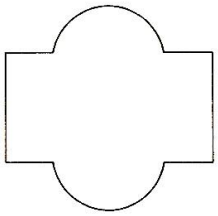
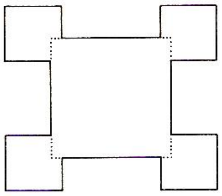
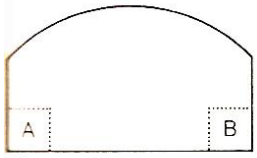
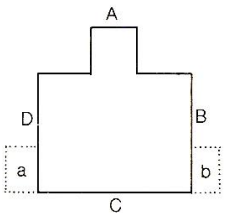
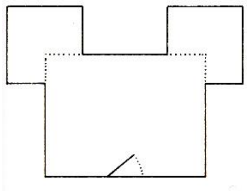
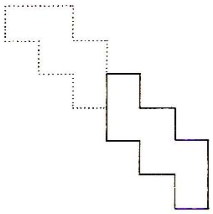
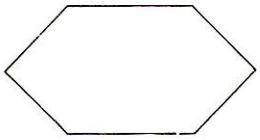
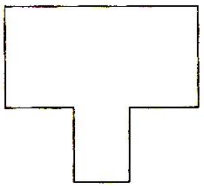
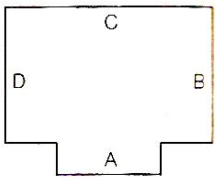
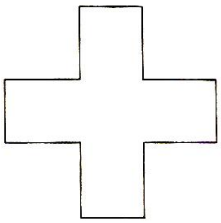
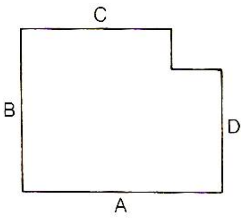
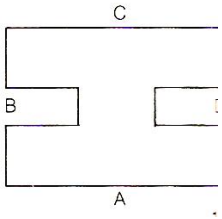
 E - Similar to the previous one, this shape is accepted as lucky, as well.	 F - In terms of inhabitants' marriage, finances, scholarship and patronage, this shape is said to be good.
 G - In this case, if the building is designed as a house, bedrooms are advised to be located at A and B sectors and it is good.	 H - In this shape, entrance is suggested to be at A. In case of an addition, as it is shown at a and b sectors, the shape will be better.
 I - This building is good for the inhabitants' marriage and wealth.	 J - This building is said to be positive. In case of addition as it shown with dotted lines, it will be better.
 K - This building shape is said to be positive, unless the doors face the slanted sides.	 L - A T-shaped building is good as well, if the shaft of T is in balance with the rest.

Table 13: Building shapes with negative effect

ENERGY TYPE: NEGATIVE ENERGY	
BUILDING FORMS - DESCRIPTIONS	
 A - This kind of a building is not good, since the extension part is not in balance with the rest.	 B - This configuration is very unfortunate.
 C - Inhabitants suffer in many areas of their lives. So, this shape is not good either, because of a "missing" corner.	 D - H-shaped buildings are said to be unlucky, because of the hollows it has.

3.1.2 Internal Factors

Interior of a building is where people live and work at most of the time. Well being of human and the quality of a life depends on the configuration of interiors, as well. After evaluating the external factors ranging from the location, the existing surrounding and the shapes of plots and buildings, analysis of internal factors should be considered in terms of Feng Shui (Mak, M.Y. & So, A.T., 2011, p.88).

While assessing an internal environment, the balance of yin and yang and the Five Elements constitute the preliminary step for analysis. However, the influence of these concepts can be altered by using the productive and weakening cycles of Five Elements.

On the other hand, there are certain aspects that should be dealt while evaluating internal factors. Based on the Form School approach, Lee (1986) emphasizes the internal arrangement of architectural objects and elements. Even though an architectural design is handled as a whole in terms of concept and layout; in Feng Shui, the influence of a ceiling, existence of columns and beams, form of a stair, configuration of corners, and layout of doors and windows carry significance.

Once, Winston Churchill said “first we shape our buildings, and afterwards, they shape us” (Hinton, A., 2008). In regards to this saying, architecture has a great influence on the life and behavior of its inhabitants. The listed features of a building should be interpreted by handling both negative and positive aspects.

Ceilings

Mak & So (2011, p.100) created a key Feng Shui criteria list and suggested that type and shape of the ceiling should be flat or sloping ceiling. Ceilings, when high create yang energy; whereas when low, yin energy. However, in any case, low ceilings are not suggested since they "debilitate" inhabitants' chi and make them depressed (Rossbach, 2000, p.93). On the other hand, high ceilings are considered dramatic, as Collins (1999) stated, and can be too "heavenly" or yang. This formation of ceilings can be positive in public buildings, since tends to pull people "up and out". However, at homes, high ceilings should be avoided, because inhabitants prefer to be "down and in" (Collins, 1999, pp.129-130). Moreover, in a building with high ceiling, nourishing energy is thinned (Wong, 2001, p.53).

Especially, in homes, it is mentioned that a high ceiling may create the feeling of being uncomfortable, small, or disoriented, since high ceilings are "yang" as it was stated earlier. In a similar manner, high ceiling on one side that drops to a lower level is said to make inhabitants feel uncomfortable (Collins, 1996, pp.49-50). Regarding this, it can be suggested that in homes, the ceilings should be neither too low nor too high. Nevertheless, according to the function of a building, the principles of ceilings may vary, in terms of the balance of yin and yang features.

Columns and Beams

Columns and beams play a part in Feng Shui. Although, beams are one of the structural elements that require more attention, there are certain principles for columns as well.

The form and shape of columns have some influences on the inhabitants of a building. Therefore, whether a column has pointed edges or not is the preliminary issue to analyze. In case of square-shaped columns, because of the destructive effect of the sharp edges and pointed objects, they are said to obstruct chi in a negative way. Instead, rounded columns are preferred in order to allow chi to flow smoothly around them (Rossbach, 2000, p.96). Additionally, it is mentioned that when columns become obstacles by blocking any movement, then they become harmful and re-direct chi in an undesirable way. With a different perspective, Post points out that an open space is accepted and understood as yang in quality. However, having many columns in such spaces divide the area and can turn it to a yin in quality (Post, 1998, p.144).

Beams are said to be oppressive and suppress the chi of a human who situated beneath them. In this regard, they are generally not recommended in Feng Shui, at all. However, it is also stated that proportion is everything. Within this view, if the ceilings are high or vaulted, the existence of a beam is not perceived as pressing down the inhabitants there. The problem occurred in a contrary condition (Hale, 2004, p.54).

Beams are often thought to add character to a place and they are popular structural feature in Western architecture. Moreover, they can add a disturbing sense of heaviness as well. From this point of view, it can be said that the bigger, darker and lower the beams are, the more disturbing they can seem; whereas the smaller, lighter, and higher beams are less of a problem (Collins, 1999, p.132).

Beams are not only structural elements but also used as architectural elements as well, mainly to define or to divide an area with their projections. Feng Shui interprets the symbolism of signs and shapes. Under the light of this, it can be suggested that beams may be accepted as signs for separation and division, because of their use to divide an area, they become elements that are not recommended in Feng Shui.

Stairs

Stairs are defined as "powerful waterfalls of chi" (Collins, 1996, p.49). They are also said to be conduits of energy, since they connect the different levels of a building. Mak & So (2011, p.100) state that position of staircases in relation to the layout of the building is significant.

Well-designed stairways according to the principles of Feng Shui can enhance positive energy and neutralize adverse energy. However, stairways with bad Feng Shui can restrict the flow of positive forces and transform them into damaging energy. As a matter of fact, stairways can be accepted as structural elements that channel chi vertically, similar to the rivers, roads or pathways where chi flows horizontally. Regarding this, the principles for stairways can be similar to the rivers, roads or pathways.

Types of staircases associated with bad Feng Shui can be summarized as spiral staircases, narrow staircases, long and steep staircases, stairs that are lined up with an entrance (Fig. 14, Rossbach, S. 2000, p.92) and stairs that are dark. These types turn positive energy into negative and allow harmful energy. Therefore, they are destructive. On the other hand, staircases that contribute Feng Shui in a positive way can be summarized as stairs that are side and shallow, stairs that are

well-lit, and stairs that open onto wide landings. These allow gentle movement of energy and weaken destructive energy, since they help gathering and funneling chi throughout the building (Wong, 2001, pp.56-58).

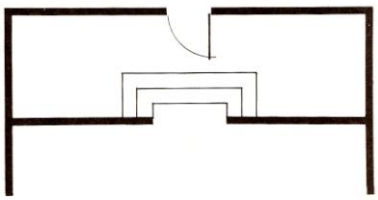


Figure 14: Stairs leading doorway

Rossbach (2000) summarizes staircases associated with positive and negative Feng Shui in a similar manner by insisting on that the best staircase is a graceful, curved one. Additionally, wide, well-lit and unconstrained stairs by a low ceiling are the ones desirable; whereas dark and narrow ones are not. Stairways that are settled toward the main door should be avoided, because chi there is allowed to roll away (Rossbach, 2000, p.93).

Corners

Corners are said to have tendency to pull chi circulating through a place where make it stay and stagnate. For this reason, corners are said to become "the stagnant backwaters" of a place (Collins, 1996, pp.48-49). From another perspective, projected corners (Fig. 15, Rossbach, S., 2000, p.95) are considered unfortunate structures, since they have sharp edges similar to sharp knives, which is threatening and harmful (Rossbach, 2000, p.95). On the other hand, by being dark too, corners obstruct the flow of chi (Hale, 2001, p.52). It is inevitable to have corners in a building in general terms. Indeed, there are some principles in order to change the influence of corners vice versa.

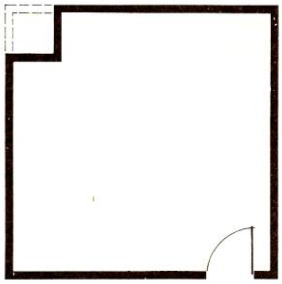


Figure 15: Projecting corner

Doors and Windows

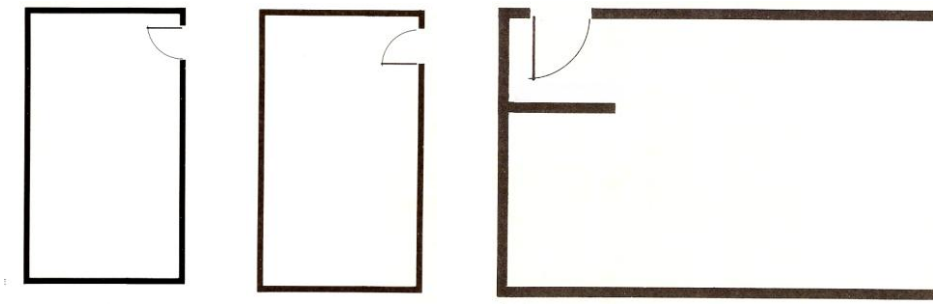
Doors are accepted as "mouth" of chi where allow the flow and circulation through. Besides, they are said to represent the inhabitants' freedom and access to the outside world. Doors work as a barrier, as well, acting as protection, supplying support and comfort (Hale, 2004, p.56). Therefore, the position of entrance door in relation to layout of the building and to the interior arrangement of the building is significant (Mak, M.Y., & So, A.T., 2011, p.100).

Especially, exterior doors of buildings carry supreme importance in Feng Shui where chi enters. Regarding this, there are principles to orient chi in a positive way. Within this aspect, it should be mentioned that front exterior doors should be slightly larger than back doors to ensure that the entire beneficial chi does not come in through the front door and immediately go out the back door. On the other hand, the size of an exterior door should be in proportion to the size of the building not to let valuable chi escape.

Exterior doors should not be situated below the street level, since chi is constricted and make the inhabitants feel unsettled and trapped. Additionally, they need to offer protection too with inviting access (Webster, 1998, pp.53-58). For the feeling of protection and security solid doors are recommended instead of all-glass front door (Wong, 2000, p.180).

Windows have similar influence like doors. If doors are accepted as “mouth” for chi, windows are said to act as inhabitants’ “eyes” on the world. With the existence of windows, chi can enter to a building where yang quality is created (Hale, 2004, p.56). Therefore, it can be said that too many windows can create excessive yang quality. This feature of windows can be used according to the functions of buildings. If a yin space is required, the number of windows should not be too many. On the other hand, if a lively atmosphere is required, then this can be obtained by opening up windows in a building. Orientation of most windows of the building needs consideration as well (Mak, M.Y., & So, A.T., 2011, p.100).

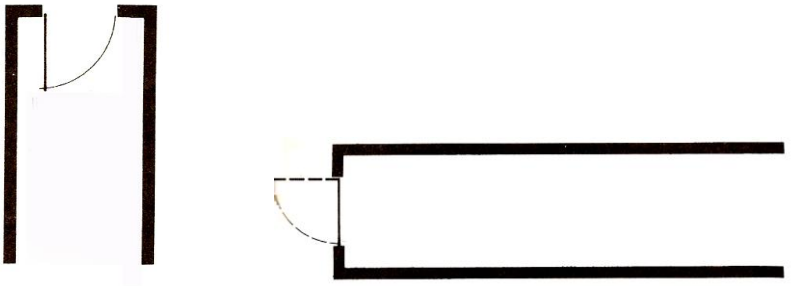
In terms of both doors and windows, the main aim is to create an environment for chi, to circulate smoothly, not too quickly and not too slowly (Rossbach, 2000, p.81). In this respect, there are principles for doors to be situated in a positive way. As an instance, in Fig. 16 (Rossbach, S., 2000, p.82-3), although the location of doors seems to be situated at the same place, because of the direction of opening, there can be some problems in the entering of chi at Fig. 16b. Chi should enter to a light and expansive area that welcomes it. On the other hand, since the door opens in the good direction to a wide area, the wall in front of the door inhibits chi in a negative way (Fig. 16c).



(a) (b) (c)

Figure 16: (a) Ideal entrance; (b) cramped entrance; (c) unsuitable entrance

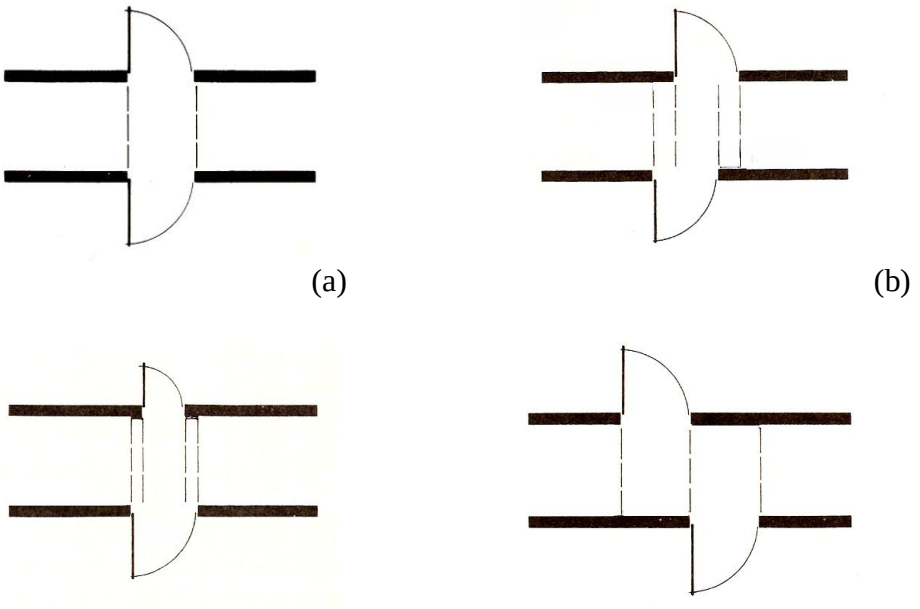
In addition to the direction of a door, as mentioned above, the area that opens is important as well. A dark, constrained entrance is said to oppress chi. If the entrance is a narrow hallway, even psychologically, depress the inhabitants. In a similar manner, a door or a wall at the end of a long and narrow hallway creates a dead end which blocks the circulation of chi and disturbs the inhabitants there (Fig. 17, Rossbach, S. 2000, pp.84-9).



(a) (b)

Figure 17: (a) Narrow entrance; (b) door at the end of a long hallway

In Feng Shui, door alignments are also important. Awkwardly placed doors are said to cause health problems and personality conflicts. However, doors aligned directly opposite each other are good unless they overlap (Fig. 18, Rossbach, S., 2000, pp.86-7).



(a) (b)

(c) (d)

Figure 18: (a) Good door alignment; (b), (c) & (d) bad door alignments

Beside the abovementioned aspects, having small hallways with many doors should be avoided too (Fig. 19, Rossbach, S., 2000, p.88). In this kind of situation, every door represents a different "mouth" where chi circulates in a different direction. As a result, an environment with a chaotic chi is obtained, that is negative.

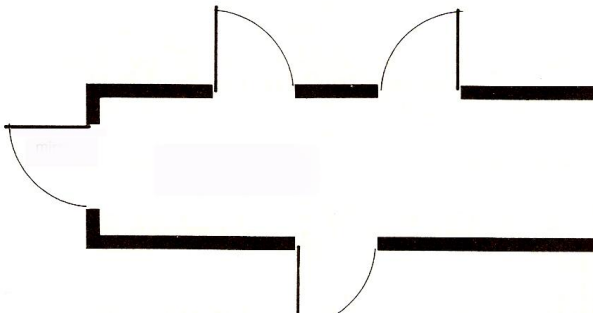


Figure 19: Hallway with many doors

Regarding these positive and negative aspects, there are principles that work as altering or enhancing the situation. So, if there are such architectural solutions, these can be changed into a positive aspect without demolishing a building that will be dealt next.

3.2 The Flexibility of Feng Shui Principles

While designing a building, the environmental aspects including topography, climate, wind direction, access and many more factors are considered. Meanwhile, the function of the building and the requirements of the client are also within the duties of an architectural designer. In such a long process that covers analysis and design process, Feng Shui principles may seem to put some boundaries to an architectural designer. Especially, some of the principles that restrict the form of a building can be a good example. However, as the suggested principles are directly related to the well being of a human; signs, symbols or some other elements stated below can be used to give a positive influence to human.

In Classical Feng Shui, mirrors, plants, colors and natural daylight and artificial lighting are some of the elements to "cure" negative qualities of a place as a remedy. Especially, by using natural daylight and artificial lighting as an architectural element, many designers achieve various atmospheres in buildings. It is known that different colors represent different features with which the mood of a human can be influenced. Reflecting surfaces like mirrors are mainly used as objects for certain purposes and at certain rooms rather than being used as an architectural element, except some recent designs. And plants are there to bring a breath of a nature to interiors.

Within the aspect of the flexibility of Feng Shui principles, how chi is influenced and how places with negative aspects of Feng Shui can be altered to places of positive energy will be interpreted.

3.2.1 Light

The usage of light in Feng Shui and also in architecture can be classified in two groups that are natural daylight and artificial lighting. In order to emphasize the significance of natural daylight, Hale (2004) states that life on Earth depends directly or indirectly on the sun, since the bodies of humans are attuned to its cycles; and she adds that in every culture, the daily rhythms of light and dark are built into the mythology. Moreover, it is known that in northern countries which have little sunlight, a condition known as Seasonal Affective Disorder (SAD) is prevalent. This condition is treated with light that imitates the ultraviolet and infra-red rays of sun (Hale, 2004, p.64). In this respect, well being of a human is directly affected by light. However, it is significant to have the correct type and level of light based on the function of a building that it shelters.

Artificial light plays a role in Feng Shui as well. They are often used as basic cures in Feng Shui to correct imbalances and activate and re-circulate chi, since dark corners make it stagnant. The general lighting of a place can affect the moods, attitudes, and effectiveness of humans and are considered essential for healthy, smooth circulation of chi (Rossbach, 2000, p.112). Therefore, it is recommended to use light to activate and enhance chi and to provide well being of humans.

3.2.2 Color

Colors are stated to be vital to Feng Shui. They are used as general conditioners of all aspects of life and are associated with the Five Elements Theory as well. Metal is represented by white; Wood is represented by green; Water is represented with black; Fire is represented with red; and Earth is represented by brown or yellow (Post, 1998, p.86). Regarding this, the five colors associated with the elements evoke the quality of the energy of each one. The function of a building in relation to the element associated with the direction should be remembered in order to use right colors. By this way, true balance and harmony can be achieved (Hale, 2004, p.75).

On the other hand, the concept of yin and yang are also represented by colors. Yin is blackness, whereas yang the whiteness. As it was described earlier, Feng Shui can only be understood and applied by the knowledge of yin and yang and the Five Elements. Since the concept of yin and yang and the Five Elements have associated with color representations, color should be understood with its effect on humans.

Color is generally used to create illusions of size, of depth, and of movement that affects human in various ways. For example, red can be described to be stimulating and dominant, whereas blue is peaceful and soothing (Hale, 2004, p.74-75). The examples can be increased, because each color creates different feelings on human. In this regard, it is important to use color in order to achieve balance between yin and yang qualities, and the Five Elements theory, according to the function a building or a room shelters.

3.2.3 Mirrors

Mirrors are one of the best chi enhancements since they activate and circulate chi throughout buildings. They have been called the "aspirin of Feng Shui", since they can benefit an area (Post, 1998, p.65). They are said to bring light into dark areas, provide a sense of safety, and reflect beautiful views. Additionally, mirrors contribute activating chi. Clear, bright mirrors reflect clear and bright chi, by which accepted as best and it is important to reflect the whole image whatever or whoever it is. Pleasant views outside can also be pulled inside to enhance the existing chi by using mirror. On the other hand, small mirrors are generally used to reflect problematic situations back to their sources (Collins, 1999, pp.82-86). Because of the capability of reflection, mirrors can be used to cure a problem or to enhance the positive energy quality in a building (Table 14, Hale, G., 2004, p.61).

