WIND/ WATER/ ARCHITECTURE

风水建筑

FENGSHUI AS AN ARCHITECTURAL THEORY

SAMPSA LEHTINEN, MASTER'S THESIS

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ABSTRACT

TAMPERE UNIVERSITY
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Wind/Water/Architecture : Fengshui as an Architectural Theory

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Fengshui, literally "wind-water," is an ancient Chinese philosophy and art of placement – an act of finding and creating auspicious places for harmonious living with the earth. Wind/Water/Architecture utilizes this pre-historic knowledge of classical fengshui, and applies it for finding inherent human preferences regarding the built environment. Western societies have been dissatisfied with their surroundings for a large part of modern history, and this thesis argues that the fault starts with overlooking these primary preferences of human beings.

Fengshui manuals are among the oldest available writings for pleasant and proper dwellings, and therefore they also offer the possibility to question our current building habits. Due to being rooted back to thousands of years in history, classical fengshui does have the potential to reveal a part of humans' primary needs of architecture. These original fengshui principles are therefore compared with works of western literates and architects, to reason them out by examining the intersection of these two different thought systems.

The beginning of this thesis consists of an introduction to the basic knowledge required for a comprehensive understanding of the topic; Fengshui's definition, history, and its elementary ideology, as well as the Western architectural theories, and their similar worldview with fengshui. In the second section, three major theories of ancient Chinese metaphysics are described and compared briefly with various Western philosophical and architectural writings. Understanding these elements is necessary to comprehend the last section's principles. This part undergoes the practical features of fengshui, and evaluates them on creating a universally pleasant architecture.

The findings show certain features of the built environment that have either lost or ignored due to the ideological changes of modern times. They are largely based on the masculinity and dismissive attitude towards the nature in contemporary thought systems, which inevitably have led to monotonous and uncomfortable built environments. Therefore, architects need to re-evaluate their approach of their works towards something that fengshui advocates.

TIIVISTELMÄ

TAMPEREEN YLIOPISTO
Arkkitehtuurin koulutusohjelma

Lehtinen, Sampsa
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Fengshui, kirjaimellisesti “tuuli vesi”, on muinainen kiinalainen filosofia ja sijoittamisen taide, hyväenteisen ja otollisen paikan löytämiseksi ja takaamiseksi. Wind/Water/Architecture hyödyntää tätä klassisen fengshuin muinaista tietotaitoa, löytääkseen ihmisen luontaisia mieltymyksiä koskien rakennettua ympäristöä. Länsimaiset ihmiset ovat olleet valtaosan modernista ajasta tyytymättömiä ympäristönsä laatuun, ja tämä diplomityö esittää syyksi mainittujen esiaikaisten tarpeiden ylenkatsomisen.

Fengshui käsikirjat ovat maailman vanhimpia vielä käytettävissä olevia teoksia koskien miellyttävää ja laadukasta asumista, jonka myötä se myös tarjoaa mahdollisuuden nykyisten rakennustapojen kriittiseen tarkasteluun. Vuosituhansia vanhana oppina, klassinen fengshui täten sisältää mahdollisuuden osoittaa ihmislajin sisäisiä arkkitehtuurisia tarpeita. Vertaamalla näitä alkuperäisiä fengshui-periaatteita arvostettujen länsimaisten kirjoittajien ja arkkitehtien teoksiin, kyetään löytämään päällekkäisyyksiä, jotka perustelevat näiden prinsiippien tarpeellisuuden.

Tämä teos alkaa johdannolla aiheen perustietoihin, joihin sisältyy fengshuin määrittely, historia sekä taustat, kuten myös länsimaisen arkkitehtuuriteorian ja luonnonsuojelun vertaaminen tutkimusaiheeseen. Toinen osa perustuu muutamien muinaiskiinalaisten metafyysisten elementtien tarkasteluun ja vertaamiseen mainittuihin länsimaisiin teoksiin. Näiden käsitteiden tiedostaminen, sekä ymmärtäminen on välttämätöntä kolmannen osion käsittelyn kannalta. Tämä viimeinen osuus osoittaa fengshui käytännölliset piirteet, joita arvotetaan niiden yleispätevyyden mukaan, miellyttävän ympäristön luomisessa.

Työn tulokset osoittavat tiettyjä unohdettuja, kadotettuja tai hylättyjä periaatteita, jotka johtuvat modernismin aiheuttamasta ajatusmaailman muutoksesta. Nämä periaatteet pohjautuvat merkittävästi nykyarkkitehtuurin maskuliinisuuteen sekä vähättelevään asenteeseen luontoa kohtaan, joka on johtanut väistämättä yksitoikkoisen ja epäviihtyisän rakennetun ympäristön luomiseen. Täten arkkitehtien tarvitsee uudelleen arvioida omia periaatteitaan kohti fengshuin esittämiä ajatusmalleja.

摘要

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风/水/建筑：建筑理论中的风水

硕士论文，101页，2019年10月
关键词：风水 建筑 建筑理论 亚洲 和谐共生

风水，是一门古老的中国哲学和方位艺术，旨在选择、布局适宜的方位，实现人与自然的和谐共生。本文利用古典风水这一门历史久远的学识，着眼于人类基因深处的人性表现，以实现创造出更宜居的人造环境，同时指出正因为当代西方建筑设计上没有立足于以人为本，错误地忽视了人性的本能需求，从而造成了长期以来大众对身边的建筑环境的强烈不满。

本文以现存的大量如何找出和建造宜居环境的相关风水古典著作为参考，利用风水原理，对照当代建筑习惯，找到当代的问题所在。由于风水有着数千年的历史，古典风水被认为有可能用于揭示部分人内在对建筑设计的需求，于是本文通过比较风水的基本原理以及西方学者、建筑师的著作，找出这两个不同思想体系的交汇点，从而究明出具体的需求。

本文开篇部分介绍了基础的风水知识，以更好地进入对该话题的理解。综述风水的定义、历史以及基本思想理论，同时也比较介绍了西方的建筑理论以及其中与风水相似的部分世界观。第二部分，详述了中国传统上三个主要的形而上学的理论，并简要地与多个西方哲学、建筑学进行对照研究。
为了更好阐述下文的主旨，必须理解这些基本原理。第三部分，阐述了风水原理的实际应用，并评估这些原理在设计宜居的建筑上的普遍适用性。

本文指出，随着当代人思想变化，建筑设计变得过于生硬，且缺乏对自然环境的尊重，部分风水所强调的特性被遗弃。这使得当代的人造环境不可避免地走向了单调伐陈又令人不适。此外，建筑师还需重新审视个人在设计作品是否体现了风水所提倡的理念。

WRITER'S CHOICES

Due to the lack of all-encompassing words on English language for the ambiguous terms of Chinese philosophies, I take the freedom to use the pinyin transliteration of the most frequent and widely known Chinese words, such as fengshui, *yin-yang*, and *qi*. Especially as they are increasingly becoming into popular consciousness, I see it better to use them as is. While the Pinyin system, on the other hand, is becoming a common standard for romanization, and thus replacing older Wade-Giles system.

Chinese characters will be written together when forming a "whole," meaning, a word. I.e., characters fēng (風) and shuǐ (水), will be written as "fengshui." Also, all the Romanized Chinese characters, excluding the fengshui, will be written on cursive to distinguish them from the English language further.

When used for the first time in the text, all of the Chinese words are written in Chinese characters and tonal pinyin in the references, to further clarify their meaning. Both simplified and traditional characters will be provided, under C.simpl.: and C.trad.: respectively. If the character(s) is the same for both styles, C. alone implies for "Chinese."

Only larger terms, such as book titles, and different practices of fengshui (e.g., the "Book of Burial," or the "Form School approach"), will be mainly using the standard English translations, to be easier remembered for the non-Chinese reading audience. These words also will be capitalized, which is a common standard to distinguish them being a specific system – i.e., the Five Elements the theory, and not five (5) elements in general.

In citations, a modified Harvard Referencing System will be used, where a page number is also provided after the name and the year. A character "&" separates two writers from each other, and when more, only the first is mentioned with et al. As an example: (Colomiina & Wigley 2018, 236). If two citations are related to the same work back to back, the second brackets will provide only the page number.

Lastly, compass point directions are oriented accordingly with the northern hemisphere, as how the Chinese fengshui classics have written as well.

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The train ride I take to my home town goes by several lakes, ponds, streams, rapids, and a river, and they always seem to catch many of the travelers' eyes – at least the ones who are sitting on the window seats. By the most extensive waters, there are hilly islands and small mountains on the horizon. Seeing such a view takes one into dreaming, without even noticing. Why has this sight so much feeling when most of the city streets are usually far from making one forget the present for its graciousness? Sure, individual architectural masterpieces can be spectacular, but in this lake scenery, nothing exact catches one's eyes, like that built art-piece does. Instead, the whole is what glues one's eyes on to itself. Maybe a bird goes by, or a small boat, but it is mostly nothing too definite.

One sees a summer cottage further on the horizon. It is one of the many that Finns build by the countless lakes of this country. This house, like most, is built a little further inland. Though this is what the building laws require, I want to believe that that is how people would genuinely want to do it regardless. Protected by the surrounding trees, but still having a view over the lake seems like an ideal place to spend any day.

However, why do people act against this instinct? Or is there an instinct in the first place, as it is with animals? Moreover, if we do, does this mean by building parks with little to no trees? By selling single room apartments facing north? By using a monotonous material palette? Or by paving most of the unbuilt land?

I might get lost on questioning the current built environments when seeing the peace and the gracefulness of nature – the part of it not excessively touched by humans. I wish people, and especially architects, would start listening for their inner user – the little Neolithic "me" who is still living in everyone's genes – instead of trying to set everything on paved rectangular grids and lines, with efficiency or a temporary art message in mind...

A sudden dive into the forest, obscures the scene, and shakes the dreamer awake.

I would like to take this chance to thank my mentor Pekka Passinmäki, for guiding with the general form, and giving helpful insights, thoughts, and ideas for further developing this thesis.

Thanks to my family. My parents, Elisa and Matti, and my sisters, Pauliina, Miisa, and especially Noora who mentored me to get into the School of Architecture.

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别 依 惆 忍 其
辋 迟 怅 别 如
川 动 出 青 绿
别 车 松 山 水
业 马 萝 去 何

"At last I put my carriage in motion
Go sadly out from the ivied pines
Can I bear to leave these blue hills?
And the green stream - what of that?"

On Leaving the Wang River Retreat
-- Wang Wei (699-761)

CONTENTS

TERMS

A list of commonly used Chinese terms relating to fengshui.

Pinyin	C.	Wade-Giles	Explanation
Bāguà	八卦	Pa Kua	Eight Trigrams
dào	道	Tao	The Way
Dào dé jīng	道德经	Tao Te Ching	The Classic of the Way's Virtue(s), by Lao Zi (ca. 900-500 BCE)
dìlǐ	地理	Ti Li	Geography
fēngshuǐ	风水	Feng Shui	"Wind" and "water"
Guō Pú	郭璞	Kuo P'u	Author of The Book of Burial (CE 276 – 324)
Hàncháo	漢朝	Han	Hand Dynasty 206 BCE – CE 221
Huángdì zhái jīng	黃帝宅經	Huang Ti Chai Ching	Yellow Emperor's Classic of House Siting by Wang Wei (CE 699–761)
Jìncháo	晉朝	Chin Chao	Jin Dynasty
kānyú	堪輿	K'an Yü	Observe the heaven and investigate the earth. An early version of fengshui.
Lǎo Zǐ	老子	Lao Tzu	Founder of Daoism
Lǐfǎ	理法	Li Fa	School of Compass
lóng	龍	Lung	Dragon
luòshū	洛書	Lo Shu	A magic square of order
luópán	羅盤	Lo A'an	Fegnshui Compass
Chuán shuǐ lóng jīng	傳水龍經	Ch'uan Shui Lung Ching	the Secretly Passed Down Water Dragon Classic.
míngtáng	明堂	Ming T'ang	Bright Court
nán jiě èrshísì piān	難解二十四篇	Nan Chieh Erh Shih Ssu P'ien	Twenty Four Difficult Problems. A fengshui classic
qì	氣	Ch'i	Natural breath or energy
Qíncháo	秦朝	Ch'in Chao	Qin Dynasty
shā	砂	Sha	Sand
shāqì	煞氣	Sha Ch'i	Deadly energy. A one of the forms of *qi*.
shēngqì	生氣	Sheng Chi	Living energy

shuǐ	水	Shui	Water
Sòngcháo	宋朝	Sung	Song Dynasty, CE 960-1279
tàijí	太極	T'ai Chi	"Supreme Ultimate" or "Greate Absolute"
wǔ xíng	五行	Wu Chi	Five Elements
xiàng	向	Hsiang	Driection or forward
xiāng zhái	相宅	Hisnag Chai	House examination
Xíngfǎ	形法	Hsing Fa	Form School
xué	穴	Hsüeh	Cave or node
yáng	陽	Yang	Opposite of Yin-energy; Positive or Male
yángzhái	陽宅	Yang Zhai	"Yang" Dwelling for the alive
Yìjīng	易經	I Ching	The Book of Changes, author unknown(ca. 900-500 BCE)
yīn	陰	Yin	Opposte of Yang; Negative or Female
yīnyáng	陰陽	Yin Yang	Duality theory of the positive and negative energy
yīnzhái	陰宅	Yin Chai	"Yin" Dwelling for the dead
Zàngjīng	葬經	Tsang Ching	The Classic of Burial, author unknown
Zàngshū	葬書	Tsang Shu	Book of Burial by Guo Pu
Zhōu zhāo	周朝	Chou Chao	Zhou Dynasty (ca. 510–314 BCE)

I

Introduction

1.1 Fengshui

Fengshui is an ancient environmental knowledge that evolved from Chinese philosophy (Mak & So 2015, 16). While the origins of fengshui are from "the oriental human consciousness and attitude toward nature and natural landscapes" (Bruun 2011, 222), it later developed into a belief of finding an auspicious site for the alive and the dead, that provides various positive effects, such as prosperity, happiness, and wealth.

However, with logical reasoning, it seems impossible that optimal location and surroundings, let alone the location of deceased, can solely control the luck, success, health, or any other things. While architecture and environment certainly affect them at least on a subconscious level, describing them being responsible for the complete happiness of humankind is rather absurd. Undoubtedly architecture do affect our satisfaction at some levels (De Botton 2008, 25), but such extreme statements are sometimes still strongly made by not only fengshui practitioners but also by architects. Perhaps the most famous example of such is the Lovell Health House by Richard Neutra (Figure 1.1), who saw architecture as a "branch of preventive medicine" (Colomina & Wigley 2018, 173). After all, the quality of architecture is still a significant factor in a comfortable being and mere pleasure (Nyman 2008, 277), in which elementary fengshui principles might be a part of. Especially if we acknowledge that this factor is dependent on the scale of how humans recognize their species' ecology coming true in their surroundings (Nyman 2008, 279).

Naturally, a bad fengshui, on the other hand, is often blamed for being the cause of any negativity in life, as likely all of the fengshui Classics uses examples of misfortune caused by adverse conditions. This, of course, seems quite naïve action of moving responsibility to invisible matters or merely for not knowing better. After all, one should not blame their buildings for misfortune or failure, on something that the construction can only subtly proffer (De Botton 2008, 20). However, this tradition should not be understood as a flaw of fengshui itself, but rather its system for allowing the practitioners to create their own sub-theories. A famous scholar Lü Cai, who worked for the emperor Taizong (reigned 626-649 CE), critiqued this strongly, as he states: "The diviners cheat them [citizens] by making up tales about fortunes of disasters they are going to experience, leading these ignorant folk feel themselves lucky." (Bruun 2008, 24) He also wanted to highlight that this was not the primary means of fengshui in the first place.

Therefore, regardless of this bold advertising method or a belief, we still also have to keep in mind that it alone does not make the actual practice any more irrational. Fengshui, as any other classical Chinese philosophy (Capra 1983, 114-115), is extremely rich in suggestive images when explained, but in reality, a certain logic lies behind it (Bruun 2008, 86). We should not let the mysterious style of explanations of fengshui to fool us, as the Asian philosophies must use this kind of language to be able to explain the contradictory world of nature and describe the experienced life (Capra 1983, 46). Therefore, even the author of the *Archetypal Burial Classic of Qing Wu* pardoned for the used language, when explaining something so vague and unperceivable as *qi* energy, as he apologizes: "It is simply that my humble investigations are difficult to put into words." (Paton 2013, 114) According to Fritjof Capra, a PhD of theoretical physics, modern scientists are as well turning to these East-Asian philosophies to be able to explain the paradoxical nature of quantum mechanics and the theory of relativity (Capra 1989, 58). Meanwhile, according to Ole Bruun, an Associate Professor from Roskilde University, numerous prominent writers have noted a return to "reason" as opposed to technical rationality (Bruun 2008, 5). A rising need for new perspectives that allow unity, and the general orientation towards de-secularization, are all common themes in contemporary writings.

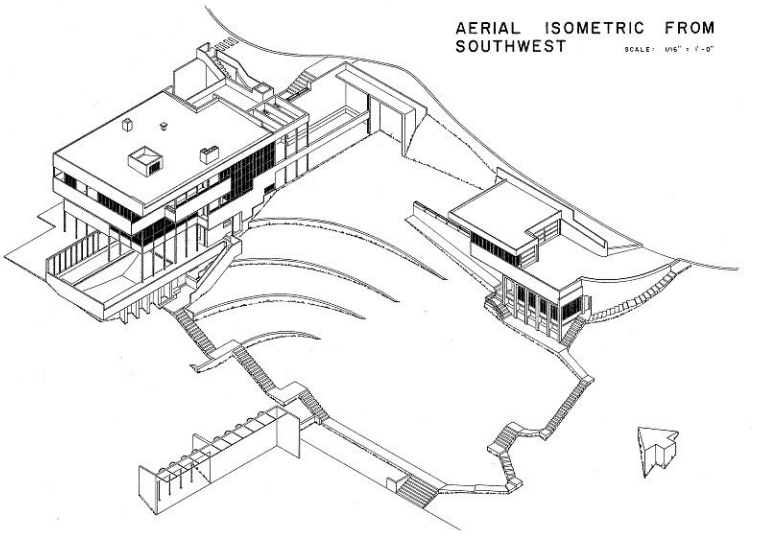

Figure 1.1: Many architects during the change to the modern era (especially the figurehead, Le Corbusier), believed that the clean, hygienic environment of well-thought buildings can, by nature, make people healthy.
Modified image of the isometric HABS drawing for the Lovell Health House, by Richard Neutra, 1936.

Therefore, modern physics' approach for exaplaining the phenomenons of the invisible life, is now alike with the east-Asian philosophies. Furthermore, awarded thinkers in general, are now turning away from the cold rationality, that have been dominated the Western thought systems through the modern times. This shows us how also the Daoist fengshui principles could still be valid and used today, and its possibility for revealing some universal and primitive human preferences. Especially as will be shown throughout this thesis, there is certain overlapping with fengshui and practically opposite culture (Bruun 2008, 4) of Western thought systems.

One of the popular takings from modern readers of fengshui is the understanding of nature. Although the question, whether fengshui genuinely truly is based on respect of nature, or is it merely more of a knowledge of survival and human-centric attitude for comfortable living, is a widely debatable topic. But everyone with knowledge of its principles assumedly does agree that fengshui does recognize the beauty of nature and luxurious environment. While it does not reach the level of Emerson's transcendentalism, where beauty is derived purely from nature, but for this reason, it is also possible to be used in an urban environment as well. While it could be considered as ecosophy[1], which is similarly based on "ecological harmony" (Naess 2008, vii), this term could be misleading mainly due to the lack of strict nature protecting principles in fengshui.

Therefore, rather than overemphasizing the nature's role in fengshui, and considering it as a philosophy for "living in nature," it more should be understood as a study of noticing the effect of our surroundings on us, and the meaning of having a balance between nature's elements among the built environment. As in a vast and abstracted sense, fengshui is solely for a balance of *yin* and *yang*, two opposing elements of Chinese metaphysics, and through this, it suggests of having that balance also between man and nature, where both have equal importance. As we arguably lack the presence of nature in our modern built environments, the fengshui principles might thus seem like a system of "design by nature". Yet, one could argue that in the end, its aim is on creating places which a person instinctively sense pleasant – and thus it becomes, even more, a humancentric philosophy, than a nature protecting one.

[1] The term Ecosophy or Ecophilosophy derives from the word ecology, "the study of interrelationships", and sophia, meaning "wisdom".(Naess 2008, vii). Conceived by the French post-structuralist philosopher and psychoanalyst Félix Guattari and the Norwegian philosopher of deep ecology, Arne Næss.

Scholars, academics, fengshui masters, and many more have tried throughout history to put the fundamental ideas of fengshui into one sentence or just a word. Some are naturally succeeding in it better than others, but as the contemporary thought of fengshui is rather complex, typically these summaries leave something out or at least make the philosophy appear different from its whole means. But nevertheless, few of them can still give a rather good first idea, with the use of just a few words.

One of the earliest tries of a western mind was by Dutch scholar of sinology and missionary Dr. Jan Jakob M. de Groot, in his book *The Religious System of China*: "fung shui or »wind and water system", [...] purports to bring the good influences of the climate and the waters of the universe over the tombs." (De Groot 1892) Although his work is valuable as being one of the first and only Western works of fengshui from the 19th century[2], and therefore from China's imperial era, the given view of fengshui is only burial based and leaving out the importance of mountains, which has one of the most significant meanings in the fengshui practice. Thus, it is not giving a complete picture.

A better example could be from Dr. Stephen Skinner, as he noted in *The Living Earth Manual*: "The art of living in harmony with the land, and deriving the greatest benefit, peace, and prosperity from being in the right place at the right time is called feng-shui." (Skinner 1989, 5) This somewhat open and general explanation does not only emphasize the philosophy of fengshui affecting peoples' quality of lives, and the importance of living in symbiosis with the heaven and earth, it also notes the essential Daoist ever-changing cycle of the universe.

