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The appearance of the “Shan-Shui city” movement is worth noting for two reasons. First, the contemporary urban development and urban planning in China had embarked with a rejection of many of China’s own city-building traditions; urban planning and design ideas China have been in the past half a century under the influence of former Soviet
Union (Lu 2006, Sit 2010); more recently aspiration for economic development and the forces of globalization have driven China to embrace global city planning and city building ideas learned from western societies such as Garden City theory, zoning practices, CBD development, and eco-city construction, etc. Indeed, while China’s quick adoption of ideas has made its urban development a laboratory for innovation and experimentation, a threat of identity loss in many Chinese cities is becoming evident. “China seems to apprehend a need to return to its original civilization”, as suggested by Sit (2010: 253). Exploring the applicability of traditional Chinese urbanism, such as the shan-shui city approach, is important in this context.

Second, while many self-labeled eco-urban projects have mushroomed in China, critiques point out many of them are indeed profit-driven real estate development decorated with piecemeal green technological applications, lacking thoughtful consideration of the ecological relationship between the human-made and the natural environments (Wong 2011). The fundamental beliefs and attitudes underlying the Shan-Shui city urbanism have their roots in Chinese philosophies concerning the human and nature relationship. In the past thousands of years, they have helped shape the Chinese environmental aesthetics through the Shan-Shui culture movement. Building eco-urban projects guided by the Shan-Shui city ideal may present a quintessentially Chinese approach towards sustainable urban development (Fu 2004, Bao 2010) as the Shan-Shui urbanism can be an important source of inspiration for creating places that balance the needs for economic growth, environmental protection, and social improvements.

Organized in four parts, this paper examines the Shan-Shui City idea and its applications in current urban China. Following the introduction, it traces the evolution of the term ‘Shan-Shui’ in Chinese philosophy and Shan-Shui culture, discusses the human-nature relationship embodied in the Chinese Shan-Shui city building practices, and examines the process by which the Shan-Shui city idea has been re-interpreted and applied in China’s contemporary urban development. After discussing a recent urban development project where the Shan-Shui city idea had been consciously applied in the planning and design stages, the paper concludes with discussions about the significance of adopting Shan-Shui urbanism in China’s pursuit for ecological civilization.

Tracing the Origin and Evolution of the Shan-Shui City Idea

Shan-Shui (山水) in Chinese Culture

‘Shan’ and ‘shui’ in Chinese denote two common elements in nature, “mountain and water”. They have been broadened to refer to nature in general: all tangible natural elements and landscape, as well as intangible natural forces and processes (Han 2015). Shan and shui carried significant meanings in Chinese religion and philosophies, considered by ancient Chinese as embodiment of virtue and beauty, as well as an interacting realm for human spiritual enlightenment. As the foci of the Chinese shan-shui culture that flourished in the 5th century, artistic expression of shan (mountain) and shui (water) often portraying the ideal natural environment can be found in literary works and traditional Chinese paintings.
Ancient Chinese worshipped mountains and water out of respect and fear: life-supporting necessities all came from the natural world and natural forces were beyond human control and comprehension. Additionally, ancient Chinese believed that omnipotent immortals originated from mountains and water and controlled nature’s work, that mountains could be media through which one can engage in communication with the immortals, and that having close contacts with nature (shan and shui) will lead to one’s spiritual liberation. In Chinese philosophies, most notably, that developed by Laozi, shan and shui as epitome of nature are considered to have ontological values. Observing and carefully examining the presence of shan and shui and their relationship serve as epistemological understanding of the universe and naturalness. Laozi also postulated that only through the harmonious co-existence with nature can men achieve a virtuous living and acquire the ultimate enlightenment. Confucianism also advanced the idea of embracing nature as a way for moral cultivation and of achieving the “oneness with nature” as the ultimate goal of human life.