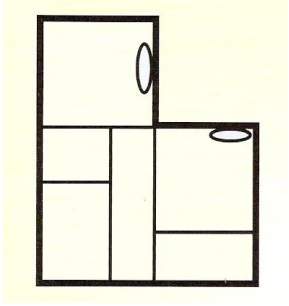
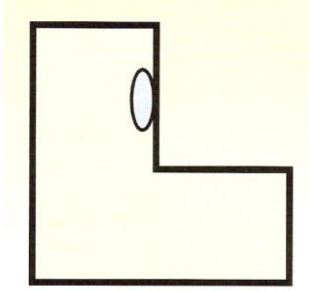
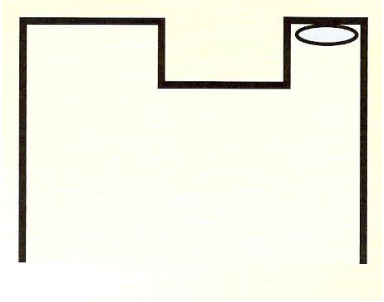
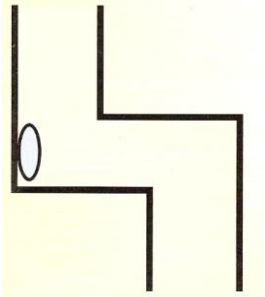
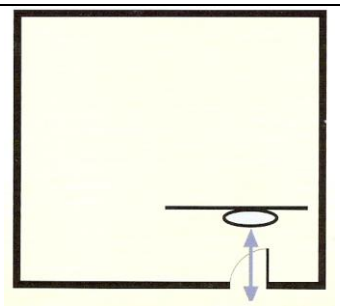
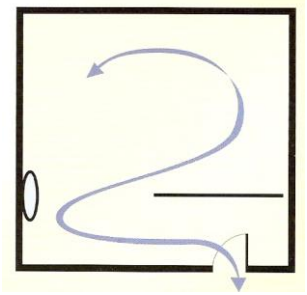
Mirrors when used in small spaces can double the size of the area. However, it is not recommended to place them opposite a door or a window since they reflect the chi back instead of welcoming. Mirrors are said to be very useful when they are used in irregular spaces to recreate a "missing" sector of a building; in stagnant

areas to help chi circulation; in long corridors where chi moves to fast to slow it down; and also to deflect some negative features.

It is stated that having frames around mirrors, keeping them clean, replacing broken ones, and reflecting whole image is significant. On the contrary, having joins or mirror tiles, hanging them opposite each other, placing them opposite the bed, placing them opposite doors and directly opposite windows are not recommended except some conditions (Hale, 2004, p.60).

To sum up, counteracting or canceling out a bad influence, eliminating bad chi, attracting or bringing chi, enabling the chi to flow, dissecting, expanding, turning an image upside down, reflecting, rejecting, strengthening, and showing movement are the ways of benefit that mirrors can manifest (Post, 1998, pp.65-68).

Table 14: Usage of mirrors

USAGE OF MIRRORS - DESCRIPTIONS	
 A - In this example, "missing" sector of the building is said to be repaired and energized by placing mirrors, symbolically.	 B - This situation is similar to the previous one. The mirror is said to energize the "missing" sector symbolically.
 C - Corners can be enliven by placing a mirror in order to prevent energy stagnating.	 D - Dark areas in such a configuration can be cured, by placing a mirror to reflect a bright picture on the opposite wall and bring energy to this dark area.
 E - Placing mirrors in front of a door will not allow chi into a building and will reflect it back. So, this placement is unfavorable.	 F - The appropriate location for a mirror is shown here to draw chi into and through the building where does nit act as a barrier.

3.2.4 Plants

Plants have significance in Feng Shui, since they bring a life force into a building and help to keep air fresh. As a matter of fact, depending on their shape and color, plants created different types of energy that can be associated with the properties of Five Elements and the concept of yin and yang. As an instance,

upright plants with pointed leaves are yang, whereas round-leaved and drooping plants have more yin quality.

Plants can be used to hide a jutting corner, move energy in a recessed corner, harmonize Fire and Water energy in kitchens, slow down chi in long hallways, drain excess Water energy in bathrooms, bring life into a building, and enhance chi (Hale, 2004, pp.62-63).

Frank Lloyd Wright once said "all architecture is shelter, all great architecture is the design of space that contains cuddles, exalts, or stimulates the persons in that space". In the core of architecture, humans exist. All the creative process to satisfy the architectural designer is based upon the satisfaction of user. Architecture does not serve only for sheltering purposes anymore. It is for well being of humans. Similarly, Feng Shui has been used and applied to make people feel better. In this respect, especially today, it can be said that architecture and Feng Shui meet at a point where well being of humans is considered.

Although architectural design is a process and practice based upon creativity and tangible aspects, Feng Shui is a philosophy that constitutes to the well being, sometimes with intangible aspects. In terms of obtaining a good quality of life as well as achieving well being in the architecture created, the awareness of Feng Shui must improve.

Chapter 4

RECAPITULATION (COMMENT) OF CAUSES AND EFFECTS OF FENG SHUI

The philosophy and practice of Feng Shui is nowadays at the world's design agenda with an ascending interest. Humans are seeking not only to enhance their life quality in dwellings, but also in working areas, as well. Awareness towards the environmental issues, quality of life and well being has formed. As mentioned earlier, Feng Shui has a holistic view that connects human and nature. Through this perspective, Feng Shui has found a place for itself, since it enhances life quality, increases wealth, and forms good relations among humans.

The methodology of the case studies shown in this chapter is both analytic and based on Grounded theory. First information based on the selected buildings is collected, and then analyzed according to the principles of Feng Shui. There are a set of principles for external factors in Feng Shui as well as principles for internal factors including architectural structures and elements. Within this perspective, ten public buildings all around the world that are iconic and symbolic and designed by prominent architects are selected based on the reasons mentioned earlier in Chapter 1. Through the recapitulation of these examples, a Feng Shui assessment will be done following an architectural assessment for each building based on the official websites of their designers and articles obtained from e-journals. Feng Shui assessment covers the external factors including the location,

topography as hills and slopes, bodies of water, roads and streets, pathways and entrances, surrounding buildings, plot shape and building form; as well as internal factors including ceilings, columns and beams, stairs, corners, and doors and windows. These factors mainly affect receiving positive energy (chi) and negative energy (sha) and will be the main consideration. In a former research, Xu (1990) classified Feng Shui evaluation for landscaping into categories as "best, good, okay and evil"; whereas Mak (2010) categorized as "excellent, favorable, fair, unfavorable and bad". In this study, the possible outcomes based on Feng Shui evaluation are classified into four categories as: most suitable, suitable, less suitable and unsuitable. Most suitable classification shows that the features of the building fit to one of the ideal positive formations exactly; suitable means that the features of the building slightly fit to one of the ideal positive formations, however based on the Five Element cycles and yin and yang balance, these features show positive formations. On the other hand less suitable shows that the features of the building slightly resembles one of the negative formations, however based on the Five Element cycles and yin and yang balance, these features are not completely negative; whereas unsuitable means that the features of the building resembles one of the negative formations shown in Chapter 3.

The selected buildings for the recapitulation of Feng Shui principles are Hong Kong and Shanghai Bank Headquarters in Hong Kong; the Bank of China Tower in Hong Kong; the Getty Center in Los Angeles; the Waterside building of the British Airlines in London; the Burj al Arab in Dubai; the City Hall in London; the Kingdom Tower in Riyadh; the Sydney Opera House in Sydney; the Kansai International Airport Terminal in Osaka; the Suntory Museum of Art in Tokyo

and finally not a building but an island called Kaishi / Hiashi, the Mirage City. All the visuals of these buildings shown in this chapter are obtained from the official websites of the architects.

Selection of these architectural projects has done by considering the designers, as well. All the designers are considered protagonists, incisively for their innovative solutions in terms of their design approaches. Due to these reasons, recapitulations of causes and effects of Feng Shui are believed to be more meaningful and to take more attention within the context of the abovementioned architectural projects.

4.1. Hong Kong and Shanghai Bank Headquarters (Foster & Partners, Hong Kong)

Hong Kong and Shanghai Bank headquarters (1979-1985) in Hong Kong is one of the important architectural designs of Foster and Partners. It is important because as architect, Norman Foster had to manage his first project abroad, to design his first tall building and to build in a colony with no developed heavy industry[3]. This project was commissioned to the Foster and Partners by the Hong Kong and Shanghai Bank to design "the best bank building in the world"[4]. At the time of the building's completion, it was the tallest skyscraper outside the United States (Naughtie, 2012, p.281).

According to Lim (2002), since the construction was based on some of the best Feng Shui in Colonial Hong Kong, the original location of the bank was considered crucial and the founders chose Wardley House. So, the former HSBC

[3] Source: http://cdi.gsd.harvard.edu/ (Harvard Design School, Center for Design Informatics, "Hong Kong and Shanghai Bank, Hong Kong)
[4] Source: http://www.fosterandpartners.com/Projects/0501/Default.aspx

building was Wardley House, at the same site, and used between the dates 1865 to 1882 (Lim, 2002). The 1935 building, on the other hand, had professed to be the best architecture of the coming fifty years.

In 1979, the bank decided to reconstruct the old building and Foster Associates was selected out of six nominees.[5] The new and the latest building of Hong Kong and Shanghai Bank headquarters was completed in 1985 (Fig. 20).

Figure 20: The new HSBC building in Hong Kong, China (1979-1986)

4.1.1 Architectural Assessment of HSBC

The Hong Kong and Shanghai Bank presents an "iconic essay of the tall building as an integral part of the city" as stated by Gonçalves and Umakoshi (2010, p.xxi). Planners and designers were addressing the problems of the century such as environmentally friendly design, the need to combine technical innovation with low-energy and the sustainability of buildings and communities. Foster has shown that he was thinking ahead by designing and constructing the headquarters and achieved his first international success (Naughtie, 2012, p.281). The building of HSBC had a very short time span to be constructed. During this period, "a high degree of prefabrication" was in progress including "factory-finished modules."

[5] Source: http://cdi.gsd.harvard.edu/ (Harvard Design School, Center for Design Informatics, "Hong Kong and Shanghai Bank, Hong Kong)

Technically, it is a 180-meter high building with 47 storeys and 4 basement levels.[6] The building is articulated as three individual towers in a stepped profile, as stated in the official website of Foster and Partners (Fig. 21). These individual towers are differing in height, depth and width allowing creation of garden-terraces. Because of the mast structure that pushes service cores to the perimeter; deep-plan floors around a ten-storey atrium are formed.

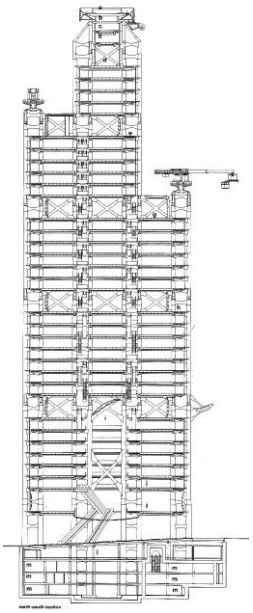


Figure 21: One of the sections of HSBC showing three individual towers

A sheltered space is created below the public plaza where at weekends it is used by the public as a picnic area (Fig. 22). Within the context of the building, sunlight carries importance as well, which is reflected down through the atrium to the public plaza below by a computer-controlled and mirrored "sun-scoop".

[6] Source: Nationmaster Encyclopedia. http://www.nationmaster.com/encyclopedia/HSBC-Hong-Kong-headquarters-building

Figure 22: Public plaza used as a picnic area at weekends

Inside the plaza, escalators exist to that rise up to the main banking floor and provide view through a glass "underbelly", which in turn, works as "a shop window for banking" (Figs. 23 & 24). Nevertheless, double-height reception areas are defined with bridges that "break down the scale of the building both visually and socially". Besides, high-speed lifts are combined with the reception to the escalators. The offices (Fig. 25), on the other hand, are designed in such a way that village-like clusters of offices have been created.[7]

Figure 23: Escalators that rise up through a glass "underbelly"

[7] Source: http://www.fosterandpartners.com/Projects/0501/Default.aspx

Figure 24: Another view that shows escalators

Figure 25: Clusters of offices

With its "smooth metallic surfaces, hard edges, technology and machines"[8] and "steel framed glass structure exhibiting dramatic exoskeleton trusses"[9], HSBC building shows a high-tech approach in design (Fig. 26).

Figure 26: Building showing exoskeleton trusses

[8] Source: Victoria and Albert Museum. www.vam.ac.uk/vastatic/ microsites/architecture
[9] Source: College of Estate Management. www.cem.ac.uk/campus/ hongkong/page4.htm.

4.1.2 Feng Shui Assessment of HSBC

The involvement of a Feng Shui geomancer during the process of "questioning and challenging" the design of HSBC building is mentioned at many resources, including the official website of Foster and Partners.

Location and the surrounding environment is the primary aspect to be considered in Feng Shui. So, when it comes to location, it is very important to note that the Hong Kong and Shanghai Bank is situated in such a way that Victoria Harbour and a wide area in front form the view of the building, with no other buildings blocking (Treiber, 1995, p.76). Within the aspect of Feng Shui, it is very positive to have a smooth-flowing watercourse in front of the site. So, situation of the building in front of the Victoria Harbor is crucial in that regards (Figs. 27 & 28).

Figure 27: Location of HSBC

Figure 28: View from the HSBC building showing Victoria Harbor in front

Entrances are of high significance within the philosophy of Feng Shui, since they help channeling chi inside (Fig. 29). In this regard, the bronze lion statues located in front of the building contributes to the steady revenue of the bank.

Figure 29: One of the lion statues in front of HSBC building

Another feature of the building is the two escalators which are designed in such a way that they resemble "two whiskers of a powerful dragon". Within this perspective, it is mentioned that these escalators were realigned by the Feng Shui consultant to draw chi into the building from a suitable direction (Hale, 2004, p.195). In a likely manner, on top of the building, two metal rods (Fig. 30) are placed towards the Bank of China Tower in order to "deflect the negative energy away and back to its source".

Figure 30: Two metal rods towards the Bank of China Tower

It is stated that during the conceptual process of the design, the sketches of the building show the external triangular skeleton towards downwards. However, the orientation of the triangular elements is required to point out upwards for the HSBC building's achievement of success (Hale, 2004, p.195).

Site carries the primary importance in Feng Shui. In the case of HSBC building, it is seen that this site belongs to the corporation since 1865. On the other hand, the orientation of the main entrance door is required to settle in the right direction, and the approach to the main entrance is suggested not to be in a straight line. Here, it is seen that a public area is created to gather cheerful people on the ground level, and it is possible to reach to the banking area through escalators. So, this prevents direct and straight approach to the main function of the building, which is the bank area.

In terms of internal factors, it is seen that by creating high ceilings, the building serves well for its inhabitants as well as creating circular columns and welcoming escalators. By having a pure geometry, there are no cramped corners. When door and window alignments are considered, it is observed that the building has an open plan and creates a good pattern for flow of chi. Regarding these, Feng Shui assessment for external factors (Table 15) and internal factors (Table 16) are evaluated as follows:

Table 15: Feng Shui Assessment of HSBC based on external factors

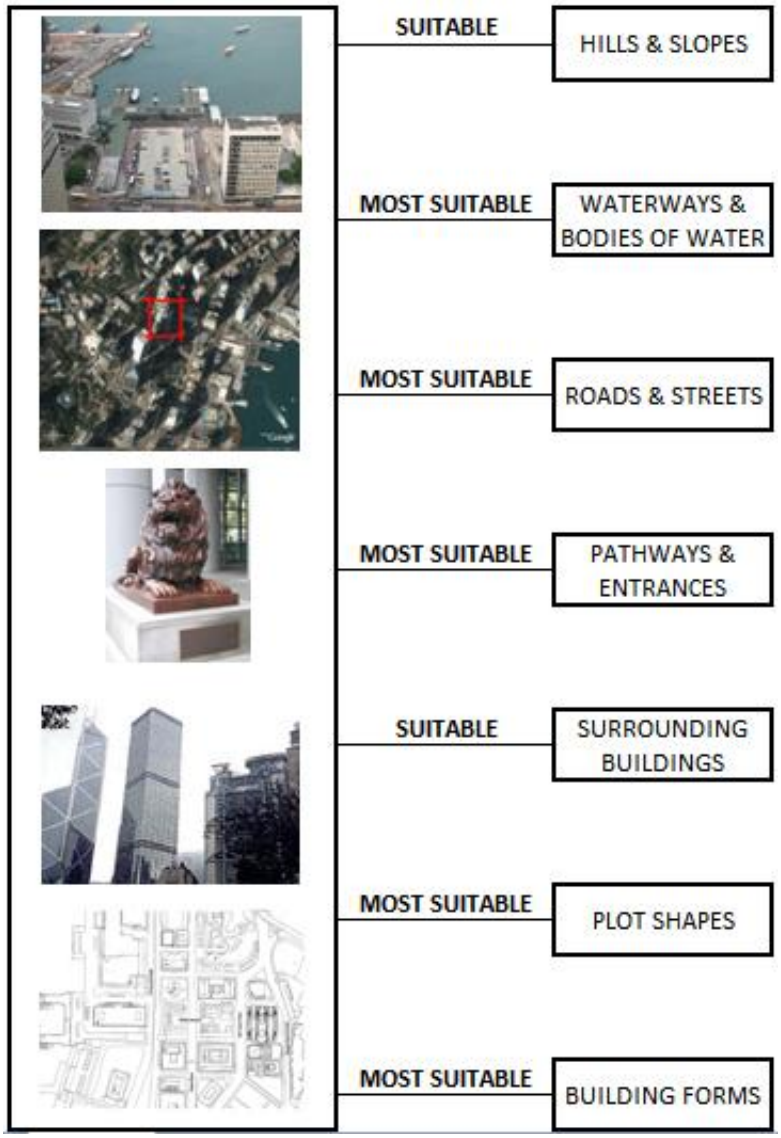
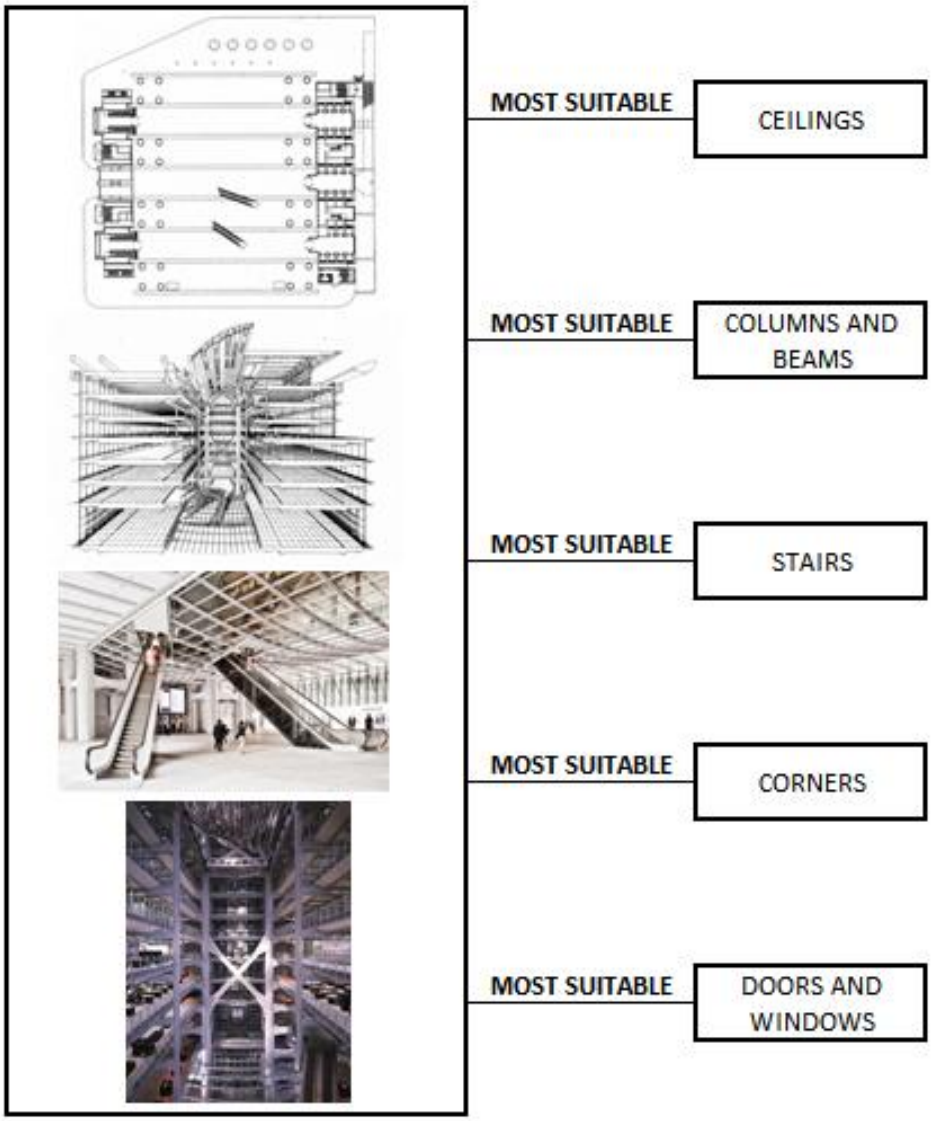


Table 16: Feng Shui Assessment of HSBC based on internal factors



4.2 Bank of China Tower (I.M. Pei, Hong Kong)

In the politics of Hong Kong, it is said that the former Bank of China headquarters was the first triumph with its art deco stylish building that was built after World War II, and 20 feet higher than the adjacent Hong Kong and Shanghai Bank building. However, the Bank of China was "dwarfed" by the glass-and steel structure HSBC building after its completion in 1985. Regarding this, the officials of Bank of China commissioned I. M. Pei to build a bigger and better building. On the other hand, as Wiseman (2001, pp. 286-7) states, the Chinese

government was preparing for a new wave of engagement with the outside world, and saw the tower as a chance to demonstrate its economic strength

As a result of this, the Bank of China Tower is located in Hong Kong and designed by the Chinese-born American architect Ieoh Ming Pei. The tower was completed in 1989, and took attention around the world, as it is in the Pei's design of Pyramide du Louvre. Although the criticisms against the tower, it received many awards. These awards are "Internazionale Marmi e Machine Carrara, S. P. A.: Marble Architectural Award, East Asia", in 1992; "R. S. Reynolds Memorial Award" in 1991; "l'Association des Ingénieurs, Conseils du Canada: Prix d'Excellence" in 1990; "New York Association of Consulting Engineers: Award for Engineering Excellence", in 1989; "American Consulting Engineering Council: Grand Award", in 1989; and finally "Structural Engineers Association of Illinois: Best Structure Award" again in 1989[10].

4.2.1 Architectural Assessment of Bank of China Tower

Bank of China Tower is located in a district that surrounded by highways on three sides where had been home to a headquarters for Japanese military police during World War II (Wiseman, 2001, pp. 286-7). The dimensions of the parcel of land created the necessity of a tall tower.

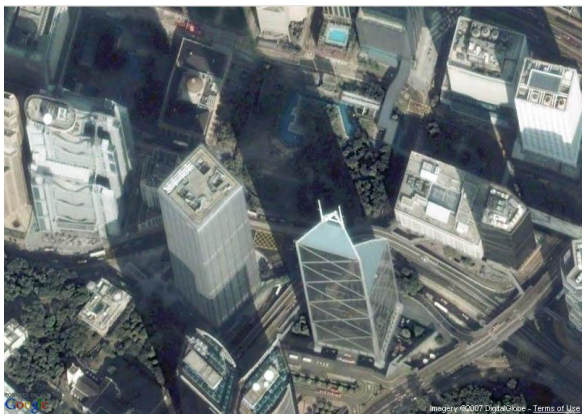


Figure 31: Bank of China Tower aerial view

[10] The Pritzker Architecture Prize. 1983. The Hyatt Foundation. Retrieved on December 26, 2009.

