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### A comparison of concepts of the body in Chinese and Western spatial thought

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Abstract Chinese and Western spatial thought has tried to understand space differently from the body's perspective. There are some similarities between ancient Chinese and Western spatial thought in understanding the relationship between body and space; both position the body as a coordinated structure or as the basic logic of spatial composition. However, since the 20th century, this shared understanding of the "unity of heaven and man" has been gradually replaced by the modern urbanist concept of separating body and space. A comparison of the concept of "body" embedded in Chinese and Western spatial thought should use the chronological development of concepts to explore the intersection of ideas developed in parallel processes between the two. The comparison shows that the differences between ancient Chinese and ancient Western spatial thought on the body are manifest in three aspects: different objects of concern, different awareness of problems, and different influences on later generations.

Keywords Spatial thought, Body concepts, Comparative study, Body and space

Both Chinese and Western systems of spatial thought reflect the relationship between the body and space. Studies of these systems of thought focus on how bodily structure is reflected in the construction of space and how physical practice affects the generation of the individual's sense of space. Moving from the physiological "body" to the abstract conceptualized "body," the primary link in the formation of spatial thought in both the Chinese and Western worlds is that of the observer and the practitioner—the existence of their "body." As the French theorist Michel de Certeau said, on the one hand, "the voyeur-god created by this fiction…must disentangle himself from the murky intertwining daily behaviors

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and make himself alien to them." On the other hand, practitioners who live in urban spaces "bodies follow the thicks and thins of an urban 'text' they write without being able to read it" (De Certeau et al., 93). Compared with de Certeau's utterly different division of individuals into observers and practitioners, the systems of spatial thought in this article are derived from the integration of the two spatial feelings and behaviors of "observation" and "practice," based on which this article seeks to outline the various manifestations of the relationship between space and body in the eyes of space observers and practitioners in China and the West. It does so by combining the concepts of the body contained in ancient and modern Chinese and Western spatial thought.

# 1. The concept of the body in ancient Chinese spatial thought (2100 BC–960 AD)

Most ancient Chinese people's thoughts about the relationship between space and the body were expressed in their grasp of the relationship between the environment and people (see Liezi, 1915, 481; Mo, 2009, 136; Guan, 2017, 143; Xunzi, 1999, 280). Before the concept of spatial planning took shape in ancient China, people's imagination of space was mainly derived from their perceptions of the tangible environment and the natural world. Therefore, the ancient Chinese understood the relationship between space and the body as being reflected more in how people deal with themselves in the environment and how they adapt to the natural world and its physical laws.

In the ancient Chinese view, one of the most important ways for people to get along with their environment was to make a proper orientation of one's body in the natural world. For example, the ancient Chinese invented an astronomical instrument called the "gnomon" (圭表), which determines one's time and geographical orientation by measuring the sun's shadow, that is, "identifying the direction" (辩方正位). The ancient Chinese classic *The Rites of the Zhou* (周礼) stated at the beginning of each chapter: "When the emperor Zhou founded the country, he first needed to determine the geographical orientation, and then delimit the boundary between the capital and the countryside, and establish official positions in order to become a model for the people (惟王建国, 辩方正位, 体国经野, 设官分职, 以为民极)" (Zhou, 1). The phrase "determine the geographic location" reflects the sensitivity toward and importance that the ancients attached to spatial orientation, in that the establishment of the capital was based on location. The ancient Chinese thought and practice of determining direction through the Eight Trigrams also reflect the connection between the two abstract concepts of space and body. According to Zhou Yi (周易), "When Fuxi ruled the country in ancient times, he looked up to observe the phenomena of the sky, and looked down to observe the laws of the Earth. He observed the texture of birds and animals with the suitability of the landscape. 'I choose many of my own experiences near and many of my observations far away. From these circumstances. I began to compose Eight Trigrams to inform the benevolent political measures of wise and knowledgeable in governing the state and draw analogies to the reality of all things in the universe.' (古者包牺氏之王天下也, 仰则观象于天. 俯则观法于地. 观鸟兽之文与地之宜, 近取诸身. 远取诸物. 于是始作八卦, 以通神明之德, 以类万物之情)" (Ji, 318). Thus, it can be seen that when Fuxi created the Eight Trigrams, he used the interaction of bodily behavior and the environment to understand the operative laws of the world and of all things and integrated the human body as well as the image and structure of all things in the world in the Eight Trigrams. The concept of determining orientation with the Eight Trigrams is based on people's perception of direction in space. A discussion of the "orientation of the Eight Trigrams" (八卦方位) can be found in Zhou Yi (周易):

