Fang Wang

Geo-Architecture and Landscape in China's Geographic and Historic Context

Volume 1 Geo-Architecture Wandering in the Landscape

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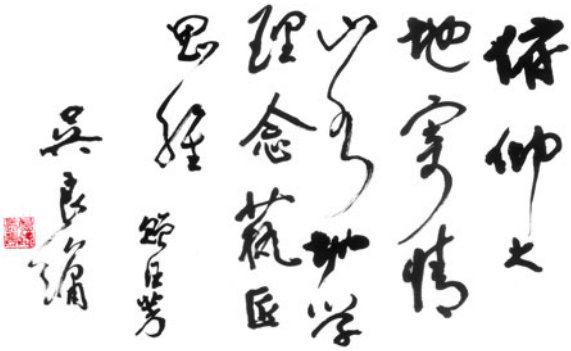

Admire the great earth,
Impart your emotions to the mountains and the waters.
The rationale of geography,
The thinking of the architect.

Gifting to Fang Wang

From Liangyong Wu
Professor, School of Architecture, Tsinghua University
Member, Chinese Academy of Sciences
Member, Chinese Academy of Engineering
The Laureate of Supreme Prize of Science
and Technology of China in 2011

Foreword

Conservation in the broadest sense is an instrument for any society to modulate the rate of change in the (built) environment. Today, conservation discourse and practice extends from the preservation of historic artifacts to the natural environment in the most inclusive sense. Habitats, historic cities and buildings, cultural landscapes, and even intangible heritage are all part of that repertoire we call our inheritance. Naturally, in the process of rapid urbanization and transformation, the memory of these crucial aspects of our heritage is often compromised. Furthermore, the questions of conservation are often clearly not central to the agenda of development, nor for that matter even with the broader cultural or education discourse. Naturally this varies across countries and through different cultures and political regimes. In this context, China is an interesting case where rapid urbanization over the last 30 years put development at the forefront of its agenda often at the risk of the sudden erasure of its wonderful historic fabric. A condition where the memories of its rich heritage and the relationship of its people to their traditional built and natural environment was severely interrupted.

In fact, traditional practices of building in Chinese culture were about codifying man's relationship with nature—of how human beings should ideally situate themselves in this context. While in other cultures, like India, these rules were often codified through religion and thus often distorted in their practice, in China, traditional practices, premised largely on geomancy, stayed intact through the centuries. With the onslaught of rapid development and transformation in the built environment in China, questions of protecting the natural and historic built environment receded into the background. New codes to determine and facilitate "quick" growth took precedent. China and its landscape transformed like nothing witnessed in history before.

It is now, many decades later, that a new generation of architects and designers as well as historians and environmentalist are motivated to reclaim these traditions and weave a narrative of continuity between China's historically rich past and its incredible achievements of the present. It is in this context that this four-volume

collection titled *Geo-Architecture and Landscape in China's Geographic and Historic Context* is of critical importance. This work by Prof. Wang is a skillfully compiled collection of deep research on the historic and geographic relationship of the built environment and nature in China. This question is however interrogated in the most interesting and rigorous way by introducing the category of geography, which she extends into geo-architecture—a suggestion that architecture and its relationship to a particular geography is also a way to understand the social and cultural contracts that have evolved in that geography. And resulting from this relationship, the architecture that is manifested is usually a very particular response to its social, economic, and cultural context. This understanding clarifies not only the relationship of architecture to the land per se, but also the people, rituals, and cultural contracts that are associated with or a result of an architectural intervention. It goes further to interrogate the spiritual—the uncodifiable or the invisible that has often informed ways those societies are organized and their built environment conceived. In the context of China, this is a refreshing and brave departure, which promises to set down the foundation to engage these questions in the mainstream of architectural debate.

Professor Wang's understanding of culture as an ever-evolving phenomenon is also useful. I have known Prof. Wang since 1999 and remember her preoccupation with this issue since those transformative years in China. She sees culture as being dynamic, and really, the unwritten rules in society that evolve with conflicts, development, and the general evolution of a society. This has a direct bearing on the architecture of a place and attitudes of a society toward building as well as material culture. The historic environment is merely a yardstick to register this change. In the four volumes, the case studies are a wonderful supplement to the text, where examples illustrate these somewhat subjective readings of this implicit culture as well as history of building in China. The range of cases from rural and urban houses to institutional buildings as well as from deep traditions and colonial influences supplements the arguments very appropriately as well as vividly. The methodology of the work is unique in that it brings history, geography, and culture as well as the precision of architectural documentation together in the same collection. Clearly structured, a complex argument is made precise and in ways that can speak to planners and designer. In that sense, it could serve as an instrument that would be extremely useful not only for advocacy but also for pedagogy, more generally, in sensitizing a new generation of Chinese architects to the land on which they build.

The collection also sets an important precedent for the examination of traditions in landscape and architectural design for many parts of Asia. While India and China pose the polar ends of this spectrum of Asia, the resonance the book, say for Myanmar as it takes on the path of development or for Vietnam, would be equally powerful—a reminder to these cultures that the delicate balance between man-made and natural environments have deep historic traditions and are sensitive ecologies that can be leveraged for development and not seen as deterrents. As debates of ecology and sustainability take the fore in our discussions about architecture and

planning and we understand more clearly the interconnected nature of our existence on the planet, this book adds a powerful voice from China to the global debate. *Geo-Architecture and Landscape in China's Geographic and Historic Context* is a welcome addition to this growing body of literature, which will mold the thinking about design in rigorous as well as refreshingly new ways.