All-encompassing explanations, as shown above, does not appear widely in the old fengshui classics. This might be due to the abstract writing style or rhetorics caused by orality in ancient Chinese texts (Redmond 2017, 40), but time to time, specific vital ideas are expressed rather strongly, such as stated in the work *Twenty Four Difficult Problems*, on the reply to PROBLEM 1: "The distribution of the amounts of basic elements [should not be] unequal. The nature of mountains and rivers is also like this. Understand

[2] One of the earliest writings being by Baptist Christian missionary, Matthew Tyson Yates' book: *The Chinese Recorder and Missionary Journal*, 1868. German Protestant and missionary Ernest Johann Eitel and his work *FENG-SHUI: The rudiments of Natural Science in China*, 1873, is as well still used today as an insight of fengshui practice from the imperial times (Yoon, 2008, p.9). Other noted earliest researchers include at least: James George Frazer, David Émile Durkheim, Marcel Mauss, and Max Weber (Bruun 2011, 10-11)

this and the true and false can be distinguished, the large and small differentiated and the auspicious and inauspicious determined." (Paton 2008, 162) Thus, according to the classic, having the basic elements in the same quantities (and thus in harmony), prosperity will derive. Assuming the elements are referring to the *yin-yang* theory, as the reply refers to oppositions through the whole answer, we can understand the importance of the underlying ideology of this dualistic theory on fengshui practice.

However, as a word, fengshui is straightly derived from the pronunciation of the Chinese equivalent 风水, trying to give it a western meaning or overall usable English word has risen much debate as well. The most common and the oldest used translation for fengshui is "geomancy" – A term initially adopted by the Western Writers of the 19th century (Mak & So 2015, 30). But as the general meaning of this term derives from European and Islamic cultures, and having the definition of "divination from the configuration of a handful of earth or random dots" (Paton 2013, 47-48), it gives fengshui a somewhat religious meaning, which many academics do not see acceptable (e.g. Feuchtwang in Bruun 2011, ix). However, many researchers have still stayed with the word for simplicity, or for not emphasizing fengshui being only a Chinese system, but instead that it is used overall in east-Asia (e.g. Yoon, 2008). Nevertheless, there have been suggestions. For example, Skinner wants to point out the difference between "divinatory" and "telluric"[3] geomancy, where fengshui would belong to the latter category (Bruun 2011, xiii). Some suggestions try to step away from the geomancy altogether and be rather contemporary, such as Steve J. Bennett's "astro-ecology" or "siting theory" (Bennett 1978, 2). However, though he argues well, especially for the siting theory, he has got critic for the first one being somewhat limiting while the latter being too "geographical" (Skinner 1989, xii). Other famous words include for example Stephen Feuchtwangs "topomancy" (Bruun 2011, xiii), St1even J. Bennet's "topographical siting" or just "siting" for short (Paton 2013, 45), and Michael John Paton's "Chinese spiritual geography" (p.48).

But as fengshui has been growing into a common knowledge around the world, and especially in the west, it is only less confusing to use the word fengshui as is, directly. Although it is valuable to note that even in China the term has been varied throughout history and users[4]. Today

[3]Telluric: (1) Relating to the earth: terrestrial, (2) Being or relating to a usually natural electric current flowing near the earth's surface. (Merriam-Webster)

[4] Fengshui has had numerous different other names in Chinese, such as Xing Fa, Qing Nang, Qing Wu, Bu Zhai, Xiang Zhai, Tu Zhai, and Yin Yang (Mak & So 2015, 30)

fengshui is categorized in Chinese dictionaries under *kanyu*, which is an older term with a literal meaning of "cover and support" or "cover and chariot," referring to heaven and earth (Skinner 1989, xi). This explains the art of fengshui only partly. In classical Chinese writings, on the other hand, the word fengshui is commonly replaced with the word *dili*, which means "landforms" or in a modern sense "geography" (Yoon 1976, 158). Both *dili*[5] and the word *kanyu*[6] are used interchangeably with fengshui and are explained more thoroughly in the next chapter.

Brief history 1.1.2

There is barely any doubt that fengshui derives from the prehistoric times of Early Settlements in China (Mak & So 2015, 43). As the people of this Neolithic culture in the Loess Plateau[7] evidently placed their homes accordingly with the elementary principles of fengshui (Yoon 2008, 25-26), it makes clear that the philosophy has thousands of years long history. One example includes the Banpo[8] settlement in the modern-day Shaanxi, China, founded in ca. 6700 BCE. The settlement had various features which would be considered auspicious in fengshui practice, for example, fertile land, safe from flooding, and southern orientation (Mak & So 2015, 43). (Figure 1.2) While these are rather general signs of an actual consistent theory, and therefore not necessarily a definite proof of its early existence, the central symbols

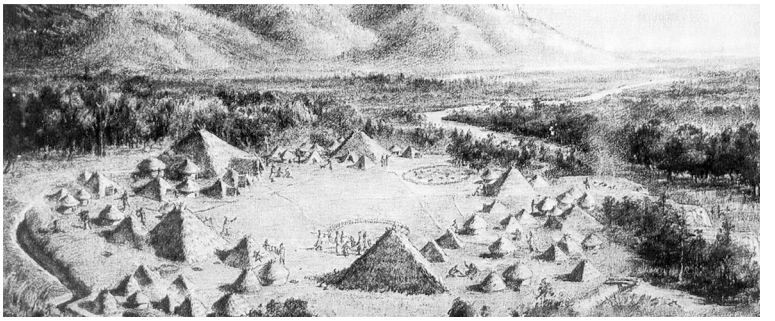

Figure 1.2: Ancient Chinese learned early the most beneficial setting and requirements for a dwelling place. These empirical findings were later defined and formed the future kanyu and fengshui practice. Artist's impression of the Banpo Settlement.

[5] p.: dìlǐ; C.: 地理;

[6] p.: kānyú; C.simpl.: 堪舆; C.trad.: 堪輿

[7] p. Huángtǔ Gāoyuán; C.simpl.: 黄土高原; C.trad.: 黃土高原; literally: Yellow Earth Plateau

[8] p. Bànpō; C.simpl.: 半坡遗址; C.trad.: 半坡遺址

of fengshui, such as the White Tiger and the Azure Dragon, are as well alone some of the oldest known symbols in Chinese culture, dating back to the Neolithic Yangshao culture[9] (ca. 5000-3000 BCE) (Bruun 2008, 12). This also proves wrong the much debated, but likely misunderstood expectation, that fengshui would have been initially an art of burial (creation of "*yin* dwellings") before it was applied to housing ("*yang* dwellings"). Whilst there is not a written proof about this being a fact (Bruun 2008, 11), the abovementioned notes speak for this not being the case. Even though in the spectrum of the classical era, when fengshui faced its most significant

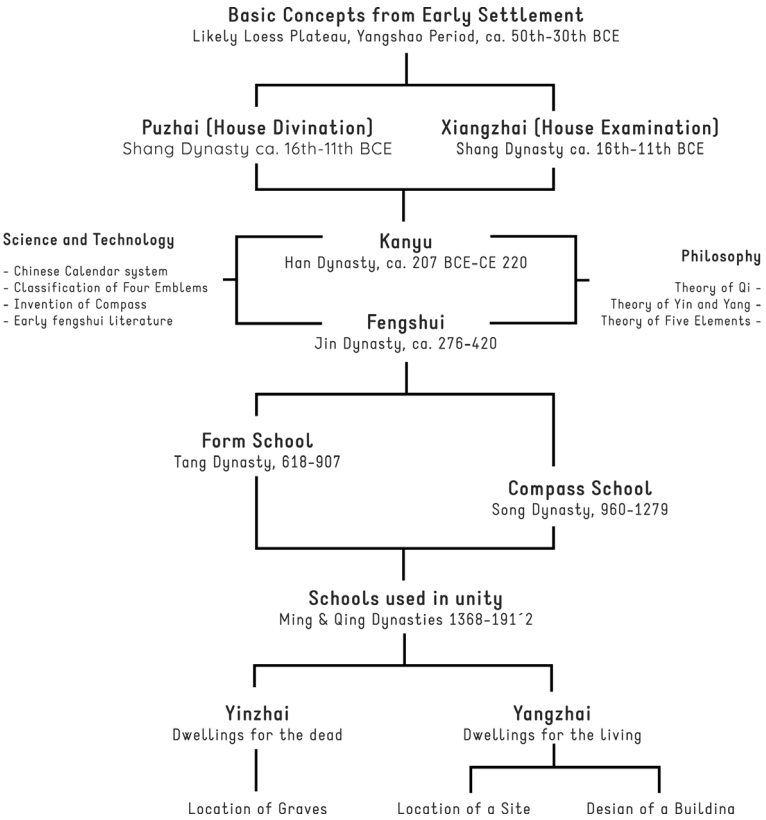

Figure 1.3: A conceptual map of the early development of fengshui, from the first known settlements to the separation of the two schools of fengshui. The intellectual development of the Zhou dynasty, was necessary for the kanyu theory to become the art of fengshui.
Modified version of Mak & So 2015, 42

[9] p.: yǎng sháo wén huà; C.: 仰韶文化

developments, the burials might have had a more considerable significance over housing (Bruun 2008, 67), the basic principles, which are also handled in this work, were still a part of the practice from the earliest times of settlements. Especially as fengshui principles are somewhat flexible, it would have been effortlessly included in the burial traditions. Furthermore, doing so would come quite natural in Chinese culture, where filial piety (孝), the respect of the elderly, has been a tradition likely from the Pre-Confucian times. Part of this role ethics of Chinese culture is the belief that deceased ancestors are still affecting the living family, as their spirits remain in this world (Bruun 2008, 267-268). This tradition could be due to the origins of filial piety being in ancestor worship (Hsu, O'Connor, Lee 2009, 159).

Chinese civilization formed its primary characteristics during its "Classical age" (ca. 2070-256 BCE)(Bruun 2008, 14-15), which peaked during the Hundred Schools of Thought period[10] (Figure 1.3). After the societal development of the Zhou Dynasty (ca. 1045-221 BCE)(Kallio 2015, 15), China got a significant number of intellects, most famously Kongzi (Confucius, ca. 551-473 BCE) and Laozi (ca. 601-531 BCE)(Figure 1.4), who's works later developed into Confucianism and Daoism respectively. While rather strict and conservative Confucianism had its most notable effects on governmental issues (Sarvimäki 2000, 107), a soft Daoist philosophy focused on understanding the world and the nature surrounding us. Thus the Daoist recluse philosophers, who perceived the cyclic nature of Earth (Nieminen & Nieminen 2015, 14-15), had a substantial effect on defining the original principles of fengshui practice (Sarvimäki 2002, 32). Therefore, the last years of this course of Chinese history, the Warring States period (480-221 BCE),

Figure 1.4: Although the so-called "Old Master" was not directly a part of creating fengshui classics, the philosophical Daoism, which he allegedly is the founder of, had a significant role in defining the earliest fengshui classics and practice in general.

[10] p.: zhūzǐ bǎijiā; C.simpl.: 诸子百家; C.trad.: 仰韶文化

was likely the most notable course of time on fengshui's history, due to the development of the three basic philosophies: the theory of *qi*, the theory of *yin-yang* and the theory of Five Elements (Mak & So 2015, 45). The Daoist writings, among the invention of the compass, created this art of house divination and house examination, into the knowledge of kanyu, the early version of fengshui. However, it possibly still took 4 to 5 centuries and several great writers and philosophers, such as Guo Pu (Figure 1.5), to give the final form to the philosophy and using the term "fengshui" in context. The works of these intellects created the great Classics of fengshui, which are still used and studied today.

But similarly, as with Daoism, which got a vulgar form as it got mixed with popular religion and mythology (Nieminen & Nieminen 2015, 11), something similar happened with fengshui. Over centuries, fengshui faced continuous metaphysical speculation, which in turn mythologized its primary metaphors (Bruun 2008, 90). This phenomenon possibly happened due the change of fengshui moving from a privilege of the government people to the frequent need of the peasants. Which, in turn, allowed the practitioners to earn more customers and revenue by further mythologizing the practice. Moreover, as these geomancers were, in most cases, only partly or completely illiterate (Sarvimäki 2002, 68), the principles of fengshui swift away from its original means. This inevitably led to an increasing number of principles and methods in fengshui, which were passed on almost secretly from fathers to sons (Yoon, 2008, 72), instead of being written down and made public by literate people. This increase in, mostly

Figure 1.5: The historian, poet, and writer Guo Pu (郭璞) and especially his famous fengshui classic The Book of Burial, are considered to be the most influential parts in the creation of the philosophy (Bruun 2008, 20).

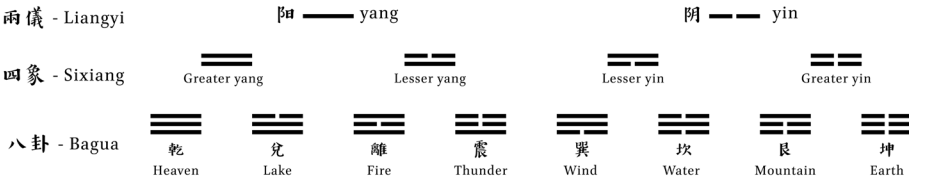

Figure 1.6: The trigrams of Bagua, are refined action of yin-yang theory, which is first further divided into four parts (Sixiang), referring to the level of the form of energy. The trigrams has always been a part of fengshui compass, and they also increased in number as the amount of rings in the device expanded.

mythological, principles was also likely the reason for a vague separation of fengshui, into two schools of thought: the Form School and the Compass School, which features will be discussed in the next chapter.

Due to being more vague and mythological, the new principles were easiest to create for the Compass School. This is perhaps best seen on the compass itself (Figure 1.7)(Figure 1.6), which steadily increased in size and became more complex in the long period of imperial China. However, this development was not agreed on by everyone. As stated above in chapter 1.1, this development was criticized from rather early times, and some authors returned to the ancestors and old Classics to correct this. As the anonymous author of the Twenty Four Difficult Problems states: "If only one follows the vulgar arts, it is inevitable that he will be ignorant of the great Way" (Paton 2015, 181).

Yet, stopping this development was in vain, and by the time the first Europeans got in touch with Chinese culture in the 17th century, and even stronger by the 19th century's missionaries, fengshui had already changed quite significantly. This vulgar-Daoist form naturally did not please the Christian men of science, and thus was quickly stated being purely superstition. However, a hundred years later, in the 1960s, various Asian philosophies and religions grew in popularity in the West. And at last, by the works of people like Stephen Skinner, Evelyn Lip, and Sarah Rossbach in the 1980s and early 1990s (Bruun 2008, 148), fengshui was popularized in the Euro-American countries as a system of decoration. This inherently shows the change of fengshui from emphasizing the meaning of surroundings to fixing the detailed features of the indoors and becoming a mere building ceremony. While this is likely one reason for the resistance in academic circles, it is still gathering attention increasingly among a variety of university scholars, and now has several doctors and professors dedicated to fengshui research world-wide.

1.1.3 Big picture

While the two schools mentioned in the previous chapter have their distinctive features, they both have commonly been used simultaneously, regardless of most of the practitioners being specialized in either one. Some contemporary practitioners go as far as not even recognize them (Bruun 2008. 100). However, these two schools can still be classified by the features they are focused on:

Form School: Landforms, Energy sources (*qi*), Five elements, Overall harmony of physical environment, etc.

Compass School: Luopan directions, Astrology, Timings and dates, Bagua trigrams and grids, etc.

From the list, we can conclude that Form School is focused on physical features, such as outlines and forms, such as hills and waters, and considering surrounding landforms and configurations. These features can also be human-made. The Compass School, on the other hand, concentrates rather on directions and positions. Naturally, as the name indicates, a special "fengshui compass" (Figure 1.6) is greatly in use when determining the auspiciousness of a site according to the rules of the Compass School. (Bruun 2008, 8; Mak & So 2015, 4-8) This thesis will be focused on the Form School approach, as it is at least almost straightly in connection with architecture practice. This requires some conceptualization of fengshui, which is not preferable from the philosophy's standpoint, but as explained in the abstract, the purpose of this is solely for searching the mentioned human preferences. To seek for new point of views, to be considered in the design process.

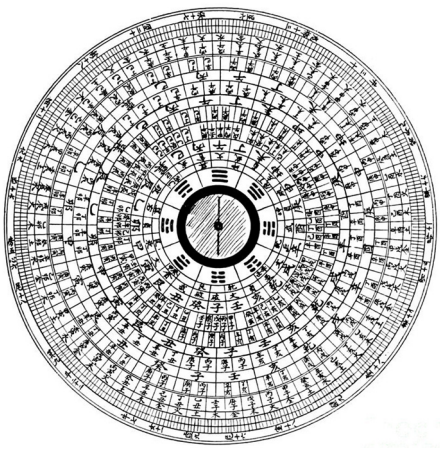

Figure 1.7: Fengshui compass, luopan (羅庚), is one of the central elements in actual fengshui practice. Invented during the Han Dynasty (206 BCE – CE 221) from the basis of Shipan (式盤) board (Skinner 2013, 35). Although not used in navigation until the Song Dynasty of the 11th century, it is still one of the most important tools of its time. The Compass School system encircles almost entirely on its use, and contemporary fengshui practitioners, in general, use it regardless of the approach.

In the simplest terms, the principle ideology of fengshui can be derived from a sentence from the book *Yu li*, of Qin dynasty (221-206 BCE), which follows "cáng fēng dé shuǐ"[11] or "calming the wind and obtaining the water" (Paton 2013, 48). As stated in the *Book of Burial*[12] (p. 126):

> *'if qi rides the wind it is scattered;*
>
> *if it is bounded by water it is held.'*

This *qi* energy, which forms the entirety of the world and determines auspiciousness of everything, is the primary consideration of fengshui. In the most basic terms, "good fengshui" can be determined solely from the quality of the *qi* energy. While the theory of *qi* is yet to be proven or confuted, it still can be recognized as a part of the mythological explaining process, which again was a way for the Chinese intellectuals to describe the world.

Qi is further divided into the *yin-yang* polarity – perhaps the most vital part of the Chinese thought systems in general – the two opposites that contain a part of each other and being in a constant change or a cycle. It should not be understood as a duality of two independent elements, but rather a balance of these two opposites. Based on observations of the phenomenon of nature, *yin-yang* originally meant the shade (*yin*) and light (*yang*), but later getting an endless list of contraries (Mak & So 2015, 45-46). The balance of these two features is essential for harmony in anything: from a single person's well-being to the state of the whole universe. *Yin-yang* itself was also further defined into eight diagrams, where a whole bar "—" resembles the *yang* and a broken one "- -"the *yin* (Figure 1.6), which is the best known from the *Book of Changes*[13]. This system, commonly known as Bagua, was popularly used in explaining the phenomena of nature, the changes of societies, and human life in various Chinese philosophies (Mak & So 2015, 47).

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[11] C.simpl.: 藏风得水; C.trad.: 藏風得水 §

[12] p.: Zàngshū; C.simpl.: 葬书; C.trad.: 葬書; A commentary to the book *Classic of Burial* (p.: zàngjīng ; C.simpl.:葬经; C.trad.: 葬經), which is since lost. Copying and writing commentaries on existing classics was a common habit of ancient China, and is also the reason, why many sentences in the *Book of Burial* starts with the phrase "As the classic says..."

[13] *I Ching*, or *Yi Jing*, (p.: Yìjīng; C. simpl.: 易经; C. trad.: 易經), based on an ancient Chinese text *Zhoyi* (pinyin: Zhōuyì; C.: 周易), written during the Western Zhou Dynasty (1046-771 BCE) (Redmond 2017, 3), is one of the oldest books in the world that is still in use (p.24). In some versions of Confucius' book *Analects* (p.: Lúnyǔ; C.simpl.: 论语; C.trad.: 論語), he says on VII.17: "Wish I'd live longer, so I could spend fifty years to study the Book of Changes! Then perhaps I, too, can avoid any great errors."(Kallio 2015, 62 & 166) Naturally, for being a book of this level of significance, it played a large role in the development of fengshui.

As stated before, while the fengshui practice got its mythological appearance during its years of development, it also became a sort of popular religion. However, by this change, it thus, besides its practical means, grew also into being a common building ceremony – something that is now steadily decreasing in modern Western cultures. Even though a similar practice has been suggested by, for example, Christopher Alexander (e.g. Alexander 1977, 989)(Figure 1.8), we are mostly left with house warming parties and other rather vague celebrations of the finished building. Even though the benefits of building ceremonies are evident. Derham Groves, an architect and PhD of Art History, argues that architects must become to building ceremonies, of what geomancers are to fengshui (Groves 1994, 81). In fact, the current disconnection with the customers is arguably making the profession cold and anonymous. As Nikolaus Pevsner wrote already in the 1930s: "The warmth and directness with which ages of craft and a more personal relation between architect and client endowed buildings of the past may have gone for good." (Pevsner 1978, 214). While the whole modern urban culture is completely based on just relationship conventions among the family and friends, due to the missing rites of folklorists (de Certau et al. 2013, 58), this believably could be one of the reasons why fengshui still keeps up its popularity. People get to be in a genuine connection with their homes and affect their surroundings. If they know that they can affect their sense of the level of comfort, it, in turn, affects their general well-being (Nyman 2008, 305). In modern civilization, however, this is unfortunately difficult to happen (Sarvimäki 2002, 57).

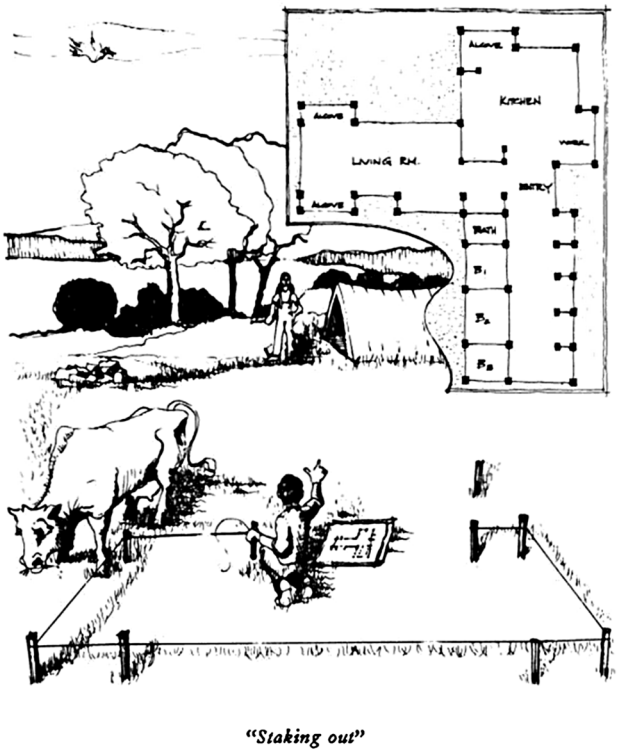

Figure 1.8: Living in the site for few weeks before starting the design process has arguably a large variety of benefits: discovering the problems, creating a bond, make a place one's own, and being a part of the building ceremonies in general. Christopher et al. 1977, 992.