The human-nature relationship postulated in Chinese philosophies greatly influenced how nature is perceived by Chinese people, which served as a basis for the later development of Shan-Shui culture, an independent branch of Chinese culture expressed through Shan-Shui poetry, Shan-Shui painting, Shan-Shui garden design, and Shan-Shui travel (Han 2015). In the Shan-Shui culture, mountains and water (shan and shui) became focal objectives in artistic work as opposed to a backdrop for their humanistic, ethical, and aesthetical values. Rather than trying to objectively depict Shan-Shui nature as it is, the Shan-Shui artists in fact engaged in the pursuit of an ideal natural environment for human habitat. Very important is that the ideal Shan-Shui centered landscape revealed through literary, painting and gardens often displayed characteristic spatiality, which later formed a basis of the unique Chinese landscape/environmental aesthetics (Yu 1998).

**Shan-Shui City in Ancient China**

Chinese people’s yearning for an ideal environment to live in physical and spiritual harmony with nature didn’t stop at creating images in the Shan-Shui paintings. When ancient Chinese tried to create an environment for their settlement, they paid great attention to the shan and shui elements in the natural environment, treating them with respect and at the same time manipulating them to their aesthetic standards and in ways believed to best cultivate the harmonious human-nature relationship. Shan-Shui city in ancient China can be simply defined as a human settlement characterized with Shan-Shui elements in a prescribed spatiality. It has always been held as the ideal city form in the long history of urbanism in China (Sit, 2010).

In ancient China, building a Shan-Shui city was based on the Feng-Shui method, an ancient Chinese environment planning strategy involving careful analysis of local geography, water system, climate, soil condition, and transportation, among many other considerations. Location choice or siting of a city followed a method that prescribed locating a south-facing city (settlement) on a site where a river runs to the south of the city, a tall mountain located to the north, and lower lying hills on the east and west (figure 1). It was believed that such spatial relationships among the mountain, water, and city was extremely important for people to maintain and nourish “Qi”, an auspicious force crucial for a place’s peace and prosperity; Siting a city in this way also minimizes human’s impacts on the nature as it was believed that working against the “Qi” is
disobeying the “natural law”. The result is a human settlement integrated, not isolated from nature nor dominating nature.

The Shan-Shui urbanism embodies China’s vernacular approach to environmental planning in ancient times that emphasized the principle of a city needing to work with local geographical and climatic conditions. Indeed, in China, such location choice would naturally place a city on the sunny side of a mountain; the mountain and hills on the north and south would block wind from those directions; the water on the south can help maintain moisture. Besides the microclimate benefits to the human settlement, the presence of shan and shui also functions in several other ways: as symbolically highlighted features they help define a city’s geographic territory and orientation; they contribute to a place’s identity as natural landmarks with significant cultural and cognitive values; they provide the inhabitants an opportunity to pursue the philosophic goal of achieving oneness with nature.

Figure 1. Concepts of Shan-Shui and Shan-Shui City

This optimal mountain-water-city spatial structure, which is similar to what is portrayed in the Shan-Shui paintings and poetry, was considered aesthetically pleasing and spiritually enlightening as it provides proportionally agreeable natural elements in relation to the human settlement and various vistas for residents to appreciate the nature (mountain and water). Some scholars suggest that while some of the spatial characteristics can be explained by wisdom accumulated through thousands of years of Chinese agricultural civilization, there are many other features frequently observed in the Shan-Shui city ideal that are not so clear through a pragmatist lens (Yu, 1998). Yu summarized that many ideal Shan-Shui cities exhibited such spatial qualities as being

SOURCE: LANDSCAPE DESIGN CENTER, BEIJING TSINGHUA TONGHENG URBAN PLANNING AND DESIGN INSTITUTE.
enclosed and shielded; separated from yet connected with the external environment through strategic access (typically a river or creek); having clear delimitation; shan and shui on the site being contained to form a local environment while nested in a larger Shan-Shui background. In many ways, such spatial qualities are consistent with the Chinese belief that one can “retreat to nature’ to acquire a virtuous living and they have become Chinese environmental aesthetics shaped by environmental philosophy and reinforced through culture.