April 2015

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Preface

There is a close relationship between architecture and its geographic environment. In the context of reevaluating cultural globalization and increased focus on the geographic nature of architecture, architectural research from a geographic perspective has become increasingly significant. Of the forces that shape architecture, world-renowned Indian architect Charles Correa once said:

> At the deep structural level, climate conditions culture and its expression, its rites and rituals. In itself, climate is the source of myth: thus the metaphysical quantities attributed to open-to-sky space in the cultures of India and Mexico are concomitants of the warm climate in which they exist: just as the films of Ingmar Bergman would be inconceivable without the dark brooding Swedish winter.[1]

Climate is only one of several geographic factors, but from Correa's comments, we gain a glimpse of the impact that geography can have upon architecture. Further, we can extrapolate from our understanding of the relationship between geography and architecture a new perspective on the connotations for humanity itself.

1 Geo-Architecture Is not a Label for a Certain Form of Architecture

In related research both in China and elsewhere, a number of concepts draw close to geo-architecture, including regional architecture, vernacular architecture, and local architecture, to name only a few. It is not necessary here to compare all such notions in detail; for an illustrative example, compare geo-architecture with regional architecture: these two areas of study represent different viewpoints—those of geography and architecture, respectively—from which one might approach the built environment. The historical background, basic theories and analytical methods that

[1]Correa, C. Regionalism in Architecture. *Journal of the University of New Mexico*, 1992, Vol. IX, Spring: 4–5.

underlie and characterize them are, for the most part, fundamentally different. Just as architecture scholars are often unfamiliar with geo-architecture studies, geography scholars are often equally unfamiliar with regional architecture concepts. However, while geography is a highly developed field with roots in antiquity, "regional study" has not yet to receive formal recognition as a scholarly discipline. To the extent that there arises a need to relate or differentiate the two approaches, "scale" provides us with a useful perspective. From a geographical perspective, different influences on architecture can be categorized according to the scale on which said influences act. In general, influences are considered to act on zone (macro), region (middle), and site (micro) scales. Regional architectural studies focus largely on the influence of a regional culture and a region's natural features upon architecture. Geo-architecture studies, by contrast, are primarily concerned with the differences that arise between entire geological zones—for example, the appearance of differing architecture across different latitudes. Site characteristics, in turn, are the most basic of geographical factors (e.g., micro-landforms), which cause the architectural differences.

It is particularly important to assert that geo-architecture is neither a particular architecture type nor a label for a certain group of architecture forms. At some level, all buildings express geographic characteristics. Thus, the notion of geo-architecture includes all architecture to some degree.

2 Geo-Architecture Is a Research Thinking

Geo-architecture borrows perspectives, concepts, and methodology from the study of geography to investigate architectural phenomena and the processes that produce such phenomena. Geo-architecture is concerned not only with understanding the past, present, and, to whatever extent possible, the future of the physical architectural landscape but also with the human or social features of architecture. As such, geo-architecture draws particularly on theory and methodology from natural geography, human geography, and historical geography. Natural geography involves the study of geology, landforms, climate, hydrology, and vegetation, as well as the Gobi desert, Tibetan Plateau, loess landform, and other such typical physiognomy types. Human geography examines the intersection between geography and religion, nationality, custom, belief, economics, and politics. Historical geography deals primarily with population migration, regime change, foreign influence, etc.

Geo-architecture, within itself, is inherently a cross-disciplinary pursuit. The study aims to appraise the myriad influences of natural, human, and historical factors upon architecture. These influences are considered in three categories, namely the interaction between architecture and nature, the interaction between architecture and its human users, and the change in architecture over time; each category serves as a lens. Augmenting these lenses is the research factor of the Time–Person–Place concept, which is applied on three geographic scales in order of

decreasing magnitude: zone, region, and site. The analysis ultimately focuses on two aspects: geographic influence on architecture and architectural response to geography. Architecture research to date has dealt primarily with the regional scale and factors related to technology and the arts. From an architectural studies perspective, the research presented here is creative and unique in its consideration of multiple scales, multiple timelines, and multiple cognitive agents. Similarly, geography research to date has been predominately concerned with macro-scale phenomena. This research reflects new interest in micro-scale phenomena.

3 The Research Object Selection for Geo-Architecture

The term "architecture," as used in geo-architecture, refers to more than individual buildings or groups of buildings and includes a wide range of subject matter not often touched upon in traditional studies of architecture. Sites such as the Mani field, the ancient postal road, and the tree-embracing pagoda—rarely, if at all, dealt within the predominant body of architecture research—are considered in great depth here. Some works that are especially representative of individual geographic locations, for example, the Lingqu Canal, which connects the Xiang and Li Rivers, and the Gaocheng Astronomical Observatory, which marks the earth's core, are included as well. Each case is no less than an exquisite expression of human wisdom.

It is the authors' hope that this work also spreads to some of China's academic knowledge in the fields of the humanities and geography. Violent geological activity has made China, located at the intersection between several tectonic plates, home to a stunning variety of natural landforms: there are towering snow-capped mountains, extensive prairies, and rivers that surge through deep, winding gorges. Against this backdrop, Chinese civilization has, over a period of several thousand years, produced colorful cultures. Thus, selected cases are chosen to reflect as many landforms, geology, and culture types as possible.