The building is 369 meters in height and consists of 72 floors. The construction system is steel frame and with glass curtain walls. Triangular bracings and step backs are designed due to the high wind. The construction period was between the years 1982-1990[11].

It is stated by Pei that the challenge was to design a skyscraper in a typhoon zone (Wiseman, 2001, pp.289-91). He reached to the solution "by integrating architecture and engineering inseparably, that involves an asymmetrical tower (Fig. 32) addressing both skyline and street[12]".

Figure 32: Asymmetrical towers addressing skyline

During planning of the tower, a visible truss structure was formed to distribute stress to the four corners of the base and the façade was organized around a series of boxed X shapes. The sloping angles on the roofs were designed to match the rising aesthetic of the building (Wiseman, 2001, pp.289-91). The structure is defined as an "innovative composite structural system" (Fig. 33). With this system, not only high-velocity winds are resisted, but "significant savings of construction time and materials" are achieved as well.

[11] Source: http://www.greatbuildings.com/buildings/Bank_of_China.html
[12] Source: http://www.pcfandp.com/a/p/8220/s.html

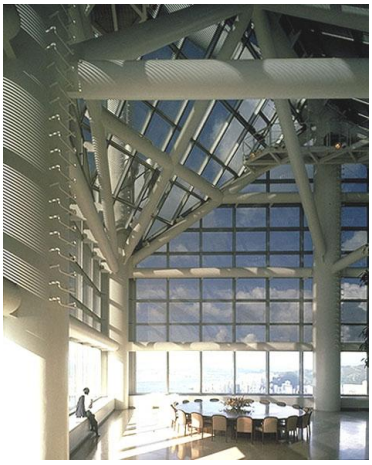


Figure 33: Interior showing the innovative structural system

On the facades, reflective glass (Fig. 34) is used to "mirror the changing sky, anchoring the expanding business district, providing a distinctive vertical axis to Hong Kong's towering skyline" notes Pei.

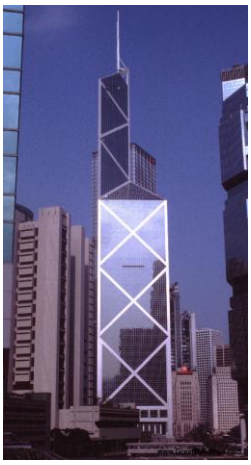


Figure 34: Reflective glass cladding on facades

On the other hand, it is expressed that the ground level is articulated in such a way that a "welcoming pedestrian environment" is created. Within another aspect, cooling water gardens (Fig. 35) are located to "muffle the activity and noise of surrounding traffic[13]".

[13] Source: http://www.pcfandp.com/a/p/8220/s.html

Figure 35: Cooling water gardens of Bank of China Tower

Pei summarizes some of the challenging points with his own sentences. In this interview, he pointed out that the site was one of the difficult sites in terms of size and its close surrounding with heavily trafficked roadway. Because of these reasons, he said that it was not possible to provide an entrance. In this regard, he proposed to create a new road at the back of the site. On the contrary, he emphasized one advantage of the site, as well, where the location is out of the airport flight path. This situation provides to design a skyscraper that is an imposing high building just the clients have requested[14].

4.2.2 Feng Shui Assessment of Bank of China Tower

In terms of Feng Shui, the design of Bank of China has created platforms of discussions and criticism (Wiseman, 2001, pp.289-91). Pei mentioned about this criticism attack towards him, at an interview. Pei said that Feng Shui has its roots in the worship of the forces of nature, which sometimes degenerated into a form of superstition. Regarding this, he added:

> "When you design buildings, in Hong Kong, you cannot get away from that problem. There are specialists, feng shui masters, who advise people on all matters of things, especially on the selection of a building site;

[14] Source: http://www.designboom.com/portrait/pei_bank.html cited in "Conversations with I. M. Pei"

> placement of the building on the site; and the shape and form of the building. I was aware of this, but did not take it seriously[15]".

As a matter of fact, it has been criticized by many Feng Shui practitioners, mainly, for its sharp edges. Since Feng Shui is a language of symbols, the top part of the building by becoming thinner is said to resemble a screwdriver that is drilling wealth out of Hong Kong. Beside its resemblance to a screwdriver, some prefer the "metaphor of a knife".

In Hong Kong, Government House is said to have one of the good Feng Shui with clear views of mountains and sea. However, after the completion of Bank of China Tower, one of the angles of the sharp edges is said to bisect to the Government House, and may cause trouble for the future of the Hong Kong. In an article written by Cheung (2003), it is suggested that after the Bank of China established, "governor Sir Edward Youde died of a heart attack at the mansion in 1986", then the next governor "Christopher Patten barely recovered from a by-pass surgery"(Cheung, J.P., 2003). For this reason, Government House is empty at most of the year.

Figure 36: A view from Bank of China showing one of the sharp edges towards the Hong Kong's Government House

[15] Source: http://www.designboom.com/portrait/pei_bank.html cited in "Conversations with I. M. Pei"

In a likely manner, the Lippo Center building is under the effect of similar problems as it faces one of the triangles (Fig. 37). Due to these negative effects, it is said that the building of Lippo Center was forced to sell because of its financial problems.

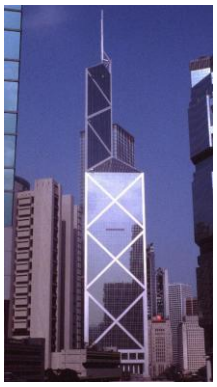


Figure 37: Lippo Center on the right

In regard to the negative effects of sharp edges, Pei said:

> "As soon as we made our design public, I was immediately attacked – just as fiercely as I was attacked for the Louvre, but for different reasons. For instance, the building had too many sharp corners which would bring bad luck to one's neighbors" [16]

In another article written, it is mentioned that one of the mistakes that was made by the clients of Bank of China tower is to "forget consulting the masters of Feng Shui" (Chua-Eoan, H., 1987).

[16] Source: http://www.designboom.com/portrait/pei_bank.html cited in "Conversations with I. M. Pei"

Table 17: Feng Shui Assessment of Bank of China Tower based on external factors

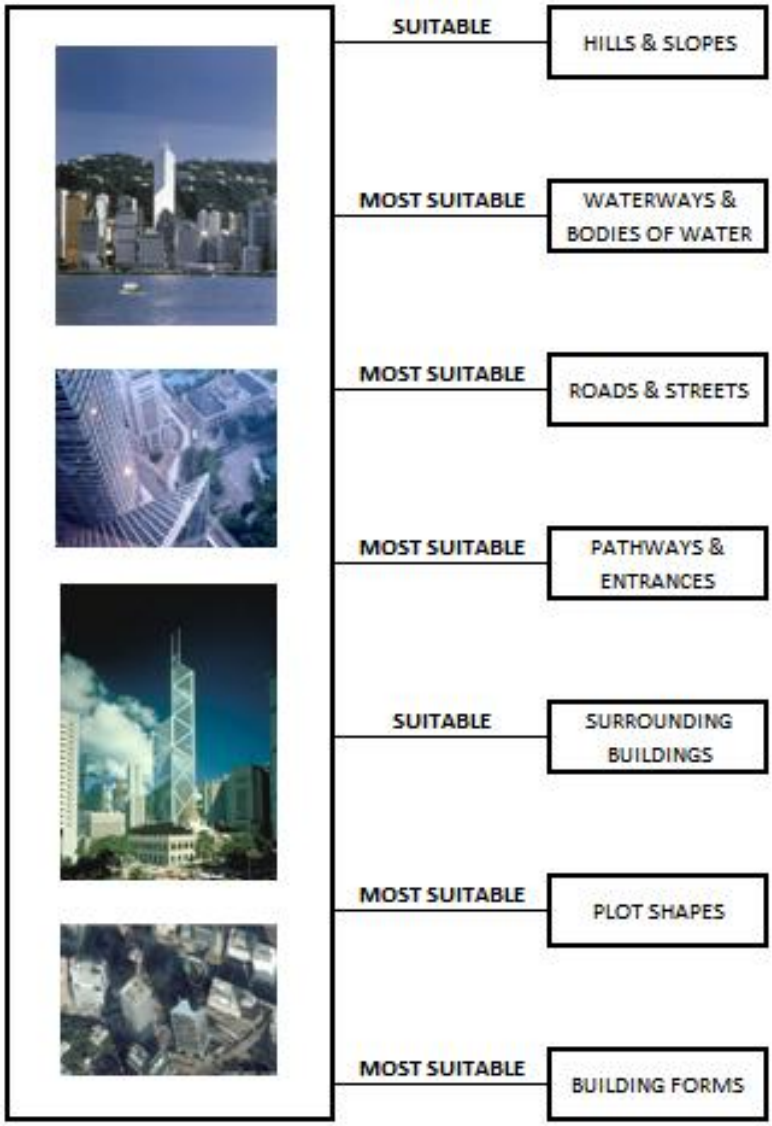
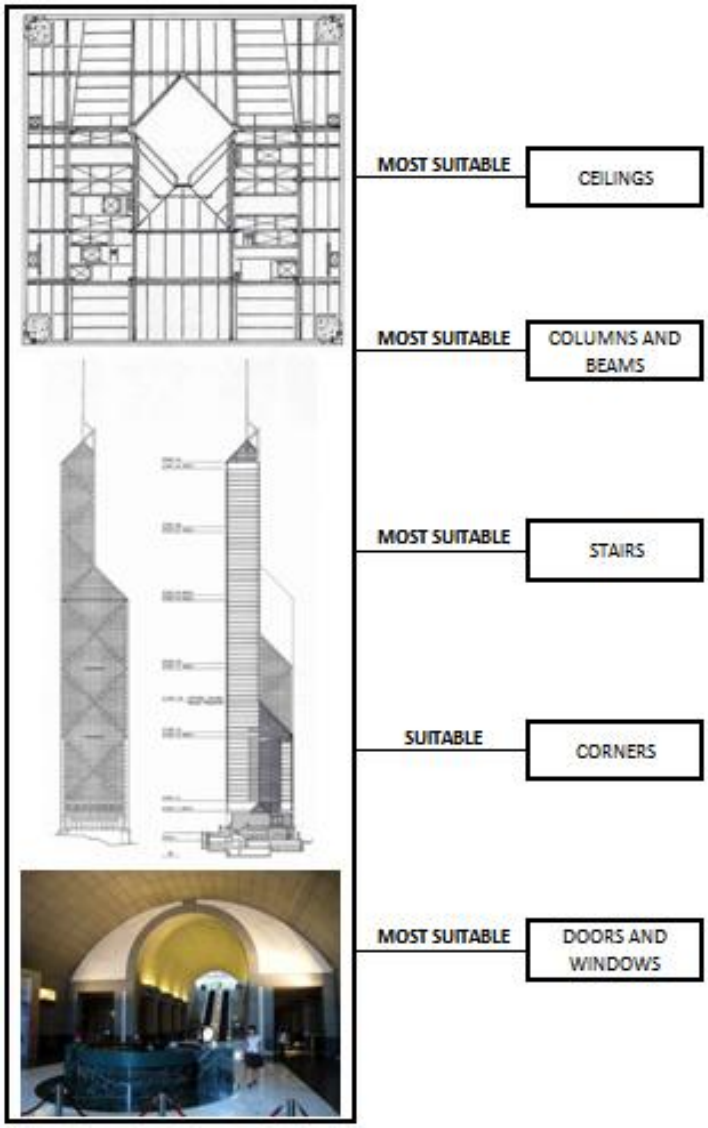


Table 18: Feng Shui Assessment of Bank of China Tower based on internal factors



4.3 Getty Center (Richard Meier, Los Angeles)

Getty Center is designed by the award-winning architect Richard Meier who has been called "the ultimate voice of twentieth century modernism" (Malloy, B., 2010) and is said to be "the flagship museum of the J. Paul Getty Trust" (Encyclopedia II). After receiving the Pritzker Architectural Prize, in the same year, Richard Meier was commissioned the design of the Getty center among the other candidates that are Fumihiko Maki and James Stirling (Richards, Ivor, 1998).

Getty Center is situated on top of a hill of Santa Monica Mountain in California. The architectural design itself is said to create an attraction point along with the art inside. Regarding this, one of the museum docent points out this by saying "people come here with the idea that they are going to a museum with works of art on the inside, but they're really visiting a work of art with a museum inside" (Malloy, B., 2010).

4.3.1 Architectural Assessment of Getty Center

Based on the description expressed in the official website of Richard Meier, Getty Center brings seven components of the Getty Trust. At the same time their individual identities are maintained. During the design process, it is mentioned that both topography and the identity of the buildings in the region help to form the architectural concept of the center. In this regard, the two ridges of topography are considered in organizing the buildings along them (Fig. 38).

Figure 38: The Getty Center, California (1984-1997)

On the other hand, in order to establish easy access to the center, a tramway station and an underground parking area is added, as well (Richard Meier & Partners). It is noted that the Getty Center is organized around a Central Plaza (Fig. 39). The design itself contains curvilinear elements (Craven, J.) to express introspective and analytical nature of the Center (Richard Meier & Partners).

Figure 39: Organization of buildings around a Central Plaza

During the design process of the complex, Richard Meier is suggested to get inspiration from the work of other architects, who designed many buildings in the region such as Frank Lloyd Wright, Rudolph Shindler, and Richard Neutra (Craven, J.). Within this aspect, Meier has explained his own roots in terms of designing his projects by saying:

> "Le Corbusier was a great influence, but there are many influences and they are constantly changing. Frank Lloyd Wright was a great architect, and I could not have done my parent's house the way that I did, without being overwhelmed by Falling Water. We are all affected by Le Corbusier, Frank Lloyd Wright, Alvar Aalto, and Mies van der Rohe. But no less than Bramante, Borromini and Bernini. Architecture is a tradition, a long continuum. Whether we break with tradition, or enhance it, we are still connected to the past. We evolve" (The Pritzker Architecture Prize).

The materials and colors used in the design of Getty Center refer to the Modern Architecture. Mainly, travertine (Fig. 40) is used in the complex in order to associate with the public architecture and to express the qualities of the Getty Center that are "permanence, solidity, simplicity, warmth, and craftsmanship" (The Getty, 2005). Other than travertine, white marble is used, as well, like a symbol of Richard Meier.

Figure 40: Views of the buildings showing the usage of travertine and white marble

The complex's one of the most important architectural elements is natural lighting. The interiors are designed in such a way that by the articulation of many exterior walls of glass, sunshine is allowed inside to obtain illumination. In a likely manner, to adjust the interiors' light, computer-assisted system of louvers and shades are in charge (Fig. 41). Even the painting galleries are all lit by natural lighting with special filters in order to prevent damage (The Getty, 2005).

Figure 41: An interior view showing the articulation of glass walls to let natural lighting inside

At the Getty Center, all spaces like galleries, offices, and the auditorium are situated for leading people out, to the courtyards and terraces (Richards, Ivor, 1998). Therefore, the advantage of the climate is used as an architectural concept by using "loggias, pergolas and full-height glazing at the external perimeter" (Fig. 42) (Richard Meier & Partners).

Figure 42: An example of a pergola

4.3.2 Feng Shui Assessment of Getty Center

In the official site of Richard Meier, it is not expressed that the design of Getty Center is based on Feng Shui principles. However, at some resources it is claimed that the complex is one of the "Post-modern revivals" in terms of Feng Shui (Oracle Education Foundation).

It is obvious that the usage of Feng Shui is mostly realized in the Eastern regions like Hong Kong, Taiwan, Korea. It is suggested that, Feng Shui principles are taken into account where there are a large amount of Chinese population. Regarding this, the Asian population is said to be 52% in California, and for this reason, the Getty Center is evaluated in terms of Feng Shui.

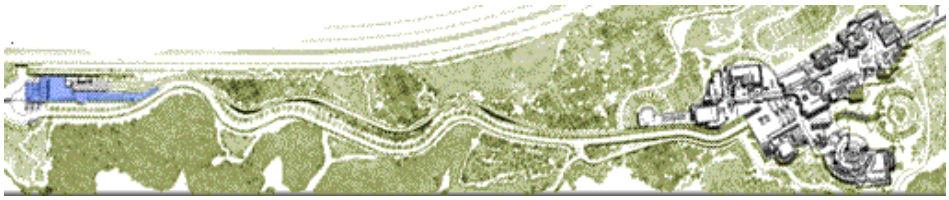


Figure 43: Organization of the complex in relation to topography

Bodies of water, consideration of existing natural environment, curve elements rather than direct and straight lines and the usage of natural materials are important in achieving positive energy (Fig. 43). From this point of view, it is seen that in the design of Getty Center, fountains and other type of bodies of water are used

(Fig. 44). Besides, topography is the main consideration, and therefore the whole organization of the complex is designed around a central plaza by using curve lines rather than straight.

Figure 44: Central fountain

In a likely manner, all the entrances are aligned according to the best views, while relating interior and exterior. Apart from this, natural materials like travertine are used in the context of design. These features of the complex can be seen as good application of Feng Shui principles. For this reason, the Getty Center is said to "stand as the best articulation of 1990s style Feng Shui influence and theory on the American west coast" (Oracle Education Foundation).

Table 19: Feng Shui Assessment of Getty Center based on external factors

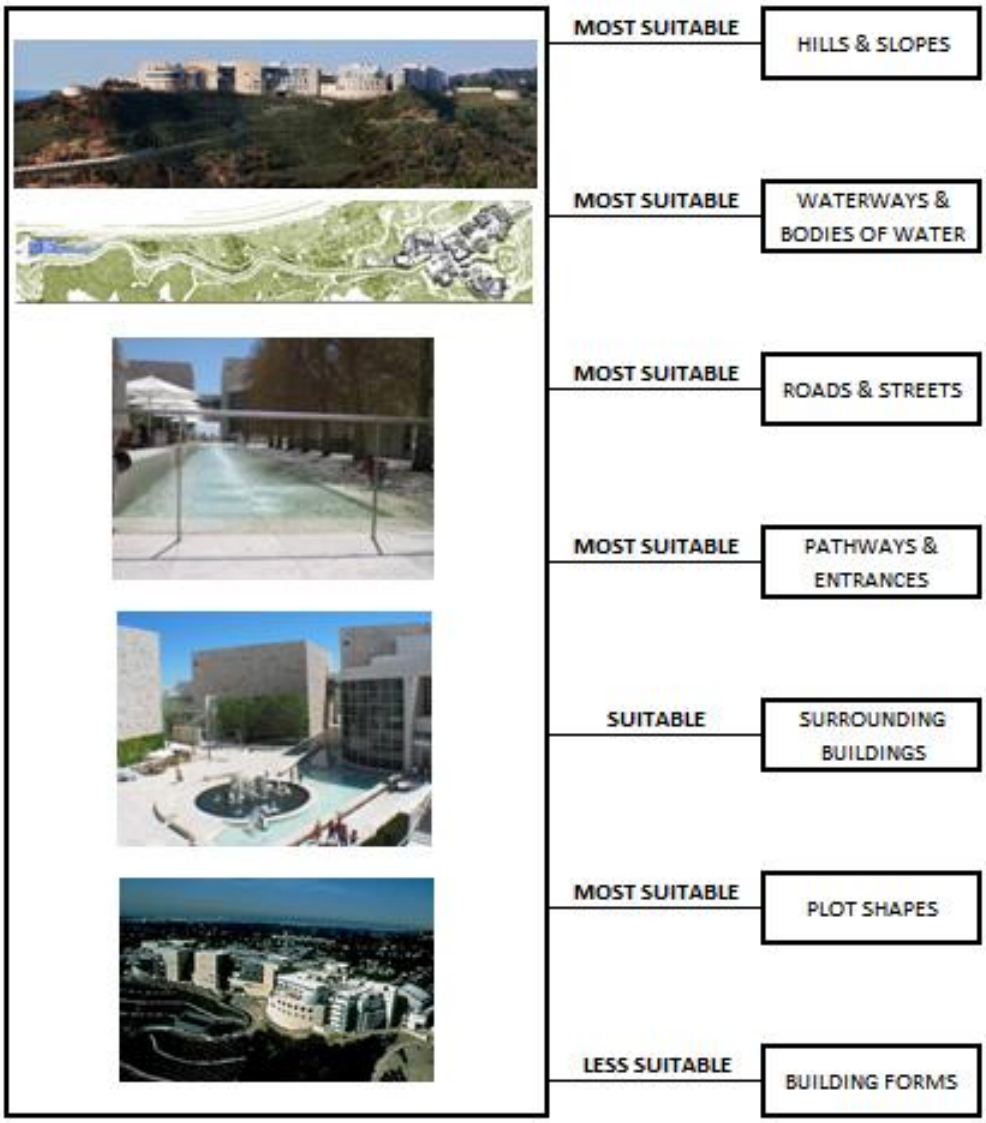
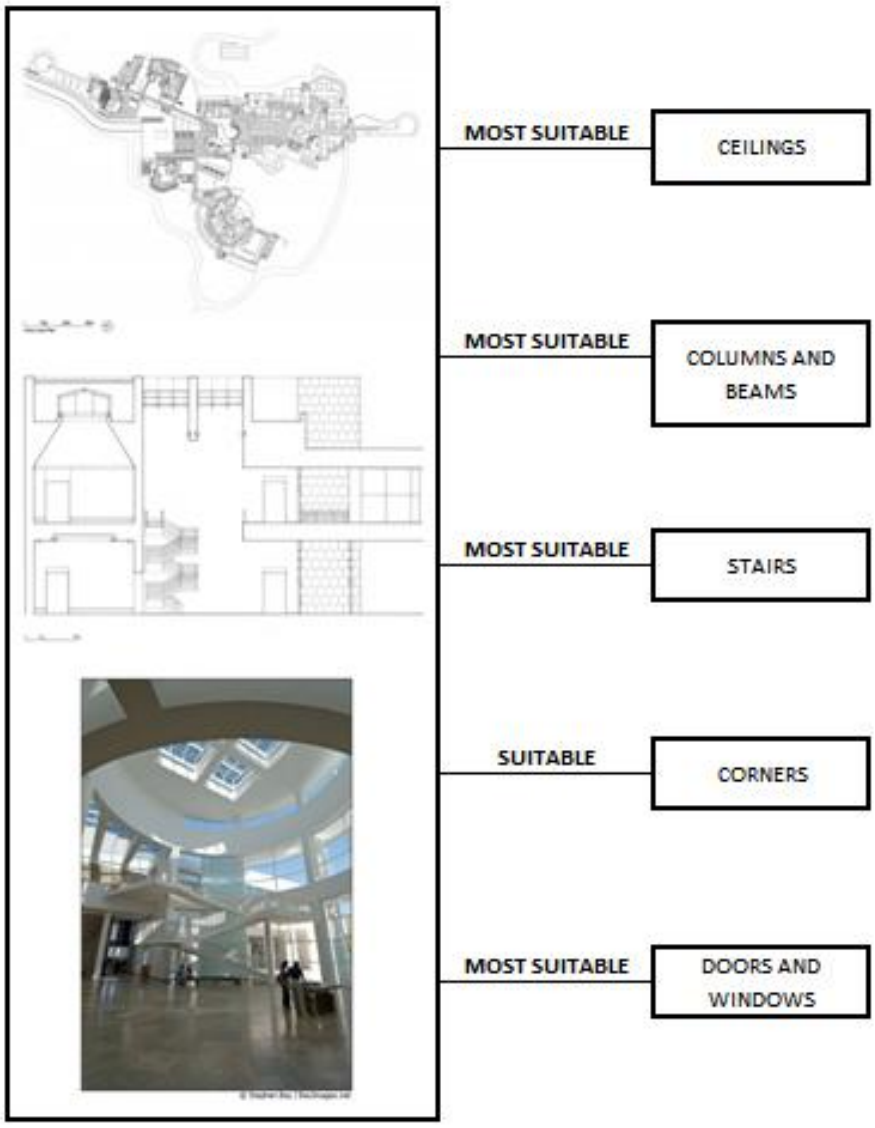


Table 20: Feng Shui Assessment of Getty Center based on internal factors



4.4 Waterside Building (Niels Torp, London)

The so-called "Waterside" building is designed by the Norwegian architect Niels Torp and his team, as a result of a competition for invited architects in 1989 (Fig. 45). Niels Torp expresses his philosophy as to design projects on "human scale and with care for the natural human need for warmth, care and variety in the environment" (Niels Torp).