> The vitality that dominates nature makes all things born in the Zhen Trigram (symbolizing the east and the vernal equinox), growing neatly in the Xun Trigram (symbolizing the southeast and beginning of summer), and appearing in the Li Trigram (symbolizing the south and the summer solstice), dedicated to nurturing the Earth in the Kun Trigram (symbolizing the southwest and the beginning of autumn), mature and happy in the Dui Trigram (symbolizing the West and autumnal equinox), mating and combining in the Qian Trigram (symbolizing the northwest and the beginning of winter), diligent and tired in Kan Trigram (symbolizing the north and the winter solstice), and finally succeeded and reborn in the Gen Trigram (symbolizing northeast and beginning of spring). All things are born in the Zhen Trigram because it symbolizes the east (the origin of all things). Things grow neatly in the Xun Trigram because it symbolizes (all things grow in harmony) the southeast. The Li Trigram is a symbol of light, representing the south, and everything is vigorous and

appears despite one another in this trigram. The saint sitting north and facing south and obeying the world, facing the light and governing affairs, is probably a symbol of absorbing Li Trigrams. The Kun Trigram is a symbol of the Earth, and everything is dedicated to nurturing it, so it is said that we are dedicated to Kun Trigrams. The Dui Trigram symbolizes the autumn season when everything is mature and happy. Mating and combining manifest in the Qian Trigram, which symbolizes the northwest (the yin side), which shows that yin and yang intersect and enter into harmony here

(帝出乎震,齐乎巽,相见乎离,致役乎兑,战乎乾,劳乎坎,成言 乎艮。万物出乎震,震东方也。齐乎巽,巽东南也;齐也者,言万 物之絜齐也。离也者,明也,万物皆相见,南方之卦也;圣人南面 而听天下,向明而治,盖取诸此也。坤也者,地也,万物皆致养焉. 故曰:致役乎坤。兑,正秋也,万物之所说也,故曰:说言乎兑。 战乎乾,乾西北之卦也,言阴阳相簿也。)(Ji,342).

It can be seen from the above extract that the ancient Chinese imagination of spatial orientation is closely related to individual physical activity. People determine spatial orientation according to the position of their bodies and the dynamic interaction between their bodies and space. At the same time, the Eight Trigrams not only map spatial orientation but are also used to refer to different parts of the human bodily structure, as recorded in Zhou Yi · Shuo Gu Zhuan, "Qian for the head, Kun for the abdomen, Zhen for the feet, Xun for the thighs, Kan for the ears, Li for the eyes, Gen for the hands, and Dui for the mouth (乾为 首, 坤为腹, 震为足, 巽为股, 坎为耳, 离为目, 艮为手, 兑为口)" (Ji, 344). This shows that a correspondence between the trigrams and the spatial orientation or body structure underlies the rich connotations of Eight Trigrams thought. When Fuxi created the Eight Trigrams, he took the integration of body and space as a clue, making the Eight Trigrams the intermediary of the mutual integration of abstract body and concepts of space. Through the meaningful communication of trigrams, the connection between the body and space is expressed as a correspondence between bodily organs and spatial orientation. This idea of connecting the body and space profoundly impacted ancient Chinese medicine and Fengshui (see Ji, 1993, 344).