This series *Geo-Architecture and Landscape* covers 103 cases distributed throughout 30 provinces, including autonomous regions, municipalities, and special administrative regions, all over China. To obtain first-hand materials, the research team for this work made great efforts to travel to the architectural sites in question for the investigation. Thus, over 95 % of the cases featured in this series were visited, experienced, and scrutinized by the research team members in person.

Each case study in these books investigates the interaction between architecture and geography from the aspects of climate, geology, vegetation, culture, and history. The beautiful pictures presented within the books strive to illustrate how architectural works exercise compliance, echo, and change to exist amongst mountains, water, stones, vegetation, and human society. This work seeks to analyze the Chinese natural and cultural identity; thus, all of the architectural works chosen for analysis are located in China. However, the theory presented here in the series is universally viable and thus can be valuably applied to architecture in other

countries as well. Architecture is the treasured heritage of human civilization in that it reflects the profound ways in which people of different skin colors and localities understood the geographical world around them.

Upon finishing this series, I could not help asking myself: what new thinking regarding the relationship between architecture and geography will the next sight of some mysterious or familiar geo-architecture lead to? This process of discovery has, if anything, made me all the more aware of my ignorance and enamored by the breadth and depth of the field; it is from these that I draw the strength and encouragement to press on without hesitation.

July 2015 Fang Wang

Acknowledgments

I began working on the research for *Geo-Architecture and Landscape* in November 2007. Time has really flown. I would like to take this opportunity to extend my sincere thanks and appreciation to a number of individuals and organizations who have helped, contributed, and supported in various ways the realization of this series over the past 8 years.

Many thanks must go to Liangyong Wu, Daozeng Li of Tsinghua University, Stephen M. Ervin of Harvard University, and Annette M. Kim of the University of Southern California for their encouragement and good advice over the years. A special nod goes out to Rahul Mehrotra of Harvard University for his thoughtful foreword. A dedication goes to Charles Correa of Massachusetts Institute of Technology and Yuming Wang of East China Normal University.

I extend special gratitude to my colleagues Changchun Feng, Liping Zhou, Chunhua Yan, Jijun Meng, Bihu Wu, and Yanwei Chai and to my friends Yuanqin Shen, Shuhua Dong, Chaozhi Zhang, Jianzhong Li, Jingyan Yang, Dongsong Li, Jiayu Qin, Xinmin Huang, Yaogen Peng for their support and encouragement of this series. I also want to thank the students in my research team at the College of Architecture and Landscape Architecture, College of Urban and Environmental Sciences, School of Urban Planning and Design, Peking University, whose careful research assistance was invaluable.

Help from the many people who provided illustrations, an important component of this series, is very much appreciated. Although too numerous to list, I greatly appreciate the kindness and generosity of those individuals, firms, and photographers who made accessible their beautiful photographs and drawings—on which the series has depended so greatly. Every effort has been made to credit sources appropriately in the captions, but apologies are due for any omissions or inaccuracies.

Finally, I deeply appreciate the help of my editors, Leana Li, Toby Chai, Hannah Qiu, and their colleagues at Springer.

In closing, this series *Geo-Architecture and Landscape* is dedicated to my husband, Shuai; our son, Han; and our parents, who have given me the adequate

work time, precious love, and valuable encouragement that I needed to persevere over the years.

In short, many thanks to all with whom I have worked and by whom I was helped over the last 8 years between 2007 and 2015 on *Geo-Architecture and Landscape*.

Contents

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Phase One	Fan Yin, Xiufeng Yu, Yicai Zhu, Di Liu, Xiaofei Hao, Wei Chen, Yijie Huang, Jun Ge
Phase Two	Yang Liu, Yang Chen, Qianqian Zhang, Samuel Lyon, Gege Wang, Leilei Song, Hui Yuan, Yu Pei, Xing Wang, Lei Zheng, Min Zhu, Hao Sun, Fan Yang, Xiao Xiong, Guoqiang Ma, Chenghao Zhang
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Phase Four	Xi Wu, Jian Liu, Wei Li, Xiaojie Wang, Ruimin Sun, Caixia Wang, Xiaoning Xue, Ying Dong, Xiaoyu Liu, Fengyao Yu, Jennie Rajni Chow, Anna Chan
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Notes in Volume 1

Along the River During the Qingming Festival (Mandarin: *qing ming shang he tu*), one of top 10 most famous ancient Chinese paintings, was painted by Zhang Zeduan (1085–1145) in the Northern Song Dynasty (960–1127).

Ancient Tangbo Road crosses the vast land of Western China and links the southwestern neighboring countries, and is also called the Southern Silk Road.

Annals of Yueyang Fu: Dongting Lake (Mandarin: *yue yang fu zhi: dong ting tu*), an official record, was finished in the Qing Emperor Qianlong's reign (1736–1795).

Azure Dragon in the east is one of the Four Symbols and is the mythological guardian of east and also represents spring and property of wood.

Bagua, also named Eight Trigrams, is a basic philosophical concept of ancient China. It is a *yin* and *yang* system that can be composed of eight different forms and used to symbolize various natural and human phenomena.

Bai Hu Tong, a Chinese classical Confucian book, was compiled in the Eastern Han Dynasty (25–220).

Bashu refers to some districts of the Southwestern China during the pre-Qin period (approximately the twenty-first century to 221 BC) and now includes the area in the upper reaches of the Yangtze River.

Basic Annals of Qin Shi Huang (Mandarin: *Qin Shi Huang ben ji*) was the 6th Volume of *Records of the Grand Historian*.