12 The ancient Shan-Shui urbanism calls for design with nature and employs principles and techniques similar to Chinese classic garden design to achieve a city’s functional and aesthetic goals. These principles, ranging from ‘adjusting designs to local conditions’ to minimize the impacts of human-made structures on the natural environment, to more creative use of various methods, such as ‘scene borrowing’ to create vantage points that allow users to appreciate nature from various directions, or even create and modify landscapes that can work with human psychology to enhance the interactions between human beings and their environment. In many cases, the presence of the mountain and river elements was considered so important that adding them artificially became necessary if those elements didn’t exist in the first place (Hong et al. 2007). Chinese people believed that the best environment for human habitat was amid the works of both nature and men.

13 Good examples of classic Shan-Shui cities include the Imperial Beijing City and Hangzhou City. These Shan-Shui cities were consciously built to conform to the mountain-water-city spatial structure. Hangzhou is a well-known Shan-Shui city where the city itself has an almost perfect spatial relationship with mountain and water. Imperial Beijing City was originally located on a flat site where no obvious mountain or water existed. Emperors from the three dynasties of Yuan, Ming and Qing continuously built lakes and mountains to create Shan-Shui imagery (Figure 2).
The socialist urban development in China since 1949 took a deliberate departure from the traditional Shan-Shui city approach, adopting an urban planning model based on Soviet precedence. The socialist city building approach emphasized industrialization-driven urban development that displayed little concern over urbanization’s environmental impacts and made minimal consideration of how to integrate nature into urban space, which contrasted sharply with the Shan-Shui city principles (Lu 2006). The simple imposition of foreign style proved to be problematic because of the inherent inability of old Chinese cities’ urban fabric to accommodate geometric-oriented urban form; rampant and indiscriminant clearance of old city sections happened since the onset of the socialist urban modernization movement (Campanella 2008). The concern over the loss of cultural heritage in urban China shared among many scholars and government officials reached a peak by the late 1980’s, directly leading to the advent of China’s first historical preservation policies and programs (Institute of Architecture and Urban Studies 1993).

The renowned scientist, Qian Xuesen, has been credited with reviving the Shan-Shui city idea. In a 1990 letter he wrote to an urban scholar, he famously suggested, “Can we (re)create the concept of Shan-Shui city by combining China’s Shan-Shui poetry, classic garden and Shan-Shui painting with city-building?” (Qian 1990, cited in Bao 2010, page 43). Qian envisioned a Shan-Shui city that shows respect to nature, adopts state-of-the-art science and technology to address the impacts of human activities on the natural environment, adheres to Chinese people’s environmental aesthetic standards, and most
importantly works for the people. A Shan-Shui city, according to Qian, should demonstrate an essential Chinese character through its deliberate expression of Chinese landscape and architectural aesthetic culture, although maintaining the presence of mountain (shan) and water (shui) may not be the most critical condition (Bao 2010).

The conception of a modern Shan-Shui city advocated by Qian and other Chinese scholars greatly expands beyond the focus on the relationships among mountain, water, and city. Compared to the Shan-Shui city from the ancient times, the modern Shan-Shui city differs in two other significant ways, in addition to its reduced emphasis on creating Shan-Shui imagery. First, while an ancient Shan-Shui city was sited in proper relation with nature (shan and shui) believed to benefit its inhabitants, the city itself was often built with the intention to help a ruler (or a ruling class) channel power and reinforce legitimacy. A modern Shan-Shui city, in contrast, should be developed to serve its people and should focus on maximizing nature’s presence for public enjoyment. Such a conception of Shan-Shui city emphasizes the role of nature in public space, and calls for creating easily accessible nature in the form of green belts, water areas with accessible walkways, public parks, urban forests, etc.