Ancient Chinese spatial thought reflects more examples of spatial positioning from the body's perspective. In The Book of Songs (诗经), it says: "The fixed star shines in the air in October, and Chuqiu grounds and builds a new palace (定之方 中, 作于楚宫)" (Liang, 10). The ancient Chinese architectural work Building Methods (营造法式), which was written in the early twelfth century, listed it as the earliest "determining orientation" (取方) method in China. The so-called "Fixed star shines in the sky in October" (定之方中) refers to the act of positioning space in order to build a house starting from the position of the body, which was regarded by the ancient Chinese as the initial step of space construction or space planning. The philosophical work Huainanzi (淮南子) of the Western Han Dynasty also contains a treatise on the orientation and image of heaven and earth concerning the bodily organs, stating, "The human spirit is obtained from the heavens, and the form is obtained from the earth...Once the human form is formed, the five internal organs are also formed...Therefore, the human head is round, like the sky, and the feet are square, like the ground. (夫精神者, 所受于天也; 而形体者, 所禀于地也...形体以成, 五藏乃形...故头之圆也象天, 足之方也象地)"(Liu, 251). Comparing body organs with the structure of the natural world is more common in ancient Western space planning concepts and more concretely reflects thinking about the oneness of the body and space.

This spatial thought integrates spatial orientation and bodily structure to concretize the natural concept of "heaven and man are united as one" in ancient China. Reflections on the concept of "heaven and man are united as one" are scattered in the discourses of Chinese scholars throughout the ages. For example, Mencius said, "To do one's own kindness is to realize one's own nature. To realize one's own nature is to understand destiny. The nature of all things is connected to me" (Mencius, 271–272). Laozi said, "Man follows the earth, the earth follows the sky, the sky follows the Tao, and the Tao is purely natural" (Laozi, 21). Similarly, Zhuangzi said: "Heaven and Earth live in symbiosis with me, and everything is one with me" (Zhuangzi, 14). These statements all reflect the view of man and nature as a whole with inherent sameness. Therefore, "heaven and man are united as one" means the unity of man with all things in nature and the unity of man's bodily existence and practice with the natural world, the material environment, and the surrounding space. The distinction between body and things and between body and space no longer exists in this idealized spiritual realm.

The ancient Chinese understood space as the sense of direction brought about by spatial orientation to perceive the physical environment and the natural world.

Human physical existence and bodily practices were undoubtedly crucial factors in the human perception of spatial activities. Therefore, the ancient Chinese understanding of the relationship between space and the body is usually an abstract integration of the two or a conceptual grasp of the interaction as mutually inclusive and mutually constructive. This way of understanding the relationship between space and the body can be defined as "heaven and man are united as one" two-in-one spatial thought, which emphasizes the cross-construction and mutual influence of space and body. This two-in-one spatial thought is not only the mainstream of ancient Chinese spatial thought but has long been regarded as the primary way to understand the relationship between space and the body in ancient Western spatial thought. It has been concretized in the spatial planning activities of the ancient Western world.

### 2. Concepts of the body in ancient Western spatial thought (500 BC–1700 AD)

Ancient Western spatial thought attached great importance to grasping and applying physical experience. The results of spatialization based on the perception of bodily experience and bodily structure can often be seen in the thinking and practice of ancient Western urban space planning. In most cases, the way Western spatial thinkers perceive the relationship between the body and urban space even constitutes the primary starting point for their imagination of ideal urban space. Here, the body as an object of investigation no longer refers only to the body in the sense of individual physiology but is identical to the individual existence of urban residents. Therefore, for ancient Western spatial thinkers, exploring the relationship between bodily practices and spatial constructions, in fact, constitutes an exploration of how to establish a stable relationship between urban residents and urban spatial structure.

Several representations of the idea of the body in ancient Western spatial thought can be gleaned from Richard Sennett's book Flesh and Stone. He begins by discussing the interaction between bodily behavior and spatial planning in the ancient Greek period, noting that the ancient Greeks expressed their pride in being part of the urban space by exposing their bodies. This created a distinction between male and female relationships in the urban space and, in turn, influenced the way democracy functioned in the Athenian city-state. He also notes that the body rituals of the Athenians were closely integrated with the urban space: "Athenian culture was distinctive in believing that people could create and understand their condition" (Sennett, 86). Thus, they continually interacted with urban space through bodily acts and saw the body as "the city's greatest work of art" (Sennett, 86).