Beyond the Border (Mandarin: *liang zhou ci*), a poem, was written by Wang Zhihuan (688–742) in the Tang Dynasty (618–907). Its English translation was adapted from Witter Bynner, an American poet, writer, and scholar.

Black Turtle-Snake in the north is one of the Four Symbols and is a creature that is a combination of turtle and snake, the mythological guardian of north that represents winter and the property of water.

Chi, *cun,* and *zhang* are traditional ancient Chinese units of length. 1 meter ≈ 3 *chi*, 1 meter ≈ 0.3 *zhang*, 3.33 centimeters ≈ 1 *cun*.

Chu Bei Shui Li Di Fang Ji Yao, a monograph on water construction, literally *Irrigation and Embankment Record in Hubei Province*, was written by Yu Changlie in the Qing Dynasty (1644–1911).

C*hu Yu Guan*, a poem, literally *Leaving Away from Yuguan Pass*, was written by Lai Ji (610–662) during the Tang Dynasty (618–907).
Chushi (lit. the value orientation of staying away from society) is an important philosophy in Taoism. The Taoists cut themselves off from daily life, pursuing the harmony with the natural universe rather than wealth and fame. *Chushi* in Taoism and *rushi* in Confucianism are the two pillars of Chinese philosophy.
Column-and-tie construction is a typical style of traditional Chinese timber structures in which columns and beams are connected by mortise and tenon joints.
Comment on the Collapse of the Leifeng Pagoda (Mandarin: *lun lei feng ta de dao diao*), an essay, was written in 1924 by Lu Xun (1881–1936), a great novelist, literary critic, and essayist in modern China.
Cong Jun Xing, a poem, literally *Army Life*, was written by Li Bai (701–762) during the Tang Dynasty (618–907).
Cong Jun Xing, a poem, literally *Army Life*, was written by Wang Changling (690–756) during the Tang Dynasty (618–907).
Cun, *chi*, and *zhang* are traditional ancient Chinese units of length. 1 meter ≈ 3 *chi*, 1 meter ≈ 0.3 *zhang*, 3.33 centimeters ≈ 1 *cun*.
***Dawenkou* culture** is a Neolithic culture dated from 4100 to 2600 BC in China, primarily centered in Shandong Province, but it was also found in Anhui, Henan, and Jiangsu Provinces. A large number of valuable turquoise, pottery, jade, and ivory artifacts were found at the relics.
Divine by the *bagua* is an ancient way to ask for the future of some events. It is thought to originally come from the *I Ching*.
Dongting Late Autumn Drawing was a painting given to Fan Zhongyan (989–1052) by Teng Zijing (991–1047) as a gift and a request for writing an essay on the Yueyang Tower.
Dr. Sun Yat-sen's Last Testament (Mandarin: *zong li yi xun*) was completed and refined by Chiang Kai-shek (1887–1975) according to Sun Yat-sen's final pithy political testament.
Dr. Sun Yat-sen's Last Will (Mandarin: *zong li yi zhu*) was completed and refined by Hu Hanmin (1879–1936) according to Sun Yat-sen's will.
Duke of Zhou, personal name Ji Dan, was a politician, militarist, thinker, educator in the Zhou Dynasty (1046–256 BC).
Emperor Yao (Mandarin: *yao di*) was a legendary Chinese ruler approximately 4,000 years ago.
Fengshui (lit. wind and water) is also known as geomantic omen, and is a Chinese philosophy that seeks ways to harmonize humans with the surrounding environment.
Fengshui Bridge is a type of bridge that integrates the concept of *fengshui* as "avoiding wind and accessing water."
Five Great Mountains, nicknamed as *wu yue*, which include Eastern *Yue* Mount Tai (Shandong), Western *Yue* Mount Hua (Shaanxi), Southern *Yue* Mount Heng (Hunan), Northern *Yue* Mount Heng (Shanxi) and Central *Yue* Mount Song (Henan). The name of *wu yue* has existed for a long time. The mountains are mentioned in China's foremost creation myth, in which the body of a great giant Pangu

decomposed into the elements of the universe. The book of *Shu Yi Ji* writes of the Qin (221–207 BC) and Han (202 BC–220 AD) era version of the myth, "Pangu's head became the Eastern *Yue*, his belly the Middle *Yue*, his left arm the Southern *Yue*, his right arm the Northern *Yue*, his foot the Western *Yue*." The name of *wu yue* was first formally defined during the reign of the Han Emperor Wu although the term had previously existed as mentioned above. Over time the Five Great Mountains have developed into sites rich in historical and cultural connotation. Emperors routinely traveled to *wu yue* to worship heaven. Famous figures and intellectuals alike have also made a pilgrimage to these mountains. They have left in their wake poems and verses on the topic of *wu yue*, many of which later gained wide renown. The Five Great Mountains have also had a considerable influence on the establishment and evolution of Chinese culture over time. Thus, *wu yue* is known as famous cultural mountains. (Reference: Li, Z.H. & Li, N.J. *Discovering wu yue*. Jinan: Shandong Pictorial Publishing House, 2007, in Chinese.)

Foolish Old Man Removes the Mountains is a famous fable from Chinese mythology about a man nicknamed the Foolish Old Man who wanted to remove the mountains; he impressed the celestial beings in heaven with his perseverance and willpower, and at last, the celestial beings helped in separating the mountains.