Second, Qian saw the need to achieve the Shan-Shui city with the help of western science, technology, as well as experiences. He suggested that building a Shan-Shui city should rely on scientific knowledge about nature’s forces and processes and on the understanding of the relationship between the human-made and natural environments. He also believed in the importance of planning for a Shan-Shui city that carefully employs natural resources, promotes energy efficiency, encourages symbiosis with biological organisms, and adopts eco-designed landscapes. Through letter correspondence, conferences, and publications, the Shan-Shui city advocates led by Qian articulated that modern Shan-Shui urbanism in China shares similar environmental concerns with some of the environmentally-conscious city-building approaches originated in the western societies, notably the Garden City theory and the eco-city paradigm. But Shan-Shui urbanism goes beyond those western approaches to embrace the role played by culture in humanizing the natural environment, which, according to Qian, is important for enhancing the human-nature relationship on a spiritual or philosophical level (Bao 2010).

The Shan-Shui city advocates also explored viable approaches to implementing Shan-Shui urbanism. Holding that the Shan-Shui city embodies the ideal human habitat, Qian suggested an incremental approach: a city should improve its ecological conditions through such strategies as urban forestry, urban landscape, and open space creation; it should gradually build up a holistic ecological system integrating the human-made and natural environments; eventually a city should become a place where its natural and human-made environments are unified by and also promote local cultural heritage and where its residents can connect with nature at a spiritual level. In the 1990s several cities developed plans to make themselves “Shan-Shui” cities; many scholars and government officials called for more research on the Shan-Shui city idea and on urban planning practices to inform the implementation of Shan-Shui urbanism (Bao 2010, Fu 2004).

Shan-Shui City-inspired Urban Development Projects

While in the 80s and 90s various Chinese scholars engaged in constructive discussions of a modern Shan-Shui theory, and debated on approaches to Shan-Shui city building, very little action was taken to generate concrete results. It is not until the early 2000s when
some urban projects explicitly adopted some of the Shan-Shui city prescriptions and followed Shan-Shui city principles. Planners and designers at top tier planning and design institutes (e.g. Tsinghua Tongheng Urban Planning and Design Institute) have been actively applying the Shan-Shui city principles in several urban design projects. Chinese architects also explored the Shan-Shui concept and Shan-Shui form in architecture design. Ma Yansong, a Chinese architect who enjoys international prominence, acknowledged that the classic Chinese Shan-Shui painting inspired his recent Shan-Shui city projects to focus on the environment, using waterfalls, plants, and gardens to turn architecture into a Shan-Shui landscape (Ma Yansong interview, Zhulong.com, 2014)

Figure 3. Architect Yansong Ma’s Shan-City Project.

Source: Picture obtained from the website at http://bbs.zhulong.com/101010_group_3000036/detail19192887.

The Shan-Shui discourse continues in academic dialogue, and has received recognition in the national development agenda. An encouraging sign is that the term Shan-Shui started appearing in important government documents suggesting its prospect to be formally included in the national urban development agenda. The notes from a Central government urbanization working conference in December 2013 suggest that a city should “take advantage of its existing unique Shan-Shui patterns and landscape to incorporate itself into the nature, letting the mountain and water be visible to its residents to evoke nostalgias” (Xinhua Net, Dec. 14, 2013). Clearly the aesthetic power of Shan-Shui is being recognized as a force to foster place attachment and identity, two psychological conditions important for people’s quality of life.

Shan-Shui City Inspired Urban Project – A Case Study of Beijing Olympic Forest Park

There are a number of large-scale urban development projects, such as Beijing Olympic Park and Tangshan Southlake Ecocity, can serve to illuminate the theoretical and practical elements of Shan-Shui urbanism. We use the Beijing Olympic Forest Park project
to discuss the ability of this vernacular Chinese urbanism to resonate with local communities while contributing to urban sustainability (Hu 2011). This case was chosen because it was the first modern completed project known to us that was planned and designed according to Shan-Shui urbanism principles. The project is exemplary in several aspects, including its innovative creation of Shan-Shui imagery, its adoption of ecological technology in reducing the project’s environmental impacts, and its use of cultural input to add humanistic value to natural and human-built environments.