In ancient Rome, people were more obsessed with the manifestation of the bodily structure in spatial planning and design, the so-called "geometry of the body." The ancient Romans discovered that "bodily gestures were founded on a more systematic imagery, on the system of symmetries and visual balances which the Romans thought they had discovered in the human body" (Sennett, 101–102). Starting from this view of bodily structure, the ruler tried to establish rules governing cities and empires and imposed them on the world, forcing the Romans to watch, believe, and strictly abide by them. According to Sennett, the ancient Roman designer Vitruvius was the first to demonstrate the existence of geometric relationships in the structure of the human body, namely "the bilateral symmetries of the bones and the muscles, the ears and the eyes," from which the Roman architects began "using similar geometrical imagery...following the rules of bilateral symmetry and privileging linear visual perception" to plan cities (Sennett, 90). Here hides a basic concept of spatial planning: As buildings seem "uncannily to be an extension of the human body (Sennett, 102)," they "should have equal and opposite parts just like the sides of the body" (Sennett, 104). This view of spatial planning gradually rose to a "geometries of power" for the rulers, who "ruled intimate space as much as the public realm" through strict spatial compartmentalization and visual control (Sennett, 118).

In Western Christian culture, the planning and imagination of space also take the body as an essential entry point. In addition, Christian beliefs regarding the body shaped the overall trend of urban space planning and design from the Middle Ages to the Renaissance. This influence was first reflected in the design of the Christian faith space. As Sennett said, "Christ's physical suffering on the Cross offered medieval Parisians, at the time the great Bible of St. Louis appeared in 1250, a way to think about spaces of charity and sanctuary in the city" (Sennett, 22). In other words, medieval Parisian architects planned and designed spaces of faith inspired by the biblical accounts of the crucifixion of Jesus. This idea of spatial design from the perspective of the body also gradually influenced the tendency of urban planning in medieval France, such as in the views of John of Salisbury and Henri de Mondeville, who linked the body to space in their urban conceptions,

arguing that "there was a direct analogy between the structure of the body and the structure of the city" (Sennett, 168). From the perspective of the body politic, John of Salisbury compares merchants to the stomach of urban society and kings and bishops to its head, arguing that the spatial distribution of space within the city reflects the hierarchical distribution of the "urban body." The hierarchical distribution of space within the city reflects the functional differentiation of the organs of the "urban body," The city maintains stability and invariance under the regulation of the hierarchical social order. In contrast, De Mondeville conceives the city in terms of the body as "a city of continually unequal heats and stresses...the other organs in the body politic recoiling" (Sennett, 168). Its most prominent manifestation is the movements of refugees in urban space, which De Mondeville likens to the repeated trauma in the urban body. Thus, John of Salisbury's and De Mondeville's ideas of urban space reflect two perspectives on the idea of the body, namely, "one envisioned the city as a space which ranks bodies living together; the other envisioned the city as a space which ranks bodies living together; the other envisioned the city as a space which connects bodies living together" (Sennett, 168). These are also two representative concepts of the body in the spatial thought embedded in medieval Western Christian culture. In other words, the power of the Christian faith influenced the way people thought about the relationship between space and the body, which in turn provided the ideological basis for shaping urban space in the medieval West.

# 3. Concepts of the body in modern Chinese and Western spatial thought

Compared to the parallel development of ancient Chinese and Western spatial thought, since the beginning of the 19th century, modern Chinese and Western systems of spatial thought have shown more significant interaction. This crossover of ideas is attributed to modern society's rapid development of communication and transportation technologies. Hence, the crystallization of human thought, including spatial thought, has gradually spread among different regions of the world, especially the rationalist spatial thought of modern Western society and the spatial planning and design practices derived from it, which, along with the global flow of advanced Western technology and culture, have eventually become the mainstream of modern spatial thought, recognized and accepted worldwide. Compared with ancient Chinese and Western spatial thought, these modern Chinese and Western spatial thought systems are no longer closely

integrated with the spatial structure in understanding and applying the physical perspective. The rationalist principle implemented in modern spatial thought actively divorces space from the body. It reduces the living space of space users or urban residents in strict spatial planning and compartmentalization so that urban space can more efficiently serve the activities of capital accumulation in capitalist society in the era of globalization. This rationalist spatial thought and its concept of the body have shaped a consensus in Chinese and Western spatial thought and are regarded as one of the inherent criteria to measure the degree of modern civilization.