The architect is known as "a champion of humanist office design". By 'humanist office design', it is stated that designing offices "as social clubbable places rather

than as nine-to-five locations where you are chained to a desk and given two 15-minute coffee breaks a day" is meant (Pearman, H., …).

In case of Waterside building, Torp summarizes his approach to design by putting forward some questions as:

> "How big can a house be before it can no longer be called a house? How can a house for 2800 people be made comprehensible to its users? How can it contribute to communication between its users?" (Niels Torp).

Figure 45: Waterside Building, British Airways, UK (1992-1998)

Regarding the designer's own sentences, the Waterside building is suggested to be an office complex designed on the principle of a village for 2800 people (Pearman, H., …). Nevertheless, chief executive of British Airlines, Bob Ayling declares that the building "is not a monument, it is a building for people" (Clarke, H., 1998).

4.4.1 Architectural Assessment of Waterside Building

The Waterside building is composed of six office blocks named after continents. Each block carries the identity of the specific continent. Each individual building has its own separate space around an inner courtyard with lawns, trees, and shrubs. For the office interiors these courtyards with plants act as a central theme as it is noted in the official site of Torps.

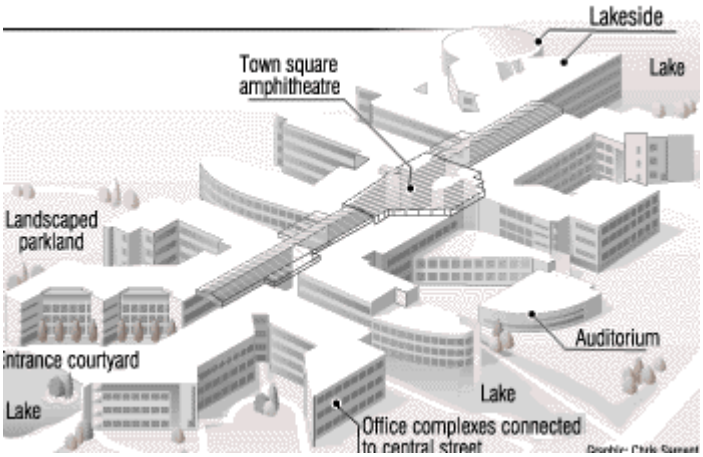


Figure 46: Waterside Headquarters, the individual office blocks

These office blocks are organized along both sides of a street which is long, glazed-over and leads to side streets (Fig. 46). This street is the most important circulation element of the entire complex and provides a platform for social activities. Restaurants, cafes, fitness centers, banks and shops are arranged within the organization of this street (Fig. 47). Regarding this arrangement, a meeting place is created.

Figure 47: The over-glazed street with trees

Under the light of the description stated by the designer, for stimulating internal communication, interiors are designed as light, open and airy spaces. Torp emphasizes the design of the interiors by his explanation:

> "Work stations are organized on the pattern of our team office model, with fixed, room-dividing furnishing modules on each side of a central "avenue" running through each office interior, and glass-walled meeting

rooms providing a lush window onto the park as background motif" (Niels Torp).

The Waterside building took the attention of the media, as well. For example, the Independent defines the building as "a coolly rational building" that was designed by a functionalist architect. Indeed, it emphasizes how the outdoors is pulled inside the building to form a space that is friendlier. Besides, the building is said to be green, not only by creating an environment with trees inside, but also in the way it repels the sunlight at the glass atrium, as well (Niesewand, N., 1998).

In the same article, the building is put forward to "enshrine a new attitude to architecture" by making happier working lives of its inhabitants and creating more "self-indulgent, self-sufficient, profitable" light-filled environment.

Waterside is stated to be "a world as a global village" where puts an interesting spin on modernism by its simple forms and geometry (Niesewand, N., 1998).

4.4.2 Feng Shui Assessment of Waterside Building

British Airways is said to spend millions for implementing Feng Shui principles at the Waterside building, the headquarters of British Airways in Heathrow (Anon., 1999).

In the article "*Architecture: Charles Fails the Test for Constructive Criticism*" published by the Independent, it is mentioned how Feng Shui is considered by the British Airways. A Feng Shui consultant, Simon Brown, is stated to have employed since 1996 to "give the building good vibes". Therefore, all the articulations, mainly for interior, have made according to the Feng Shui principles in order to provide well being of the inhabitants to be able to work in good mood.

In this regard, the Feng Shui consultant is said to arrange the desks and chairs of the staff in the commercial, financial and strategic arms of the airline, as well as the health center and customer services, in the best Feng Shui positions (Fig. 48). Additionally, for calming down the staff, blue, grey and green color schemes; for activating energetic discussions red, purple and yellow are used. Moreover, in order to get rid of the negative energy occurred in the corners, olive and fig trees are positioned in the street, according to the proposals of the Feng Shui consultant. By this way, it is suggested that the negative chi flow is deflected. Under the light of the consultancy, for obtaining good chi flow, water is positioned running through the place (Niesewand, N., 1998).

Figure 48: A view from the interior

Regarding this design, Barbie Birdseye, who is training and development manager at British airways, shows her enthusiasm about the Feng Shui design of the headquarters and the benefits it has for staff. In an article called "BA would like to let you in on a secret", published by the Independent, she describes how all the principles of Feng Shui affect the inhabitants of the building by mentioning the existence of no desks and the "high street" running between the offices (Fig. 49). She says that everything is designed to "make people happy" (Spiteri, G., 2001).

Figure 49: "High street" running between the offices

As a result of the design of the Waterside building, Feng Shui is said to be taken seriously by big businesses, and parallel to this, media especially in London, shows more interest in the philosophy of Feng Shui. Within this aspect, it is mentioned that “many employers consider it worthwhile as a demonstration to employees that they want the best holistic environment for their workers” (Anon., 1999).

Table 21: Feng Shui Assessment of the Waterside Building based on external factors

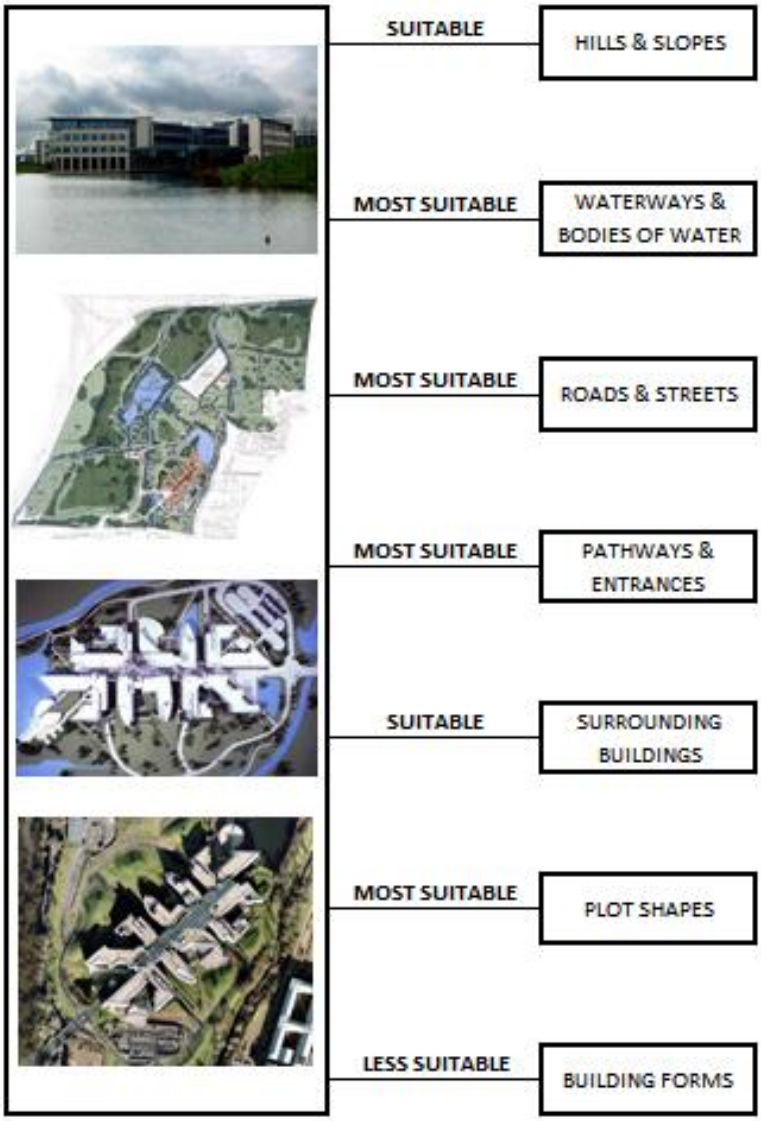
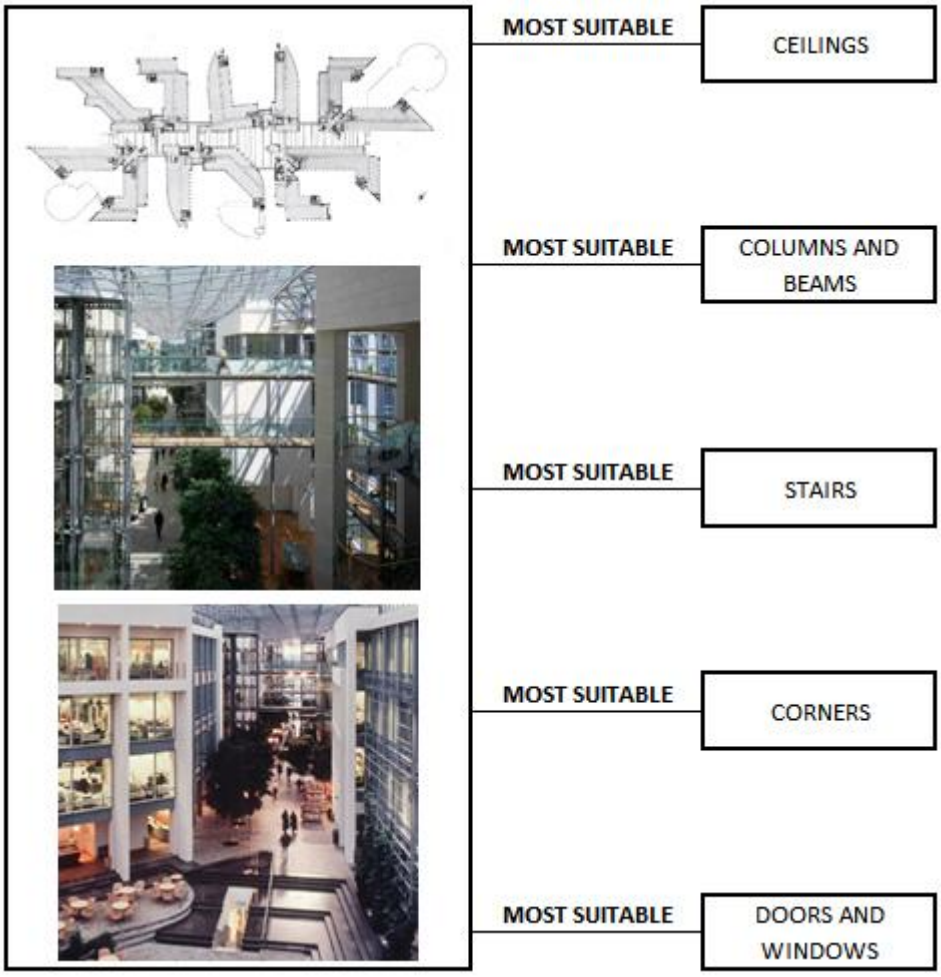


Table 22: Feng Shui Assessment of the Waterside Building based on internal factors



4.5 The Burj Al Arab (W. S. Atkins, Dubai)

The Burj Al Arab is designed by a British firm Atkins after winning the design competition (Fig. 50). It is a hotel building located in Dubai, United Arab Emirates and literally means “Tower of Arabs”. It is designed on an artificial island and is connected to the mainland by a private curving bridge. It is an iconic structure, designed to symbolize Dubai's urban transformation.

Figure 50: The Burj Al Arab

With the opening of the Burj Al Arab, Dubai is said to begin iconic architecture in 1999. Simple sail-like form of the hotel has become Dubai's national symbol and remains the world's tallest hotel (Rose, S., 2005).

4.5.1 Architectural Assessment of the Burj Al Arab

The Burj Al Arab (Tower of the Arabs) was constructed between the years 1993-1999. It was built in the shape of a modern yacht sail to reflect Dubai′s heritage combined with a modern aspect moving forwards into the future (Rose, S., 2005).

Figure 51: Preliminary sketches of the Burj Al Arab

The Burj Al Arab is 321 meters high and is the tallest stand-alone hotel structure in the world. It is built 290 meters off the Dubai coast on a triangular, manmade, landscaped island with sides of 150 m in length built off the sea bed in 7.5 meters of open sea. A gently curving road bridge links the island (which is some 450m offshore) to the Dubai mainland. The island is protected by special hollow concrete armor units. These present a perforated sloping surface to the sea that

absorbs the waves without throwing water onto the island. The concrete structure, with exposed diagonal steel wind bracing, is triangular in plan founded on 250 concrete piles which penetrate the sea floor to a depth of more than 40 m (Fig. 52). The accommodation wings enclose two sides of a huge triangular atrium that runs up the full height of the accommodation floors. The third side, facing the shore, is enclosed by a double skinned, Teflon coated woven glass fiber screen. It is the first time such technology has been used vertically in this form or to this extent (Tom Wright Design).

Figure 52: Another view from the Burj Al Arab

The architect Tom Wright (Galinsky) said that the client wanted a building that would become an iconic or symbolic statement for Dubai which is very similar to Sydney with its Opera House, or Paris with the Eiffel Tower.

Translucent white fabric stretched around the structural frame was used on to the facade outside of the trusses to resemble the sail of the dhow that the building's shape is inspired by (Fig. 53).

Figure 53: Translucent white fabric stretched around the structural frame

During the day, this white wall glows to illuminate the full-height atrium which is the highest one in the world. On the opposite side of the atrium, the floors are organized around corridor 'galleries' (Fig. 54) that open onto the atrium space (Galinsky).

Figure 54: Interior floors or corridor "galleries"

4.5.2 Feng Shui Assessment of the Burj Al Arab

The Burj Al Arab is evaluated as an example within the famous Feng Shui buildings. Since Dubai is a desert with flat landscapes and very little land contours, it is said that the “Flat Land Dragon” technique is used to access the Feng Shui of the hotel (Fig. 55).

Figure 55: The Burj Al Arab's location

According to Feng Shui master, Joey Yap, a protrusion is worth its millions in gold in a flatland. Classical Feng Shui principles dictates that in a completely flat landscape (yang), the tallest structure (mountain - yin) in the area will attract all the flow of chi. However, of equal importance is to lock the chi in place so that it does not escape (Yap, J., 2003).

The Palm Beach Resort that is a wavy and stumpy protrusion on the left traps the chi from escaping. The Wild Wadi water park in front of the Burj also plays its part to lock in the flow of vibrant chi. The meandering road that links the Burj to the mainland is curved at the right angle to prevent *sha chi* (negative energy) from flowing in (Fig. 56). But some Feng Shui masters claim that the back of the Burj is not protected and there is a lack of a solid structure at the back to block off the negative energy from the sea (Anon., 2007).

Figure 56: A view from the bridge

Table 23: Feng Shui Assessment of the Burj Al Arab based on external factors

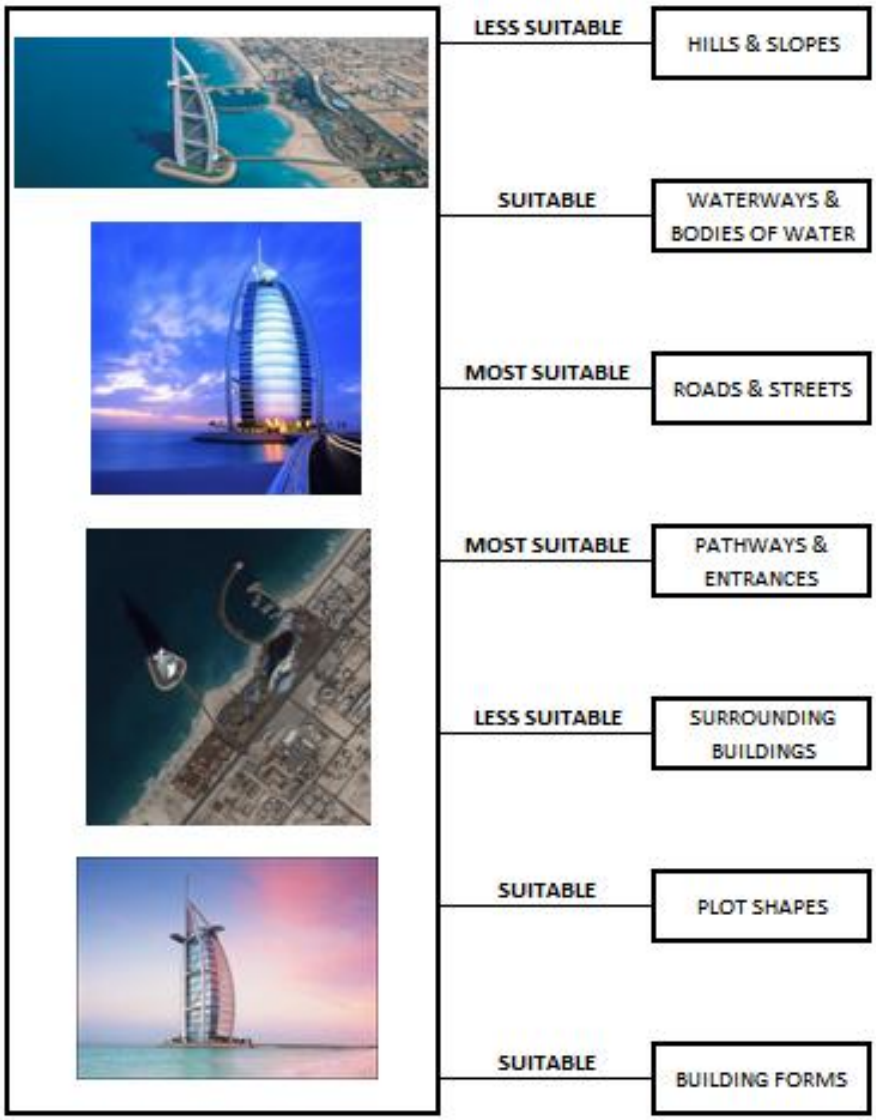
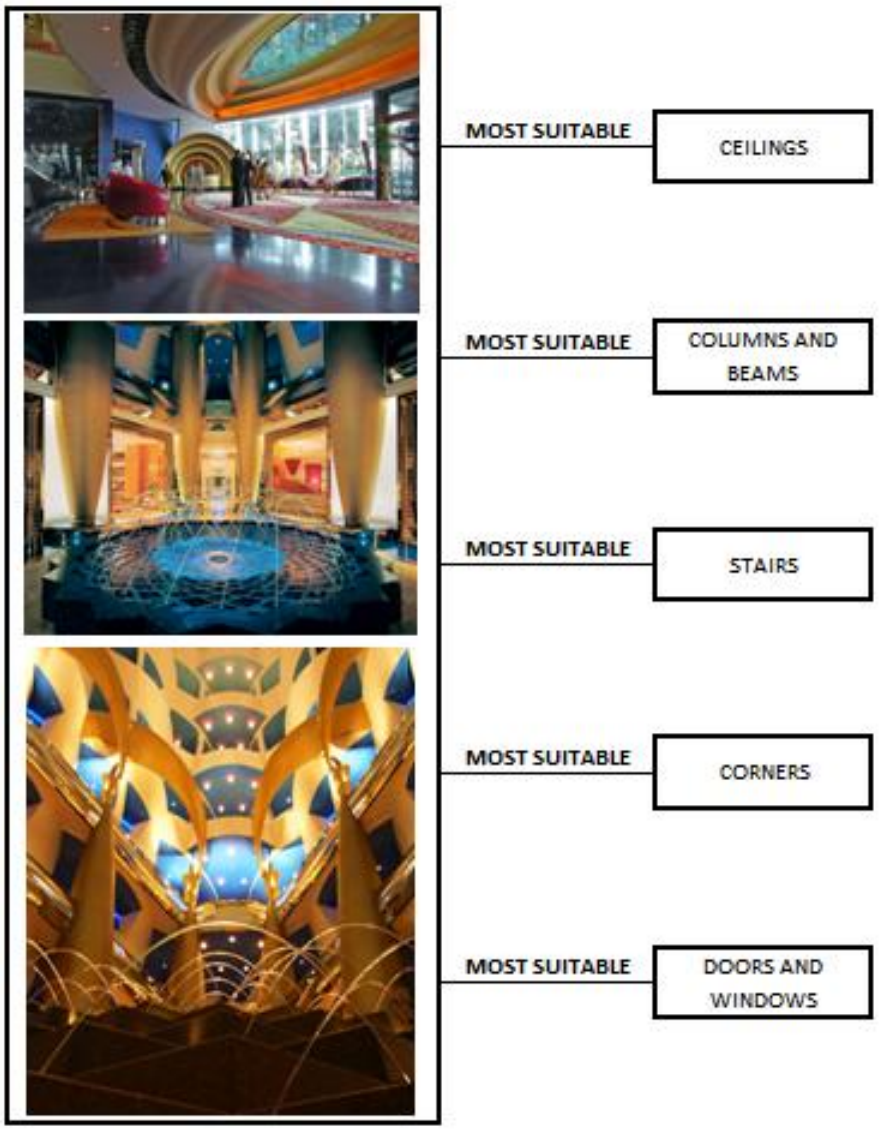


Table 24: Feng Shui Assessment of the Burj Al Arab based on internal factors



4.6 City Hall (Foster & Partners, UK)

City Hall London is designed by Foster & Partners. The building is located on the south bank of Thames, alongside the new More London development. City Hall London was completed in 2002 and is one of the capital's most symbolically important new projects (Fig. 57). It is stated in the official website of Foster & Partners that the building expresses the transparency and accessibility of the democratic process and demonstrates the potential for a sustainable, virtually non-polluting public building like in the Reichstag (Foster & Partners).