The Beijing Olympic Forest Park of 6.8 square hectometer is located at the northern end of Beijing city’s south-north central axis, earning its designation as “axis to nature” (Sasaki&THUPDI, 2004). Developed in 2008 as a key component of the 2008 Beijing Olympic Green, when the site housed various Olympic facilities, the Olympic Forest Park is intended to provide urban residents easy access to nature. The Park exhibits a distinctive Shan-Shui imagery consistent with the Shan-Shui city theory; its development process is guided by the principle of building in accordance with site characteristics central to the Shan-Shui city theory; during the Park’s planning process, extensive environment analyses that combined both Chinese tradition and modern ecological science served as the basis for making major design and planning decisions. The conscious employment of ecological conservation, traditional Chinese landscape planning and design strategies, and many engineering and technological solutions make Beijing Olympic Forest Park a great case study to examine how the Shan-Shui city principles can be followed, adapted, and implemented in China’s modern urban development.

Creating Shan-Shui City Imagery

The Shan-Shui imagery as depicted in figure 4 suggests arranging a settlement (city) to follow a prescribed relationship with mountain and water elements. The placement and orientation of the built structures in these projects faithfully follow that prescription. In the Olympic Forest Park project, the “shan” (mountain) and “shui” (water) took their final shape and emerged at their respective site through careful studies of Beijing City’s macro-ecological and cultural landscape and via some form of human-made efforts, consistent with the Shan-Shui city belief that land form can be created and modified for the purpose of achieving harmony between the “human-made” and the “natural”.

The park’s close proximity to the old Beijing city (Imperial City), a city created in conformance to Shan-Shui urbanism, posed a great challenge to its design. Establishment of the Park’s Shan-Shui pattern was determined carefully in order to protect the integrity of the existing Shan-Shui pattern of the Imperial City. Designers and planners of the Park conducted comprehensive studies of various Shan-Shui patterns (such as that of the Summer Palace, Qionghua Island, and Jingshan Mountain) present in Beijing to determine the location, orientation, dimensions and shape of the mountain and water that structure the Park’s Shan-Shui form (figure 4).
Shan-Shui urbanism suggests that place-making should obey and take advantage of nature’s forces. While the ancient Shan-Shui city building simply relied on conformance to a certain spatial form for achieving such a principle, the modern Shan-Shui application in the Olympic Park project is reflected in the use of modern ecological science and technology to create a self-sustaining and self-regulating water system that takes a shape of a “dragon”, the establishment of architectural guidelines and parameters for low-energy building and green power, and development of a waste resource utilization system that recycles 90% of the energy used on site.