Rationalist spatial thought regards the individual body in space as the constituent unit of rational planning. Specifically, in urban space, the variability of the bodily activities of city dwellers was erased from the vision of urban planners and managers, who sought to shape urban space as a place of human settlement with internal unity and stability and to maximize the capacity of urban space to facilitate the capital accumulation of the urban bourgeoisie through the concentration of urban labor and the production and reproduction of urban resources. This rationalist spatial ideology dominated the field of urban sociological research in the first half of the 20th century. For example, the early urban ecology studies of the Chicago School divided urban space into "natural areas" with internal homogeneity. They analyzed people's production and living behavior and the adaptation, succession, and invasion activities between different natural areas. In other words, the urban ecology of the Chicago School places great emphasis on the separation and segregation of inner-city spaces, and the logic behind it is the geographical segregation of different social classes. In the eyes of Chicago School scholars, urban space is the entry point for scholars to study social phenomena, constituting a "social laboratory" that can be controlled and manipulated at will. As Robert E. Park, a leading figure in the Chicago School of urban ecology, put it, the city is a "great sifting and sorting mechanism . . . so that every individual finds, eventually, either the place where he can, or the place where he must live" (Park, 79). In other words, there is no place for the existence of heterogeneous individual bodily practices in urban space, and the individual bodily agency is classified as an irrational factor under the ecological perspective, being regarded as a meaningless product of urban life and not receiving due attention from scholars. This is a prerequisite for rationalist spatial thought to understand urban space, that is, to exclude heterogeneous bodily existence in the observation of space and avoid the intersection of different individuals in the city through homogeneous spatial and group compartmentalization.

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In addition, rationalist spatial thought also directly affects the planning and design activities of modern urban spaces. It has become a vital stream of thought among planning and architecture circles and has had a wide-ranging influence not only in the Western world but also in modern Chinese society. The rise of modern urban planning has led to the exclusion of urban residents, the actual users of urban space, from the decision-making process of urban renewal. Under the control of planners, government, and the forces of capital, the city has increasingly become a generalized, internally uniform, and rigid space, while at the same time, the "local" element of the city itself has been destroyed, and the individuality of its inhabitants has been erased. The streets or communities they live in are also assimilated into the modern urban renewal movement. As Rybczynski stated, "The modern city would no longer be a hodgepodge of activities; it would be ordered, logical, planned" (47). World-renowned modern Western urban planning experts such as Frank Lloyd Wright, Le Corbusier, and others-all their spatial thoughts based on this rationalist view. Their understanding of the relationship between space and the body is similarly constrained by rationalism, separating space from the body and more or less ignoring the human factor in the process of spatial planning and design. Since the beginning of the second half of the twentieth century, the shortcomings of this rationalist spatial thinking have been criticized by urban researchers and spatial thinkers. For example, Deborah Stevenson once bluntly criticized Le Corbusier's concept of the "vertical city" and "bright city" and its planning principles for "efficiency, rationality and mass production." As Stevenson puts it: "His was, in essence, a utopian vision fermented in the economic, scientific and social optimism of the 1920s...the social consequences of Le Corbusier's ideas being put into practice in the working-class housing estates that were built around the world during the 1950s and 1960s were devastating" (Stevenson, 83-84). This disastrous social consequence, specifically the obliteration of street life or community life in the reinforced concrete buildings and dense urban skylines conceived by Le Corbusier, entailed the significant reduction of the living space of the working class and ordinary urban residents. The places of daily life on which these people's physical practices depend have been replaced by the office, living, and leisure facilities whose mission is to stimulate consumption.