Four Symbols, four mythological creatures in the Chinese constellations, include the Azure Dragon in the east, the Vermilion Bird in the south, the White Tiger in the west, and the Black Turtle-Snake in the north. Each of them represents a direction and also a season in ancient Chinese culture.

Fu (lit. prefecture) was an administrative division during the Tang (618–907), Ming (1368–1644) and Qing (1644–1911) Dynasties of China. It was also called "*Jun*" prior to the Tang Dynasty.

Fundamentals of National Reconstruction (Mandarin: *jian guo da gang*) was a political statement that was published in 1923 by Sun Yat-sen (1866–1925), the founding father of the Republic of China.

Gable-and-hip roof is a typical roof style in traditional Chinese architecture, usually comprising four sloping roofs with two large roof sections in the front and back, whereas on each of the other two sides is a smaller roof section with a gable.

Gu Jin Tu Shu Ji Cheng, also known as *The Imperial Encyclopedia* or literally as the *Complete Collection of Illustrations and Writings from Early to Present Times*, was first created in 1700 and was completed in 1725.

Guan Shan Yue, a poem, literally *Moon Hanging on the Sky of the Guanshan Area,* was written by Lu zhaolin (632–695) during the Tang Dynasty (618–907).

Guo Gu Guan, a poem, literally *Passing by Guguan Pass*, was written by the Qing Emperor Kangxi (reign 1662–1722) during one of his western tours *to* admire Guguan Pass in all its majesty.

Hexi Corridor is a historical route in northwest China that lies to the west of the Yellow River. It was the main access point from ancient *Zhongyuan* (lit. the Central Plain region in China) to Central Asia and West Asia for trade and military.

History of the Han Dynasty (Mandarin: *han shu*), a classical Chinese history book covering the history of the Western Han from 206 BC to 25 AD, was written and assembled by Ban Gu in the Eastern Han Dynasty (25–220).

History of the Yuan Dynasty (Mandarin: *yuan shi*), a historical work that consists of 210 chapters chronicling the history from 1162 to 1227, was edited chiefly by Song Lian and Wang Wei and composed in 1370, during the early Ming Dynasty.
Huai Nan Zi: Ren Jian Xun, a Chinese philosophical classic including theories from Taoist, Confucianist, and Legalist concepts, literally *The Philosophers of Huainan: In the Man's World*, was written in the second century BC.
Jiangnan refers to the region to the south of the Yangtze River.
Jinshen, a unit to measure the depth of the building, refers to the distance between two columns in the gable of the traditional Chinese wooden architecture.
Jun (lit. commandery or prefecture), was a traditional administrative division in China from the Warring States period (475–221 BC) until the early Tang Dynasty (618–907). Before the Qing Dynasty (1644–1911), it was smaller than a county, and it was larger than a county later. Since the Tang Dynasty, it has been called "*Fu.*"
Kaijian, also known as *miankuo*, is a unit to measure the width of the building, which refers to the distance between two columns in the frontage of the traditional Chinese wooden architecture.
Kao Gong Ji, literally *The Records of Examination of Craftsman*, was compiled in the Spring and Autumn periods (770–476 BC). There were originally six parts in *Rites of Zhou*; however, the sixth part was lost, and later *Kao Gong Ji* was added as a replacement.
Kong (lit. empty or vacant), a Buddhist term.
Kylin is a Chinese mythical creature that signifies luck and happiness.
Lao Lao Ting is a poem that translates as *Departing from Laolao Pavilion* and was written by Li Bai (701–762) in the Tang Dynasty (618–907).
Legend of the White Snake (Mandarin: *bai she zhuan*), also known as *Madame White Snake*, was one of the four famous ancient folk tales on the topic of love in China.
Li is a unit of length; 1 *li* = 1/2 kilometer.
Liang Zhou Yue Ge, a poem, literally *A Happy Army Song at Liangzhou,* was written by Wen Zisheng (495–547) during the Northern Wei Dynasty (386–534).
Lingnan **culture** is an important culture in southern China covering what are now the Guangdong, Guangxi, and Hainan Provinces.
Lingnan **region** originally referred to the region south of the Five Ranges and now generally covers the modern Chinese provinces of Guangdong, Guangxi, and Hainan.
Lingxing **Gate**, a type of gate commonly used in residences and temples. Usually the gate was built with a plaque in the upper part between two wooden columns and had three doors installed. After the Ming and Qing Dynasties, stone columns were more widely used for mausoleums and temples.
Log-cabin style is a structure that stacks wood layer by layer as walls without using columns and beams.
Longshan **culture** refers to the cultural relics in the region of the middle and lower reaches of the Yellow River in China in the late Neolithic dated from approximately 3000 to 2000 BC and is characterized by black pottery.