Figure 57: City Hall, London

The building has an unusual shape derived from a modified sphere that has been compared to a helmet or an egg. By this shape, it is intended to reduce its surface area and thus improve energy efficiency[17]. On conventional terms, the building does not have front or back.

City Hall houses the assembly chamber for the twenty-five elected members of the London Assembly and the offices of the mayor and staff of the Greater London Authority (Foster & Partners).

4.6.1 Architectural Assessment of City Hall

City Hall was designed by using advanced computer-modeling techniques. As it is stated in the official website of Foster & Partners, the building also represents a radical rethinking of architectural form to achieve optimum energy performance by minimizing the surface area exposed to direct sunlight (Fig. 58). To do so a range of active and passive shading devices is also employed.

[17] "Public Building CO2 Footprints Revealed" Retrieved from guardian.co.uk, accessed on 13 December 2012.

Figure 58: A view from City Hall

The offices are ventilated naturally. The most important aspect of the building is that it has the capacity to use only a quarter of the energy consumed by a typical air-conditioned office building.

Inside the building there is a long helical walkway that ascends from the bottom to the top of the building (Fig. 59). It is stated that the walkway provide excellent views of the interior and the river, and at the top of the ramp is an exhibition hall known as “London’s Living Room”.

Figure 59: Long walkway

4.6.2 Feng Shui Assessment of City Hall

City Hall London is evaluated within one of the best structures of the world in Feng Shui terms. It is stated that from a strictly Form School perspective, the flowing design is ideally placed in a river type setting. Based on Feng Shui, it is added that the building is a metal building, which means in its position it will support the locale, and is therefore a good aspect for a municipal building (The Feng Shui Institute).

Figure 60: Location of the City Hall London

The building sits on a flat topography near the Thames River and surrounded by high-rise buildings (Fig. 60). In terms of location, this is suitable and the building is protected from sha chi (bad energy). Additionally, the access is through pathways and there is no direct road link, which means that there is no heavy vehicle traffic that traps chi and prevents the flow of chi.

Table 25: Feng Shui Assessment of the City Hall London based on external factors

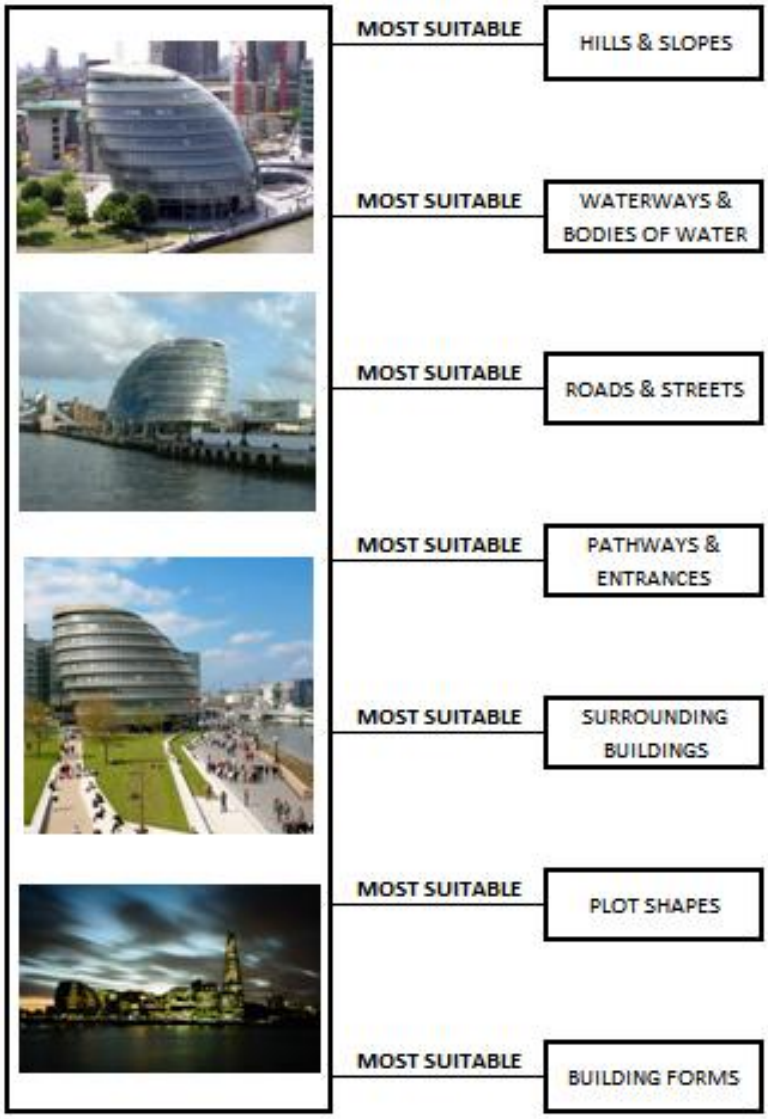
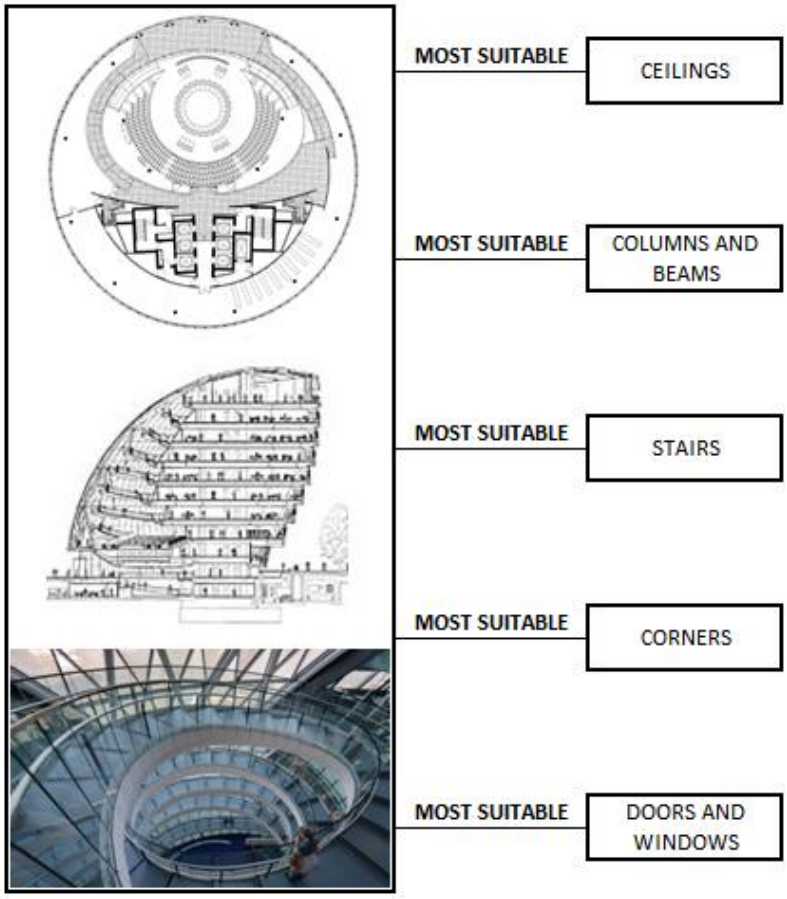


Table 26: Feng Shui Assessment of the City Hall London based on internal factors



4.7 The Kingdom Center (Ellerbe Becket, Saudi Arabia)

The Kingdom Center is situated in Riyadh, Saudi Arabia and designed by Ellerbe Becket/Omrania Consortium. The Kingdom Center, a landmark high-rise for the Middle East, is the most significant development in Saudi Arabia in recent years opened in 2003. By being 300 meters tall, the building has the same height as the Eiffel Tower (Fig. 61).

Figure 61: The Kingdom Center in Saudi Arabia

Principal in charge for Ellerbe Becket, Scott Berry said that the Kingdom Center design represents the culmination of an extraordinary effort by the Ellerbe Becket/Omrania Consortium and an international group of consultants to create a global symbol of modern Saudi Arabia. By being so, the Kingdom Center will be a dramatic focal point on the city's horizon, visible from virtually anywhere in the city.

In the official website of Ellerbe Becket, it is stated that Prince Alwaleed wanted the building to be a globally recognized icon of Riyadh and Saudi Arabia, just as the Eiffel Tower is a symbol for Paris and France. Upon the prince's request, a simple, strong, monolithic, symmetrical structure – a building that uses 21st century technology – in other words, a humane, inviting environment has been created (Ellerbe Becket).

4.7.1 Architectural Assessment of the Kingdom Center

The Kingdom Center is the tallest building in Saudi Arabia. From the beginning, the building was planned as an iconic symbol of the country. The final design of the Kingdom Center was selected after a 3-year process which included over 100 submissions by major architectural firms (Architectional).

The selected design consists of a slim tube that rises out of an elliptical floor plan and ends in a parabolic curve and shallow arch. The official website of Ellerbe Becket states that the building is clad entirely in silver, reflective glass, concrete, granite, and brushed aluminum. These materials are used to intensify its monolithic appearance (Ellerbe Becket).

Figure 62: The facade of the Kingdom Center

The Kingdom Center is a mixed-use tower that accommodates different facilities, including the Prince's business headquarters, a first-class hotel, the three-story Kingdom Mall, a wedding and conference center, rentable office space, a sports club, and luxury condominiums. A number of prayer rooms have been integrated into the layout as well to conform to Saudi customs and culture (Ellerbe Becket).

The spaces to the left and right of the hole is said to contain an enormous latticework of diagonal steel beams. There are landscaped courtyards filled with palm trees on the north and south sides of the tower. The inverted arch at the top was described by the developer as a "necklace" for the city of Riyadh (Fig. 63).

Figure 63: The large opening is illuminated at night in continuously changing colors

The ellipse motif taken from the tower's footprint is said to appear also in the light fixtures, ceiling panels, entrance canopy, wastebaskets, and furniture. On the

other hand, the main lobby is a soaring elliptical space with ribbed vaulting, elevated walkways, a fountain, and rows of palm trees (Fig. 64).

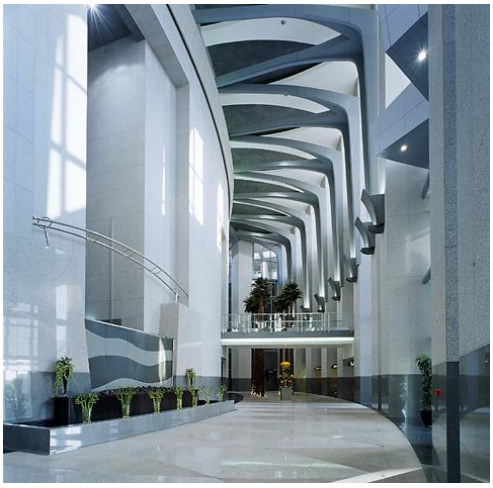


Figure 64: Interior view showing the ribbed vaulting

The Kingdom Center is the winner of the 2002 Emporis Skyscraper Award, and selected as the "best new skyscraper of the year for design and functionality" (Architectional).

4.7.2 Feng Shui Assessment of the Kingdom Center

The Kingdom Center in Riyadh is said to be based on historic geomantic principles. On the other hand, it is added that the building is a metal type building in a fire and earth type zone and it will be well used by all (Cena, E., 2008).

The Kingdom Center is situated on a flat topography without any hills and slopes or any high buildings around to surround. In terms of Feng Shui, the building is not protected. On the other hand, there are no bodies of water that brings chi to enhance the building in a positive way. However, the roads and streets are formed in such a way that, the building is surrounded in a good way and gets chi in a positive manner.

Additionally, the building has a rectangular plot and well-defined entrances which is very good in terms of Feng Shui (Fig.65).

Figure 65: One of the entrances

Figure 66: Palm trees provide well-defined pathways in proportion to the building

Table 27: Feng Shui Assessment of the Kingdom Center, Riyadh based on external factors.

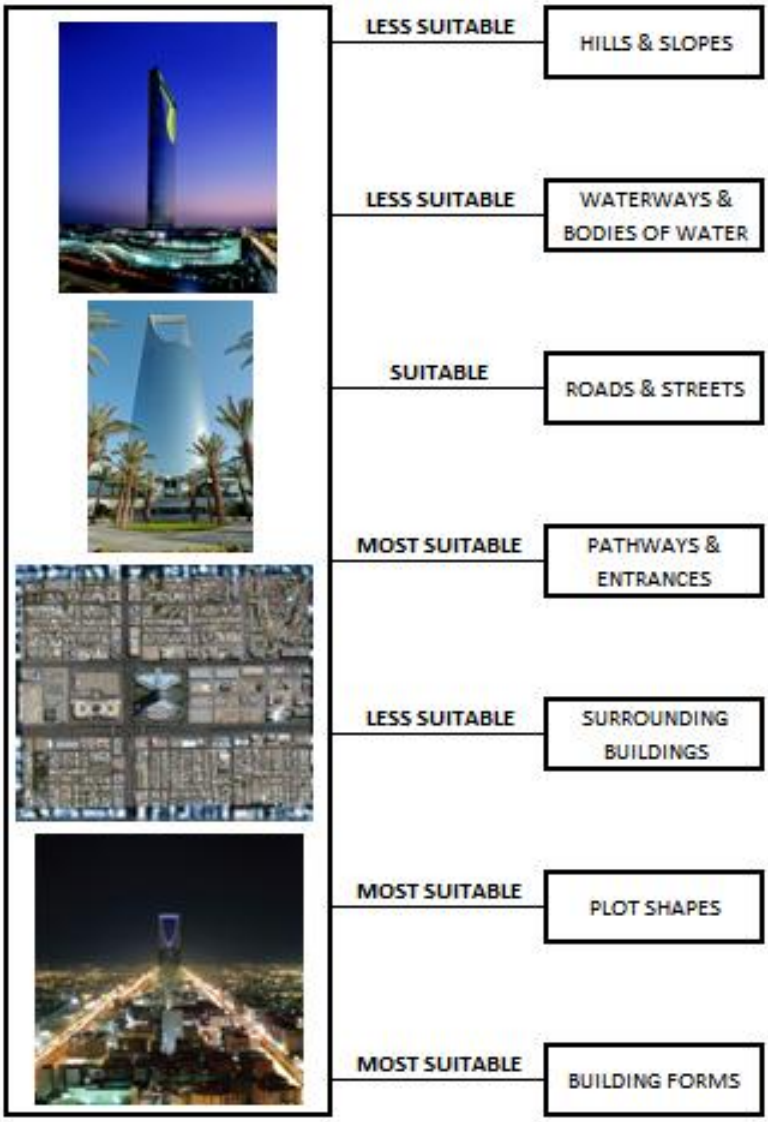


Table 28: Feng Shui Assessment of the Kingdom Center, Riyadh based on internal factors.

MOST SUITABLE	CEILINGS
SUITABLE	COLUMNS AND BEAMS
MOST SUITABLE	STAIRS
SUITABLE	CORNERS
MOST SUITABLE	DOORS AND WINDOWS

4.8 Sydney Opera House (Jorn Utzon, Australia)

The Sydney Opera House is located in Sydney, New South Wales, Australia. It is sitting on Bennelong Point, virtually in the Harbour and overlooked by the great Sydney Harbour Bridge. Jorn Utzon has been credited and acclaimed for the design by the opera staff (Sharp, D., p.315), who received the Pritzker Prize in 2003.

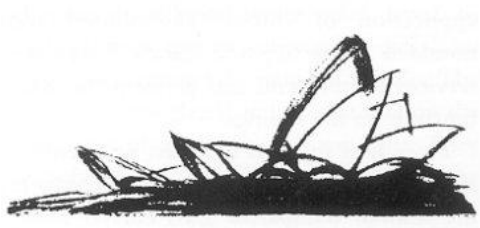


Figure 67: Preliminary sketch of the Sydney Opera House

The Sydney Opera House is shown as one of the most iconic buildings of the 20th century. It is argued that the building "proves that the marvelous and seemingly impossible in architecture can be achieved" (Totaro, P,. 2008).

Figure 68: Jorn Utzon in 1966 with his model of the Sydney Opera House

The Sydney Opera House is said to be one of the world's most distinctive buildings, and one of the most famous performing arts centers in the world (Fig. 69), containing several venues rather than a single opera theater[18].

Figure 69: A night view of the Sydney Opera House

4.8.1 Architectural Assessment of Sydney Opera House

The Sydney Opera House is classified as a modern expressionist design (Sharp, D., p.315). It is stated that the tiled roof cladding of the building is probably the most important visual element (Lewis, M., 1973, pp.18-32). The building with a series of large precast concrete shells forming the roofs of the structure sits on a monumental podium (Utzon, J., 2002, p.20). The Sydney Opera House is

[18] "Statement of Values for Sydney Opera House National Heritage Listing" Retrieved from http://www.environment.gov.au/epbc/assessments/bilateral/pubs/soh-nationalheritagevalues.pdf. Accessed on 15 August 2008.

described as a form disciplined but never monotonous (Lewis, M., 1973, pp.18-32).

Figure 70: Glazed white granite roofs

It is stated that the Sydney Opera House has about 1000 rooms, including five theatres, five rehearsal studios, two main halls, four restaurants, six bars and numerous souvenir shops. The roofs of the building are constructed of glazed white granite tiles imported from Sweden (Fig. 70). The interior, on the other hand, is composed of pink granite and wood and brush box plywood (Fig. 71).

Figure 71: One of the theatres in the Sydney Opera House

The theatres are housed in a series of large shells, conceived by dissecting a hemisphere. It is mentioned that the Concert Hall and Opera Theatre are contained in the largest shells, and the other theatres are located on the sides of the shells (Sydney Architecture).

4.8.2 Feng Shui Assessment of Sydney Opera House

The Sydney Opera House is classified as a fire type building in terms of Feng Shui, because of its angular design. By being a fire type building, The Sydney Opera House is perfect for housing the arts. However, it is cited that in its watery environment, there may be disagreement, particularly among the staff (The Feng Shui Institute).

In terms of location, the Sydney Opera House does not have high buildings or any hills and slopes close to it in order to be protected (Fig. 72). On the other hand, the configuration of roads and streets in relation to pathways and entrances, the building receives good flow of chi. Having a rectangular plot also is good in Feng Shui terms.

Figure 72: The situation of the Sydney Opera House

Table 29: Feng Shui Assessment of the Sydney Opera House based on external factors

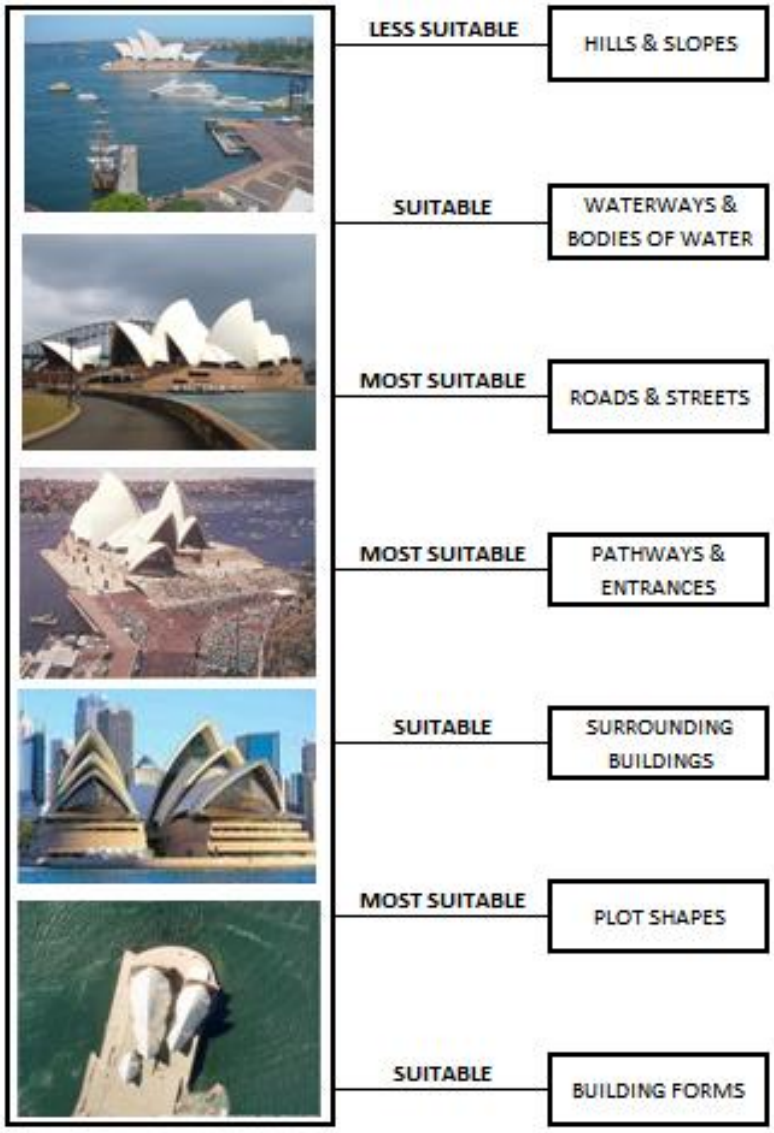
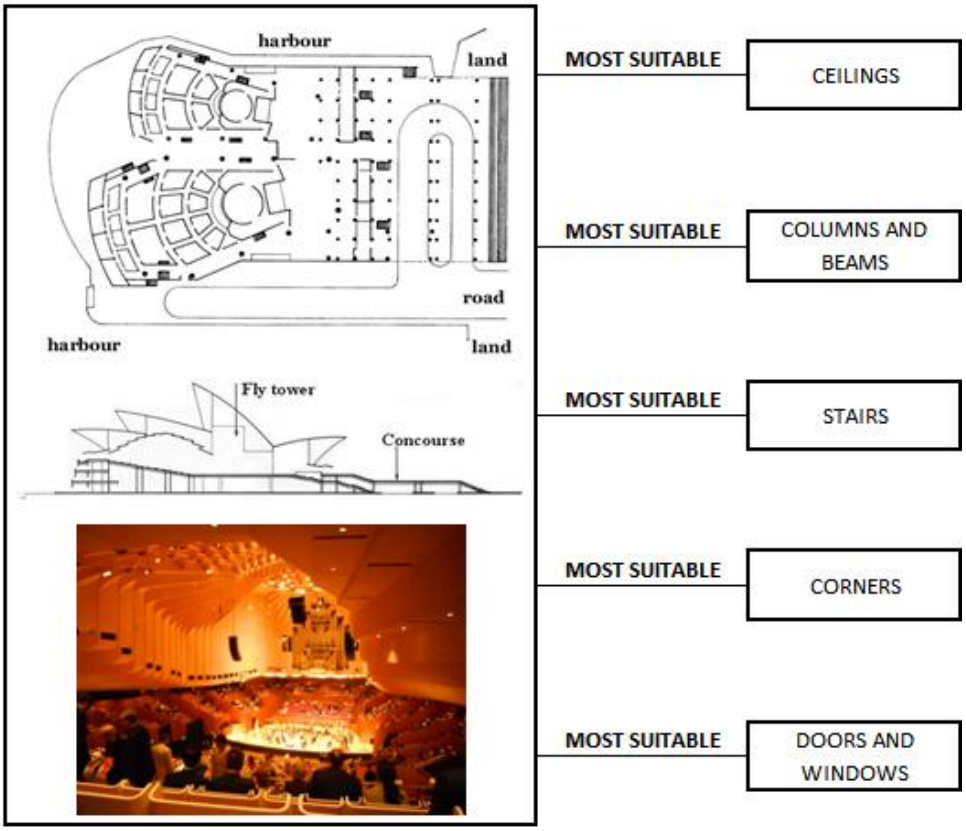


Table 30: Feng Shui Assessment of the Sydney Opera House based on internal factors



4.9 Kansai International Airport Terminal (Renzo Piano, Japan)

Kansai International Airport Terminal is designed by Renzo Piano, Pritzker-Prize winning architect in 1994 (Fig. 73). The terminal is the largest terminal in the world and constructed on an artificial island resting on piles. Renzo Piano is said to model his plan for the airport after the shape of an airplane with corridors stretching out like wings from a main hall (Craven, J.).