The water system is a dynamic one with 95% of the water sourced from reclaimed rain and floodwater. The water system replenishes water in dry seasons and helps the city discharge floodwater in rainy seasons. This ecological function is very important for a place like Beijing where the climate is dry and its water resources are scarce. The water system’s dragon shape, in the meantime, adds to the water system’s significance in a culturally meaningful way (figure 5).
The diverse terrains, landforms and landscape naturally in existence on site or artificially created – hilltops, sloping banks, valleys, lakes and wetlands, forests – all are utilized to provide important ecological functions for this site, such as adjusting local climate by blocking strong wind, tempering humidity and temperature, increasing storm water detention, and collecting rainwater. It is worth noting that creation of the new landforms relied on materials from the excavation and construction of the Olympic Subway line and station and other adjacent development projects. Much of the design of these landforms also follows traditional Chinese landscape planning and design values in the hope of creating aesthetic impacts similar to the Shan-Shui paintings and the Chinese classic gardens (figure 6).
Shan-Shui urbanism places a great emphasis on using close contacts with nature for satisfying residents’ psychological needs. The design of the Olympic Park strives to create a naturalistic landscape for people to enjoy. The edges of the park’s water system were constructed as natural banks to allow aquatic plants to cleanse the water and amplify the effect of the water landscape. The selection and placement of plant species in the Park was informed by careful studies of local species found at Beijing’s urban, suburban, and rural areas. Indigenous plant species were selected on the basis of their tolerance capability (cold resistance, draught tolerance, pest resistance, pollution tolerance), their eco-efficiency (capacity to absorb carbon dioxide and emit oxygen, temperature and humidity regulating capability, antiseptic capacity, noise reduction capacity, and contribution to bio-diversity), their aesthetic quality and their ability to represent local cultural identity. The selection of plan species also considered the food sources that they may provide to local wildlife. At the end 158 plant families commonly seen in the Beijing area were selected for the Forest Park. An ecological corridor bridge was constructed to connect the southern and northern parts of the Forest Park, facilitating migration and distribution of plant species and maintaining the integrity of the park’s ecological systems.

The provision and design of the park’s public facilities were determined based on studies of leisure areas, cultural faculties and congregational spaces around the City of Beijing. The park’s road system, constructed with permeable pavements, was designed to provide control points to allow for management of the park’s natural resources and an optimal soundscape for park users. Universal design was applied to the park’s public facilities to make sure they are easily accessible to the young, the old and the disabled. Today the park receives more than one hundred thousand people on a daily basis, becoming one of the most popular attractions in the city for people living near and far.

Summary and Discussion

As the Shan-Shui city theory harnesses its burgeoning economic and political force and proves to be practical, it can influence the progress of contemporary Chinese urban
aesthetics and contribute to the building of more sustainable urban environments. Obviously modern application of Shan-Shui urbanism expands far beyond simply creating certain Shan-Shui form or imagery and it holds value today as it embodies an attempt to integrate functions, aesthetics and culture in place-making. In essence, Shan-Shui urbanism is about creating an environment that protects nature, fosters culture, promotes a mutually-flourishing relationship between human and nature, is aesthetically pleasing, and is shared amongst all peoples.

Continued discourse on the Shan-Shui city idea and Shan-Shui city practices can make a contribution to China’s current sustainable urban development in two aspects. First, Shan-Shui urbanism places “nature” in the center of a place-making process and brings back the long-held Chinese philosophical and cultural approach to nature. Nature from the Chinese perspective is always filtered through culture and is believed to achieve its optimal value through cultural input. Unlike the anthropocentric approach to nature, Shan-Shui urbanism recognizes that nature’s inherent value goes beyond providing pragmatic and utilitarian services; Shan-Shui urbanism is also different from the eco-centric view of nature that equates naturalness with intact “wildness” (Benson 2000). Shan-Shui urbanism embraces the idea that an ideal human settlement is a combined work of nature and of men, and thus encourages the use of sensible nature-altering and nature-making strategies (e.g. human-made mountain or water bodies) to create an environment conforming to Chinese landscape aesthetics.

Second, Shan-Shui urbanism emphasizes that the application of advanced technological and engineering solutions should be compatible with local conditions and should be informed by local knowledge and culture. As shown in the Beijing Olympic Forest Park project, the selection of various ecological methods was very much in line with local circumstances in order to maintain the site’s original ecological culture as much as possible. Equipped with modern ecological science and technology, Shan-Shui urbanism calls for planning and design strategies similar to some western sustainable urban development theories. For example, the Shan-Shui city urbanism is consistent with biophilic urbanism (Beatley 2011) in its recognition of the innate emotional affiliation of human beings with other living organisms or nature and in their attention paid to the innovative ways of integrating nature into the city. Modern Shan-Shui urbanism is also comparable to the ecological approach in landscape planning and design in that it emphasizes the analysis of natural conditions and process in the design and planning process (Spirn 2014). Some scholars believe that the Shan-Shui city is a characteristically Chinese eco-city encompassing broader concerns than the typical eco-city as it ‘more deeply engages science, technology, and culture’ (Fu 2004).