Lü Shi Chun Qiu, an encyclopedic Chinese classic book, literally *Mr. Lü's Spring and Autumn Annals*, was compiled under the organization of Lü Buwei, a Qin Chancellor at the end of the Warring States (approximately the third century BC).
Mantle-like eave is an annex part built under the eaves of a main building.
Mu is a traditional Chinese unit of area. 1 *mu* ≈ 667 square meters.
Nan Xun Sheng Dian, an official record during one of Emperor Qianlong's southern tours in the Qing Dynasty (1644–1911), was literally named *Pomp and Ceremony in the Southern Tour.*
Paifang (lit. memorial gate), one type of monument in the form of gates and arches, is used to commemorate the merit or worship the ancestor.
Pangu, the person who separated heaven from earth according to Chinese legend.
Peach Blossom Land (Mandarin: *shi wai tao yuan*), a fictitious land of peace off the beaten path, first appeared in a well-known ancient Chinese essay, *Peach-Blossom Spring*, written by Tao Yuanming (approximately 365–427) during the Eastern Jin Dynasty (317–420). The name is often used to describe an unspoiled wilderness of great beauty away from the turmoil of the world.
Qin Yuan Chun: Changsha, a *ci* (a type of lyric poetry), literally *Qinyuan Garden Spring: Changsha*, was written in 1925 by Mao Tse-tung (1893–1976), a great Chinese Communist revolutionary leader of the People's Republic of China.
Qingli Reforms were an attempt to introduce proposals covering various aspects of governmental affairs for better management efficiency. They were attempted under the leadership of Fan Zhongyan (989–1052) and Ouyang Xiu (1007–1072) from 1043 to 1045 in the Song Dynasty (960–1279) and finally ended in failure.
Raised-beam frame is one type of timber frames in traditional Chinese architecture. It is characterized by using beams that are borne up by columns placed in the direction of depth, with layers of shorter columns and beams overlapped on the beam up to the ridge of the roof.
Rebuilding Chongshou Monastery on Baoshi Hill (Mandarin: *chong jian bao shi shan chong shou yuan ji*), an essay, was written by Xu Yikui during the early Ming Dynasty (approximately the fourteenth century).
Records of the Grand Historian (Mandarin: *shi ji*), literally *Historical Records*, was written by Sima Qian, a Chinese historian in approximately the second century BC during the Western Han Dynasty (202 BC–8 AD).
Rites of Zhou (Mandarin: *zhou li*), an ancient ritual text, was supposedly written by the Duke of Zhou in the Western Zhou Dynasty (the eleventh century–771 BC).
Rushi (lit. the value orientation of integrating with society) is an important philosophy in Confucianism that is more engaged with the society and concerns ethical problems and political issues through moral teaching. *Rushi* in Confucianism and *chushi* in Taoism are the two pillars of Chinese philosophy.
Sanheyuan, a type of three-sided courtyard, is a traditional type of residence that is commonly found in Chinese villages.
Serindia, or the Western region (Mandarin: *xi yu*), refers to the regions to the west of the Yangguan and Yumenguan Passes in Dunhuang, including what is now Sinkiang and parts of Central Asia, although it is sometimes used more generally to refer to other regions to the west of China as well, such as the Indian subcontinent.

Shan xing is a poem that translates as *Walking on the Mountain* and was written by Du Mu (803–852), who was a leading poet, government official and essayist in the Tang Dynasty (618–907).
Shi ming is a monograph on words explanation that translates as the *Study on the Source of Words* and was written by Liu xi in the Eastern Han Dynasty (25–200).
Shichen is an ancient Chinese unit of time. One *shichen* is equal to two hours.
Shoushi Calendar, a calendar system, was implemented in the year 1281 during the Yuan Dynasty (1271–1368).
Shuo Ling is a novel called *Telling Trivial Things in Life* that was written by Wu Zhen in the Qing Dynasty (1644–1911).
Siheyuan, also as Chinese quadrangles, a historical type of residence, is commonly found throughout China, most famously in Beijing. It composes of a courtyard surrounded by buildings on all four sides.
Song Liu Si Zhi Fu An Xi, a poem, literally *Saying Farewell Sizhi Liu to Anxi*, was written by Wang Wei (692–761) during the Tang Dynasty (618–907).
Statutes of the Ming Dynasty (Mandarin: *da ming hui dian*) was compiled in the Ming Dynasty (1368–1644).
Tai Hua Shan Jì is a travel essay called *Travel through Mount Hua* that was written by Li Panlong in the Ming Dynasty (1514–1570).
Taiping Heavenly Kingdom Movement, a massive peasant uprising in southern China from 1851 to 1864 against the ruling Qing Dynasty government that was led by Hong Xiuquan (1814–1864).
Tea-horse Interchange Trade is a type of classic trade between ancient *Zhongyuan* (lit. the Central Plain region in China) and the minority nationalities living in northwest and southwest China. It began in the Tang Dynasty (618–907) and flourished in the Ming Dynasty (1368–1644).
Thang-ga is a unique painting form in Tibetan culture, which is a religious scroll painting that is suspended and has a consecrated mounting with colored satin.
Upturned eave is a type of eave in traditional Chinese architecture that builds the eaves upturned with special treatment.
Vermilion Bird in the south is one of the Four Symbols and is the mythological guardian of south and also represents summer and the property of fire.
Wangchuan Garden (Mandarin: *wang chuan yuan tu*), is a painting drawn by Wang Wei (699–759), a prominent poet, musician, painter, and statesman during the Tang Dynasty (618–907).
Wei Cheng Qu, a poem, literally *A Song at Weicheng*, was written by Wang Wei (699–759) during the Tang Dynasty (618–907).
White Tiger in the west is one of the Four Symbols and is the mythological guardian of west and also represents autumn and the property of gold.
Wooden beam structure is a structure that uses wooden beams (often also with columns) for load bearing.
Wuxing means the Five Elements (namely, Fire, Earth, Metal, Water, and Wood) that are included in traditional Chinese thought and used in the fields of philosophy, medicine, astrology, *fengshui*, etc.
Xuan (lit. mysterious or abstruse), a Taoist term.