Architecture theories in the West 1.2

Even if fengshui's roots actually would be in magical and religious beliefs, so are architecture's. Already the scarce, but notable writings of ancient Egypt show how the Pharaoh gave everything, but the "heavenly" matters to the hands of the High Priest (Penttilä 2013, 12). This naturally includes also building traditions and thus makes architecture's history deep in religion, or rather magic. The same kind of history also applies to science in general. Regardless that its logical thinking structure can be dated back to Aristotle in 384-322 BCE, until the modern era, the development of science has included what today would be called "pseudo-scientific metaphysical postulation" (Paton 2013, 3). While modern science certainly is not anymore based on religious or mythical aspects, similarly, only fengshui's explanations are based on spiritual themes, due to the means of explaining the experienced life. As explained previously, fengshui might appear superstitious due to explanatory and history-based reasons, but in reality, its roots are based on generations long intuitive learning process.

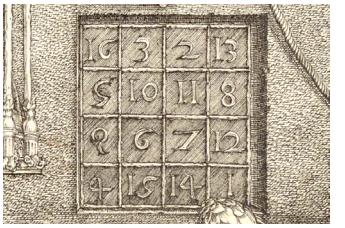

Figure 1.9: Melencolia I, Albrecht Dürer. Architects have placed, throughout the history, various mythical and religious symbols in buildings and formed entire architectures according to superstitious beliefs. A magic square, very similar to the Chinese equivalent Luoshu grid[14], can be found in various pieces of European art and architecture.

So, as it is likely that European building traditions as well derive from simple universal human needs, that consciously and unconsciously guides the building traditions, it is arguable that with the possibly tens of thousands of years long history, this could create linkage between fengshui and architectural theories. Emeritus Professor of architecture Kaj Nyman talks about the universal language of architecture, which is not likely affected by cultural, personal, or style-related preferences. This "ecological knowledge" is, according to Nyman, surely deep-rooted in every human being (Nyman 2008, 31), which is sort of a mother tongue of architecture for everyone (p.24). However, architecture lost this common language of the pleasant environment by the birth of modern times. According to Juhani Pallasmaa, we have lost the

[14] Luoshu (洛书), or Chinese Magic Square, is a nine number grid, used for various calculations by fengshui practicioners. Similar mathematical squares were also known as early as 17th Century in Islamic countries. (Mak & So 2015, 193)

feel of aura in our buildings, and architects need to remember the primitive hunter and farmer who is hiding in each of us (Pallasmaa 2016, 28 & 47). While the reason for this might lie in the fact that our evolution is based on focusing at external subjects, instead of things achieved inside by species adaption as with other animals (Colomina & Wigley 2018, 52), it still does not mean that we are not able to sense a comfortable dwelling place. Even Le Corbusier states that architects have seemingly forgotten how the birth of architecture dates to the primitive times of human beings, where the design was purely based on human instincts (Le Corbusier 2004, 64). However, during these times when people were hardly mobile, and most people were living off the land, a home was likely not a building, but a place; A location rich in internal relations (Naess 2016, 45). Feeling like "home" was thus more a site, than architecture related. As the general rules of fengshui are environment based, it could help with finding or creating these places still today.

People have studied and learned from history since ancient Rome (Zumthor 2018, 28). Renaissance Humanists, for instance, are famous for trying to look back and appreciate the history. For example, Leon Battista Alberti (1404-1472), a polymath and a great animater from the 15th century, emphasized the role of art and architecture on the task of "keeping alive the memory of humanity" (Zumthor 2018, 28-29). Similarly, Cicero wrote in De Oratore in 55 BCE: "history gives life to recollection" (p.29). It appears that as such a wide range of famous thinkers and architects agree on appreciating the past, and how the experiences of our forefathers have shaped our intuitive thinking, architects should focus on that aspect more, rather than the image of their buildings. Once again, we can search these principles from fengshui.

Figure 1.10: Nature, as a theme of art, has often been a reaction of lack of its presence in the current state of civilization. In ancient Greece, for example, it was not frequently included as a theme in the art, due to the immediate presence of nature in daily life. Contrarily, many naturalist styles of 19th and 20th centuries, were reactions to the ever mechanization of the world - though they were little in success. Oil painting Matin à Villeneuve (From Waters Edge)(ca. 1905-06) by Henri Biva (1848-1929)

Although one needs to be careful when interpreting features of the previous civilizations and styles into new works. As Sigfried Giedion writes in the introduction of the fifth edition of his famous book *Space, Time & Architecture*: "The approach to the pasts only becomes creative when the architect is able to enter into its inner meaning and content."(Giedion 2008, xliv) He was afraid of a "playboy architecture", a phenomenon of the 1960s. An act of jumping from style to style, and quickly become bored with everything. However, when considering this thesis' goal of resembling a fengshui as an architectural theory only in a rather broad sense, falling into the mistake described by Giedion is unlikely.

We can look for connections between the west and the east, also in a more general manner. Similarly, as German philosopher Karl Jaspers stated as "Achsenzei," an Axial Age, for a time period of about the 8th to the 3rd century BCE, as a time when eastern countries (e.g., Persia, India, China) appeared to have parallel development of thought process with the Greco-Roman's religion and philosophy of that time. While those times include the raise of Daoist thoughts in China, which also played a significant role in the development of fengshui, the same observation could be further developed – At least when the matters are more general, such as laws of nature and human preferences.

One of these similarities is the use of elements. While the Greeks' Four Elements[15] are commonly said to differ from the Chinese Five Elements[16], as the latter are rather seen more as "cycling energies" (Huotari & Seppälä 2005, 482-483), than static materials. However, in the meanwhile, for instance Vitruvius talk a considerable amount about elements influencing each other (e.g. Vitruvius, p. 21), while the Five Elements are also described as physical features.

Nevertheless, giving more attention to the basic human needs of architecture could be valuable, and such work has been done already. Perhaps most famously by Christopher Alexander, whose works typically try to focus on what kind of environment and spaces people instinctively feel comfortable about (Zumthor 2006, 54). But as he points out, the patterns for building are related to the place and culture (Alexander 1979, p.253), and therefore they might not explain human preferences thoroughly. Therefore, we need a more extensive selection of viewpoints to answer the question, "what we want?".

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[15] Greek: Stoicheion, στοιχεῖον,

[16] p.: wǔxíng, C.: 五行

1.3 Nature awareness

The Modern Revolution in 16-17th century Europe tilted the Europeans worldview from nature-centric to purely rational and thus making the attitude towards the environment egoistic and selfish – culminating in the revolution of modern architecture. While Vitruvius stated: "man is designed in nature" (Vitruvius 1960, 72; Colonia & Wigley 2018, 147), R. M. Schindler a little over 18 hundred years later claimed that: "The man of the future does not try to escape the [nature's] elements. He will rule them" (Schindler, Manifesto, 1912). Similarly, Hannes Meyer wrote about mechanizing the Earth: "The victory of man the thinker over amorphous planet." (Meyer, the New World, 1926)

As we are now again getting more aware of the importance of nature, people have steadily started to appreciate the values it gives to us. We recall its power, as well as our effect on it, and its effect on us. This new world view is visible in many aspects – one being the vocabulary. New terms are being continuously created, such as biomimicry (the approach of seeking sustainable solutions from mimicking the nature), circular economy (the recycling of resources in the economic system), as well as biodiversity (the preferably high level of variety of plants and animals). The list is becoming endless. While fengshui is exceptionally closely related to the nature and warning about the dangers of being in disharmony with the Earth (Yoon 2008, 3), it is understandably one of the reasons for its recent popularity caused by the rise of the science of ecology in the 1960's and beyond (Bruun 2008, 94).

Furthermore, naturally, this phenomenon of eco-friendliness touches the architects' work as well. Especially as the buildings people admire, marvel, and appreciate are those which express the viewer's own values (de Botton 2008, 98; Nyman 2008, 280). Naturally, this also means that a large variety of other preferences, such as qualities of behavior (e.g., friendliness or aggressiveness) or level of expression (e.g., subtlety or harshness), are included in the psychological thought process. This in the other hand, has created a fashion for "human (adj.) architecture", which contradictorily can first appear to be the opposite of changing away from a man-centric attitude. However, in reality, it is precisely meaning turning back, searching for human nature, and thus paying attention to the environmental qualities in the design process. After all, as Juhani Pallasmaa states: "In the end, architecture is an extension from nature in a manmade environment[...]" (Pallasmaa 2016, 34).

Although the term humanity has been a rather fashionable word in modern times, as, in a way, it is used for inventing a "new human," sort of a "supercharged version of the very oldest man" (Colomina & Wigley 2018, 128). Meanwhile, we are in the age of environmental hypersensitivity, causing a growing number of people being unable to live in the modern world that we have created. As Richard Neutra claimed: "humans become victimized by their own artifacts, and its self-destruction is inevitable." (p.136) While this rather depressing statement appears to be true – as it seems to be an instinct of humankind to endlessly further develop its specie's success on ruling the world and thus ever more becoming psychologically detached of it – we do also still grave back near to nature. After all, when one reads his or her own life from the surroundings, the person enjoys being in that particular place (Nyman 2008, 109). Like Lina Bo Bardi wrote in 1958: "Man increasingly dominates nature [...], but he remains 'ancient'" (Colomina & Wigley 2018, 137).

1.4 Fengshu research & this work

"The study of architecture, [...] should legitimately involve the study of its past..."
- Ching 2015, 418

Typically, fengshui, as well as many other Asian mystic arts, face a considerable amount of resistance in academic circles. Mainly this is explained by the suspicion caused by either the faddish counter-cultural movements of the 1960s and 70's (Redmond 2017, 9), or the fact that the modern ideals are circulating around themes of democracy, science, and commerce (de Groot 2008, 140). Thus, the paradox of a fengshui research is evidently the problem, where a scientific explanation of the principles causes it to lose its innate mystique, while when the explanations do not have the analytical considerations, it is automatically denounced as pseudo-science (Mak & So 2015, xi). Therefore, this thesis tries to settle a satisfying medium between the two. In most cases, excessive analyzation of the principles and features are avoided, not only to preserve their feeling, but also to keep this work's length in an acceptable size. However, they are still, of course, reasoned academically, with scientific theories or with diverse selection of Euro-American writers concepts.

As a standard for a research project which is focusing on a historical topic, the oldest possible literature is often favored as the bibliography[17]. In fengshui research, this is only a more common occurrence, due to the changes in history caused by practitioners, and the relatively concordant and widely available Fengshui Classics. It is especially relevant with fengshui to use the original Daoist writings dating back to the 6th century bce[18] to the late 2nd century ce[19], as its base literature, when attempting to construct an objective and complete image of the actual means of the practice. This is mainly due to the reason of the change in fengshui when it became increasingly available in China and its teachings continually got new forms. This was likely because most of the practitioners misunderstood the original writings or simply were unable to read them (Sarvimäki 2002, 135 & 241), in addition to the considerable competition among practitioners. Therefore, even though

[17] I.e. Hanson-Walter Kruft, explains in the preface of his book *A History of Architectural Theory* how it was increasingly important to use the most original sources accessable, to research the topic throughly. (Kruft 1994, 7)

[18] Especially *Daodejing*, a book allegedly made by Laozi; p.: dào dé jīng, C.trad.:道德經

[19] The oldest known fengshui manual *The Book of Burial* allegedly by Guo Pu, p.: Zàngshū, C.simpl.:葬书, C.trad.:葬書)

the underlying ideologies are still used in practice reasonably unchanged, it is still valuable to keep the ancient writings as a base knowledge. Especially as more and more of these old classics have been well translated into English during the past few decades[20], it makes working with the field easier for a person whose mother tongue is not Chinese and without the ability to read traditional classical Chinese literature. Although, admittedly, many old classical Chinese writings of fengshui has to have been lost during the centuries of history, and therefore academic research literature and papers give well needed and missing information and points of view. All of the researchers are academic doctorates and are also commonly cited in other papers and works.

Like any academic research, this thesis is also based on a few key questions. Due to the focus of this work being on inherent human preferences, it raises the question of **what have we possibly lost, or overlooked, during the change to modern times?** Furthermore, as the solutions for this issue are meant to be found from fengshui, **could fengshui's principles be part of bringing these features back to our built environment?** Answers to these questions are to be found in selected works of fengshui, which are reflected against various architecture writings and theories. Both kinds of literature are compared accordingly to the topic at hand, forming a single whole by searching for similarities and oppositions, as well as criticizing both types of philosophies whenever the possibility appears. Naturally, high-level literature from fields outside of fengshui and architecture is used to support and to argue for the shown thoughts.

Furthermore, this cross-cultural research method is not a rare technique in various academic circles. As Hong-Key Yoon, an associate professor of The University of Auckland, described it through an example of football, where he as an observer can write a better and more credible review of the game than a player, as he has a better view of the whole (Yoon 2008, xiii). Moreover, this method can also work in the counter-direction – highlighting flawed features, by examining one's society and comparing the two cultural thought systems. In this thesis, this is used to pinpoint the problems of Western architecture.

[20] e.g. Dr. Stepehn Skinners wide variety of translations from 2016, such as: *The Original Eight Mansions Formula*, *The Key San He Feng Shui Formulas*, and *Mountain Dragon Formulas*. As well as Michael Patons *Five Classics of Fengshui*, 2013

II

Basic Elements

2.1 At first

"The smaller we come to feel ourselves compared with the mountain, the nearer we come to participating in its greatness"
– Arne Næss,Ecology of Wisdom (2008)

As stated in the brief of fengshui in chapter 1.1, its complete form was actualized when it adopted the philosophical principles from the Daoist thinking systems (Bruun 2008, 17). The greatest of these include the Vital Energy *qi*, *yin-yang* polarity, and the theory of Five Elements. Other themes naturally exist as well, but even in fengshui classics, they are not always used. In the greatest classics such as the *Book of Burial* and the *Burial Classic*, these finer, more abstract principles were not yet formed, whereas the *Twenty Four Difficult Problems* for example purposely returned to these basic principles (Paton 2013, x). Thus, due to the higher level of mysticality, and for being more commonly used in the Compass School practice, these further developed themes and theories are out from the spectrum of this work.

In addition, besides these elementary theories of fengshui, water as an environmental element and a form of *qi* (energy) is as well handled in the last chapter. Any other relevant physical feature will be discussed in the next section, where the fengshui principles are put in to practice and reflected with architectural terms. Therefore, it is also worth reminding that these abstract principles are only the way to explain nature's phenomena, and reasoning the design choices. The actual Form School theory is rather practical, as will be shown in the mentioned last section.

However, before we can consider the design process of architecture and its standardized preferences against fengshui, we have to understand the latter's fundamental theories. As they all are based just the same on the theory of energy and movement, it is therefore rather simple to form an understanding of all of the principles, after comprehending one of them. Naturally, the best means for this is by the mentioned theory of *qi*, as all of the other principles are different forms and explanations of finer actions of its behavior. This is also why this section begins with a brief explanation of this invisible matter, the *qi* energy, which will be repeatedly seen also when explaining the practical nature of fenghshui in section III.

Concept of Qi 2.2

The main goal of fengshui is always gathering and controlling the auspicious *qi*. A form of energy derived initially from the Daoist "the Way"[21] (Mak & So 2015, 6), which according to fengshui literature, forms everything of the universe, the myriad things. As the Tao De Ching states in part 42:

> *"The Tao begot one.*
> *One begot two.*
> *Two begot three.*
> *And three begot the ten thousand things. ..."*

Where the "one" signifies the *qi*, "two" the *yin-yang*, "three" the *qi* and the *yin-yang* combined, and 10,000 things[22] is a Chinese means of saying "infinitive" (Seppälä 2017, 24-25). This shows the inherent part of *qi* in Chinese natural philosophy, and the tendency and inclination to organic thinking in Chinese culture, as opposed to the mechanistic world view of the European civilizations after the Middle Ages (Bruun 2008, 108). As can be understood from the quote, *qi* is viewed as a base element from which everything forms – matter that existed prior to the universe. According to a philosophical treatise *Huainanzi*[23] from ca. 200 BCE: "the first original *qi* was born of the continua of space and time" (Bruun 2008, 108).

Qi is controlled by the principle of *li* (理), a "pattern" – a thing that concretizes the ethics (Sarvimäki 2002, 16 & 21). This theory, formed from the Confucian philosophy during the Song dynasty (960-1127)(Skinner 2013, 80), should not be mixed with the much older above-mentioned *dao*, the Way. While *dao* was the origin of all things, setting the chaos in order (Bruun 2008, 109), *li* is an underlying reason in the matter, giving shape to all forms.

[21] Dao or Tao; p.: Dào; C.: 道; literally: way, path, route, or road; The base doctrine of the Daoist philosophy and a principle of great significance in ancient Chinese thought in general. In Daoism, it forms into a specific anthology of wisdom, a behavior of nature in the span of the whole universe. (Nieminen & Nieminen 2015, 11)

[22] p.: Wànsuì; C.simpl.: 万岁; C.trad.: 萬歲; literally: "ten thousand years."

[23] p.: huáinán zǐ; C.: 淮南子; literally: The Writings of the Huainan Masters

2.2.1 Definitions and Cultural variety

Because there is not an equivalent for *qi* in the English language, as with fengshui, various terms have been used when translating it from Chinese literature, including agent, force, pneuma, breath, spirit, energy, matter, or element (Yoon 2008, 65), often according to the situation. Needham, for example, used the terms matter-energy, subtle matter, pneuma, and an energy present in an organized form (Needham 2005, 660; Paton 2013, 49), depending on the theme in hand. Additionally, the original meaning of the Chinese character 气 derives from "steam rising from a river or a ricefield" (Seppälä 2017, 12-15). This explains the literal meaning of the character, which is "gas," "air," "breath," and "weather." However, as being a so-called radical of the Chinese language, it also shares much more profound levels of meanings, such as "spirit" and "vital energy." The latter, which more accurately is called *shengqi* (生气), appears to be the most used type of *qi* in classical fengshui literature from its numerous forms.

But similar vital energies are found widely in other parts of the world too, most famously as listed:

- Prana - Indian mystical energy of life
- Pneuma - A Greek Stoic philosophy, the concept of "breath of life"
- Aether - (Ancient Greek: αἰθήρ, aithēr, also called: æther, ether), originally Ancient Greek philosophy of "pure, fresh air" or "clear sky." Was used largely in natural sciences still in 19th century
- Élan vital - A concept for "vital energy of life" by a French philosopher Henri Bergson (1859-1941)
- Ruach - A spiritual Hebrew word for wind or breath

While these different concepts have variation in their characteristics, the key idea is relatively similar, especially with the Hebrew word Ruach (Skinner 1989, 17) – invisible energy commonly referred to as a kind of breath or vapor that gives life to everything. The *qi* is commonly also compared to the Greek Aether, one of the Greek Five Elements, but this appears to be more static in nature (Bruun 2008, 108). But as with fengshui, it is becoming a common standard to use the word *qi* as is, mainly due to the differences that are associated with it among different writers (Bruun 2008, 110), to avoid any confusion between and within fengshui texts, or to not misunderstand it as a synonym for any of the mentioned similar systems.

In fengshui, *qi* determines if a mountain is a dragon or just a hill (Yoon 2008, 78). It creates preferences for different water features. It explains nature's phenomenon, and controls life and death. In fengshui practice, the concept of *qi* is the main objective, no matter which of the school systems is used (Skinner 1989, 17). The availability of vital *qi* alone can, to most geomancers, be the answer for an auspicious location (Yoon 1976, 68 & 71)

While in the School of Compass, *qi* is purely time-related(Sarvimäki 2002, 46), the Form School approach seeks for the auspicious location by detecting the mountain ranges and water formations and looks by these for the availability of the vital energy in a particular place (Yoon 2008, 68). For this reason, in practice, Form school prefers features such as: moisture of the ground and soil quality, dense vegetation, wildlife (Yoon 2008, 78), particular forms and size of the mountain (Yoon 2008, 71), the placement related with the mountain, a change of landform, an outward bend in the river, a change from plain to scarp, and meeting of a Yin and Yang landform (Skinner 1989, 19). All relating or explained by the flow, quality, and levels of *qi*.

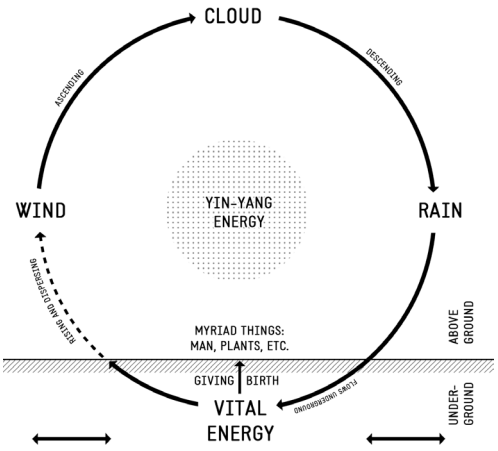

Figure 2.1: The cycle of qi as water. Modified from Yoon, 2008, p.15

Guo Pu describes *qi*'s behavior in nature in the *Book of Burial* as:

> *"When the qi of yin and yang is exhaled it ascends and becomes clouds, descending as rain. When it circulates in the earth it is vital qi."*

(Paton 2013, 125) From this we can understand the way *qi* takes different forms; either it is as vital *qi* (*shengqi*) underground, raising to the sky as wind, or descending as rain, it is all based on the same substance, *yin-yang* energy, the *qi* (Yoon 2008, 87)(Figure 2.1).