Figure 73: Kansai International Airport Terminal

The Kansai International Airport Terminal is located in the middle of Osaka Bay (Fig. 74), off the shore of the cities Sennan and Izumisano and the town of Tajiri in Osaka Prefecture, Japan.

Figure 74: The situation of the terminal

4.9.1 Architectural Assessment of Kansai International Airport Terminal

An artificial island of 4km long and 2.5km wide was proposed for the Kansai International Airport Terminal. The extremely high risks of earthquake and typhoons are needed to overcome by engineers. The island was connected to the mainland through a 3-kilometer bridge (Fig. 75).

Figure 75: The Bridge that connects the island to the mainland

It is stated that the island had been predicted to gradually sink as the weight of the material used to construct the island would cause it to compress downwards. However, the island had sunk much more than predicted. Regarding this, the project became the most expensive civil works project in modern history after 20

years of planning, 3 years of construction and several billion dollars of investment[19]. In the meantime, the airport survived an earthquake and a typhoon.

The Kansai International Airport was awarded by the American Society of Civil Engineers as one of ten structures given the "Civil Engineering Monument of the Millennium" in 2001. In the official website of American Society of Civil Engineers, ASCE President Robert Bein said that "the Kansai International Airport is the first airport on the sea, and an outstanding example of engineering ingenuity and commitment to the public's well being. It is fitting that it, among other superior airports built in the last century, would be chosen by ASCE for this special honor[20]".

4.9.2 Feng Shui Assessment of Kansai International Airport Terminal

The Kansai International Airport Terminal is a water type building in a water environment. Therefore, it is perfect for the function it accommodates which is travel and communication (The Feng Shui Institute).

The airport is situated on an artificial island with no hills and slopes or high rise buildings to surround (Fig. 76). Regarding this, the Kansai International Airport Terminal is unprotected. On the other hand, there are no road and street pattern. The only access to the artificial island is through a bridge which is narrow in proportion to the island. Therefore, receiving chi may be limited.

[19] "Kansai International Airport Co. Ltd.-Condition of Settlement", Retrieved from http://www.kiac.co.jp/en/tech/sink/sink3/index.html. Accessed on 13 December 2012.
[20] "U.S. Engineering Society names Kansai International Airport a Civil Engineering Monument of the Millennium" – Press Release from American Society of Civil Engineers. Retrieved from http://www.asce.org/pressroom/news/pr041901_kansai.cfm. Accessed on 18 August 2008.

Figure 76: The artificial island and the bridge

The plot shape and the building form, on the other hand, is very appropriate in terms of Feng Shui.

Table 31: Feng Shui Assessment of the Kansai International Airport Terminal based on external factors

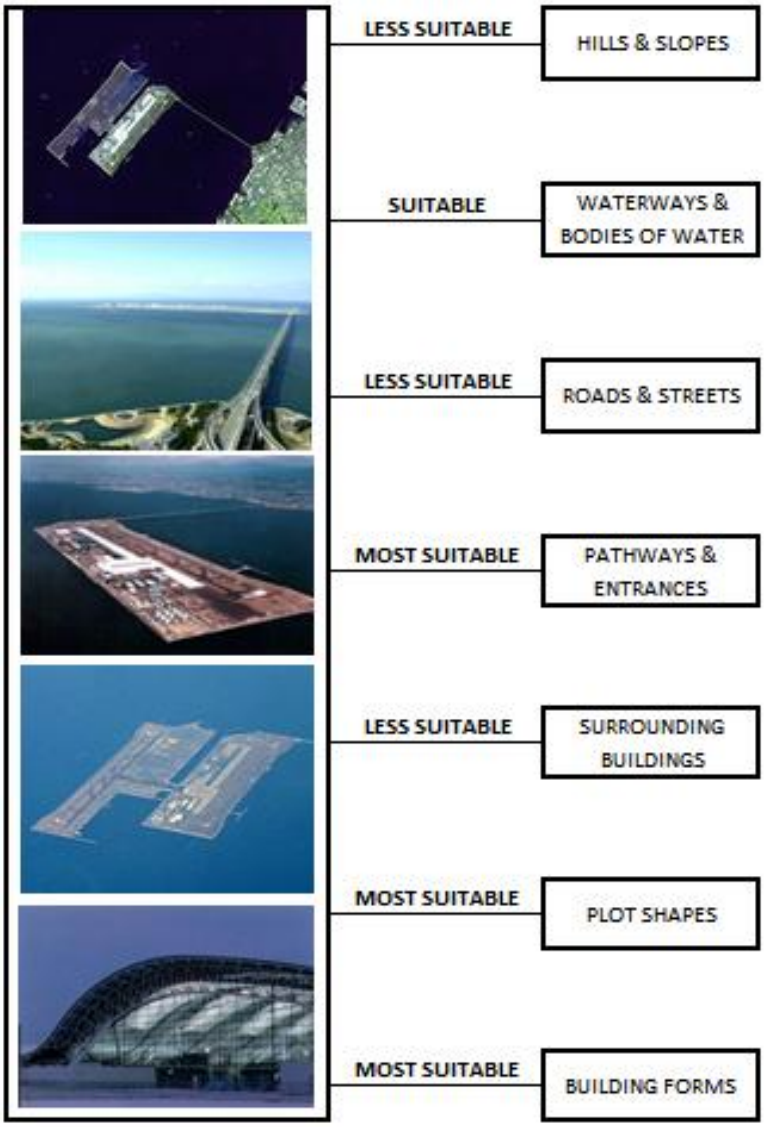
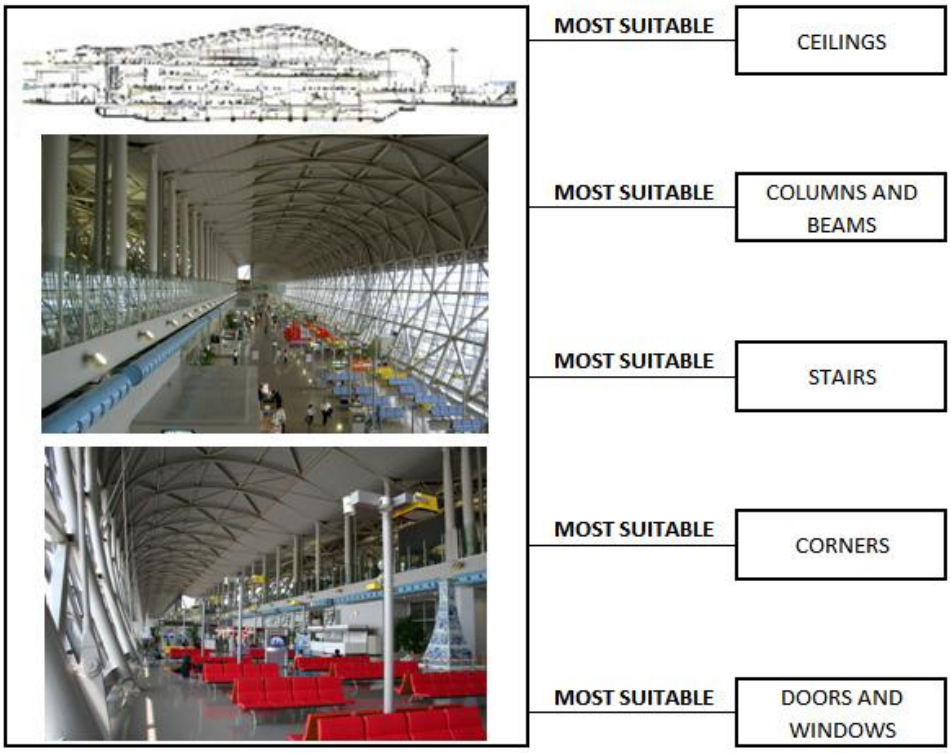


Table 32: Feng Shui Assessment of the Kansai International Airport Terminal based on internal factors



4.10 Suntory Museum of Art (Kengo Kuma, Japan)

Suntory Museum of Art was designed by Kengo Kuma as being part of the Tokyo Midtown complex. The construction of the building was completed in 2007. The museum includes exhibition rooms, galleries, a lecture and event hall, tea-ceremony room, gift shop and café, and roof top lounge. It also features a ten-meter high stairwell and a curved bridge that connects the museum to a park area bordered with cherry trees. The museum has a low silhouette and the materials used are soft and warm to realize Kuma's notion of museum as an extension of the home collection (Fig. 77). Kuma says that the contents of the museum are Japanese traditional arts and crafts from the 17th to 19th centuries and that are combined with natural materials like rice paper and a very soft wood (Liddell, C.B, 2008).

Figure 77: Suntory Museum of Art

Kengo Kuma explains the concept of the museum as to realize within a massive urban architecture "an imagery so fragile that it may break if not handled wholeheartedly[21].

4.10.1 Architectural Assessment of Suntory Museum of Art

Suntory Museum of Art is like an extension of Japanese traditions by becoming "the quiet Japanese-style room in a clamorous urban environment" as Kuma expresses (Arcspace). In his words Kuma says "I wanted to create a different museum from the typical white cube type" as criticizing that most of the museums have the idea of a white cube with similar materials, design elements and lighting scheme (Liddell, C.B., 2008). In regards to these aspects, the museum emphasizes Japanese elements by including materials like white porcelain, rice paper and a wood traditionally used to make chests for storing kimonos (Fig. 78).

[21] "Suntory Museum of Art, Kengo Kuma & Associates" June 04, 2007, Retrieved from http://www.arcspace.com/features/kengo-kuma--associates/suntory-museum-of-art/. Last updated November 13, 2012. Accessed on 13 December 2012.

Figure 78: Interior showing wood on the flooring

On the exterior, the existence of vertical louvers gives a visual texture by showing a similarity to the traditional Japanese window style that provides privacy and shade (Fig. 79). These vertical ceramic louvers are attached on to the face at ninety degrees and the panels are remarkably thin about six millimeters. The strength is obtained by the usage of aluminum instead of concrete (Liddell, C.B., 2008). The porcelain pieces compose the collection of this museum (Kengo Kuma & Associates).

Figure 79: Vertical ceramic louvers

These elements are not intended to give the building an identity, but are used according to the demands of this museum to be gracefully functional. In this regard Kuma says "my approach is that the museum's facade should have some iconic quality, but not iconic shape," and he stresses that sometimes such an “iconic silhouette or shape can destroy the atmosphere of the place” (Liddell, C.B., 2008).

The interiors are naturally warm areas where admit a soft light through the usage of wood and traditional Japanese paper "*washi*." Generally, simple materials were used in the galleries not to obstruct the view. The lighting system gives reference to the traditional Japanese lighting and can be controlled from above and below. The placements of "*shoji*" which are paper screen sliding panels and "*andon*" which are paper enclosed oil light help lighting to circulate around the floor (Fig. 80).

Figure 80: Exhibition room lighting system

The exhibition spaces, on the other hand, use movable partitions and let the area be flexible. The tea-room (Fig. 81) and the top floor lounge are designed to host special occasions (Arcspace).

Figure 81: Tea-room

4.10.2 Feng Shui Assessment of Suntory Museum of Art

The museum is located on a flat topography. Although there are no hills and slopes, it is surrounded by high buildings that create the feeling of protection. The

building has a park area in front bordered with cherry trees and a curved bridge connects this open area to the museum (Fig. 82). This design decision supports the idea how a building should interact with its surrounding in terms of Feng Shui principles[22].

Figure 82: Location of the museum

There are no natural bodies of water or a designed water element within the parcel. However, as high buildings are represented and accepted as protective hills and slopes, the roads around the building are symbolized as a meandering river and hug the building from one side. This creates a positive aspect in terms of the flow of chi.

The plot shape and form of the building is pure geometry. The most important aspect of the museum is that materials used are mainly natural and by being flexible it enhances the flow of chi in a positive manner.

[22] "Interviews with the Famous: Kengo Kuma, Architect", (11 November 2009), Retrieved from http://yknow-interviews.blogspot.com/2009/11/kengo-kuma-architect.html#uds-search-results. Accessed on 13 December 2012.

Table 33: Feng Shui Assessment of Suntory Museum of Art based on external factors

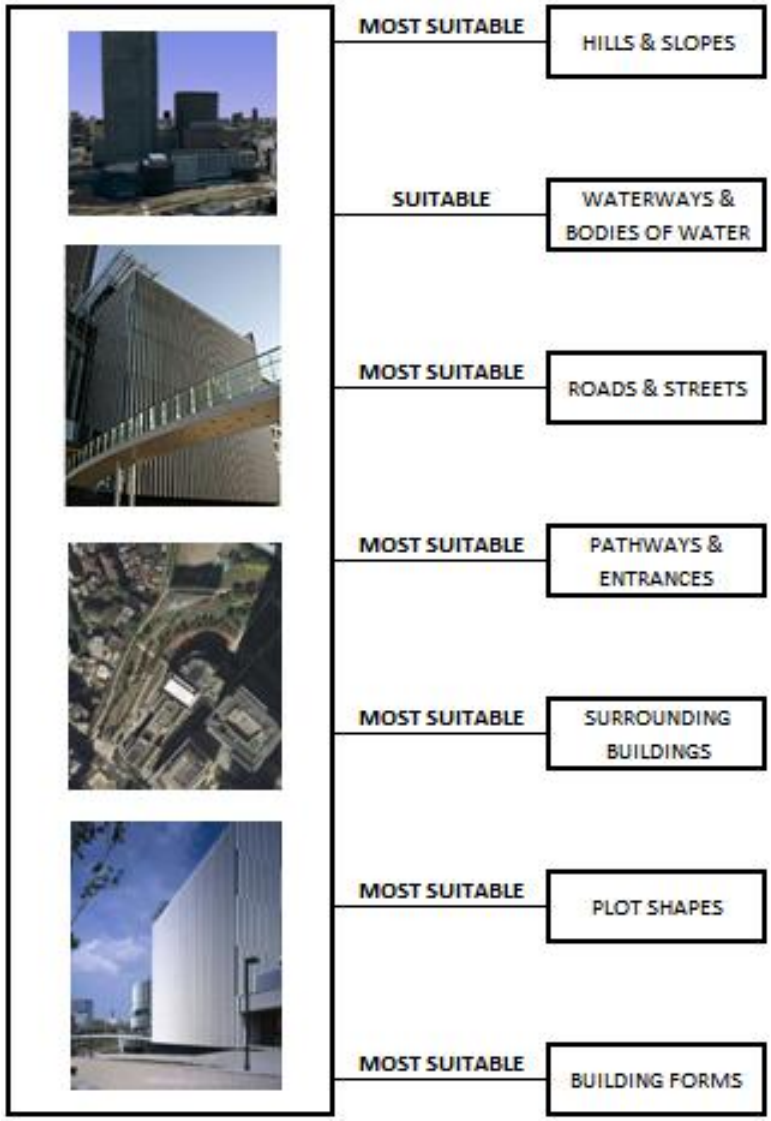
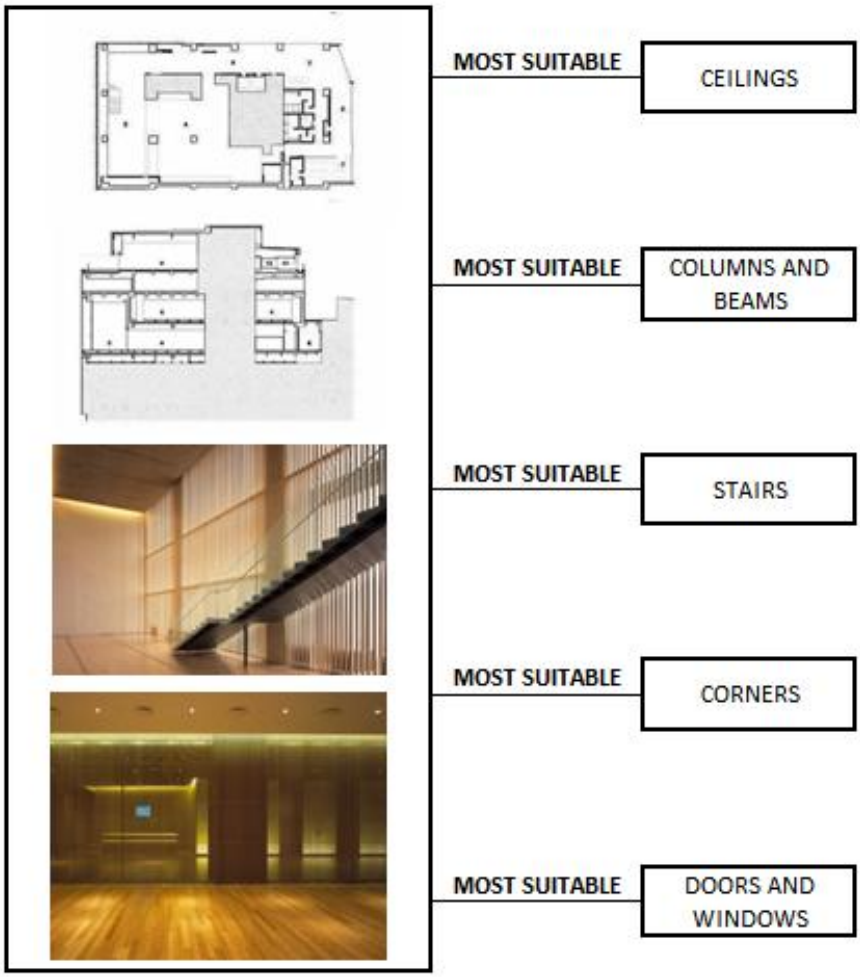


Table 34: Feng Shui Assessment of Suntory Museum of Art based on internal factors



4.11 The Mirage City, Kaishi / Hiashi (Arata Isozaki, S. Korea)

The Mirage City "Kaishi/Hiashi" is a utopic city that was proposed by the metabolist architect Arata Isozaki in the first joint presentation of art and architecture from Asian cities and Europe that is known as "Cities on the Move". This exhibition covered many issues widely, including the rapid change of Asia in terms of economic, cultural and political life.

While discussing the ecologic issues for the whole Asia Pacific region for the future, it is pointed out that the level of environmental damage is very high. Regarding this, re-introduction of Feng Shui is seen essential to the restructuring of urban space, in particular, and Asian culture in general. This re-introduction of

Feng Shui can be defined as a cultural strategy to confront and resist the domination of Western modernism and post-modernism on the processes of globalization. By this way, Feng Shui as it means, can "help the man-made world to attain perfect harmony with nature by indicating the correct locus on architectural and urban construction" (Hanru, H. & Obrist, H.U., 1997). Within this aspect, Isozaki and Asada state that Feng Shui should be understood as a "tentative fiction" designed to deconstruct the dominance of the West.

Today's Utopian projects are said to be based on "a consideration of reality, and confrontation with chaotic, disordered nature of the world". Regarding this, a new term "Dystopia" is introduced that signifies "an alternative envisioning of the future". Under the light of this, Arata Isozaki's recent project Kaishi/Haishi, the Mirage City can be said to be a valuable example of this alternative future vision. Haishi means both "the city on the sea" and "mirage". In this proposal, by combining the principles of Feng Shui and geomantic technologies, "an innovative vision of a Global City which is at once harmonious with nature and connected to the global Cyber-network" is presented. This "New Utopia", whether realized or not at the end, is said to show how "the West wind and the East wind encounter each other" (Hanru, H. & Obrist, H.U., 1997).

At an exhibition that was held in 1997, the discussions on the re-introduction of Feng Shui, especially, in the Asia region are very significant. Here, rather than interpreting on the well being of human or the quality of life, future environmental problems have been tried to handle through Feng Shui. By this way, it is stated how Feng Shui plays a big role even at the issues of nature and environment.

Chapter 5

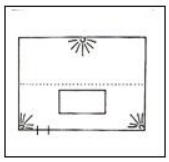
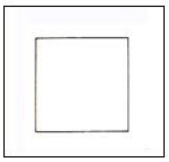
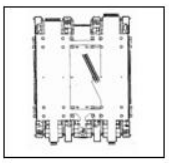
CONCLUSION

Hong Kong and Shanghai Bank Headquarters, Bank of China, Getty Center, Waterside Building, Burj al Arab, City Hall, the Kingdom Center, Sydney Opera House, Kansai International Airport and Suntory Museum of Art are selected as public buildings to conduct an analysis based on external and internal principles of Feng Shui. The main aim is to find a method to interpret building's design in relation to its environment for enhancing the quality of living and contributing human well being on a scientific basis. It is believed that the notion of well being is a concern of every human being, so to realize this aim, especially public buildings are considered. These buildings are significant not only being designed by prominent architects but also become icons and symbols of the cities where they are erected.

5.1 Findings

For each of the selected building, a table (Table 35-44) is presented to show the principles of Feng Shui in relation to the features of the building to gain an understanding and to create a platform for recapitulations.

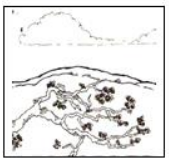
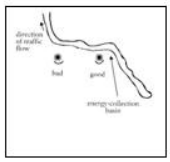
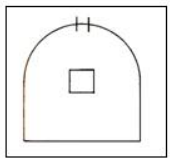
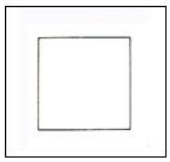
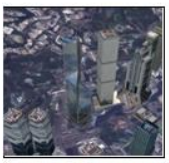
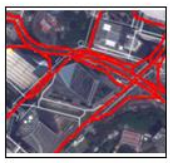
Table 35: Hong Kong and Shanghai Bank headquarters

HILLS & SLOPES	BODIES OF WATER	ROADS & STREETS	PLOT SHAPE	BUILDING FORM	ADDITIONAL REMARKS
					Hong Kong and Shanghai Bank Headquarters has positive aspects in terms of external principles shown on the left. However, the Bank of China at its close environment creates a destructive and negative aspect. These two buildings are in a battle of Feng Shui.
					