In the second half of the twentieth century, the controversy surrounding rationalist spatial thought and its derived "orthodox planning theory" intensified, directly inspiring the emergence of humanistic spatial thought and bodily concepts (Hagar

& Zhao, 61-69). This humanistic spatial thought imagines the relationship between the body and space, prompting people to reconnect bodily practices with spatial structures, thus transcending the standardized and rationalized rationalistic spatial planning concepts, re-establishing the subjectivity of human beings, and rediscovering their ability to adapt and transform space. Yi-Fu Tuan, for example, argues that the interplay of sight, touch, taste, smell, and hearing strengthens people's awareness of "the intricately ordered and emotion-charged world in which we live...enable human beings to have their strong feeling for space and spatial qualities." The residents who have lived in the city for a long time can form an attachment complex to the place they live through the connection between sensory perception and space (Tuan, 11–12). Here, bodily sensory perception becomes a mediator between people and the urban space, whereby people form perceptions of space through bodily practices and then participate in the production and reproduction of urban space. Jane Jacobs, prominent in urban studies in the 1960s, criticized the "orthodox planning theory" more sharply and straightforwardly. In her critique, New York planners had become outsiders ignorant of the inner order of life in the city, puritanically implementing the teachings of "orthodox planning theory." For Jacobs, the so-called "orthodox planning theory" is a "pseudo-science" that stifles the development of individual diversity in the city, while "in cities, liveliness and variety attract more liveliness; deadness and monotony repel life" (Jacobs, 99). She then called for the liberation of street life full of "vibrancy and diversity" from the modern planning system, calling for modern cities to tolerate "huge differences" between different individuals (Jacobs, 72).

Both rationalist and humanist modern Western spatial thought have significantly influenced the development of modern Chinese spatial thought. The formation of modern Chinese spatial thought, on the one hand, benefits from the spiritual heritage of ancient Chinese spatial thought. On the other hand, it is indelibly shaped by the external stimulation of Western spatial thought, reflecting human thought's fluidity in the era of globalization. Therefore, there are many similarities between the spatial thought of modern China and the modern Western world, especially the imagination of the relationship between space and body. For example, Chinese scholars Jiang Sheng and Liu Yuan investigated the dissemination of Western urban spatial thought in China during the era of the Republic of China. They pointed out that "in the period of the Republic of China, especially after the 1920s, architects and municipal scholars, with overseas returned students as the backbone, introduced and interpreted the latest urban planning ideas from a professional perspective through books and magazines and other publications. This promoted the modernization of modern Chinese urban planning practices" (Jiang & Liu, 12). The most influential western spatial ideas on Chinese urban planning experts at that time came from Ebenezer Howard and his humanist theory of the "garden city." This theory has prompted Chinese urban planning experts to deepen the relationship between cities and villages and to seek to restore natural landscapes in urban spaces, ensure urban sanitation, and beautify the urban environment. During the Republic of China era, the planning of Nanjing, Guangzhou, Shanghai, and other cities all reflected the influence of Howard's "garden city" theory to varying degrees.

The magazine New Architecture was an essential intermediary for disseminating Western urban spatial thoughts in China then. Not only did the introduction of the "garden city" theory benefit from its propagation by the magazine, but also various modern urban spatial ideas that were prevalent in the West were gradually introduced to Chinese urban planning experts through the magazine. During the Republic of China, people's acceptance of western urban spatial thought was mostly concentrated on the rationalist "orthodox planning theory." For example, Wei Xinling's article, "Urban Planning and the Future Ideal City Plan," published in New Architecture magazine in 1936, compared the pros and cons of the Western Tomorrow City Theory, the linear city Theory, and the Soviet socialist satellite city plan, and pointed out that among "architects at the present stage, the worldview reflected in their minds reflects the objective world. They often express their consideration of the reality of the city and the future tasks and development of the city. In other words, the view of the modern architects uses the essence of architecture and technology to start urban planning" (Wei, 9). What is described here is the rationalist urban planning concept spearheaded by modern Western urban spatial thought, and the urban planning experts of the Republic of China, as represented by the author of this article, undoubtedly all followed this planning concept as a guideline and tried to bridge the gap between Chinese and Western urban construction by technical means. In the process of technological progress, development, and competition, the individuals in the city and their physical practice lost their rightful place in the urban construction of the time.