This, among other similar explanations of the behavior of *qi*, also explains that the Chinese had a scientific understanding of the meteorological cycle as early as 300 CE (Mak & So 2015, 45; Paton 2013, 38). However, while it is true that the Chinese understood the basic phenomena of nature in rather early times, one still should not understand *qi* as only water from the example given by Guo Pu. Instead, it is a general life-giving breath, moving endlessly back and forth in the world. Similar, as Juhani Pallasmaa, a Finnish architect and former professor of architecture, describes: "The human is a part of the cycle of nature. I can sense the slow breath of the earth."(Pallasmaa 2016, 45)

2.2.3 Contemporary views of vital energy

It is a common habit of primitive people to consider inanimate objects filled with life, nature's spirits, living in trees and streams in communion with us (Rasmussen 1964, 37). Fengshui is no exception from this, as it considers the Earth as a living body, with bones (mountains) and blood (rivers) (Mak & So 2015, 45). But even modern people inherently want to associate lifeless objects with living things (Rasmussen 1964, 37). A building, for example, can still be seen as a living creature as well, which "rearrange itself after the night" with its copper pipe veins and feet supported with a bed of earth (de Botton 2008, 10). Or alternately, as Frederick Kiesler described it as a living organism equivalently by human organs, where ventilation is the nose and stairs are the feet and so forth (Colomina & Wigley 2018, 175).

At least in fengshui, the *qi* is the energy that keeps this body alive (Mak & So 2015, 45; Yoon 2008, 71). As Zuangzi[24] describes: "birth and growth mean gathering the *qi*, the energy of life, while in death the *qi* scatters." (Seppälä, 2017, 22-25) However, while *qi* is in everything, and only in different qualities and quantities, unlike Kiesler, fengshui does not see a building as a living creature – an organism that could be born and die. Instead, this view is limited only to Earth, and its creatures, and buildings are only meant to set an optimal circumstance for a man to live in.

So, we need to look for another explanation. As stated above, according to Guo Pu, *qi* ascends to ground as water, where it is being collected and formed into the sheng*qi*, the vital energy. Moreover, as ground without *qi* is rocky and exposed (Yoon 2008, 71), while land with a nourishing *qi* has a

[24] ca. 369 BCE - ca. 286 BCE; Originally called Zuangzhou (p.: Zhuāng Zhōu; C.simpl.: 庄周, C.trad.: 莊周), but typically referred as Zuangzi (p.: Zhuāngzǐ; C.simpl.: 庄子; C.trad.: 莊子)

luxurious growth of vegetation, we could assume that *qi* is, at least under the ground, a kind of a nutrient as water alone cannot grow plants. But unfortunately that is too vague explanation, and *qi* has only some similarities with these organic substances as the correspondences are limited mostly on the features of being impossible to be identified with a naked eye, while we still can recognize a rich soil by observing the growth of plants. However, this is not encompassing enough.

Conventional interpretation of *qi* in Western works has been understanding it as any kind of magnetic field in the form of energy, or merely as an energy field (Bruun 2008, 159). As Encyclopedia Britannica 1974 explains: "The fraction of the Earth's magnetic field produced by outside sources is now understood to be an important presentation of the electromagnetic activities in the Earth's upper atmosphere[...]" (Skinner 1989, 17). As the thought derives from the monistic worldview, where everything attaches into one, and making the universe just one, a cosmological *qi* (or in this case: the electromagnetic activities created by outside sources) therefore has an effect on human population. Similarly, as western cultures have believed on different planets affecting the Earth and the people on it (Sarvimäki, 2002, 45). But one has to remember that this mechanistic worldview, independent of human interference, differs significantly from the original Chinese thinking (Bruun 2008, 159).

Yet, we can also talk about the energy of architecture. The Swiss architect Peter Zumthor, for example, talks about an aura of energy and presence, which: "makes everything seem to be in a state of balanced suspension and the body of a new building to vibrate" (Zumthor 2006, 12 & 77). Architecture has energy in its occasions where every material in use are pressed into concurrent and compassioned composition, and in its movement from reserved energy when expressively massed (de Botton, 17 & 149). While architecture is often referred to be still and fixed – "frozen music," so to speak (Rasmussen 1964, 105) – its energy is likely imagined, as well, being rather static instead of being in motion. Nevertheless, movement is becoming a part of architectural language increasingly; first as the organic architecture of architects such as Alvar Aalto (Rasmussen 1964, 153), and somewhat recently, more expressively, due to the technical possibilities (Figure 2.2).

But although studies have been made on the effect of seasonal gravitational changes created by the position of the Earth, the Moon and the Sun, the actual effect of *qi* is best shown by the different forces created by a moving mass of water. Where, for example, moving water creates geopathic stress zones, which have shown to cause serious health issues and multiple men-

tal symptoms such as stress and aggressiveness (Paton, 2013, p.86). While fengshui is firmly against such elements as rapid water under a building, scientists are becoming increasingly more interested of the *qi* being a scientific element that is still to be discovered. For example, a moving mass of rivers has shown to affect the gravitational pull in the way fengshui describes the movement of *qi* on rivers. Meanwhile, this is not explainable with modern knowledge of gravitational theory (Paton 2013, 85).

In the meantime, there are ever-increasing amount of knowledgeable and rational people, who are focusing on discarnate and invisible matters, while contempt all interest of decoration and design (de Botton 2008, 11). Furthermore, even if it is true that this whole invisible vital energy is non-existent, we can still appreciate the understanding of the natural phenomena of ancient Chinese. It is nevertheless a useful feature and a method to understand the diverse preferences and principles of the art of fengshui.

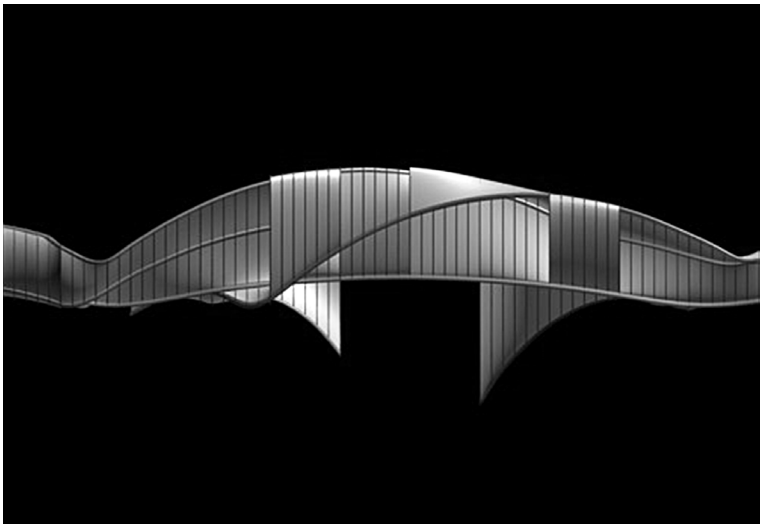

Figure 2.2: Port authority, Triple bridge gateway competition (1994) by Greg Lynn. Being the first to introduce the use of animation software on architectural design, where external forces can be applied to become a factor of the form of a building. This so-called digital morphogenesis can be formed from anything from the effect of forces derived from gravitation or wind to the energy fields caused by users interaction or sound waves.

Yin & Yang Polarity 2.3

Besides the Five Elements, the concept of *yin-yang* (or the Two Forces in the Universe) is one of the two metaphysical essences of fengshui in this thesis. As to the best knowledge, the theory of *yin-yang* was most likely one of the driving forces that created fengshui from knowledge of landscape principles to a philosophy of fengshui (Yoon 2008, 18), and it, therefore, should also have a relatively important role on comprehensive research in that matter.

Fortunately, the basic statement of the *yin-yang* theory is rather simple. In short, it could be described as: "two opposite polarities, which contain and cyclically interact with each other." This ever-running cycle is perhaps most famously used in the *Book of Changes*, which message could perhaps be summarized as: "the only unchanging matter is the change itself" (Huotari 2005, 181). Although it is possible that the Five Elements brought the idea of the cycle in the *yin-yang* theory, it is still certain that the concept of the duality has at least as long history, if not longer (Yoon 2008, 59). After all, it does lay at a deeper level in nature and had far greater importance as principles for Chinese to conceive (Needham 2005, 232).

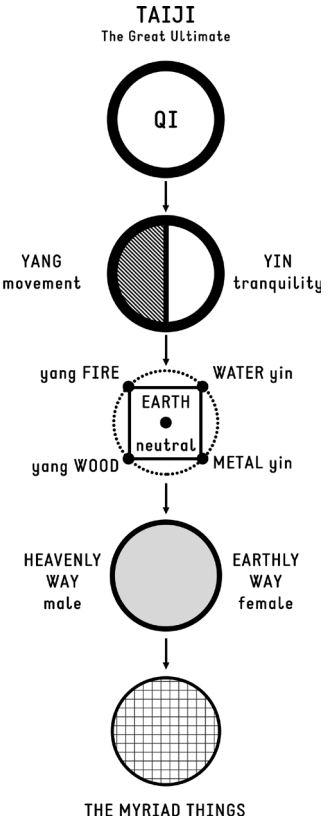

Figure 2.3: The concept of qi becoming divided into finer actions. Yin-Yang is the second type of categorization, and popularly in use in fengshui practice. Modified version from Yoon, 2008, 58

To today's knowledge, *yin-yang* was originally used to describe the sunny and shadowy side of a mountain (Paton 2013, 51; Huotari & Seppälä 2005, 482), but later developed into two general opposite elements that create all the things and events of the world (Yoon 2008, 57) Therefore everything, including the components in the Five Elements, can be classified as *yin* or *yang* (Figure 2.3).

2..3.1 Dualism

However, setting things between opposites is not just a phenomenon of Chinese thought. Although the concept of yin-yang has become a world-known, it is an inherent tendency of the human mind to represent experiences in dualities (Redmond 2017, 341). And not only represent but experience regularly. Even the very first tools and shelters of primitive times were a combination of function and play, and even today trying to separate them would foolish (Colomina & Wigley 2018, 82-83). Therefore, a celebrated modernist Japanese architect Tadao Ando for example has noted having an aspiration in every project of achieving a tension between functional and ineffectual (Pallasmaa 2016, 48) This is due a necessary tension among the function and comfort, created by certain distance between them, with without the architecture will lose its inherent mystique (p.48). Ironically, meanwhile, leaving out the "play" was the main point of early modernism to achieve beauty (De Botton 2008, 62).

In art, according to German historian Wilhelm Worringer, two types of art styles have been fluctuating as a dominant fashion: "abstract" and "realistic"; When a culture has experienced a period with uncertainty and chaos, people had a yearning for calm abstract art, while times with law and order, people had opposing needs (Worringer 1997). People need the presence of the opposite, to feel in ease - which in some situations can appear paradoxical.

Therefore, this means that while the concept of yin-yang was not originally purely metaphysical, it can as well be similarly found widely in Western literature in the form of duality – earliest works dating back to the times of pre-Socratic philosophers[25]. An example of the thoughts of duality could be from Gaston Bachelard, who explained how duality must exist for the imagination to be engaged. In *Dreams of Water*, he writes: "[A] matter to which the imagination cannot give a dual existence cannot play this psychological role of fundamental matter." (Bachelard 2015, 11-12) He saw that only matter that finds a "poetic double" allows endless transpositions, and thus also the opportunity for a psychological ambivalence. From an architecture standpoint, it is thought-provoking how Bachelard considers that in the means of engaging the whole soul in accordance with a material el-

[25] One of the most famous ones include Heraclitus, who saw that "all changes in the world arose from the dynamic and cyclic interplay of opposites" (Mak & So 2015, 12). In other words, being is overcome by not-being and vice versa, which means Heraclitus noticed that these transformations go both ways (Nirenberg, 1996). As he says: "The way up and the way down are one and the same." (fragment 60), similarly, as there is no up and down in a circle.

ement, there must be a present of "dual participation of desire and fear" (Bachelard, 2015, 12). This is not a surprise, as opposites are a fuel of life. As Juhani Pallasmaa states: "No matter the task we are having [...] there must be simultaneous creation of opposites" (Pallasmaa 2016, 25) Afterall, architecture is in touch with a wide range of metaphysical aspects in general: e.g., me – world, life – death, inner – outer (Pallasmaa 2016, 17).

The whole science of architecture is as well composed of two relatively opposite parts: theory (or handbook) and practice, or as Vitruvius put it, the *fabrica* and *ratiocinatio* (Penttilä 2013, 30). According to Vitruvius, together, these two create the "knowledge" in general (Vitruvius 2018, ii) – similarly as yin-yang supposedly create qi or the whole matter of the universe, the myriad things. These two opposites, cognitive and empirical, cerebral and observational, need each other to create the general knowledge – in this case, knowledge of architecture – and we should not give more emphasis on either one. Other dual settings from Vitruvius include qualitative (qualitas) and quantitative (quantitativo), which were not complete opposites in Vitruvius' time (Penttilä 2013, 61) and therefore containing each other.

Naturally, yin-yang can also be found being used in architecture literature as well, either by its Chinese name, as duality, or just describing things by opposites. Christopher Alexander for example used yin-yang just the same twice in his perhaps most regarded book *A Pattern Language* (Alexander et al. 1977, 148 & 539), besides sometimes describing opposites, such as "negative and positive outdoor space" (p.518) or a play of light and dark (p.644).

YIN	YANG
shade	light
negative	positive
female	male
dark	light
dead	living
still	moving
quiet	loud
internal	external
soft	hard
rounded	straight
cold	warm
introvert	extrovert
slow	fast
intuition	logic
front	back
left	right
flexibility	solidity
indirect	direct
passive	active
detailed	simple
silence	noise
low	high

Figure 2.3: As the theory of yin-yang developed, it got formed into a lengthy list of oppositions.

2.3.2 Harmony & Symmetry

Zumthor contradictorily notices of how contemporary architecture should be like contemporary music – with its disharmony, broken rhythm, fragments, clusters, and noise – while not primarily giving a message or a symbol but being a background for life (Zumthor 2006, 12). But with this kind of harmony, it is supposedly exactly bringing a message, without creating a comfortable "background." At least assumedly, a building needs harmony with itself and its surroundings to achieve those qualities.

While Zumthor talks about discords and dissonances of contemporary music, Plato famously observed how harmony is consonance, and consonance is a kind of agreement, where only this agreement is made by the differing matters (Plato 2001, 16(187b)). Furthermore, according to Aristotle: "All-encompassing harmony is achieved from a merge of opposing principles."(Penttilä 2013, 110) We can understand these by the notice how a building can differ from its surroundings, as long as it creates a consensus between the two. This way, the architecture can be contemporary – in other words, for example, representing a different style than its surrounding buildings – without being judged for not fitting in its surroundings. But it requires Plato's agreement and Aristotle's merging. According to the theory of *yin-yang*, there needs to be a balance between the feel of the new building and the surroundings.

Symmetry has fascinated humans throughout history and continents. From Polykelitos' theories to the strict axial symmetry of ancient Chinese cities, to Leonardo da Vinci's Vitruvian man. All which tried to achieve the ultimate beauty in the universe through this balance. Besides this long history and research for seeking balance through symmetrical harmony, the fact of the human capability of recognizing symmetry in a lighting fast speeds (of about 0.05 seconds), shows the evolutionally inherent law of the human mind to prefer symmetry over asymmetry (Pihlajarinne 2018, 68). Already in 1932, Henry-Russell Hitchcock defined three international style principles, where a regularity, as opposed to symmetry, was listed as one of them (Sung 2006, 47). We can somewhat vaguely claim that symmetry is an internationally associated with beauty, by being achieved through the harmony of proportions (Weyl 1966, 3). And typically, these proportions derived from the bilateral symmetry – mirroring left and right. However, besides creating aesthetically pleasing objects with symmetry and order, another category is shown to be as well a primary factor in beauty in the history of art. This other theme could be described as "complexity," "diversity," or "variety." These two extremes have shown to have a specific

effect on the human psyche, where order can expedite the "interpretation and comprehension of visual information," and complexity, on the other hand, hinders the abilities for information-processing (Pihlajarinne 2018, 161). But instead of any of these two aesthetic features – complexity and order – being the most desirable option alone, we need them both simultaneously. There are limits in our desire for order, but we exactly appreciate it when it brings complexity, a variety of elements, into a harmonic arrangement (de Botton 2008, 183-184).

Perhaps this also explains the two major opposing points of view in China's architectural history. The geometry, symmetry, and axis had a considerable meaning in classical Chinese architecture (Sung 2006, 106) and the house geomancy in general (Yoon 2008, 149). Moreover, most likely, because of this, Taiwanese rural houses are still today being constructed as nearly as possible to an ideal of perfect symmetry (Henderson 1994, 215). This preference was not popular only among peasants, but also in Neo-Confucian leadership of dynasties, as creating cities with a strict grid street structure and a main square with an overpowering monumental symmetry, was all for creating an image of order – not in just built environment, but also in society in general (Sarvimäki 2000, 70 & 115).

But China, like whole East-Asia, is famous for syncretism, where living with and using different philosophies simultaneously is not anything out of the ordinary (Seppälä 2002, 36). Therefore, finding opposite thoughts also in fengshui is not anything unexpected. In other words, for example, while a building needs to be constructed with symmetry and balance, any parallel lines, so-called "secret arrows," like routes, rivers, rooflines, or wires need to be "naturally curvy" or at least avoided (Skinner 1989, 29-30).

So, when we combine the gathered information with the knowledge of the *yin-yang* theory, we can come up with the following conclusions:

1) *Yin-yang* creates harmony, and harmony creates symmetry

2) As *yin-yang* is built on opposites, this also means right and left, down and up respectively. Bilateral symmetry is based on the same contraries.

3) Aesthetics needs to be achieved by two extremes, order, and complexity. Alone, pure symmetry is dull, while complexity creates chaos and confusion. If we follow the thought of *yin-yang* for balancing opposites for harmony, we can create an environment that is exciting but not confusing. Interesting but not disturbing.

2.4 The Five Elements

Wuxing[26], Five Phases, or perhaps best known as the Five Elements, shares many similarities with Ancient Greek Classical elements (Figure 2.3), and any other concepts of matter that can be found from the historical cultures, e.g., Babylonia, Japan, Tibet or India. However, unlike any of the mentioned, the Chinese Five Elements is commonly referring to the elements as dynamic energy, rather than a static matter (Yoon 2008, 59). In other words, as everything is strongly related to the *qi* and the cyclic duality, the Five Elements becomes only a finer action of the *yin-yang*. (Seppälä 2017, 36-38). For this reason, other translations are largely preferred. – Besides the mentioned Five Phases, "five moving agents" is also suggested, as the *xing* (行) expresses a movement (Yong 1988, 30).

As stated above, the movement is naturally essential for the Five Elements. Partly as it is the key feature that forms the Five Elements' order, which determines how these interacting forces can either produce or destroy one another (Yoon 2008, 59); In clockwise order creates (from - to): Fire, Earth, Metal, Water, Wood. And every other destroys (from - to): Fire - Metal - Wood - Earth - Water (- Fire)(Figure2.5). While most of these actions are somewhat rationally describable by the nature of the elements[27], there is some debate for example on why metal creates water. One explanation is condensation on a cold metal surface, or metal can be imagined as rocks where water flows through its cracks (Yoon 2008, 59). Nevertheless, as the whole theory is rather abstruse, finding an unambiguous logic behind the concept does not bring a great amount more of value for its practical use.

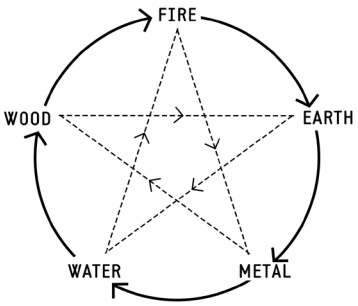

Figure 2.4: A concept of the Five elements. The creation of materials turns clockwise in a circle; Destruction creates a star-shape pattern. A modified version of Sarvimäki, 2002. 17.

[26] p.: wǔxíng; C.:五行

[27] As Yoon (2018) describes: "[W]ater (or nutrients in liquid form) nourishes wood; wood becomes fuel for fire; the remains of fire become ash or earth; and metal is deposited under earth."

Because of the abstract nature of the Five Elements, it can be applied to practically anything. As the thought system developed over the centuries, it became virtually a fixation for Chinese (and other enthusiasts of the matter), and today, we have an extensive list for categorizing a vast variety of different subjects (Seppälä 2017, 38-39). But this also means that we can as well organize different architectural elements with this concept. As the elements are divided into being either *yin* or *yang* energy, we can look if this is a valid and useful tool for creating material harmony in a design concept. Consideration for this possibility of the Five Elements working as a physical-relational diagram, has been already stated before, but not further researched (Yong 1988, 30).

Zumthor has unintentionally given interesting verifying examples of the notice, as he sometimes speaks of using oak (wood – *yang*) together with tufa/pietra serena and silver (rock(metal) – *yin*)(Zumthor 2006, 86; Zumthor 2015, 23 & 25), which as noted, constitutes of "opposing elements". Another example was about using light cedarwood (*yang*, *yang*), with heavy concrete (*yin*, *yin*), which turn out to be better than using a denser, heavy, hardwood, such as ebony (Zumthor 2015, 25). While Zumthor was expecting that heavier wood would have been an appropriate counterweight for the massive exposed concrete, it is arguable that the light cedar instead created this material harmony. We could explain by fengshui that ebony emphasized the density of the concrete, and thus making the space be formed too strongly with the *yin* basis – while *yang*-based cedar created the successful balance of the *yin-yang* harmony. Or as Zumthor would call it, forming a "Material Compatibility" (Zumthor 2015, 23)(Figure 2.5).

Indeed, on the other hand, some modernist architects' – such as Mies van der Rohe and Marcel Breuer – buildings have been occasionally described cold and sterile (Rasmussen 1964, 176). One of the most significant possibilities for this is indeed the homogeneity of the used materials; *yin*-based metal, glass, and concrete. As meanwhile, Marcel Breuer himself described his chair's perfection, by the material qualities: steel for strength, and leather for durability (De Botton 2008, 67-68). While it can be explained with such features, it is arguable that part of the beauty is also the oppositions of these materials: cool - warm, hard - soft, shiny - matt. And therefore, he could possibly have avoided the criticism, if he would have applied this practice to his architecture as well. Similarly. as in late 19th-century English country houses, is in the meanwhile praised for the brilliant combinations of weathered oak and stone or red brick (Rasmussen 1964, 179-180).

Admittedly, this theory is not as straightforward as one would wish, due to the fact that they are judged by numerous qualities, which can also vary depending on the finish (Rasmussen 1964, 182). While it can even be challenging to make a distinction between the impression of color and texture (p.170). A board of pine wood, for example, can have a naturally rough texture and a light color, or it can be sanded, stained, and varnished to have a dark, shiny, and smooth surface. But in practice, it is not necessarily that difficult as it sounds; after choosing the main construction element and its finish(es), the rest of the materials can be found from the opposite side of the material palette.