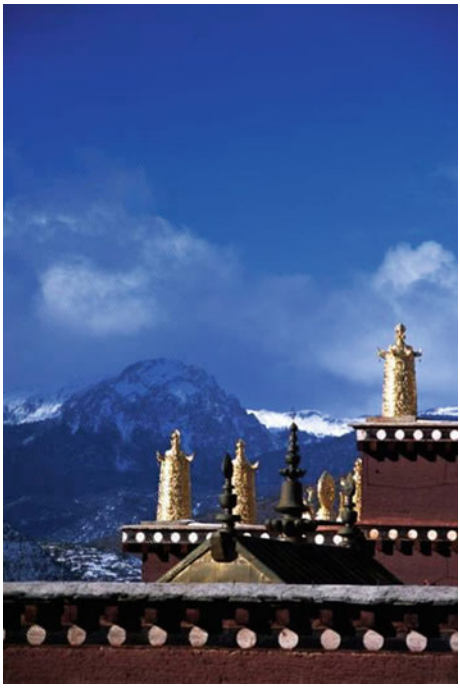
***Xuanshan* roof** is a two slopes roof that is one of the most common ancient forms of roof in the history of Chinese architecture.
Yellow Crane Tower is a poem written by Cui Hao (appropriately 704–754) during the Tang Dynasty (618–907). It is the most important poem among others like it on the topic of Yellow Crane Tower.
Yellow Emperor (Mandarin: *huang di*) is one of the ancient Chinese emperors and heroes about 4,000 years ago who is regarded as one of the initiators of Chinese civilization.
Yellow stone is a type of sedimentary rock that serves as the main stone material in the uplands area beside Lake Taihu. It features a broad stone face, large size, and well-defined shape.
Yin* and *yang are a pair of traditional Chinese philosophical concepts that represent the two opposite or contrary principles in nature and how they give rise to each other as they interrelate to one another. They are used in various fields of traditional Chinese culture, including religion, philosophy, calendar, *fengshui*, etc.
Yongle Encyclopedia (Mandarin: *yong le da dian*) is a Chinese compilation of information that was commissioned by Emperor Yongle (reign 1403–1424) of the Ming Dynasty and completed by 1408.
Yu the Great (Mandarin: *da yu*), a legendary ruler in ancient China famed for his introduction of flood control, inaugurated dynastic rule in China by founding the Xia Dynasty in the twenty-first century BC.
Yuan Ye is a monograph on garden design that has been translated as *The Garden Treatise* or *The Craft of Gardens* and was written by Ji Cheng (1582–?) in the late Ming Dynasty (1582–1642).
Yue Yang Lou Ji, an essay, literally *On Yueyang Tower*, was written by Fan Zhongyan (989–1052) in the Northern Song Dynasty (960–1127).
Zhang, *chi*, and *cun* are traditional ancient Chinese units of length. 1 meter ≈ 3 *chi*, 1 meter ≈ 0.3 *zhang*, 3.33 centimeters ≈ 1 *cun*.
Zhongyuan culture (lit. culture of the Central Plain region in China) is the origin and core part of the Chinese culture centered in Henan Province and distributed in the middle and lower reaches of the Yellow River, which can be traced back to the Neolithic from 6000 to 3000 BC.
Zhongyuan is referred to the central plain region in China, where dynasties were usually led by the Han people in the ancient China.
Zhou Bi Suan Jing is one of the ancient Chinese mathematical texts, literally *The Arithmetical Classic of the Gnomon and the Circular Paths of Heaven*, was nearly complete by the first century BC.
Zhuang zi, a famous ancient Taoist book, is named after Zhuangzi (369–286 BC), an influential philosopher during the Warring States period (475–221 BC), and consists of three parts but actually only some contents finished by Zhuangzi and his students.
Zongqi, an army unit in the Ming Dynasty (1368–1644); 50 people in the military establish a *zongqi*.

About the Author

Fang Wang Ph.D. is Associate Professor at College of Architecture and Landscape Architecture, Peking University and a registered urban planner. After receiving a Ph.D. in Architectural Design and Theory from Tsinghua University, Dr. Wang completed her postdoctoral research in geography, with a concentration in urban planning, at Peking University. From 2011 to 2012, Dr. Wang was a visiting scholar at the Harvard University Graduate School of Design. She is a member of Chinese Academy of City Planning, Chinese Geographical Society, and Chinese Architectural Society.

Dr. Wang's research concentrates on introducing geographical philosophy, methods, and techniques into the traditional engineering-dominated fields of urban planning and architectural design. Her focus is also known as "geographical planning and design," i.e., research on the influence of geography upon urban planning and design and reflexively, urban planning and design responses to geography. She is interested in the following research: the preservation and renewal of cultural landscapes and historical districts and planning and design of sightseeing districts and geo-architecture. She has published over 70 academic papers and three books (one in Springer) and has translated nine books from English to Chinese for publication. She has piloted one China Natural Science Foundation project, three Sino-German Center projects, and six other projects of provincial and ministry-level funding. As the team leader, she won the Second Prize of Land Resources Science and Technology Award in 2015, sponsored by Ministry of Land and Resources of the People's Republic of China.

Part I
Conversation and Sentiment



Ganden Sumtseling Monastery.
Source Photograph by Fan Yin

Chapter 1
Introduction

In traditional Chinese culture, architecture frequently acts as a sentimental medium. As a product of human activity, architecture reflects cultural values from different time periods[1]. In the section "Conversation and Sentiment", architecture responds to geographic culture in a perfect illustration of traditional Chinese culture in all of its profoundness.