Rapid urbanization has presented both challenges and opportunities to planners and designers in China. Many of them have recognized the urgent need to pursue a sustainable urban development approach that is suitable to China’s culture and political contexts. Our paper argues that Shan-Shui urbanism can be an important source of inspiration for creating urban places, ranging from parks, to residential neighborhoods, and to new urban districts. As this paper suggests, Shan-Shui urbanism has historically been very influential in the place-making tradition in China, thanks to its ability to support Chinese aesthetic preferences for nature. We hope our research helps with rediscovering the applicability of the Shan-Shui urbanism in modern China by highlighting its enduring environmental principle centered on the mutually-nurturing human-nature relationship, its potential to integrate with ecological science, and its
emphasis on the use of context-appropriate technology. Ultimately, we hope to make contribution to the research on and practices for sustainable urbanism by raising the awareness of how a culturally-rich place-making approach can help cultivate ecological sensitivity in addressing urban development issues, which can, in the long-run, sustain our society’s desire for eco-urbanism.

BIBLIOGRAPHY


Aspiration for economic development and the forces of globalization have driven China to embrace global city planning and city building ideas. A threat of identity loss in many Chinese cities is becoming evident. Some scholars have suggested that “China seems to apprehend a need to return to its original civilization” and see the significance of applying the values embedded in traditional Chinese urbanism, such as balance and harmonious human-nature relationships, in its urban development. This paper examines how a Chinese vernacular urbanism, the Shan-Shui City (山水城市), can be an important source of inspiration for creating places that can balance the needs for economic growth and environmental protection. The paper describes a case study of a large urban development project that has applied the Shan-Shui city idea, the Beijing Olympic Forest Park, and argues that the environmental philosophy and aesthetics underlying the traditional “Shan-Shui” concept and the planning and design strategies embraced by the “Shan-Shui” city idea can make this place-making method an appealing and effective sustainable urban development approach in China.

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AUTHORS

YIZHAO YANG

Yizhao Yang, PhD, is an associate professor at the Department of Planning, Public Policy and Management at the University of Oregon. Dr. Yang holds Ph.D. from Cornell University in City and Regional Planning (2007), Master’s Degree in Building Science from Tsinghua University, Beijing China (1998), and Bachelor Degree in Architecture from Tianjin University, Tianjin China (1995). She researches residential location choice as it relates to urban form and active transportation, children’s active school commuting, and the factors that influence family housing choices. More recently, her work has been examining sustainable urban development,
urban form changes, and vernacular urbanism in urban China. Prof. Yang currently collaborates with scholars and designers at Beijing Tsinghua Tongheng Urban Planning and Design Institute to study sustainable urban development practices in China. Email: yizhao@uoregon.edu

JIE HU

Jie Hu is the Director of the Landscape Architecture Design Center at Beijing Tsinghua Tongheng Urban Planning and Design Institute, and an associate Professor at the Department of Landscape Architecture in the School of Architecture in Tsinghua University. Jie Hu holds a Master Degree in Landscape Architecture from University of Illinois at Urbana Champaign (1995) and Bachelor Degree in Architecture (1983) from Chongqing University, China. Jie Hu has served as the chief planner and designer for many large-scale projects such as the Beijing Olympic Forest Park, Tieling Fanhe New City landscape planning, Tangshan Nanhu Eco-city Central Park, etc., many of which have received internal landscape design awards. Jie Hu integrates green technology with Chinese vernacular urbanism in his practices and his research focuses on how Shan Shui City idea can be applied in sustainable urban projects in China. Email: hujie02467@126.com