Figure 2.5:
Finnish Nature Center Haltia (2013) by Lahdelma & Mahlamäki. Espoo, Finland. Combinations of wood and metal, light and dark tones, warm and cold colors, are all successfully present, and in dual harmony.

Water 2.5

In this chapter, we do not discuss water as a part of the Five elements, but instead as a physical feature of fengshui practice in general. Water, the second character of fengshui, is argued to be the most crucial aspect of this thought process (Yoon 2008, 22). As the *Book of Burial* explains: "...fengshui is, first of all, to obtain water and secondly to store from the wind." (Paton 2013, 126) This emphasizes the great importance of water in the practice. But in reality, water has got less emphasis among fengshui practitioners compared to mountains (Yoon 2008, 89). This is likely due to the nature that rivers and lakes are largely formed according to these topographical changes. However, as there is a large variety of different uses for water, the requirements for hills does not reason this phenomenon thoroughly.

Maybe there are more modern reasons for the attitude. While fengshui practitioners are not giving water the attention which the philosophy requires, some architects and urban planners seem to have also a rather dismissive attitude towards visible water features; Especially the ones that are con-

Figure 2.6: Musée Unterlinden Extension (2015), Herzog & de Meuron. As the positive environmental qualities are being recognized in recent years, several previously covered streams and rivers are being opened again for the public to enjoy.

nected and free-flowing. Apparently, the organically meandering streams of water cannot fit the rational grid street systems of cities (Alexander et al. 1977, 324). Even when water is included in a design, for example, the "Ideal cities" by Francesco Di Giorgio on his polygonal city plan or Leonardo da Vinci's design for the city of Florence, the river Arno becomes "straight as an arrow" (Giedion 2008, 52) Fortunately, there is coming a change to that already. Large fundings are invested in the research of water's role in the quality of the urban environment and its possible benefits for the city structure.[28] In the meanwhile, for example previously existing watercourses are being revealed already. (Figure 2.6, 2.7, 2.10)

Figure 2.7: The city of Aarhus, Denmark, has since 1991 had an ongoing project for uncovering the Aarhus river, which was piped and paved over in the 1930s for hygienic reasons and to give space for road infrastructure.

[28] I.e., European Union's Horizon 2020's research and innovation program funding includes a section for BlueHealth project – a set of researches relating to the positive effects of water-related environments.

The best quality/character is like water.
The water's goodness is that it benefits the myriad things but does not quarrel,
and it willingly goes to where others hate,
Thus it is almost like the Dao.

- Dao De Ching, #8 [29]

As water is the most preferable feature in fengshui (Mak&So 2015, 80), the literature has set relatively exact rules for its most auspicious forms. Complete writings have been made even of just the right directions and shapes of rivers (e.g., *Water Dragon Classic*[30]), and an open view between a river and a building is specifically called as mingtang[31], abstractly describable as a bright place where the water gathers (Paton 2013, 63).

As buildings should face southernly direction, so should the water accordingly (p.161). It is especially important to note, that the water should not be located in Northern direction (p.120), as this will cause cold heavy winds. Although this kind of flow of air is not necessarily a great threat for modern humans like it used to be in ancient north China (Yoon 1977, 17). It is still experienced uncomfortable and possibly even cause some levels of indispositions. Other preferences include the water to be slow and winding (Yoon 1977, 89). Although straight waters barely exist on earth, for fengshui it is still an important notice also when creating an artificial water feature. Therefore, while waters should be meandering for making it slower, it also reflects the attitude of replicating the organic style of nature, which traditional Chinese are famous for.

However, as stated in the *Book of Burial*, "if there is *qi*, there is water" (Paton 2013, 126), which conveys that water is always good. For this reason, it is a common practice to place water features, pools, and fountains, in the proper directions – mainly to the south (and therefore front of the house), but also in smaller sizes on both sides, east, and west (Yoon 1977, 89).

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[29] 上善若水。
水善利萬物而不爭，
處眾人之所惡，
故幾於道。

[30] 水龍經, also known in English as "The Secretly Passed Down Water Dragon Classic", edited by Jiang Pingjie, ca. 1600, English translations by Stephen Skinner (2016) and John Paton (2013)

[31] p.: míngtáng; C.: 明堂

Although, while the water itself is seen as a positive element, a belief in the previously mentioned water veins in chapter 2.2.3 and its adverse effects has been a standard part of fengshui since the times of ancient China. These underground streams has been a popular belief in at least both Western and Chinese cultures for centuries. In China, the earliest possible references for this practice dates to the times of the emperor Yu (2201-2179 BCE), or at least the times of the earliest fengshui literature – whereas in various European countries it became popular in the 16th century (p.14), and commonly known in Finland at least till 1930's, when the underground water streams became related with radiation. (Kari-Koskinen et al. 1985, iii).

While naturally occurring underground streams of water are extremely rare, the modern architectural works built over various streams are becoming significantly more popular (Figure 2.8). Therefore, while the scientists have not yet to come into agreement with the effects of water veins and other earth radiation-related matters, these modern works could be part of proving this feature of the fengshui to be accurate or false. However, one could suspect that, for fengshui, it might have initially only been a means of protecting the graves on the sloping mountains

Figure 2.8: Fallingwater (1936-39), Frank Lloyd Wright, Mill Run, PA, USA. While the Bear Run stream does not flow directly through and under the building, the Fallingwater can work as a classic example of natural streams being implemented on modern architecture.

We are not dependent on riversides, and watercourses like our ancestors did. We take it for granted as a substance and do not see a real need for it in our surroundings. Some might even consider it a threat to building structures if placed inside or near a building. After all, the problems of mildew in houses apparently started when taps (and thus showers, bathrooms, and toilets), meaning great use of water, was moved inside the buildings.

But we came from water (Alexander et al., 1977, 323). Our bodies are mainly water[32]. And Primordial water is a common substance in many cultures' historical beliefs – including Chinese (Sarvimäki, 2002, 15) and Egyptians (Bachelard, 2015, 39). Both Chinese Daoists (Huotari & Seppälä 2005, 371) as well as Western philosophers, such as Bachelard (Bachelard 2015, 41), saw water uniquely feminine (Figure 2.9). So, it is inevitable that water has a strong effect on the human psyche (Alexander et al. 1977, 323).

Figure 2.9: Summer Evening (1894) by Anders Zorn. Women bathing, spending time, or just standing in waters, has been a common theme of art throughout history. From the stories of the Venus-Aphrodite getting born from a seafoam to a multitude of contemporary paintings, such as Relaxing in Water by Liu Xiaodong (刘小东).

[32] An adult male is about 65% of water, and a female approximately 55%.

It is a basic human need, not only for physical, but also for mental reasons, and we should not overlook its importance in our daily life. Calm water in daily surroundings have shown to decrease the stress levels on humans, and the importance of this notice is becoming only more important, as the average stress levels are only raising.

And in urban structure, an adequate water usage, can have tremendous outcomes in the city's ecosystem, by increasing wildlife, insect variety, decrease air pollution (indirectly and directly), lowering air temperature etc. (Figure 2.10) Water gardens in other hand can work also as a storage for storm and wastewater. (Figure 2.11) This can become a part of the necessary planning decisions in the near future, due to the rising sea levels.

Figure 2.10: Hammarby Sjöstad, Sweden.
The Majority of the world's largest cities are facing problems with water management and rising sea levels due to climate change. Some of them have reacted to it by revealing old rivers (e.g., Boston and Copenhagen) or creating new water solutions, e.g., wet gardens, canals, pools, and streams.

Figure 2.11: Cheonggyecheon, Seoul, South Korea (2002-05). The immense renewal program for nearly 11km long linear park mainly consists of revival of the previously existed river. Not only is the riverside in an extensive use (90 000 users a day), the water has reported to creat numerous positive effects including amount of species increased 6-38 times, decreased air pollution, and cooler air (3.6C° less than average).

Figure 2.12: Xinsheng Green Waterway (新盛綠川水岸廊道), Taichung, Taiwan.
A 610 meter restored section of the Green River, was built for improving air quality in 2018 and is now a popular place for leizure among the residents.

III

Principles

3.1 Location and Environment

> *"At least they reached the high point of the ridge and ... gazed at the flatland below. Far off, their eyes could see clusters of houses, meadows, blue lakes, and the high church tower on the wooded fringe to the west. On sloping ground to the east, Jukola Farm glowed like a lost paradise, filling the brothers' breasts with yearning. But at length they turned their eyes to the north, where they could see the steep heights of Impivaara with its dark crannies, its slopes decked with storm-torn mossy spruce. At its foot lay a pleasant, stump-strewn meadow, their future dwelling place, around it a wilderness that would yield them stout timber for building a house. All this they saw, and the waters of Lake Ilves sparked through the pines and a golden sunset glowed on the northwestern slope of the mountain, and the sweet light of hope gleamed in their eyes and made them square their shoulders."*
>
> *-Aleksis Kivi, Seven Brothers (translated by R. A. Impola)*

The meaning of studying the surrounding environment and buildings has traditionally been a critical starting point for any architectural design throughout history. Likely any architectural school puts great emphasis on analyzing the given lot and its surroundings carefully, even before making any sketches of possible design. This, in fact, arguably is one of the points that makes architecture meaningful; At least, in theory, every building should be made in "its place." As Zumthor puts it, a building should be part of the essence of its place, while speaking of the world as a whole (Zumthor 2006, 42).

As stated in the introduction, fengshui was originally mostly a knowledge of geography (Yong, 1988). That alone explains how most of the decisions in fengshui derives from nature, and it has been stated that fengshui can serve as even a better tool for analyzing the landscape, than the Hendler model. (Mak 2015, 36)

Most of the traditional fengshui texts, such as *Ten Books of Dwellings of Living*[33], divide the design into two main categories: outer form and inner form. Later as fengshui has developed, more categories are introduced, and therefore, it is in some cases further divided into four modules: surrounding environment, external layout, internal layout, and interior arrangement

[33] p.: Yang Zhai Shi Shu, C.simpl.: 阳宅十书; C.trad.: 陽宅十書

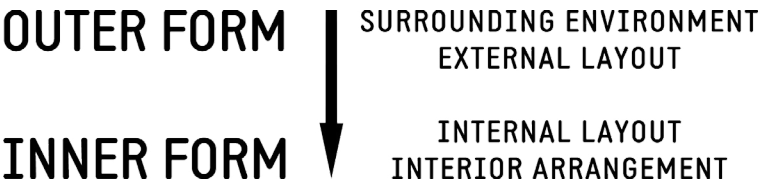


Figure 3.1: The order of importance. If the largest categories fail, all the other ones underneath will suffer. The rule applies only in this direction. Modified from Mak & So, 2015, 89

(Mak & So 2015, 101)(Figure 3.1). Nevertheless, of the categorizing system, the outmost layer(s) plays still the most vital part of fengshui. Therefore, this chapter has a major role also in this thesis.

However, this is not very typical for modern architecture. While in the earliest European civilizations – mainly Sumer, Greece, and Rome – did not have great importance for the interior space in their buildings, contrarily, the contemporary architectural work has instead made the design of the interior space become the ultimate task of architecture (Giedion 2008, xlviii). Quoting Le Corbusier: "The design moves from inside to outside – exterior is the result of the interior"(Le Corbusier 2004, 16). This is the dogma of modernism (Venturi 2006, 207). As Frank Lloyd Wright reasons the organic architecture: "An organic form grows its structure out of conditions as a plant grows out of the soil... Both unfold similarly from within." (Johnson 1994, 67)

Although, this does not mean that modern architecture ignores the surrounding environment, but rather that the focal point of the practice has shifted from the outer arrangement and façade to creating spaces indoors. The exterior has become a mere and vague reflection of the interior. Furthermore, in some cases, a building is even seen to be in conflict with the surrounding nature - As György Kepes, a Hungarian artist and art theorist has written: "A physical configuration is a product of the duel between native construction and outside environment" (Venturi 2006, 210).

But something exceedingly valuable has been lost from this shift. It might be a reason for the current general dissatisfaction among the common population, as the beautiful and well thought interior spaces are not offering much for the people outside. And as the indoor is gathering the most of the architect's attention, outdoors are often left very much cold and impersonal, windy and uncomfortable, plain and simple. It is therefore plausible that applying basic principles of fengshui, could likely be a step in the right direction.

3.2 Optimal Location

A high number of fengshui classics are focused on finding the auspicious location for a settlement; The already introduced *Book of Burial* sets many of the basic principles that fengshui masters have since followed. The Water Dragon Classic explained with rather abstract diagrams (Figure 3.2) the preferred forms of rivers. Moreover, the Twenty Four Difficult Problems goes through commonly posed questions, related to more advanced and problematic issues of optimal location and fengshui practice.

Meanwhile, Sigfried Giedion describes in his famous work *Space, Time and Architecture*: "Like plants, human settlements require certain conditions for growth" (Giedion 2008, 41). And like plants, humans as well need water, protection, sunlight and fertile land – if not for survival, at least for a comfortable living – and these are also handled in the previously mentioned classics. However, these commonsensical features are being continuously violated by high-rise residential blocks, paving over streams and rivers and lush vegetation, and even building in areas that have not one of these features, to begin with. On some level, we can supplement this by technology and high energy consumption, but as Dao says, while everything has a beginning, it also has an end (Nieminen & Nieminen 2015, 14). So we need better means to make this cycle less drastic and more sustainable, by not ignoring the simple laws of comfortable living in earth, which few of these will be introduced in this section.

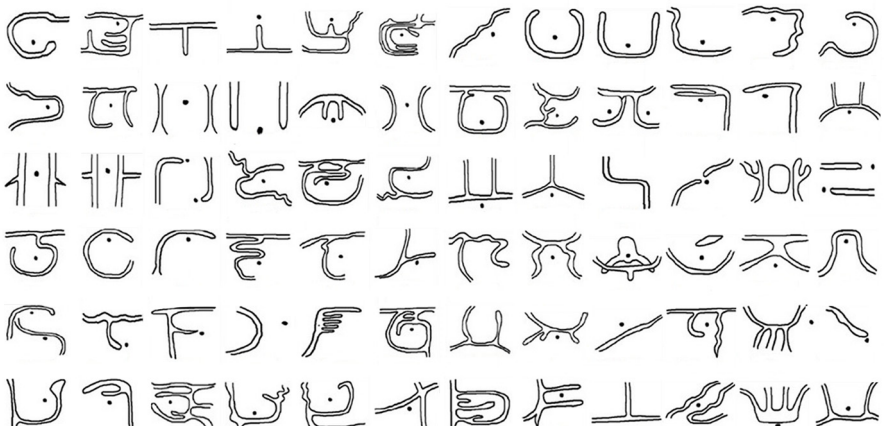


Figure 3.2: Some of the figures, represented in the Water Dragon Classic. While some of the examples are not relatable to real-world situations, the classic has become one of the most used works regarding the position of house in relation to rivers.

The repeating and central point in fengshui is locating the xue (穴) and refining its definition. In its literal meaning, xue?? means a "hole" or a "cave," but this instead refers to either graves (Paton 2013, 47) or the ancient cave dwellings of Loess Plateau (Yoon 2008, 24), and therefore they do not describe the true meaning of the character in fengshui literature. As reads in the *Book of Burial*:

> *"The Classic says, 'When qi circulates through landforms, entities are, thereby, given life.' The configurational force of the earth is the original veins."*

We can understand how the *qi* flows in lines, the veins of the earth, and according to the classics in general, auspicious locations are formed in the places where these lines, branches of *qi*, will meet (Paton 2013, 47). Therefore, "node" has become a universal standard as a synonym for the "fengshui cave." This concept of node is arguably the principle of most considerable significance in fengshui. After all, if the general location is inauspicious, nothing will make the actual site into a proper dwelling place. Therefore, the classic *Twenty Four Difficult Problems states* in PROBLEM 5: "The saying of the ancients that three years is spent seeking the land and ten years is spent isolating the node is prudent" (Paton 2013, 168).

Nevertheless, finding a node is not necessarily as difficult in theory, as the examples may make us understand. Even a Western Finnish farmhouse can work as an example: typically placed on the southern side of a hill, protected by trees and forest, while the buildings are arranged surrounding the courtyard, and often nearby a watercourse (Sarvimäki 2002, 38). Sim-

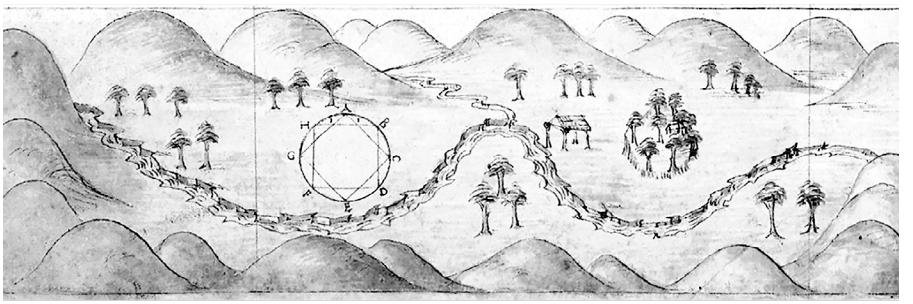


Figure 3.3: A visionary of an ideal city, by a Tuscan architect A. Filarete, and a Reissance Prince Francesco Sfoza in ca. 1460-64.
From Filarete's second book, Trattato di Architettura (Book 1, f.11 v.)

[34] p.: xué; C.: 穴

ilar locations can be equally found from around the world. For example, the Italian city Sfozinda, cittá ideale, designed by architect Antonio Filarete (Giedion 2008, 46), was located accordingly, though not purposely, with fengshui principles (Figure 3.3).

In short, a node is situated in a location described in the classic *Five Geographical Secrets* (Mak & So 2015, 78-82):

- The Dragon 龙; A node locates at the end of mountain ridges; One should not cut the range of mountains (the dragon), or the veins of *qi* will be cut open, and the *qi* will be scattered in all directions.
- The Sand 砂; The Dragon and Tiger embrace and protect; northern side of the node needs to have protected mountains against the cold winds (Bruun, 2008, p.85), preferably formed in the form of an "armchair."
- The Water 水; Looking at the water; As the most preferable feature in fengshui, a presence of water is necessary; Preferably a river, flowing from east to west, with a smooth curve (Water dragon Classic)
- The Cave 穴; The node; A spot of change in geological qualities, with a leveled land from an elevated spot, and an open view to the waterfront.
- The Direction 向; The front, Red Bird, to the south; A node should always face a southerly direction.

These principles are considered as a whole rather than individual principles, and always used in site selection in traditional China (Mak & So 2015, 81) However, these principles do bring a few problems that derive from Chinese geography. Mountainous areas, for example, are a common sight in northern China, where the fengshui initially was formed. However, in flatter locations, this must be substituted by, for example, trees or even artificial hills. Although, the so-called "fengshui forests" have been shown to have an effect of sufficient enclosure (Coggins & Minor, 2018, 5) (besides all other benefits surrounding wild nature can offer), and the argument of inauspicious fengshui has effectively worked in some of the Chinese villages, and especially in cities like Hong Kong for protecting the greenery. But due to these semi-strict rules for geographical features, it might be the reason for the popularity of Compass School in more flat and featureless regions (Bruun 2008, 115), while in mountainous Japan, a style of the Form School has been notably popular (Sarvimäki 2002, 63).

As Guo Pu claims in the *Book of Burial*: "Auspicious *qi* accompanies the luxuriant growth of grasses and trees; [This is] the interior and the exterior; the manifest and what is within. Sometimes it is so, and sometimes it is made to be so."(Paton 2013, 119) From this, we can conclude a few key points:

- Rich and lush vegetation is necessary
- One needs fertile land to achieve this property
- The luxurious level of plants can be natural, or manmade.

Vitruvius thought similar matters by the natural healthiness of a site (Vitruvius, Book I, chapter IV). While his considerations were mostly on food and clean water sources, his ideas share notable similarities.

However, while fengshui does explain the importance of vegetation by their positive energy, the real value still lies, not in their own *qi*, but instead on the protection they provide from the malicious *qi* of the wind. As the *Book of Burial* states: "If *qi* rides the wind it is scattered" (Paton 2013, 216), and while according to fengshui's philosophy, collecting this energy is the main or even only requirement for auspicious site, it clearly explains the importance of wind protection. However, this security from wind is naturally preferred to be done by trees, due to their own *qi* collecting attributes.

But protection means also creating places. Although trees inherently have pleasant qualities alone, their beauty is indeed revealed in quantity. Therefore, they are most valuable for people, when they are planted in the city according to their nature: creating spaces, enclosures, small squares, and groves (Alexander 1977, 798-800). As trees are acting in a group, they naturally create spaces and enclosures (Cullen 1978, 82). (Figure 3.4)

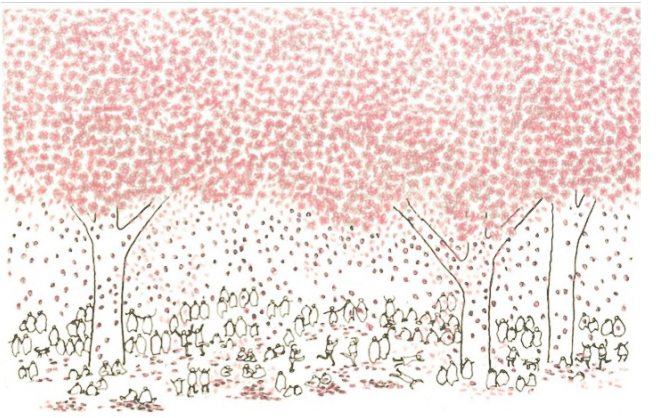


Figure 3.4: Not only do trees in multitude numbers create refined spaces, but when let to be grown to a sufficient size, they also can form complete enclosures. Illustration by Toyo Ito (2015)

Forests, and vegetation in general, also reduce stress in a similar manner, as the calm waters do. This so-called biophilia effect produces restorative benefits on humans (Lidwell et al. 2010, 36), and shows our inherent preference for greenery in the daily surroundings. From this we could make an assumption that the more greenery is, the better - but this might be an exaggeration. After all, even the Classic states: "Burial where the grass is not cut is renowned as a robber's burial." (Paton 2013, 121), which we can with certainty understand as a requirement for maintenance of the vegetation, and therefore we cannot let it become overabundance. In addition, while grandiose and large trees are repeatedly mentioned being auspicious in fengshui classics (e.g., Paton 2013, 129, 161 & 174), they still should not shade the building or space in front of it(Mak & So, 2015). This naturally blocks the sunlight and views from the interior (Figure 3.5).