"Conversation" embodies communication between architecture and geography, between architecture and humanity, between architecture and architecture itself. As a form of cultural expression, architecture conveys the ponderings of the Ancient Chinese people as they came to understand natural geography, human geography and their own religious philosophy over time.

"Sentiment" reflects the Ancient Chinese notion of emotional relief through nature, the expression of emotion through the landscape. For the Ancient Chinese, one's emotions are connected inseparably from one's natural surroundings. As man-made structure, architecture is perhaps the best expression of this fusion of emotion and landscape. On the one hand, architecture is a fundamental component of the landscape; on the other, architecture comes to bear a great deal of human emotion.

Conversation and sentiment both focus on the interaction of architecture and its environment. How such interaction is generated and how a geographical setting proves architecturally useful, and in what architectural form and pattern it does so, are all important issues addressed herein.

[1]The original version of this part was published in *Tourism Planning & Design*, 2011 (2): 62-68, in Chinese. Now, its content in this book is improved.

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1.1 Cause of Conversation and Sentiment

1.1.1 Cause of Conversation

(1) Respect and Fear for Deities

Ancient people developed deities rooted in the supernatural to explain natural phenomenon that they could not understand and attempted to solve problems they could not handle by talking to deities. Architecture acted as a physical platform for this communication.

People of ancient times endowed their deities with extraordinary power; deities held dominion over the world and possessed invincible might (Chen 2000). Humankind thus developed an environmental philosophy based upon respect and fear towards nature. Conversation between human and deity in this context often consisted of wishes and prayers expressed through exaltation and worship.

Sacrificial rites were the specific formal expression of this conversation. Because every material object has an attached deity in traditional Chinese environmental philosophy, there were rites for worshipping heaven, worshipping earth, worshipping mountains, worshipping rivers and many other rites as well. As the places supplied for human activities, various buildings were constructed to serve these worship purposes, such as the Temple of Heaven for the heaven worshipping ceremony, the Temple of Earth for the earth worshipping ceremony, the Dai Temple for the Mount Tai worshipping ceremony, and the Dragon King Temple for the Water Deity worshipping ceremony.

(2) Respect for Ancestors

The Ancient Chinese Patriarchal System incorporated established notions regarding ties of blood and familial notion. These notions in turn exerted significant influence upon cognitions of life and love held by Ancient Chinese people. For those Ancient Chinese who believed that all objects possessed an attached deity, death did not signify life's end but rather a transiting to an existence in another world in another form. The product of this belief was the worship of ancestors, realized through the ancestor worship ceremony, which in turns influenced the lives of the living (Lin 1996).

The ancestral temple was the physical place for worshipping ancestors. According to the social geography of multi-family residential life, the ancestral temple was always given the most prominent geographic location in a traditional village layout, forming a critical space for conversation between ancestors and descendants. Reverence and worship of ancestors on the part of Ancient Chinese people was also an expression of gratitude, repayment to their forebears for generation and reproduction (Yu 2001).

(3) Worship and Exploration of Nature

In the spiritual life of Ancient Chinese people, nature played a dual role: On the one hand, nature was the source of life's basic necessities; on the other, nature presented severe challenges to human survival. This dichotomy forced the Ancient Chinese to consider the relationship between themselves and nature (Shan 2003). Ancient Chinese people held a dual attitude towards nature: They would simultaneously worship nature and seek to explore nature's unknown.

Nature worship developed from the mixture of respect and fear that the Ancient Chinese felt towards nature. Temple architecture can be viewed as a demonstration of these two emotions. The Ancient Chinese often capitalized upon local geography (borrowing nature's power, so to speak) to enable architecture, through conversation with nature (in its perceived holiness), to take on a certain sacred quality itself. Thus, many Tibetan Buddhism monasteries, the Potala and Yongbulakang Palaces for example, were built on mountain tops. Builders of these monasteries took advantage of the unique properties exhibited by mountain peaks. In doing so, they architected a successful integration of Tibetan Buddhism and worship of mountain deities.

As society developed over time, the understanding of the objective laws of nature progressed. The Ancient Chinese were indefatigable in their pursuit of scientific exploration, which included surveying mountains and rivers, observing the cosmos and many other investigative activities. Architecture played different roles in the exploration process. In many cases, architecture served as the platform upon which these activities occurred. During the Yuan Dynasty (1271–1368), for example, one emperor commissioned the construction of a transnational system of 27 observatories for surveying heaven.

(4) Blending and Collision Among Different Cultures

Culture does not emerge spontaneously, but from social activity (Su 2003). Thus, different physical environments produce distinctive cultures. As life changes in its physical surroundings, culture changes with it. Differences between cultures stimulate cultural communication, conflict and collision.

As a physical cultural medium, architecture crisply reveals blending among, and collision between, different cultures. For example, the religious philosophy of the Ancient Chinese was inclusive. Different cultures from the Buddhist, Taoism and Confucian traditions mixed with each other. Many religious buildings thus featured a fusion of Buddhist, Taoist and Confucian stylistic elements.

When two cultures meet, there may also be fierce collision, which can lead to rejection and isolation. When the Hakka people migrated to the *Lingnan* region,[2] they faced conflict between their own culture and local culture. They chose to avoid confrontation, living isolated within earthen buildings, structures that were introverted and enclosed. In this manner, the Hakka people were able to preserve the independence of their culture.

[2]***Lingnan* region** originally referred to the region south of the Five Ranges and now generally covers the modern Chinese provinces of Guangdong, Guangxi and Hainan.