HSBC HEADQUARTERS, HONG KONG

It is seen that HSBC headquarters has positive aspects in terms of external principles shown above. However, the Bank of China at its close environment creates a destructive and negative aspect. These two buildings are in a battle of Feng Shui.

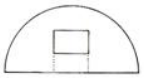
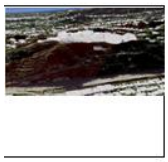
Table 36: Bank of China

HILLS & SLOPES	BODIES OF WATER	ROADS & STREETS	PLOT SHAPE	BUILDING FORM	ADDITIONAL REMARKS
					Bank of China has positive aspects in terms of external principles shown on the left. However, HSBC headquarters building has a destructive element that symbolizes a "gun" mounted on top of it and directed towards the Bank of China.
					

BANK OF CHINA, HONG KONG

Bank of China has positive aspects in terms of external principles shown above, as well. However, HSBC headquarters building has an element like a "gun" mounted on top of it and directed towards the Bank of China that symbolizes destruction.

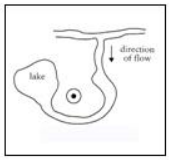
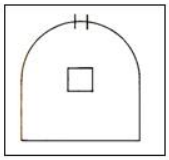
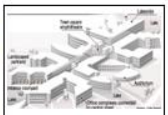
Table 37: Getty Center

HILLS & SLOPES	BODIES OF WATER	ROADS & STREETS	PLOT SHAPE	BUILDING FORM	ADDITIONAL REMARKS
	NO NATURAL BODIES OF WATER - FOUNTAINS AND OTHER TYPES EXIST			COMPLEX FORM	Getty Center has positive aspects in terms of external principles shown on the left. Although, there are no natural bodies of water within the site, artificial ponds and fountains exist and create a positive atmosphere. Additionally, the building is consisted of several forms and is a complex in that sense.
					

GETTY CENTER, LOS ANGELES

In terms of external principles shown above, Getty Center has positive aspects. Although, there are no natural bodies of water within the site, artificial ponds and fountains exist and create a positive atmosphere. Additionally, the building is consisted of several forms and is a complex in that sense.

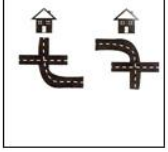
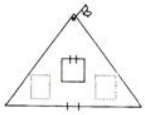
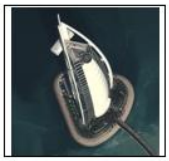
Table 38: Waterside Building

HILLS & SLOPES	BODIES OF WATER	ROADS & STREETS	PLOT SHAPE	BUILDING FORM	ADDITIONAL REMARKS
				COMPLEX FORM	Waterside Building has positive aspects in terms of external principles shown on the left. The building consists of several blocks and is a complex form. The building is famous by involving a feng shui consultant during its design process.
					

WATERSIDE BUILDING, LONDON

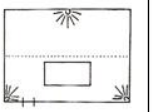
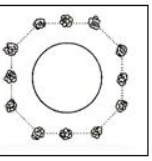
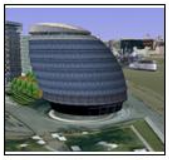
Waterside Building, on the other hand, consists of several blocks and is a complex form. The building is famous by involving a Feng Shui consultant during its design process.

Table 39: Burj al Arab

HILLS & SLOPES	BODIES OF WATER	ROADS & STREETS	PLOT SHAPE	BUILDING FORM	ADDITIONAL REMARKS
LOCATED ON A FLAT MAN-MADE TOPOGRAPHY - NO HILLS AND SLOPES	SITUATED IN THE MIDDLE OF A BAY				Burj al Arab has positive aspects in terms of external principles shown on the left. Since there are no hills and slopes or surrounding buildings to protect its back, it is accepted as negative. On the other hand, by its location, the building attracts chi in a positive manner and get benefit from the body of water it is located on.
					
BURJ AL ARAB, DUBAI					

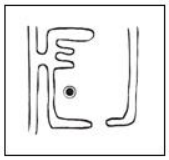
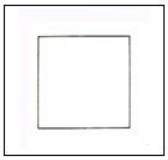
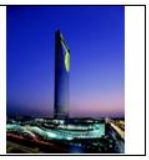
In case of Burj al Arab, since there are no hills and slopes or surrounding buildings to protect its back, the situation is accepted as negative. On the other hand, by its location, the building attracts chi in a positive manner and get benefit from the body of water it is located on.

Table 40: City Hall

HILLS & SLOPES	BODIES OF WATER	ROADS & STREETS	PLOT SHAPE	BUILDING FORM	ADDITIONAL REMARKS
					City Hall has positive aspects in terms of external principles shown on the left. It is a metal type building that suits the function and the area.
					
CITY HALL, LONDON					

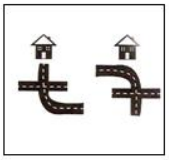
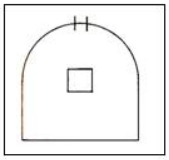
City Hall has positive aspects in terms of external principles, as well, and is a metal type building that suits the function and the area.

Table 41: Kingdom Center

HILLS & SLOPES	BODIES OF WATER	ROADS & STREETS	PLOT SHAPE	BUILDING FORM	ADDITIONAL REMARKS
LOCATED ON A FLAT TOPOGRAPHY - NO HILLS AND SLOPES	NO BODIES OF WATER AROUND				The Kingdom Center has positive aspects in terms of external principles shown on the left. However, there are no hills and slopes or surrounding buildings to protect its back, it is accepted as negative. There are no bodies of water as well. It is a metal type building in a fire and earth type zone, which is good in Feng Shui terms.
					
THE KINGDOM CENTER, RIYADH					

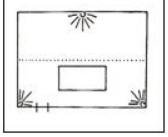
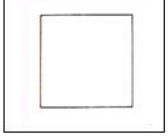
There are no hills and slopes or surrounding buildings to protect the Kingdom Center's back and it is accepted as negative. There are no bodies of water as well. However, it is a metal type building in a fire and earth type zone, which is good in Feng Shui terms.

Table 42: Sydney Opera House

HILLS & SLOPES	BODIES OF WATER	ROADS & STREETS	PLOT SHAPE	BUILDING FORM	ADDITIONAL REMARKS
LOCATED ON AN ARTIFICIAL FLAT PLATFORM - NO HILLS AND SLOPES				COMPLEX FORM	Sydney Opera House has positive aspects in terms of external principles shown on the left. However, there are no hills and slopes or surrounding buildings to protect its back, it is accepted as negative. The building is a fire type building in a water type zone, which is negative. However, in terms of the function it accommodates, function and form relation is good.
					
SYDNEY OPERA HOUSE, SYDNEY					

In case of Sydney Opera House, there are no hills and slopes or surrounding buildings to protect its back, as well, and the building is a fire type building in a water type zone, which is negative. However, in terms of the function it accommodates, function and form relation is good.

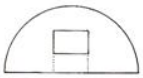
Table 43: Kansai International Airport

HILLS & SLOPES	BODIES OF WATER	ROADS & STREETS	PLOT SHAPE	BUILDING FORM	ADDITIONAL REMARKS
LOCATED ON AN ARTIFICIAL ISLAND - NO HILLS AND SLOPES	SITUATED IN THE MIDDLE OF OSAKA BAY				Kansai International Airport has positive aspects in terms of external principles shown on the left. However, there are no hills and slopes or surrounding buildings to protect its back, it is accepted as negative. The building is a water type building in a water type zone, which is positive in Feng Shui terms.
					

KANSAI INTERNATIONAL AIRPORT TERMINAL, JAPAN

Kansai International Airport has positive aspects in terms of external principles shown above. However, there are no hills and slopes or surrounding buildings to protect its back, which is not positive. On the other hand, the building is a water type building in a water type zone, which is positive in Feng Shui terms.

Table 44: Suntory Museum of Art

HILLS & SLOPES	BODIES OF WATER	ROADS & STREETS	PLOT SHAPE	BUILDING FORM	ADDITIONAL REMARKS
	NO NATURAL AND ARTIFICIAL BODIES OF WATER				Suntory Museum of Art has positive aspects in terms of external principles shown on the left. Although there are no hills and slopes, the existing surrounding buildings symbolize them and create the effect of protection. There are no natural and artificial bodies of water, but the roads around embraces building in a likely manner.
					

SUNTORY MUSEUM OF ART, JAPAN

Finally, in case of Suntory Museum of Art, although there are no hills and slopes, the existing surrounding buildings symbolize them and create the effect of protection. There are no natural and artificial bodies of water, but the roads around embraces building in a likely manner.

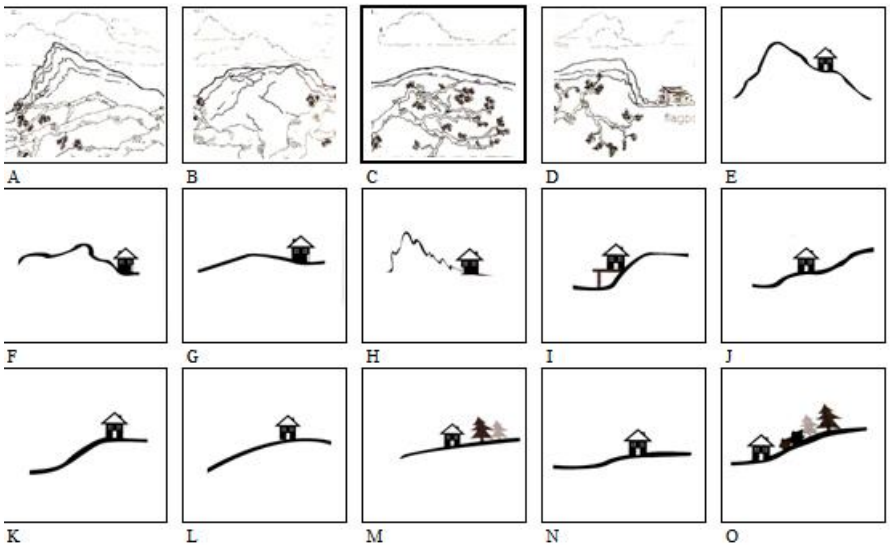
To sum up, a building is expected to follow the external principles of Feng Shui to attract chi within and has symbolic reflections of protection, security and solidity. When some of these principles are not maintained, then the harmony of function, building form and location is analyzed.

From another perspective, to compare the existing situation of all the buildings, positive and negative aspects of these external principles are also presented on tables separately Tables 45-59).

Briefly, in terms of hills and slopes, the feeling of security is significant. Hills and slopes that are gradually graded and embrace buildings symbolize security and accepted as positive. The hills and slopes should support the back of the house, in that sense, orientation of the doors carries importance. Existing vegetation is within the scope of analysis as well. The distance of the trees is significant. A balance should be maintained. Based on positive slope and hill formations (Table 45), Hong Kong and Shanghai Bank Headquarters, Bank of China, Waterside Building and City Hall show the same features shown by C below; Getty Center shows the feature shown by K; and Suntory Museum of Art shows the feature shown by A.

Table 45: Positive slope and hill formations

POSITIVE SLOPE FORMATIONS AND LOCATIONS ON SLOPES



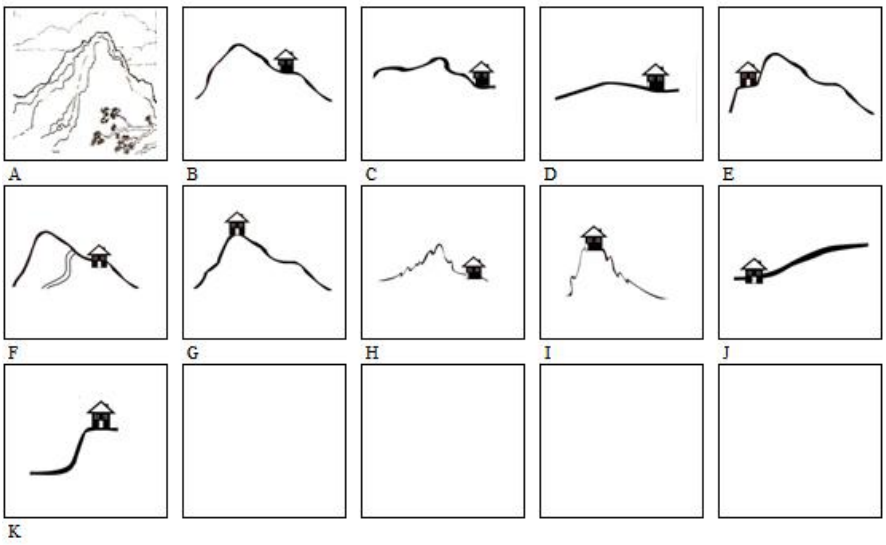
In terms of hills and slopes, the feeling of security is significant. Hills and slopes that are gradually graded and embrace buildings symbolize security and accepted as positive.
The hills and slopes should support the back of the house, in that sense, orientation of the doors carries importance.
Existing vegetation is within the scope of analysis as well.
The distance of the trees is significant.
A balance should be

During the external principles analysis of Feng Shui based on hills and slopes, it is found out that:
Hong Kong and Shanghai Bank Headquarters - Bank of China - Waterside Building - City Hall show the features of the slopes shown in **C**.
Getty Center show the features of the slopes shown in **K**.
Suntory Museum of Art show the features of the slopes shown in A. Although there are no hills and slopes around, the surrounding buildings symbolize the features of **A**.

Steep slopes conduct chi so quickly affecting in negative manner. Sharp edges, the feeling of falling-off, located on topography without any support at the back symbolize negative aspects. The orientation of doors is important as well, they should not face sharp edges. In this regard, Burj al Arab, The Kingdom Center, Sydney Opera House and Kansai International Airport do not have any hills and slopes at their immediate environment and listed on the negative slope and hill formations (Table 46).

Table 46: Negative slope and hill formations

NEGATIVE SLOPE FORMATIONS AND LOCATIONS ON SLOPES



Steep slopes conduct chi so quickly affecting in negative manner.
Sharp edges, the feeling of falling-off, located on a topography without any support at the back symbolize negative aspects.
The orientation of doors is important as well, they should not face sharp edges.

During the external principles analysis of Feng Shui based on hills and slopes, it is found out that:
None of the selected buildings have shown the features of negative hills and slopes formations.
Burj al Arab - The Kingdom Center - Sydney Opera House - Kansai International Airport do not have any hills and slopes at their immediate environment.

The distribution according to various examples is shown below (Table 47).

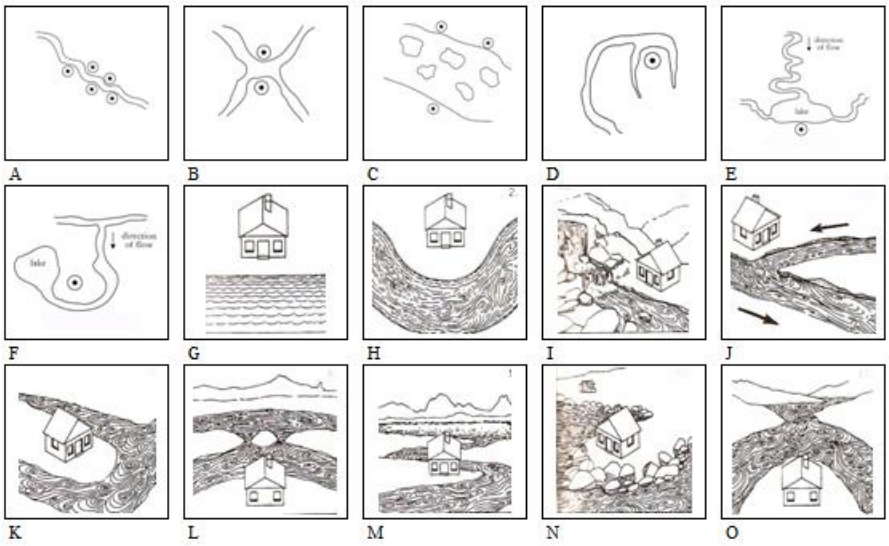
Table 47: Distribution on various hills and slopes

HILLS & SLOPES															
	A	B	C	D	E	F	G	H	I	J	K				NONE
HSBC			■												
BANK OF CHINA			■												
GETTY CENTER											■				
WATERSIDE BUILDING			■												
BURJ AL ARAB															■
CITY HALL			■												
KINGDOM CENTER															■
SYDNEY OPERA HOUSE															■
KANSAI INT. AIRPORT															■
SUNTORY MUSEUM OF ART	■														

In regards to positive formations of bodies of water, buildings located on a concave meandering river are very suitable. When river surrounds a building, it symbolizes a protection. The direction of water is significant as well. It should flow towards the building in a smooth manner. If a building has a body of water in front or faces a waterfall, it is accepted positive and symbolizes prosperity. Hong Kong and Shanghai Bank Headquarters and Bank of China show the features of the bodies of water shown in G below; Getty Center does not have any natural bodies of water within its site, however, there are artificial ponds and fountains; Waterside Building shows the features of the bodies of water shown in F; Burj al Arab and Kansai International Airport are located in the middle of a bay; City Hall shows the features of the bodies of water shown in A; and Sydney Opera House shows the features of the bodies of water shown in N (Table 48).

Table 48: Positive formations of bodies of water

POSITIVE BODIES OF WATER AND LOCATIONS AROUND



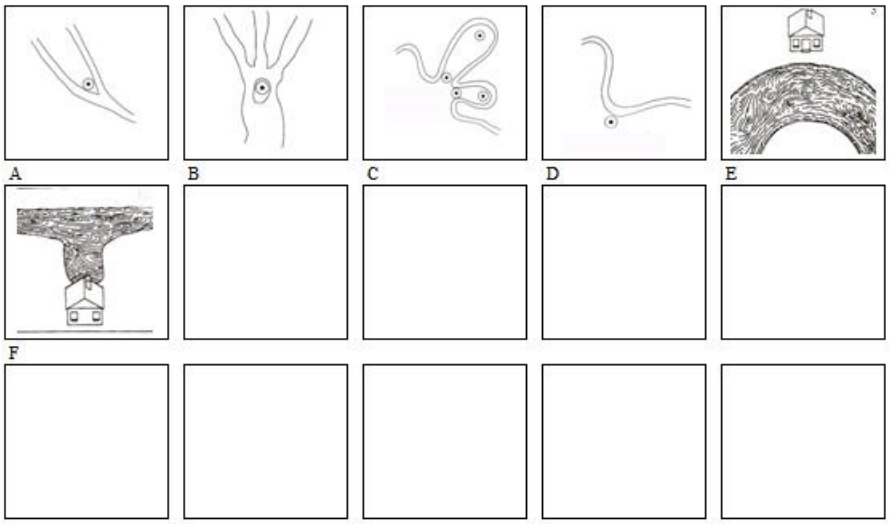
Buildings located on a concave meandering river is very suitable.
When river surrounds a building, it symbolizes a protection.
The direction of water is significant as well. It should flow towards the building in a smooth manner.
If a building has a body of water in front or faces a waterfall, it is accepted positive and symbolizes prosperity.

During the external principles analysis of Feng Shui based on bodies of water, it is found out that:
Hong Kong and Shanghai Bank Headquarters - Bank of China show the features of the bodies of water shown in **G.**
Getty Center does not have any natural bodies of water within its site, however, there are artificial ponds and fountains.
Waterside Building show the features of the bodies of water shown in **F.**
Burj al Arab - Kansai International Airport are located in the middle of a bay.
City Hall shows the features of the bodies of water shown in **A.**
Sydney Opera House shows the features of the bodies of water shown in **N.**

When a building is located around a body of water in such a way that it is squeezed by the arms, then it is accepted as negative. When the flow of water is away from a building, it is accepted as negative. If the building is located outside a concave shaped river, the inhabitants cannot get positive influence. The water element should embrace and surround a building. If the flow is fast, then the channeling of chi will be fast as well, so it is not accepted as positive. Regarding this, although none of the selected buildings have shown the features of negative formations of bodies of water, the Kingdom Center and Suntory Museum of Art do not have any bodies of water around their immediate environment (Table 49).

Table 49: Negative formations of bodies of water

NEGATIVE BODIES OF WATER AND LOCATIONS AROUND



When a building is located around a body of water in such a way that it is squeezed by the arms, then it is accepted as negative. When the flow of water is away from a building, it is accepted as negative. If the building is located outside a concave shaped river, the inhabitants cannot get positive influence. The water element should embrace and surround a building. If the flow is fast, then the channeling of chi will be fast as

During the external principles analysis of Feng Shui based on bodies of water, it is found out that:
None of the selected buildings have shown the features of negative bodies of water formations.
The Kingdom Center - Suntory Museum of Art do not have any bodies of water around their immediate environment.

The distribution according to various types of formations of bodies of water is shown below (Table 50).

Table 50: Distribution on various bodies of water

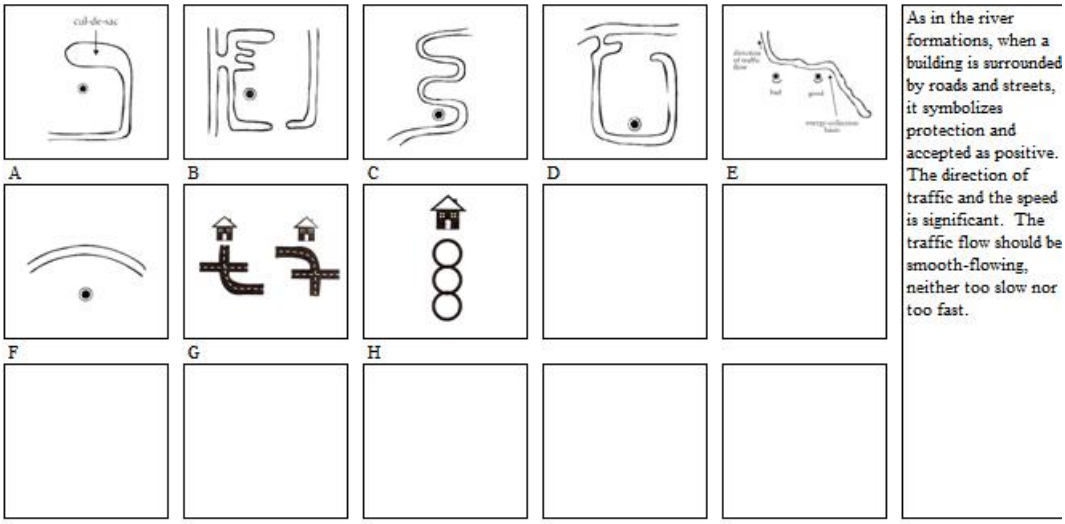
BODIES OF WATER																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	IN THE MIDDLE	NONE
HSBC								■								
BANK OF CHINA								■								
GETTY CENTER																■
WATERSIDE BUILDING							■									
BURJ AL ARAB															■	
CITY HALL	■															
KINGDOM CENTER																■
SYDNEY OPERA HOUSE														■		
KANSAI INT. AIRPORT															■	
SUNTORY MUSEUM OF ART																■

As in the river formations, when a building is surrounded by roads and streets, it symbolizes protection and accepted as positive. The direction of traffic and the speed is significant. The traffic flow should be smooth-flowing, neither too slow nor too fast. It is seen that Hong Kong and Shanghai Bank Headquarters shows the features of roads and streets shown in D below; Bank of China shows the features of roads and streets shown in E; Getty Center and Waterside Building

show the features of roads and streets shown in C; Burj al Arab, Sydney Opera House and Kansai International Airport show the features of roads and streets shown in G; City Hall and the Kingdom Center show the features of roads and streets shown in B; and Suntory Museum of Art shows the features of roads and streets shown in F (Table 51).