Figure 3.5: Bosco Verticale (Vertical Forest) (2014) by Boeri Studio. Milan, Italy. While interesting to look at from the outside, and being vaguely sustainable and ecological, the shading of the trees around the facade inevitable lead to a limited sunlight indoors (Pelsmakers, 2019). While the presence of greenery is prefereable, sunlight is valued to be a greater importance also in fengshui.

Already the earliest settlements in human history were placed near great water sources, such as rivers or seas. These so-called "delta cities" benefitted from the presence of water, for example, as a water source, navigation, and ecosystem (Tai 2018, 20). Being near a sea or major river route is still essential even for developed cities, but mostly because of the ports and large infrastructures. Meanwhile, the modern grid plan city structure ignores the underlying and surrounding topography, while creating large impenetrable surfaces, commonly causing major flood problems. Besides, this uniform and plain system have got a considerable amount of criticism for being dull and unattractive. Therefore, allowing the city to form accordingly with the underlying nature could result in a more attractive and pleasant urban environment. This would most inevitably lead to also free-flowing streams to appear in the city fabric. However, so far, only for the last decade, the loss of water-based cultural identity has been regarded, and eco-tourism have brought new focuses for the waterfront developments.

As stated in the introduction of the principles of fengshui, water features play a significant role in its practice. That is only understandable, as the need for it is so inherently deep-rooted in our psyche, and how it shows in various forms in our daily life. In architecture, this can be used as an advantage. The change from land to water, for example, creates the most exceptional psychological contrast that can be achieved. Especially if experienced on a large scale, it is the very experience of immediacy (Cullen 1978, 189-190)(Figure 3.6).

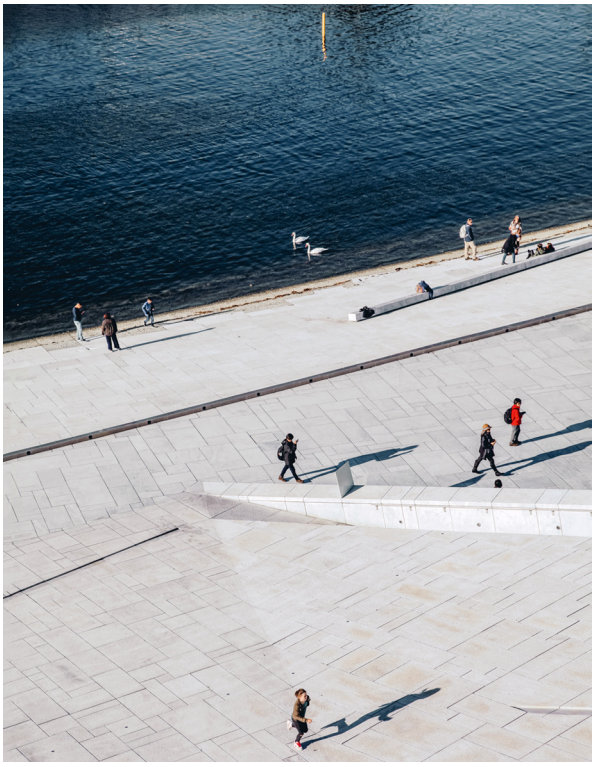


Figure 3.6: Oslo Opera House (2007) by Sno Hetta. Oslo, Norway. The line between here (land) and there (ocean), gives the real feeling of immediacy.

Furthermore, due to this border of contrast, a building will not be only physically, but also psychologically separated from its surroundings when placed in immediately along the water (Figure 3.7). Only having a bridge or other means of crossing this border, will readily have the building to appear lonely and introverted, or contrarily complacent and proud. When placed accordingly with fengshui this would not happen, as sufficient land should be placed between the building and water and preferably having vegetation to protect it and the people nearby from the strongest winds.

Moreover, while streams highlight the general topography and work as boundaries, still water, on the other hand, can be perceived as one of the primordial elements of piece and silence (Bachelard 2015, 181)(Figure 3.8). Although these stationary and silent waters are connected with death in many cultures such as Chinese (Paton 2013, 91), ancient Greek[35], and Finnish[36], it still also retains its inner beauty and voice (Bachelard 2015, 24 & 71)

Figure 3.7: National Assembly Building of Bangladesh (1961-82), by Louis Kahn. With its monolithic form and immediate presence of water, the building appears unreachable and almost alien to its place.

[35] Greek rivers of the underworld: Acheron, Cocytus, Eridanos, Lethe, Phlegethon, and Styx

[36] River of Tuonela

Thus, in the built environment, different kind of water features has a significant number of uses and possibilities. It does not need to be limited to fountains in parks, or small pools in front of the buildings. Instead, it can reveal the topography of the city, as forms of linked streams, visible for the passers-by (Figure 3.9, 2.11, 2.12). These streams can work as a boundary of communities, places to rest and gaze the water, pools, and ponds for children to play in (Alexander 1977, 324-325)(Figure 3.10). According to Alexander, these waters should, by nature, be connected (Alexander 1977, 327), and thus forming size as doing so while approaching more grandiose ones. For fengshui this is the ideological situation. Alexander goes as far as requiring every building project to include a plan for visible waters (p. 326), and swimming locations within reach of a few minutes' walk (p.327). This is the level of importance that should be required for the use of water.

Figure 3.8: Weihai Hospital of Traditional Chinese Medicine (2018) by GLA. In various cultures, philosophy-wise, still waters are described as being dead - which is also the case with fengshui. Yet, when the goal is to achieve the most peaceful space, and have a sense of silence, vast bodies of stagnant water can be one of the most effective means of achieving this aim.

Figure 3.9: canals of Amsterdam. The over hundred kilometers of canals in Amsterdam does not only give the city a somewhat varying structure but also offer refreshing in summer and the possibility for activities in winter.

Figure 3.10: Keller Fountain Park (1970) by Lawrence Halprin & Associates. Portland, OR, USA. Places to play in the water, is fundamental for childrens' healthy development and adults' general mental health, as it sets free crucial processes of the human mind (Alexander, 1979, p. 293). This, as a byproduct, also further increases the positive energy of an environment and thus generates alive spaces to experience.

Nature Preserving 3.3

McHarg defines two major world viewpoints, in his book *Design With Nature*. These two include: anthropocentric (nature is for humans) and man-nature (McHarg, 1971)(Figure 3.11) He argues that modern Western human behavior has become egoistic and abusive against nature. Naturally, this can be explained with endless examples, but it all rooted in the monotheistic roots of Judaism. In an opposite manner, fengshui's roots are, as explained, in Daoism (Bruun 2008, 19), which comparably with most of the other Asian religions such as Zen and Shinto, is man-nature based. Hong-Key Yoon has done a considerable amount of literature which discusses the human-nature character of fengshui. He states for example how fengshui could be the answer for guiding people's attitudes towards nature, as it can be seen as a "comprehensive system of conceptualizing the physical environment" (Yoon, 2008: 1)

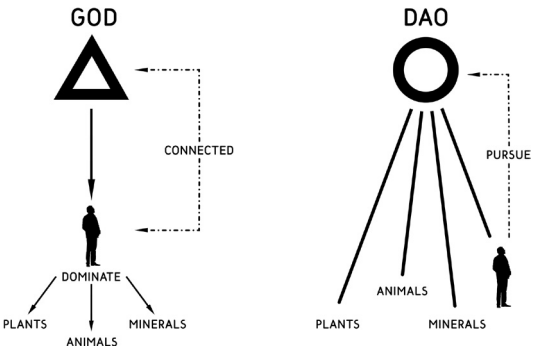


Figure 3.11: A diagram of the relationship between God and man, and the relationship between Dao and man. Modified version of Sung 2006, 77

Philosophy of man-nature appears to be the only kind, which understands and respects nature as it should. Therefore, Fengshui should be an excellent tool for more environmentally friendly city structures. However, unfortunately, McHarg did not see the Asian religions being valid option to bring that thinking way to western cultures since the attitude is based on individualism, and man-nature is seen to be achieved by the expense of individuality (McHarg 1971, 27-28).

But the ever-rising concern of climate change has still supposedly created more substantial global interest even for fengshui – at least among the academics (Chen 2008, 8). The general worry of rising temperatures and the symptoms caused by it are seemingly making people more open-minded for solutions. Although fengshui cannot exactly solve the problem of climate change itself, it still can guide the city structure back to naturally logical solutions (i.e., preserving surrounding forests for wind protection)

and hold back further multiplying threads against nature. For example, the people in the Jersey Shore in New Jersey, USA, are in a constant threat of hurricanes and strong winds for building houses right along the dynes, beside the beach (McHarg 1971, 16-17). Dynes, which would other ways protect the people behind them, have been demolished from excessive building and use. As hurricanes are becoming only more common in New Jersey, fengshui would not have only nature preserving meanings, but also practical reasons, since it requires distance from the large waters and vegetation and/or small hills in between (Figure 3.12)(Alexander 1977, 137-138).

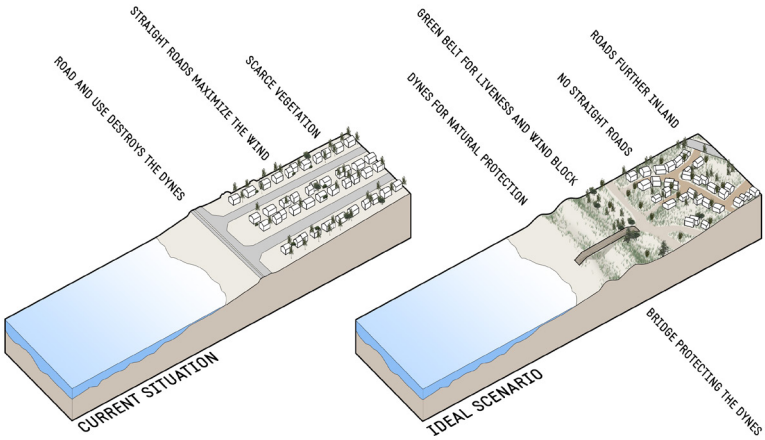


Figure 3.12: A rough, modified image of the situation in New Jersey, and the decision choices for correcting its errors accordingly with the fengshui principles.

Although, as fengshui was originally meant the act of merely finding the auspicious location for a new building or a grave, it did not precisely include nature preserving attributes. For this reason, fengshui is criticized for some environmental problems it has caused in Mainland China, for example, corrosion caused by building graves on mountains (Bruun 2008, 134), which was seen as a harmless action of the Daoist cycle of life (Sarvimäki 2002, 85). Ole Bruun states that while fengshui's point is to design in harmony with nature, it does not make it nature reserving philosophy (Bruun 2008, 183). Perhaps a good example of this is the fengshui's need for an auspicious location, which partly means preferably fertile land. Although this has been a globally common practice since human history, Cristopher Alexander states how choosing the lot should be based on a completely opposite attitude (Alexander 1977, 508-511). The flourishing nature should be left in peace, and we should, instead, choose the locations with the worst soil conditions in an area, as we can effortlessly make it habitable and fertile. This, at least in theory, is a lot less demanding and damaging against nature than the needs placed by fengshui.

Plot & Surroundings 3.4

For the scalability of fengshui principles, shown at the beginning of this last section, the general features remain relatively unchanged even when moving to the scale of individual buildings and their surroundings. However, as this new scale also brings new problems for the perspective of a single person and architecture, we need to examine them through these previously learned systems. These problems include, for example, the wind protection and activity levels in streets, levels of publicity and privacy, lightning conditions, and more.

While the idea of *genius loci,* for example, has shifted away from its primary means of protective spirits of a place to describe its general atmosphere, applying similar considerations into architecture could, in theory, lead to a better environment. However, even though the use of the term *genius loci* has become a cliché in modern architecture, we still have not seen a drastic change to better in the quality of our environment, in the aspect of its feeling. The purpose of this chapter is, therefore, to pinpoint a few of these qualities that might be missing in our current built environment.

This is precisely the scale that an architect needs to examine carefully when beginning the design process. How else a building could speak for its time and place (Zumthor 2018, 20)? But instead, modern city spaces are created of individual object-like buildings (Gehl 2018, 3), which in turn, must mean that this time and place correlation is not realized, and thus creating a comfortable environment that is a single whole, is not being actualized. An individual building can seek something out of the ordinary, but the general city structure needs to show the state of common architectural knowledge and capability to organize life (Giedion 2008, 251).

Although this freedom should possibly be understood as not being enslaved on inner contradictions (Alexander 1979, 26 & 30) A dictatorship-like grid plan, for example, does not provide the freedom for organic diversity, which should be an essential quality of a city (Giedion 2008, 41). But in the meanwhile, it is equally wrong to consider single buildings being individuals, detached from their surroundings.

3.4.1 Site

As with animals, for humans too, there is a specific and proper environment to live in, where a person creates own ecosystem with the surrounding nature (Nyman 2008, 17). Furthermore, if the connection to nature is as essential to humans as it is for other living creatures, our sense of environment is firmly based on judging it by our feelings (p.66-67). Likely, to emphasize this notion of fengshui practice, some translations have interpreted the character 穴 (xue), the "node," as a lair (Paton 2013, 47) – a resting or a living place of animals. Meanwhile, according to Nyman, we have lost the unconscious skill that a bird uses when forming its nest (Nyman 2008, 69).

As the skill is lost, the responsibility is moved to people specialized in the task of recognizing the proper dwelling places and fixing its shortages. Already the author of the *Yellow Emperor's Classic of House Siting*[37] mentions: "Only the learned and illuminated worthy will be able to understand its [the site's] Way." (Paton 2013, 135) As Fengshui masters had a significant role in ancient China on guiding the ruling class for a proper siting and building, today, the task of creating a comfortable built environment can be seen to be a part of the architect's work field.

As will be seen, the practical principles of the form school fengshui are mostly a set of the same vocabulary in a site[38], a building, and even in the interior, as it is in the finding and forming a node. For example, the protection from northern winds is as necessary for a town, as it is for a single building, and this is often explained by the same celestial animals as with the mountains (Mak & So 2015, 86)(Figure 3.25); Only that in a site, instead of a topographical feature, it can also be vegetation, another building, a wall, or, according to some schools, even just a rock. Although the effectiveness or attractiveness of these principles is debatable, their motifs are rather clear.

[37] p.: Huángdì zhái jīng; C.simpl.: 黄帝宅经; C.trad.: 黃帝宅經; A fengshui classic made for the legendary emperor Huangdi (reign 2698–2598 BCE (mythical)) by Wang Wei (CE 699–761), and one of the first known fengshui classics dedicated for house siting, instead of burial (Paton 2013, 14).

[38] pinyin: zhái, C. 宅 , literally: residence, dwelling, site, grave. In fengshui text, usually referring to a discrete place, where a house is located.

According to classical fengshui literature, paths, such as streets, trails, and corridors, should not preferably be created straight. This tradition most likely derives from the belief regarding the irregular beauty of nature and the fact that straight lines rarely occur in the wild. In fengshui practice, it is most commonly described with the nature of *qi*, which is believed to flow in waves or spirals (Bruun 2008, 160). This behavior can be comprehended from, for example, the movement of water; When this natural curve of *qi* is straightened, it will speeds up and become undesirable. In the theory of *qi*, this creates a new negative form of energy named *shaqi*, a kind of antithesis of *qi* (Sarvimäki 2000, 128). As the wind is considered to be a tamable form of energy[39], this thinking way is easily comprehensible; due to the nature of physics of wind, it has a tendency to speed up in linear spaces, i.e., between two buildings placed near each other in an open space (Salvadori 2002, 5)(Figure 3.13). This is not preferable and is best avoided by curved pathways (Figure 3.15), with protection surrounding it, e.g., low buildings or trees (Figure 3.19). Therefore, winding streets are a part of creating a comfortable microclimate by reducing the wind disturbance (Gehl 2015, 141).

Due to the theory of *qi*, contemporary fengshui symbolizes roads as fast-moving rivers (Mak & So 2015, 85). As explained in previous chapters, the larger the river, the greater the distance to dwellings is preferred to be. This is evidently adaptable to the street and road systems as well, as allowing vehicular traffic causes a faster movement (and therefore the speed of

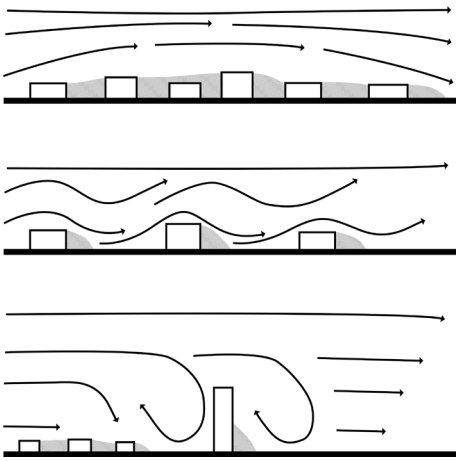


Figure 3.13: Wind protection is essential for auspicious fengshui practice, as well as is it is for the built environment to create a comfortable microclimate. When the height of the buildings and/or the space in between is too great, the air will not move pass and over the buildings. Instead, it gets caught between the buildings, which lead to increased wind speeds and lift of polluted air. Modified from Gehl 2015, 176

[39] Zangshu says that the principle of fengshui is to acquire water and have a calm wind. (Yoon, 2008, p. 22)

qi), which in turn creates the environment inevitably less desirable. Among many, Danish architect Jan Gehl has argued against them with numerous reasonings, from pedestrian safety to general quality of the environment (Gehl 2018, 91; Gehl 2011, 37). According to his findings, forbidding vehicular traffic has a straight connection to the activity level of city life (p.35), and therefore, it would be necessary to treat any routes and thoroughfares in a similar manner, as is a custom in fengshui practice. While they can grow in size towards the borders of a city, they are still preferred to move slow and winding when placed in immediate connection with buildings. This naturally means minimizing the number of cars and other vehicular traffic in the urban environment and densely built residential areas.

As the behavior of roads is similar to rivers, straight routes can evidently create faster traffic, which naturally nobody wants going by their homes (Alexander 1977, 261). Such road settings easily create through traffic, which is fast, noisy, and dangerous. Partly so as such roads will seem as a so-called forgiving environment for drivers, which leads to higher driving speeds and greater risks, regardless of set speed limits. Meanwhile, a curved street with less information on surroundings seems more hazardous for the driver and makes them more aware of the outside, and thus reducing their driving speeds.

Another method for avoiding through-traffic is by preferring dead ends, but this is not favored by either from fengshui or architectural standpoint. According to fengshui principles, a house at the end of a street is "on the way" of the *qi* by the path leading to it (Mak & So 2015, 95). On the other hand, seen from the architectural perspective, these cul-de-sacs can feel claustrophobic and appear to force interaction (Alexander 1977, 262). Perhaps a solution for both is to have good enough paths leading away from the dead-end, removing these features as explained; the "line" of *qi* continues, even though the actual street does not, and space loses its feeling of being too enclosed (Figure 3.14.)

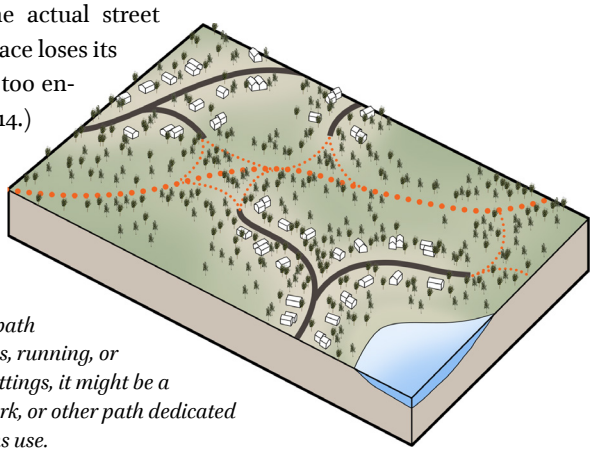


Figure 3.14: In the theme of housing, the street can continue as a path for refreshing walks, running, or biking. In urban settings, it might be a thoroughfare, a park, or other path dedicated only for pedestrians use.

Figure 3.15: Chongqing, 04.08.2015,

The history of the formation of cities is largely based on settlements and shops that were built among popular routes that people had used, and thus made accordingly to the marks on the ground. This ends up creating fascinatingly organic city structures, that can still be found in some Old Towns around the world - likely most famously the Venice, in Italy. These "desire lines" are currently used increasingly by landscape architects by examining the routes people use and paving them afterward. (Lidwell et al., 2010, 76). Unfortunately, preferences for square angles among urban planners are not in line with the pedestrians' favor (Gehl 2011, 138).

While grid plan almost unavoidably creates detours, monotonous environment, and likely windy streets, uneven pathways, however, can create, among other mentioned advantages, a desired serial vision (Cullen 1971, 17) (Figure 3.15). When a pedestrian's range of view is limited, the surroundings stay more intriguing, whereas if the end of the route is visible, the walking will appear endless (Gehl 2018, 127). Breaking down the route into sections of turns and small squares, the opening views are continually changing, which creates continuity and makes the future into a mystery.

Thus, especially when the street has near adjoining buildings, it creates a strong sense of dynamicity where enclosure and pure fluidity are in fascinating balance (Cullen 1971, 30). For creating these winding street paths, for example, punctuation (Figure 3.16)(p.45), fluctuation (Figure 3.17), undulation (Figure 3.18)(p.46), and anticipation (Figure 3.19, 3.15)(p.49) are corresponding ways to vary the urban street system. Mostly these create closures and breaks in the street while having a sense of progression, unlike a full encloser would (p.47).

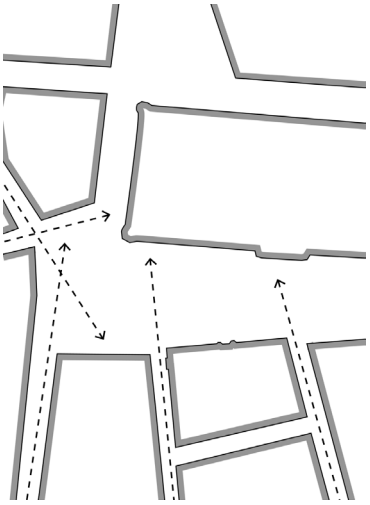


Figure 3.16: Punctuation - A building sets on the way of a path.

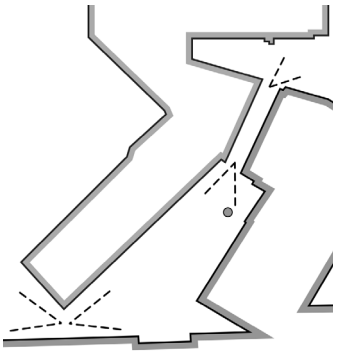


Figure 3.17: Fluctuation - A variation of narrow and open sapces.

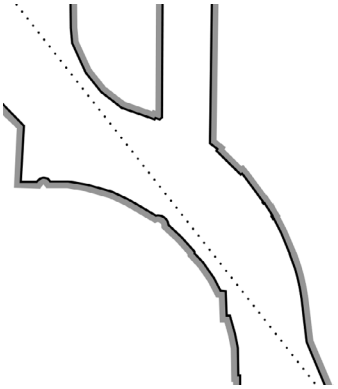


Figure 3.18: Undulation - A slowly winding street with an airy feeling. The other side can also consist of, for example, a park, or a pond

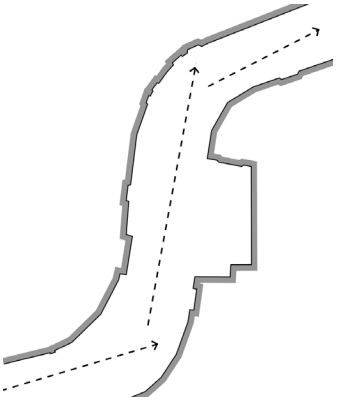


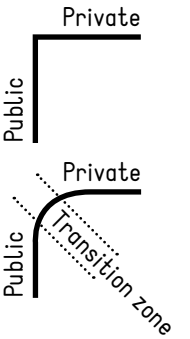
Figure 3.19: Anticipation - A street way where the vision is limited.

However, it might be unfortunate that vertical variety, in the other hand, is preferred to be avoided according to fengshui principles. Even though proper sites are preferred to be placed on high ground, slightly elevated, mid-way of a hill (Mak & So 2015, 111), its principles also require relatively flat land with a max slope of 10° (Xu 2003, 82). Regardless of being located in a hilly environment, where changes in elevation should be expected, they still are not preferred. This is perhaps explainable by the nature of human beings, as our senses are adapted to mainly on horizontal movement (Gehl 2018, 33). Our eyesight alone is predominantly horizontal, whereas looking down- and especially upwards is greatly more demanding. Furthermore, moving the entire body in this vertical direction is an even greater challenge, both physically and psychologically. Besides, building on level land is undoubtedly easier than on a sloping terrain.

But, even though sudden changes of levels are admittedly inconvenient at least, they would still also add variety in the city structure, by creating a similar serial vision as with the winding street structures (Cullen 1971, 20) (Figure 3.20). Therefore, the topographical changes can increase the general quality of a place by offering the experiences which completely flat or uniform land cannot (Gehl 2018, 177). Among solely the views, descending and ascending can have the psychological effect of going into the known and the unknown, respectively (Cullen 1971, 38).

Figure 3.20: San Francisco, among many other cities, is famous for its vertical variety. This is an unfortunate missing element of fengshui practice from an aesthetic standpoint – at least when the principles are followed precisely.

Although classical fengshui is concentrated mostly on physical features – creating places in nature for comfortable living – and not so much on socio-economical questions, its principles still speaks rather strongly for some more abstract features as well, such as the one handled in this chapter; the zone of a meeting point of a building and the city. For users of a built environment, these edges can easily be considered as one of the most vital parts of the city space, for their straight connection with creating active and alive urban life (Gehl 2018, 79).



However, while being referred to as "edges," it should be understood as a general change point from city life to inside a building, and the zone in between. Not necessarily a direct turn from public to private. Such sharp turns in social levels annihilates the attractiveness of the place, and can even transform it into a sort of no man's land (Alexander et al. 1977, 753). (Figure 3.21) Therefore, as followed by fengshui principles, there should always be a rather smooth transition between these two socially opposite settings - sometimes referred to as "soft edges".

This transition inevitably should also be applied to the general city structure as well. (Figure 3.22) Michel de Certeau for example saw the streets of a city block as a gradual privatization of public space, by working as a middle term of the exterior and the interior, within the dialect of existential (as in a private level) and the social (as in between different users of groups) (de Certeau 2013, 19). The public and the private are not there as independent entities, but rather endlessly dependent on each other, creating a tension between them where the space is best experienced (p.19-20).

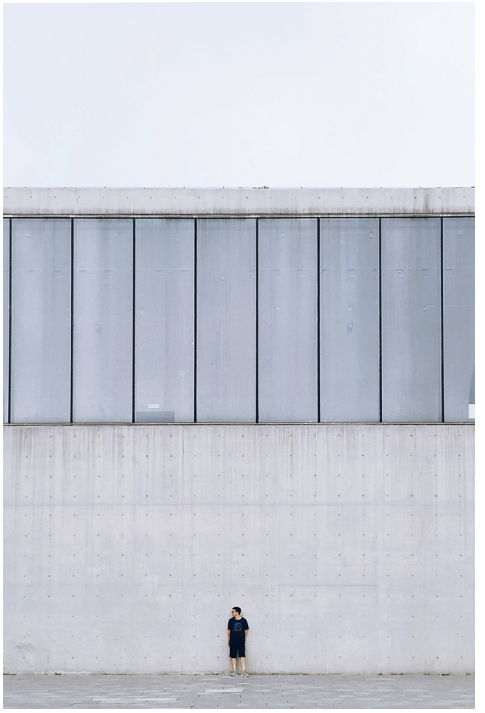


Figure 3.21: Buildings with encolsed façades inevitably lead to dead street life.

Figure 3.22: People enjoy spending time at the edge of public and private. While having a visual contact inside the building is part of creating this soft change, activating the street life is an equal part of achieving this. One part of this task is to maintain this gradient from the whole city to individual buildings.
Guangzhou, Beijing Road, 22.07.2016

But instead of concentrating on the activation of the street life, a common phenomenon of allowing increased vehicular traffic is pushing pedestrians further near the edges and into the buildings. While visual connection with street and the ground floor is one of the essential elements for creating a soft edge effect (Gehl 2011, 121)(Figure 3.23), it alone is not a solution for it, and especially for a living city - which, following the fengshui principles of living energy or sheng*qi*, should be priority. Instead, as argued in the previous chapter, one should prefer slow traffic in an urban setting, allowing the middle of the street for the movement of people, and the edges for leisure. As explained earlier, people, by nature, prefer places where they can have their backs protected, have a comfortable microclimate, and an open view at front for observing the surrounding life (Alexander, 1979).

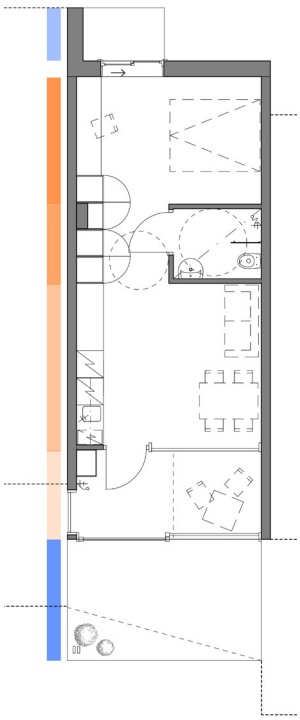


Figure 3.23: The so-called privacy gradient can also be applied to housing. With a semi-public green room, open to other residents, the owner can have a better connection to neighbors as the smoother transition from public to private does not emphasize this contradiction.
Public (blue) and private (orange) are marked according to their strength.

Building design and orientations 3.5

As we get further into the actual design principles of a building in the classical fengshui, the rules decrease in number and become increasingly more general. Only the contemporary fengshui practice has developed more specific theories, regarding especially window and door placements (Sarvimäki 2002, 47), but also features like roof shapes following the Five Elements symbolism, or placement of mirrors, and building shapes according to individuals.[40]

Like mentioned, the surroundings are in a critical role in fengshui practice, and it should not be forgotten by architects either. As Peter Zumthor describes in his book *Thinking Architecture*, how at the beginning of a design process, instead of forming preliminary images in mind of possible building settings, architects should endeavor to answer the basic questions from the location. Only after succeeding to answer these questions posed by the site, purpose, and materials, the structures and spaces will emerge. (Figure 3.24) His meaning is that when architects concentrate on the unchanging innate features of primal elements (e.g., mountains, rock, and water) in connection with a building assignment, it offers a chance to develop an architecture that focuses on real values and things. (Zumthor 2006, 31).

Figure 3.24: The Therme Vals (1996) by Peter Zumthor. Vals, Switzerland. Zumthor used the mentioned methods for the first time, when designing the bath house for 7132 Hotel. This undoubtedly lead to one of his most famous and regarded works.

[40] Examples of the mentioned, look: Lim, 1999, 130-137, 159, 165-175

Zumthor further, but mildly criticize Herzog and de Meuron, for claiming that architecture is not a single whole anymore, and it must be artificially created in the head of the designer (Zumthor 2006, 31). This is most likely the common way of designing architecture in today's world, but it is arguable that this attitude can lead to ignorance of the location's features and elements. Instead, it at worst makes the building only an Avant-Garde art piece, which more tries to bring a message or confuse the viewer.

Also, according to the Herzog's and de Meuron's words, architecture has, therefore, once been a single whole - including of being one with the surroundings. Why should modern architects leave out this kind of common tradition? Architecture's primary purpose should be the user and people who have to live with it. In this kind of environment, it is possible that this somewhat requires what Zumthor defines buildings saying: "I understand something about what is around me." (Zumthor 2018, 16) But it is essential to understand that this, at least mainly, does not mean in a visual manner, but rather that the building is not alien to its place. This could be, in the deepest level, what fengshui also aims for. Fengshui does not purposely try to control the aesthetics of a building, but when everything is in harmony, it by nature becomes part of its surroundings. Any other way, it would purposely try to pop up, being different, but ending up conflicting with its neighboring environment.

However, while setting a high importance on the surrounding environment, classical fengshui (and especially the Form School approach) do have specific preferences also for an ideal design. The values of these principles will be considered, and their meanings are being reasoned and criticized as done in the previous chapters, and naturally, the specific design choices should be evaluated accordingly with a specific place, regardless of the fengshui principles.

South facing & sunlight 3.5.1

Facing the south is considered a vital part of fengshui theory mainly for maximizing the amount of sunlight (Yoon 2008, 10). These basic concepts of fengshui arguably originate from the Early Settlements in northern China (Mak & So 2015, 43), where the need to have as much natural light as possible is high (especially during the winter season), this principle becomes quite understandable. For this reason, unlike with other elements that can be both naturally or artificially created, sufficient sunlight is required. As Zumthor describes, artificial lightning's illumination is breathless, weak, and flickering (Zumthor 2006, 93), which could be described the same in fengshui as having insufficient and unstable *qi*. Besides all the health benefits of sunlight, such as the increase in nitric oxide and vitamin D production (Azmitia, 2010), and serotonin levels (Greenhalgh & Butler, 2017), it is therefore easy to argue for its importance from all aspects of health.

People are, after all, phototropic (Alexander 1979, 111), and thus attracted of, and need light. Moreover, the art of architecture, on the other hand, is precisely, to a great extent, a play of this light and the shadows it forms (Nyman 2011, 320). To satisfy these features, a building should face the south. As Le Corbusier wrote, a house should be "a receptacle for light and sun" (De Botton 2008, 57). And to be able to gather this quantity of sunlight, the openings need to be generally large. This does not only avoid the hard shadows caused by small windows, but also make the room feel large and aery (Rasmussen 1964, 188 & 209).

Nevertheless, one has to remember, not every room in a building can face south, and therefore, only when the right spaces are oriented in this direction, according to Christopher Alexander: "a house is bright and sunny and cheerful" (Alexander et al. 1977, 615). Even if rooms facing north are provided with large openings, the light inevitably will be cold due to being a mere reflection of the sky (Rasmussen 1964, 223). Therefore a careful room placement is indeed necessary. Alexander further argues that when the house is not getting sufficient sunlight, it is left out from one of the primary elements of architecture. Moreover, for this reason, one of his patterns, the SOUTH FACING OUTDOORS (105), precisely states that a building should face south (Alexander et al. 1977, 513-516).

3.5.2 Building mass

If the fengshui principles are simply followed through its scalability, a building should form accordingly with the principles of mountains; based on a U-shaped composition, facing south, with the most substantial building part to the north (Yong 1988, 33)(Figure 3.25), and thus forming the White

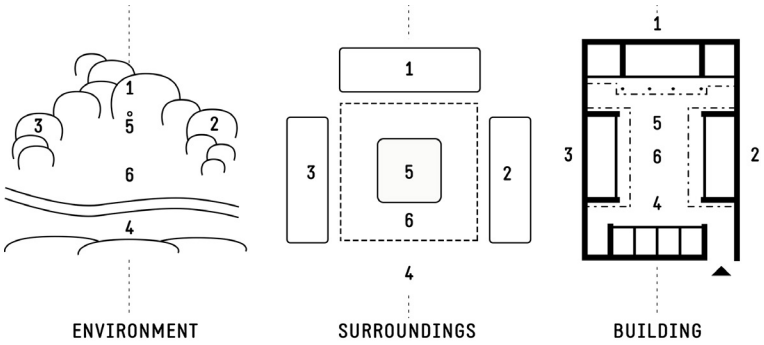


Figure 3.25: The same setting of fengshui principles can be used on any scale. The parts are as follows: 1) Black Tortoise/Warrior, 2) Azure Dragon, 3) White Tiger, 4) Red Bird, 5) Node/Cave, 6) Mingtang/Bright Court
Modified version of Mak & So 2015, 86

Tiger and Azure Dragon on the sides and the Black Tortoise/Warrior in the back. In traditional Chinese architecture, this so-called "armchair" setting has significantly influenced the formation of the famous Chinese Courtyard Houses[41](Mak & So 2015, 86)(Figure 3.27), but due to being somewhat limiting for architectural massing, it is often not followed in contemporary practice. Instead, a general protection by the surrounding environment will suffice, and the architecture often only follows other, more general rules. Alternatively, in some cases, other methods, rather than planes, are being used in modern architecture, such as points or lines (Yong 1988, 32)(Figure 3.26). But this is, of course, against the principles of protection from weather and creating a pleasant microclimate, and thus should not be included as a legitimate way of realizing the form.

Another misinterpretation of fengshui principles in modern applications is based on the building height. It likely relates to the well-known feature of *qi*, explained in *Book of Burial*: "As the Classic says, 'land raises, where the *qi* accumulates'" (Paton 2013, 127). In other words, the higher a place is, the greater the life-giving energy is in that particular place. This has led to an increase in building heights in the business-based city-centers, as

[41] p.: sìhéyuàn; C.: 四合院

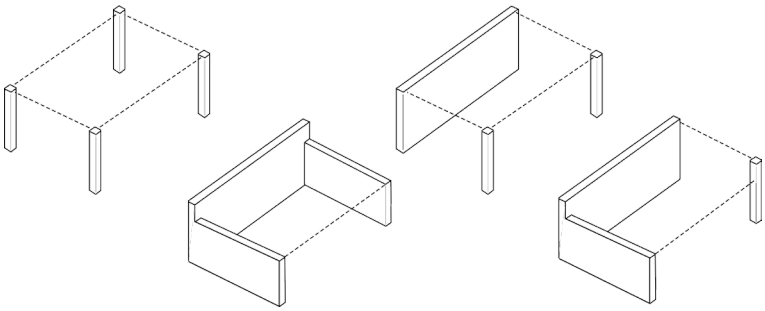


Figure 3.26: Different methodologies for creating an armchair setting in contemporary practice. But as these psychological, invisible borders are not helping with the quality of the microclimate, the principle is often left out altogether. Modified version of Yong 1988, 32

companies argue for better prosperity, as well as fights in residential areas for building taller than the neighbor (Bruun 20008, 62). In the latter case, city planning has required to follow also the general rule of the mentioned fengshui mountain setting, where the tallest buildings are placed in northeast for maximizing the sunlight in the area (p.64)(Figure 3.28, 29).

However, building with multiple floors is a rather recent phenomenon in Chinese culture and in Asia in general, where building horizontal has been popular throughout history. The transition from these low wooden building based traditions, to concrete based building style and dense town and city planning, has led to new means for achieving the auspicious fengshui. But as mentioned, this is a misunderstanding of the fengshui principles, as even the life-giving *qi* has the optimal limits. Therefore, buildings should not exceed heights of 4 or 5 floors, which is not unheard of in architectural theory either.

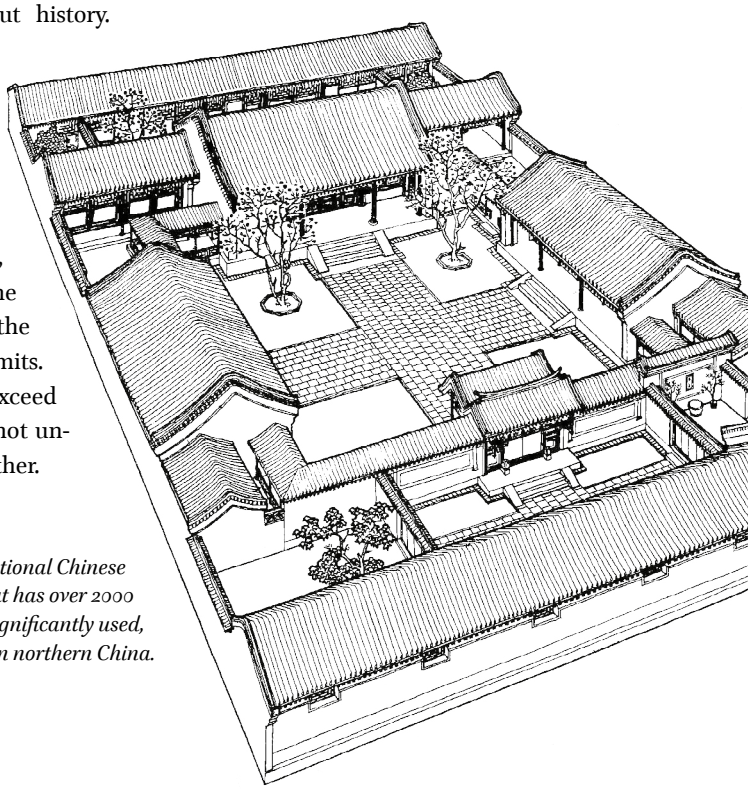


Figure 3.27: Illustration of the traditional Chinese Siheyuan house. The house type that has over 2000 years of long history and has been significantly used, especially in northern China.

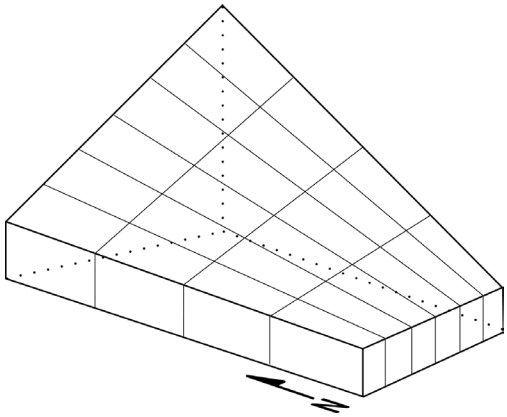


Figure 3.28: A concept diagram of the general building height in a block, as well as on individual buildings. Atlhough, with the latter, the principle is used only vaguely, if at all.

Which should not be a surprise, as the positive sides of the low urban fabric and building height, in general, are numerous; It ensures enough open public space for the residents and creates pleasant microclimate in the ground level by wind protection (Figure 3.13)(Gehl 2011, 87 & 176). Christopher Alexander, on the other hand, lists numerous problems, related to high-rise buildings, including expenses, destroying of townscape, unsuitableness for children, casting shadows, and even causing mental damage (Alexander et al. 1977, 115) Evidently, even the connection to the ground is lost after the 5th floor, and thus has a little meaning for the city life itself (Gehl 2018, 40-41). Whereas, when buildings are low, there is sufficient sunlight on the streets, more effortless movement in and around the dwellings, and thus lets buildings create harmonized space with the activities of life (Gehl 2018, 68; Gehl 2011, 185 & 99).

Figure 3.29: The VIA 57 west (2016), BIG. Manhattan, New York City, NY, USA. The building can appear as an exaggerated version and a caricature of fengshui's principles. As every feature is formed rather excessively, it turns against the residents. The form cast's massive shadow in the back, as well as the courtyard. Nearby water is far too vast and therefore windy. Topography is replaced by massive skyscrapers, etc.

As fengshui shares a lot of similar thought systems with Daoist matters, it is likely the reason for its attitude for "soft architecture" – or in other words, contoured forms and curved lines as seen before. What fengshui describes as cutting *qi*, no matter outside or inside the building, it is typically referring to a corner which is in the way of a flow of energy. But it is an important principle in fengshui's standpoint, and therefore should be applied whenever possible, or at least the corners sharper than 90-degree should be avoided (Figure 3.30, 3.31). The action of "cutting energy" is perhaps best understood as being more aerodynamic, as wind goes by it with less effort, causing the air to move with its rapid speed. Although fengshui literature usually talks about *qi* in general, it is relatively clear that in this instance, it means the difficulty to control the wind and the negativity regarding windy places.

And concerning the rounded forms being soft, is a somewhat universal impression. The philosophy of considering rounded shapes "soft" likely derives from the so-called "contour bias" of human beings (Lidwell et al. 2010, 62). As sharp and angular objects are shown to cause a high activation in the fear processing, the amygdala, and not with contoured ones, it shows the self-defense of humans that is innately rooted in our bias. Therefore, sharp angles are seen threatening and thus attract attention and are thought-provoking; Round shapes, on the other hand, are emotionally at least neutral. And while the experience of the softness or

Figure 3.30: A hotel building in Guangzhou city area. Rounded corners is becoming a trademark for Chinese architects, in search of the new design identity in the modern era. Guangzhou, Zianhe district, 21.07.2016

hardness is derived from the form, regardless of the material being itself soft or hard (Rasmussen 1964, 20), this is exactly a question of the design instead of the materials. Therefore, due to the contour bias, it might be an answer to the few architects who are speaking for buildings to focus on the everyday users (Nyman 2008, 41), rather than on the message they give (Zumthor 2006, 12).