Table 51: Positive formations of roads and streets

POSITIVE ROADS AND LOCATIONS AROUND

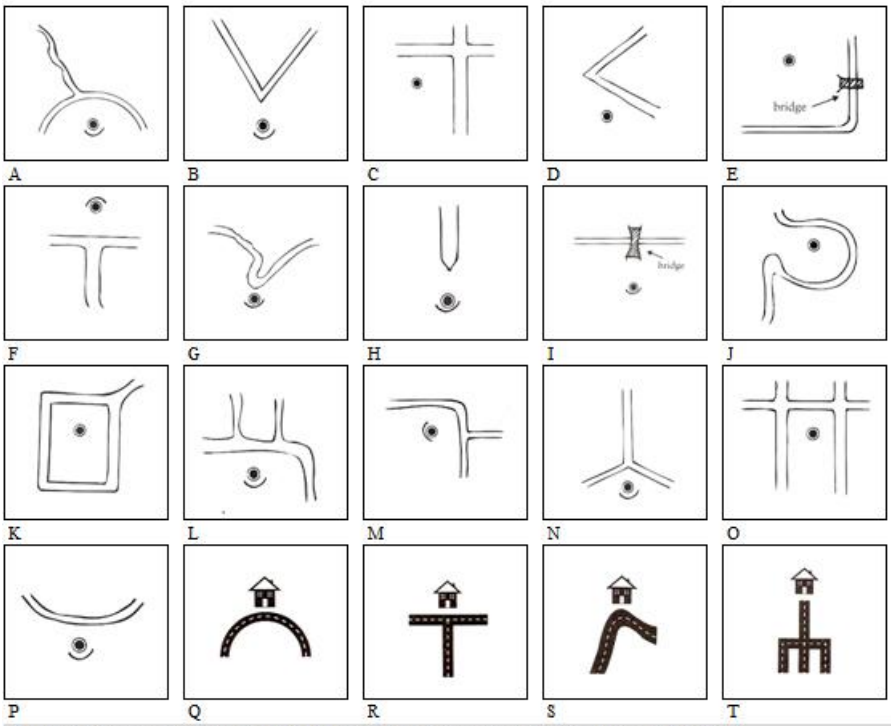


During the external principles analysis of Feng Shui based on roads and streets, it is found out that:
Hong Kong and Shanghai Bank Headquarters shows the features of roads and streets shown in **D.**
Bank of China shows the features of roads and streets shown in **E.**
Getty Center - Waterside Building show the features of roads and streets shown in **C.**
Burj al Arab - Sydney Opera House - Kansai International Airport show the features of roads and streets shown in **G.**
City Hall - the Kingdom Center show the features of roads and streets shown in **B.**
Suntory Museum of Art shows the features of roads and streets shown in **F.**

When there is a direct road coming towards a building as it is in a T-junction, it is accepted as negative. Such formations channel chi in a fast-flowing manner and are destructive. Sharp edges symbolize the feeling of cutting and destruction and accepted as negative. A building should not be surrounded by all sides to give the feeling of trapping. A dead end road should not face a building. It is seen that none of the selected buildings have shown the features of negative formations of roads and streets shown below (Table 52).

Table 52: Negative formations of roads and streets

NEGATIVE ROADS AND LOCATIONS AROUND



When there is a direct road coming towards a building as it is in a T-junction, it is accepted as negative. Because, such formations channel chi in a fast-flowing manner and is destructive. Sharp edges symbolize the feeling of cutting and destruction and accepted as negative. A building should not be surrounded by all sides to give the feeling of trapping. A dead end road should not face a building.

During the external principles analysis of Feng Shui based on roads and streets, it is found out that:
None of the selected buildings have shown the features of negative formations of roads and streets.

The distribution according to various types of formations of roads and streets is shown below (Table 53).

Table 53: Distribution on various formations of roads and streets

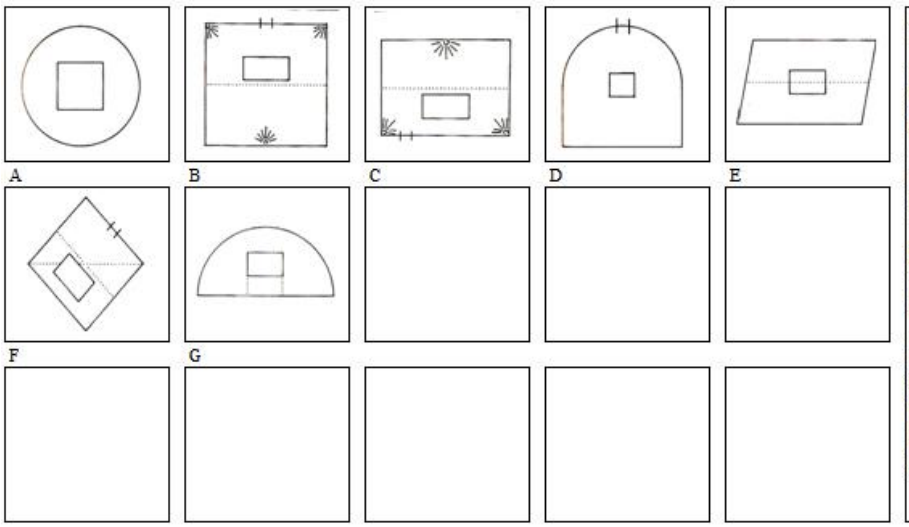
ROADS AND STREETS																
	A	B	C	D	E	F	G									NONE
HSBC				■												
BANK OF CHINA					■											
GETTY CENTER			■													
WATERSIDE BUILDING			■													
BURJ AL ARAB							■									
CITY HALL		■														
KINGDOM CENTER		■														
SYDNEY OPERA HOUSE							■									
KANSAI INT. AIRPORT							■									
SUNTORY MUSEUM OF ART						■										

A square, circular and rectangular plot is mainly the best plot shapes. The other plot shapes shown in this table do not have any missing sectors that make them accepted to be positive. The important aspect is to locate the building in the center and parallel to the sides of the plot, so that an opportunity of development and advance can be maintained. According to the principles regarding the plot

shapes, it is seen that Hong Kong and Shanghai Bank Headquarters and the Kingdom Center show the features of plot shape shown in B below; Bank of China, Waterside Building and Sydney Opera House show the features of plot shape shown in D; City Hall and Kansai International Airport show the features of plot shape shown in C; and Suntory Museum of Art shows the features of plot shape shown in G (Table 54).

Table 54: Positive plot shapes

POSITIVE PLOT SHAPE



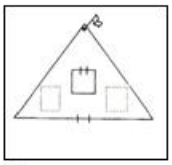
A square, circular and rectangular plot are mainly the best plot shapes.
The other plot shapes shown in this table do not have any missing sectors that make them accepted to be positive.
The important aspect is to locate the building in the center and parallel to the sides of the plot. So that an opportunity of development and advance can be maintained.

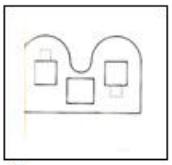
During the external principles analysis of Feng Shui based on plot shape, it is found out that:
Hong Kong and Shanghai Bank Headquarters - the Kingdom Center show the features of plot shape shown in **B.**
Bank of China - Waterside Building - Sydney Opera House show the features of plot shape shown in **D.**
City Hall - Kansai International Airport show the features of plot shape shown in **C.**
Suntory Museum of Art shows the features of plot shape shown in **G.**

In terms of negative plot shapes, when there are missing sectors, then a plot is accepted as negative. Also the existence of sharp sides and corners symbolize destruction and the feeling of being threatened and accepted as negative Burj al Arab shows the features of plot shape shown in A below (Table 55). However, the triangular plot does not have sharp edges and the building is located in balance to the plot.

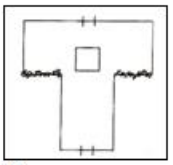
Table 55: Negative plot shapes

NEGATIVE PLOT SHAPE


A


B


C


D

When there are missing sectors, then a plot is acceted as negative. Also the existence of sharp sides and corners symbolize destruction and the feeling of being threatened and accepted as negative.

During the external principles analysis of Feng Shui based on plot shape, it is found out that:
Burj al Arab shows the features of plot shape shown in **A.** However, the triangular plot does not have sharp edges and the building is located in balance to the plot.

The distribution of various plot shapes is shown below (Table 56). On that table, Burj al Arab is shown as none, since it does not show positive features in terms of plot shapes.

Table 56: Distribution on various plot shapes

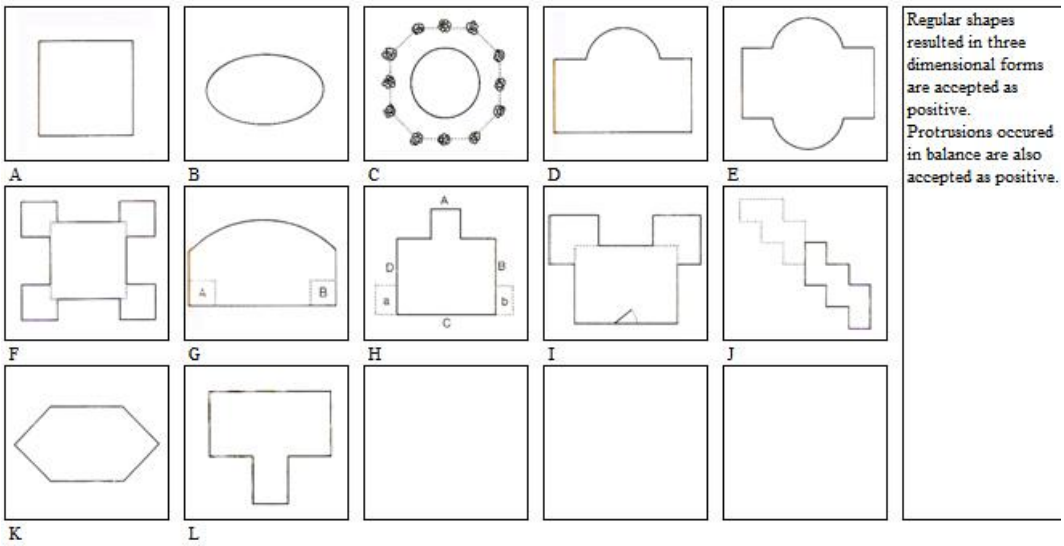
PLOT SHAPE																
	A	B	C	D	E	F	G									NONE
HSBC		■														
BANK OF CHINA				■												
GETTY CENTER							■									
WATERSIDE BUILDING				■												
BURJ AL ARAB																■
CITY HALL			■													
KINGDOM CENTER		■														
SYDNEY OPERA HOUSE				■												
KANSAI INT. AIRPORT			■													
SUNTORY MUSEUM OF ART							■									

Regular shapes resulted in three dimensional forms are accepted as positive. Protrusions occurred in balance are also accepted as positive. When positive building forms are concerned, it is seen that Hong Kong and Shanghai Bank Headquarters, Bank of China, the Kingdom Center, Kansai International Airport and Suntory Museum of Art show the features of building form shown in A

below; Burj al Arab shows the features of building form shown in B; and City Hall shows the features of building form shown in C (Table 57).

Table 57: Positive building form

POSITIVE BUILDING FORM

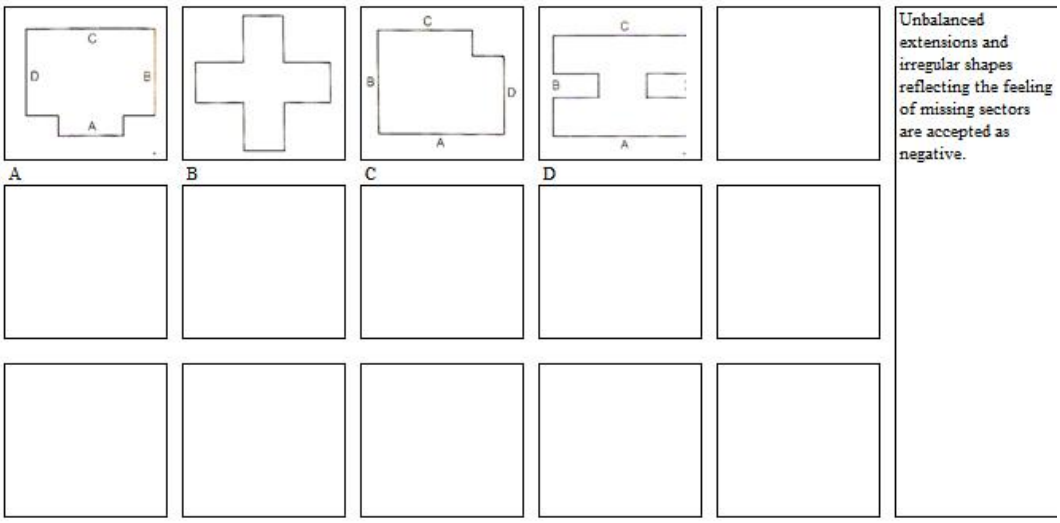


During the external principles analysis of Feng Shui based on building form, it is found out that:
Hong Kong and Shanghai Bank Headquarters - Bank of China - the Kingdom Center - Kansai International Airport - Suntory Museum of Art show the features of building form shown in **A.**
Burj al Arab shows the features of building form shown in **B.**
City Hall show the features of building form shown in **C.**

Unbalanced extensions and irregular shapes reflecting the feeling of missing sectors are accepted as negative. Getty Center, Waterside Building and Sydney Opera House are designed based on complex forms and are shown on negative building form table (Table 58).

Table 58: Negative building form

NEGATIVE BUILDING FORM



During the external principles analysis of Feng Shui based on building form, it is found out that:
Getty Center - Waterside Building - Sydney Opera House are designed based on complex forms.

The distribution on various building forms is indicated below (Table 59).

Table 59: Distribution on various building forms

BUILDING FORM																
	A	B	C	D	E	F	G									NONE
HSBC	■															
BANK OF CHINA	■															
GETTY CENTER																■
WATERSIDE BUILDING																■
BURJ AL ARAB		■														
CITY HALL			■													
KINGDOM CENTER	■															
SYDNEY OPERA HOUSE																■
KANSAI INT. AIRPORT	■															
SUNTORY MUSEUM OF ART	■															

Based on the distribution tables of external principles, the selected public buildings show differentiated features. None of the listed principles are expected to validate themselves for each and every building. However, since Feng Shui is a language of symbols, these external principles are intended to form a checklist achieving an ideal site for any building.

To evaluate the buildings, a group of criteria is formed with a scale based on suitability of external factors. Regarding this, the Hong Kong and Shanghai Bank, Bank of China, Getty Center, City Hall and Suntory Museum of Art are evaluated as "most suitable" for the well being of their inhabitants. The Waterside Building of British Airways, Burj Al Arab, Kingdom Center, Sydney Opera House and Kansai International Airport Terminal are evaluated as "suitable".

Table 60: Comparison of external factors

	EXTERNAL LAYOUT							
BUILDING	**HILLS & SLOPES**	**WATERWAYS & BODIES OF WATER**	**ROADS & STREETS**	**PATHWAYS & ENTRANCES**	**SURROUNDING BUILDINGS**	**PLOT SHAPES**	**BUILDING FORMS**	**CONCLUSION**
HSBC	SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	SUITABLE	MOST SUITABLE	MOST SUITABLE	**MOST SUITABLE**
BANK OF CHINA	SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	SUITABLE	MOST SUITABLE	MOST SUITABLE	**MOST SUITABLE**
GETTY CENTER	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	SUITABLE	MOST SUITABLE	LESS SUITABLE	**MOST SUITABLE**
WATERSIDE BUILDING	SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	SUITABLE	MOST SUITABLE	LESS SUITABLE	**SUITABLE**
BURJ AL ARAB	LESS SUITABLE	SUITABLE	MOST SUITABLE	MOST SUITABLE	LESS SUITABLE	SUITABLE	SUITABLE	**SUITABLE**
CITY HALL	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	**MOST SUITABLE**
KINGDOM CENTER	LESS SUITABLE	LESS SUITABLE	SUITABLE	MOST SUITABLE	LESS SUITABLE	MOST SUITABLE	MOST SUITABLE	**SUITABLE**
SYDNEY OPERA HOUSE	LESS SUITABLE	SUITABLE	MOST SUITABLE	MOST SUITABLE	SUITABLE	MOST SUITABLE	SUITABLE	**SUITABLE**
KANSAI AIRPORT	LESS SUITABLE	SUITABLE	LESS SUITABLE	MOST SUITABLE	LESS SUITABLE	MOST SUITABLE	MOST SUITABLE	**SUITABLE**
SUNTORY MUSEUM OF ART	MOST SUITABLE	SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	**MOST SUITABLE**

On the other hand, a group of criteria is formed for the internal factors as well and as a result of the evaluations undertaken for each and every selected building within this study, the outcome is resulted as "most suitable".

Table 61: Comparison of internal factors

	INTERNAL LAYOUT					
BUILDING	**CEILINGS**	**COLUMNS & BEAMS**	**STAIRS**	**CORNERS**	**DOORS & WINDOWS**	**CONCLUSION**
HSBC	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	**MOST SUITABLE**
BANK OF CHINA	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	SUITABLE	MOST SUITABLE	**MOST SUITABLE**
GETTY CENTER	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	SUITABLE	MOST SUITABLE	**MOST SUITABLE**
WATERSIDE BUILDING	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	**MOST SUITABLE**
BURJ AL ARAB	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	**MOST SUITABLE**
CITY HALL	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	**MOST SUITABLE**
KINGDOM CENTER	MOST SUITABLE	SUITABLE	MOST SUITABLE	SUITABLE	MOST SUITABLE	**MOST SUITABLE**
SYDNEY OPERA HOUSE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	**MOST SUITABLE**
KANSAI AIRPORT	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	**MOST SUITABLE**
SUNTORY MUSEUM OF ART	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	MOST SUITABLE	**MOST SUITABLE**

Within this perspective, this PhD study aims at contributing the enhancement of quality of living.

5.2 Deduction

To sum up this study, the product of architecture is the result of philosophy. Based on the accumulation of knowledge and experience, the ancestors of human beings have formed values and a language of symbols to feel well. Throughout time, they have searched about universe, nature and the place of human being. Within this perspective, a philosophical quest has been undertaken to create a better understanding of human well being. By this way, it is aimed at forming a way of analysis based on external factors of an immediate environment.

This study also aims at pointing out the place of architecture in the evolution of philosophy by considering the relation of nature and human through the philosophers' eyes. In this regard, philosophers were interpreted in the west and in the east while emphasizing the philosophy and practice of Feng Shui.

In the philosophy of Feng Shui, space is a form of place determination in search of designating "outside" and forming "inside." Spaces are formed by internalizing the external or the *open*, and as a result of the thought of being outside. As such, throughout the whole process of the formation of spaces, humans are in search of well being.

Socrates questioned how humans ought to live, while Aristotle raised questions regarding the nature of humans and the aim of life, which is defined as happiness. In the meantime, a specific difference between humans and other animals was determined. By this notion of Aristotle, humans were claimed as significant beings in nature and should be protected from nature, which brought about the necessity of being inside. This fundamental need of forming spaces separated humanity from nature. However, as Giorgio Agamben suggests that in the concept of a "happy life," which is the aim of life no separation between humanity and its natural environment is possible. Regarding this discourse of Agamben's and depending on Leibniz's monadology, there is an undividable unity in the universe as in the philosophy of Feng Shui and its concept of yin and yang, where internal and external unify each other. Under the light of this holistic perspective, when a human perceives nature, nature perceives the human, as well. In the discourse of Giordano Bruno's *natura naturans*, nature creates nature in unity and humans are part of this unity as in the philosophy of Feng Shui. Therefore, humans can achieve happiness and well being by being in harmony with nature. Feng Shui, in that respect, relates architecture to built environment.

On the other hand, Feng Shui has a set of principles. These principles were described in detail and later it is shown how Feng Shui with such principles can

be applied to allow channeling chi within buildings for enhancing quality of living. Consequently, when these principles of Feng Shui are applied in a unique and comprehensive system to select propitious sites build harmonious structures on them and arrange spaces, well being and quality of life are achieved.

Aristotle once said that every ideal has a natural basis, and everything natural has an ideal development; whereas Bacon added that nature cannot be commanded except by being obeyed. Regarding these, it is seen that human and nature are unified as Bruno stated "all things are one". Through this perspective, it is obvious that all the aspects necessary for living including nature and man-made buildings should not be interpreted separately. Additionally, there is no need of separating the philosophies as west and east. Because, achieving a happy life and living well lie on the holistic view of life.

Philosophers are always in search of the nature of the universe and human whose aim of life is defined as happiness. This Ph.D. study, in that sense, reveals the discourses of philosophers in order to achieve happiness through well being and quality of life. In a likely manner, the notion of living well is interpreted in terms of the philosophy of Feng Shui, where humanity and its environment are closely related.

Within this aspect, the architecture that is created plays an important role in achieving a quality of life. Therefore, architecture is expected to prominently serve one's well being. Feng Shui, on the other hand, relates architecture to the built environment, where well being is achieved through the flow of chi and by being in harmony with nature.

The world is in continuous evolution. Within this evolution, lifestyles of humans, and therefore, spaces are change. Given this point, the holistic perspective of the philosophy of Feng Shui unifies humanity and nature. Throughout this study, the meaning of Feng Shui is revealed by bonding philosophy with the architecture created based on previous studies. In terms of defining spaces in the changing world, breathable, transformable and reconfigurable large spaces that can be shaped by their inhabitants are suggested; where the flow of chi can be sustained as it is in the philosophy of Feng Shui.

This study aims at improving the understanding of Feng Shui to light a way for a holistic perspective of humanity and nature, which is the most important aspect to achieving well being. There is a need to establish a connection between Feng Shui and architecture to enhance the quality of life. Therefore, this Ph.D. study contributes to the field by bringing an awareness of Feng Shui and interpreting living well as a result of architecture in terms of philosophy.

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