Besides calling a rounded corner "soft", Lewis Mumford, for example, refers to them being "feminine" (Nyman 2008, 103). According to Nyman the current popularity of angular architecture roots back to history. In ancient times, the matriarchal care had a significant role in most of the aspects in a village, when later increased self-consciousness let men have power in the family, as well as in society and architecture (Nyman 2008, 103). Therefore, he also pities the overpowering masculinity in modern architecture, which does not depend on the sex of the architect. While Nyman is speaking in behalf of "matriarchal" architecture in general, we can note this missing feature in the modernistic architecture, which again reminds us of one of the most vital parts of fengshui practice; the *yin-yang* theory.

And it is important to remember that substantial number of the buildings throughout history have, if not favored, at least applied contoured shapes in their design (Rasmussen, 1964, p.23,29). In the case of the former, it is likely a reaction of moving away from previous, more aggressive style (i.e., the Renaissance, which aim was on harmony and clarity, rather than tension and mystery (p.140-141), charac-

Figure 3.31: A typical residential apartment building in Guangzhou. For a limited budget, rounded balconies and varying roof shapes have become standard methods for the contour effect. Note also the lush vegetation in the courtyard of the building complex. Guangzhou, 29.07.2015

teristic to the previous period of Gothic architecture). Or alternatively, to be used as a contrast within the building among harder and shaper features. Even Le Corbusier, who's most of the famous works are based on cubical forms, considerers only the shapes of a ball, a cylinder, and a cone being the most essential things in architecture (Le Corbusier 2004, 38).

In practice, according to Ching, rounding off the corners can emphasize the continuity of the surface, compactness of the volume, and the softness of the contour. In his view, the radius of the corner in a space is a balance between being visually effective or significant, while not affecting the space nor the exterior with its shape (Ching 2014, 87). It adds continuity to the surfaces - and in the interior, even a never-ending continuity of space and time (Venturi 2006, 77-176)

Symbolism 3.5.4

Humans are exceptionally good at recognizing human features from objects of the humblest forms, as we are imaging human characters on inanimate things according to their shape (de Botton 2008, 89). We inherently associate the objects we perceive with our own species, as it is easier to describe one's feelings by considering them as living things, with own physiognomy (Rasmussen 1964, 32) Meanwhile, due the Law of Prägnanz, one of the principles referred to as Gestalt Principles of Perception, people consider ambiguous images as complete and straightforward (Lidwell et al. 2010, 144-145). Therefore, while we associate specific colors with certain feelings (Rasmussen 1964, 218), we do that to particular forms as well. Although it is important to remember, like with the colors, these things can be culture related.

However, there are images referred to as archetypes that have been deep-rooted in our bias through the evolution of humans, that we connect with certain feelings (Lidwell et at. 2010, 28). While the above-mentioned contour bias showed, the inherent tendency of the human mind to consid-

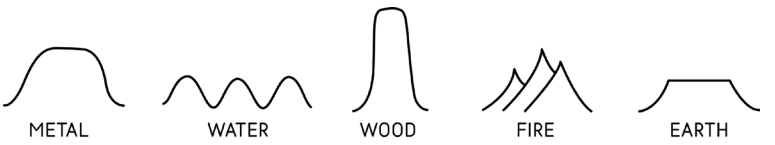


Figure 3.32: Abstract presentation of the different mountain shapes. Modified version of Yoon 2008, 82

er sharp angles and shapes as threatening, archetypes could be considered as a refined action of this. Therefore, building shapes can unconsciously, bring specific images to the viewer, that might or might not be the intention of the architect.

The rich history of symbolism in Chines culture is visible in Fengshui practice as well – especially when describing images associated with different forms. Originally occurring on analyzing the mountain shapes accordingly with the five elements (Yoon 2008, 82) (figure 3.32); Different mountains are associated with different auspiciousness (i.e., fire-type is best for producing great scholars.), and mountains should not be arranged in the destroying order (p.83). The interpretation of mountain shapes is, in fact, one of the first tasks performed in a Form School practice (Bruun 2008, 112). But while this principle has formed into one of the basic features of fengshui practice already from quite early times, it also shows the problem relating to the theory of symbolism. Different mountains have often derived different names in different villages, depending on the direction of perception (p.112). Even in the case of mountains, *The Twenty Four Difficult Problems* showed strong skepticism towards the symbolism on PROBLEM 13: "The

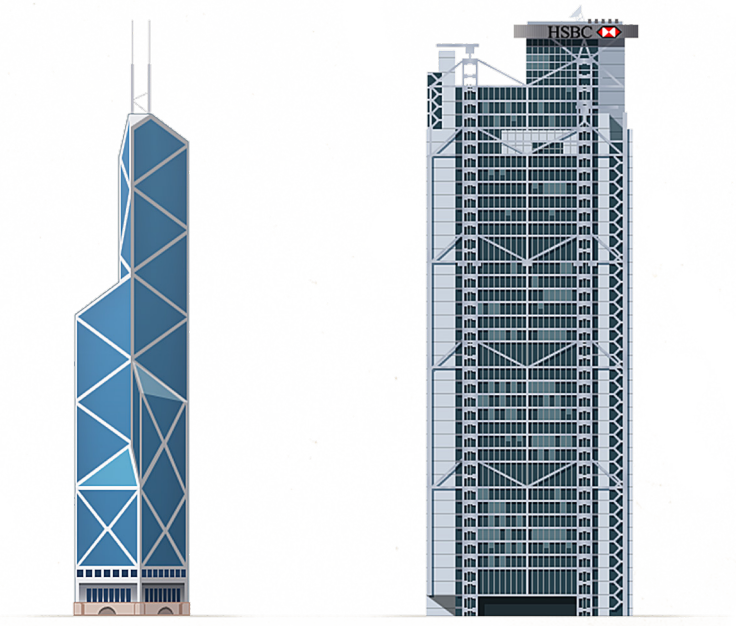


Figure 3.33: The Hong Kong branch Bank of China (1985-90)(left), by I. M. Pei (1917-2019), has got a significant amount of criticism for a design opposing to fengshui principles.

shapes of mountains and rivers can sometimes be categorized as an object. However, there is only one of these in ten thousand. So how can this be used as a criterion?"(Paton 2013, 178).

And when it comes to contemporary fengshui practice and thus architecture, it is not a question of angle anymore, but even simply a matter of personal opinion. In urban environments, fengshui practitioners have to pay increasingly more considerable attention to the surrounding buildings, when determining the positive and negative sides of the site. Therefore, it very much comes to the interpretation of the person's opinions whether or not a specific nearby building is seen as auspicious or threatening. An example of this includes the controversial Bank of China building in Hong Kong (Figure 3.33), which is often described as a cooking knife, cutting the *qi* with its sharp angles (Bruun 2008, 139). While that is in line with common fengshui, and allegedly the bank did do it on purpose, causing harm to a competing nearby corporation HSBC, some masters have later described it in a rather positive light, for example, as a "rocket rising to the sky" (Sarvimäki 2002, 73).

Building Entrances 3.5.5

A classic *The Three Elements of Dwellings of Living*[42] demonstrates three key house elements, which are still in an essential role in fengshui practice. These include the gate, the principal bedroom, and the placement of a cooking stove. Among these and other similar elements, the gate, or rather the entrance, is argued to be the most critical part of a building (Mak & So 2015, 87). This is also agreed by Alexander, as he writes: "Placing the main entrance [...] is perhaps the single most important step you take during the evolution of a building plan."(Alexander 1977, 541) As with most of the other principles so far, an entrance is as well explained by the theory of *qi*. According to Form School fengshui, a gate should face south or southeast direction, the so-called Heavenly gate[43] (Paton 2013, 148), for collecting the auspicious *qi*. As people evidently prefer sunny places in most of the climates, placing the entrance to the south, inevitably creates the place more alive (Alexander 1977, 514), and thus have an abundance of energy. Although this principle does raise a problem with backyards, which, as the name suggests, will thus be placed on the northern side of a house. The

[42] p.: yáng zhái sān yào ; C.simpl.: 阳宅三要; C.trad: 陽宅三要

[43] p.: tiān mén ; C.simpl.: 天门; C.trad.: 天門

principle does not, however, have this problem in a traditional Chinese Courtyard house (Figure 3.34, 3.27).

A proper entrance is also formed of a short hallway, a Dragon wall (Sarvimäki 2002, 54), forming a bend and thus slowing the *qi* energy, as was seen in the chapter of pathways. However, even Alexander considers energy in a similar manner when speaking of entrances – as stated in the *Timeless Way of Building*: "entrance transitions resolves a conflict among inner physic forces" (Alexander 1979, 248). Although his forces are rather metaphorical when compared to the Chinese *qi*, they still try to describe the unexplainable tensions. In the same book, he points out the same preference for a bend in direction, which will offer new views and a transition zone from the public to the private (p.255). Therefore, this principle as well has architectural value.

Entrance gets the greatest, although still rather vague explanations in the classics. The entrance door should be the right size and in harmony with the building, as well as the lobby it is leading to. Vitruvius states likewise, as he writes: "Propriety arises from usage when buildings having magnificent interiors are provided with elegant entrance-courts to correspond" (Vitruvius, Book I, chapter II.6). This is understandable without explanation. And as with soft edges, according to Alexander, all good entrances are located, among other features, where there is a change in a surface (Alexander 1979, 255). This transition of *yin-yang* should be necessary also for classical feng-shui practice.

Figure 3.34: Fujian Tulou dwellings

The philosophy for corridors, spaces for movement, are incredibly similar to the previously described preferences for waving pathways. Moreover, in corridors, especially when open to outdoors, can be sensed even stronger, due to the more refined space. Long straight stretches should be avoided with all cost, to avoid the speeding of the *qi* energy (Bruun 2008, 167). Although there typically is not a physical energy to sense, such as wind, as was the case in the pathways, the corridors still creates energy in a kind of psychological sense. Narrow, long spaces, especially when being without sunlight, are made only for movement where rooms open like dead ends (Alecxander et al. 1979, 628).

The best-case scenario is to have the movement as a kind of a circulation loop, where it is handled by a sequence of different spaces (p.629). This cuts a long narrow passage into sections, which inevitably creates the route seem shorter. But if avoiding corridors altogether is not possible, the presumable choice for fengshui is to either bend them or have a point(s) of turn. But this typically does not end with a space that is meant for social interaction, nor avoiding the sense of movement. It can likely even feel more claustrophobic, as the end of the path is hidden.

Likely, the better solution is one or more of the following ways to break the passage into short sections; placing small resting spaces along the route, opening up rooms directly to the corridor, placing windows along the route to allow sunlight (positive *yang qi*) get in and balance the negative *shaqi*, placing vegetation or water along the route, and making the space wider to weaken the effect of the straight corridor. Maybe even vaulting the construction to create an arched corridor, and thus creating a softer form, which in theory could balance the negativity. (Figure 3.35)

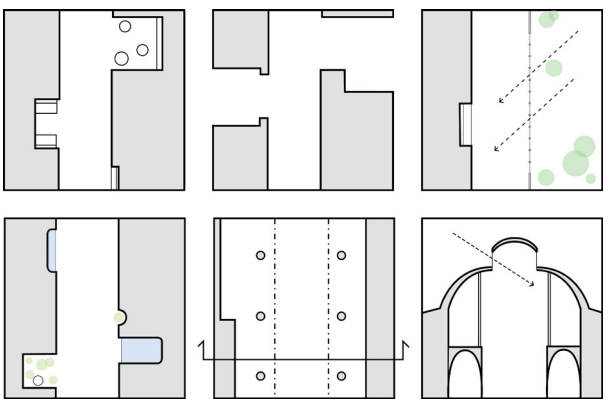


Figure 3.35: If it is necessary to use straight corridors in design, there are various methods to weaken its effect as a never-ending alley. 6th example is a section of the 5th diagram.

3.5.7 Center

Center is the most vital part of room placement in fengshui theory. (Figure 3.36) It is the heart of the building and a place for social gathering, Formal meeting point, and a place for rest and leisure. Likely this is partially the reason for the extraordinary effort that is given to lobbies in modern public architecture, when there is an emphasis on using fengshui. While in ancient Chinese houses, the center was formed of the outdoor courtyard – a general opening, a larger gathering place within the building, placed roughly in the center, is now equivalent to this middle-area.

In architecture, this center can work as a place for an overview of services (Alexander 1977, 500). It gives a sense of being in the heart of the building, in the center of the action. And when open through the entirety of the building, it avoids the gloominess of the center, which is inevitable for wide-span buildings. This is often seen in traditional libraries, as it is a common feature to wrap the services around the exterior walls, leaving the center with aery, spacious lobby (Figure 3.37). For businesses, such as hotels or office buildings, it gives a possibility for grand entrance (Figure 3.38). It can also mean a simple thoroughfare, forming an indoor pedestrian street, and thus a shortcut for pedestrians (p.493)(Figure 3.39). Or it can naturally also be used in its traditional manner, as a courtyard (Figure 3.27). Using a courtyard can even work surprisingly efficiently and create a sense of privacy in densely built areas (Giedion 2008, xliv; Alexander et al. 1977, 563) (Figure 3.40).

All of the given examples work accordingly with fengshui, as long as the center becomes the means of action - gathering of people, a place for social interaction. And placed along the main route between other parts of the building and the outside.

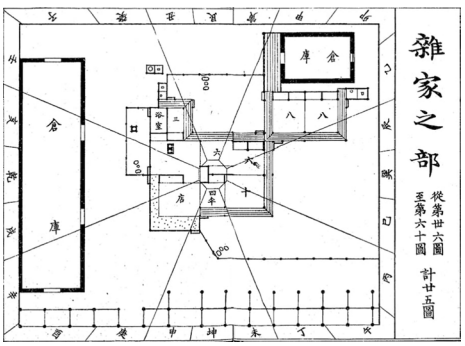


Figure 3.36: A timber merchant's residence, from Kasō shinpen (1901), Japan. Center is also arguably the most vital part of the bagua-grid system, which is a common metehod for room placement in fengshui practice. The center's location in a plan is the primary factor on placing all of the other rooms accordingly.

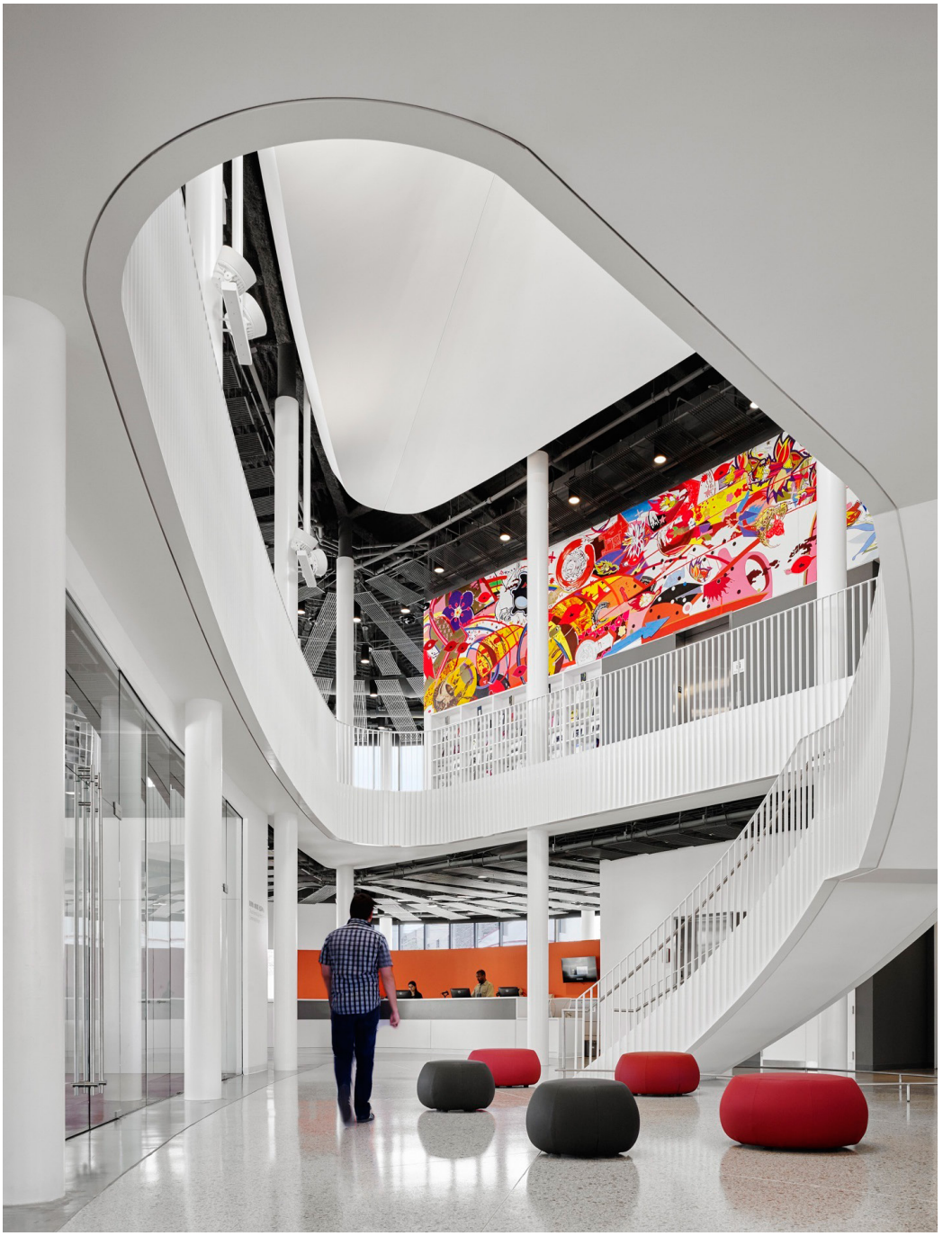


Figure 3.37 The China Town Branch Library (2015) by SOM. Chicago, IL, USA. Purposely designed following the fengshui principles, with its soft rounded forms, south-facing entrance, and interior circulation with a central hall, while also representing a rather standard library building setting,

Figure 3.38: HSBC main building (香港上海滙豐銀行有限公司)(1983-85) by Foster and Partners. Hong Kong. A fengshui master was hired to check the drawings frequently as the design progressed. However, oddly some features, such as "the wind welcoming atrium," does not have a connection with the fengshui classics.

Figure 3.39: Markthall (2014) by MVRDV. Rotterdam, Netherlands. A colossal sized indoor food market creates the heart for the apartment building that surrounds it. The throughway market can be seen as an exaggerated center, in this softly formed, but still impressive structure.

Figure 3.40: Apple Park or Apple Campus 2 (2013-17) by Foster and Partners. Cupertino, CA, USA. Although criticized for its underground parking and negative symbolism among some fengshui practicioners, the headquarter building is mainly in line with fengsuhi principles, with its round form, large courtyard, transparent facade, surrounding vegetation, and water features.

CONCLUSION

Fengshui is based on empirical findings of the primitive northern Chinese civilizations. Initially being means of explaining nature's phenomena, and finding proper dwelling places, evolved through early history into a well defined and complex system for auspicious living, by emerging with the Daoist thought systems. This inevitably, as with most Chinese philosophies, formed various metaphysical features, including *qi* energy, five elements, and the theory of *yin-yang*, which are all adopted in other Asian thought systems as well. However, this poetic explanation system also led to mythologizing the practice already thousand or more years ago, which is why it is also misunderstood today to a great extent, worldwide - even in its home country. However, concentrating on the Form School approach and fengshui Classics, it is possible to develop a partial view of the primary means of the practice.

Architects have been interested in the past throughout history, and the question of our primitive and inherent preferences has become a great interest of many theorists of modern times, as they aim to find solutions for the discomfort of the current anonymous contemporary architecture. Furthermore, as is shown above, most of fengshui's principles are likely in line with these deep-rooted requirements for a comfortable environment. While being so vitally part of human psyche, many of the shown principles can appear obvious, but fengshui's purpose is not necessarily to bring anything new to the design, but merely only to awaken old, already existing feelings. Therefore, fengshui can be one of the explanations of why some places feel better than others.

In fengshui, these feelings are explained by the form and the type of the *qi*. While mythological as a theory, it unquestionably helps one understand, straight forward, the concept of a comfortable place. In fengshui's standpoint, the most immediate requirement for this is wind protection, which would lead to negative energy sha*qi*. In a city, this is mainly achieved by topographical changes, forming a pocket of an armchair setting for the place. The same technique is further used also in individual buildings, but as this would be somewhat limiting for architectural expression, a general protection by surrounding vegetation and buildings should suffice. However, this requires a low and dense urban fabric, winding streets, and a large number of parks, which do not correlate with the modern trend of highrise buildings.

At least equally important is the presence of water. While the cultural identity relating to waterfronts is already noticed, applying them to the built environment has still been rather scarce. Partly this is due to the grid-plan of cities which ignores the underlying nature, but also the general ignorance towards its importance for our psyche. A similar phenomenon has happened to vegetation, which should preferably be lush, but not overabundance and causing shadows for nearby buildings. Already a mere image of greenery sets positive effects on the human psyche, which shows our inherent need for plants in our surroundings.

And the need for an abundance of sunlight. While architects commonly highlight its importance when creating spaces, more considerable attention should also be set on its quality and location. Correct use of sunlight does control not only the mood of our rooms but also our general health.

In a more abstract sense, transitions, change from *yin-yang*, is a crucial element in fengshui. It can be applied to numerous features, such as locating a proper place, creating material harmony, forming a change from public to private, or have a variation in spaces feel. These are vaguely often explained in literature by dualistic oppositions, such as open - closed, light - shadow, tall - low, or smooth - rough. However, it is more a question of the levels and transitions of *yin* and *yang*.

Furthermore, fengshui is broadly soft due to its philosophical background. This requires rounded corners, gentle transitions, soft light and other means of soft changes. As the modern built environment is inevitably hard and masculine, fengshui's principles could, therefore, be the much needed counteract of this phenomenon. Admittedly this also shows that fengshui, undoubtedly, will not create pleasant and beautiful places alone, but presumably, these environments cannot be created without these standards either.

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