Obviously, the urban planning experts' acceptance and application of Western urban space ideas during the era of the Republic of China failed to escape the limitations of modern Western "orthodox planning theory" fundamentally because of the inherent operative logic of capitalist society, which is to realize the organic cycle of capital accumulation by continuously expanding the scale of productivity in urban space. Since 1949, with the fundamental transformation in the nature of Chinese society, Chinese urban planning experts in socialist society have increasingly taken into account people and their physical practices in urban space. As early as the 1950s, during the First Five-Year Plan, the Central Committee of the Communist Party of China (CPC) clearly pointed out that "in urban construction plans, the viewpoint of serving production and workers should be implemented" (Gao, 1951). Considering China's economic and social environment at that time, the idea of urban construction, starting from the expansion and improvement of productivity, was undoubtedly an inevitable choice. However, even in the economic difficulties of the 1950s, China's official philosophy of urban construction still took the human factor into account. The idea of "service for workers" at that time was a manifestation of the CPC Central Committee's national strategy to ensure the maximum combination of rationalism and humanism in China's urban construction.

However, since China's reform and opening up, realistic economic and social construction requirements have increasingly prompted Chinese urban construction to adopt rational urban planning. For a long time, the neglect of the human factor in Chinese urban construction has aroused widespread controversy within and outside the professional field of architecture or urban planning. An article in Singapore's Union Morning Paper described China's urbanization in the past 30 years as a kind of pathological urbanization: it goes in a different direction from industrialization. In China, urbanization prioritizes materiality rather than humanity, ignoring the role and importance of human factors. Liu Zuo has pointed out serious problems in the process of urban planning and design in China, such as disregarding the role of environmental factors and the significance of environmental isomorphism (1996, 35). According to the development experience of Western spatial thought, this controversy will eventually and inevitably attract the attention of space managers and users to the existence of people in urban space. In turn, it makes contemporary urban space more suitable to function as a stage for people's bodily practices. It integrates it into urban residents' daily lives, becoming a key driving force in forming their sense of place and identity.

### 4. Comparison of concepts of the body in Chinese and Western spatial thought

The above has explained the main manifestations of the concept of the body in ancient Chinese and Western spatial thought. Compared with modern Chinese and Western spatial thought, the differences between these two are more significant. At the same time, they have a clearer and deeper understanding and grasp of the relationship between the body and space, while modern Chinese and Western spatial thought, due to the rise of rationalist urban planning theory, has neglected, to varying degrees, the critical place of people and their bodily practices in the composition of space. The gradual formation of humanistic spatial thought in the second half of the 20th century has, to some extent, dispelled the shadow of "orthodox planning theory" and reawakened people's attention to the relationship between the body and space.

Based on this, the comparison of bodily concepts in Chinese and Western spatial thought can be developed from a diachronic perspective. Moreover, the differences between the concepts of the body in ancient Chinese and Western spatial thought are manifested in three aspects, namely: different objects of concern, different awareness of issues, and different influences on later generations.

First, the concept of the body in Chinese and Western spatial thought focuses on different objects. The concept of the body in ancient Chinese spatial thought is more concerned with the coexistence of human bodily practices and the natural environment, while the concept of the body in ancient Western spatial thought is more concerned with the mutual composition of human bodily structure and urban space. From this discussion, it can be seen that the concept of the body in ancient Chinese spatial thought presents "man is an integral part of nature (天人合一)," where the concept of space is abstracted as a natural environment that accommodates all things. Through physical practice, people in this environment know their surrounding space and the natural world, forming their unique way of understanding space and the environment. In the ancient Chinese classics, the philosophers regarded "identifying the direction (辩方正位)" as an essential means of living in the ever-changing natural environment. In other words, establishing one's position in the world is the first step in integrating oneself into the world and practicing one's body in this world. Through

"identifying the direction," people have a close connection with the world, the environment, and space, thus building their way of life and living space. This understanding is, in ancient Chinese, the imagination of a realm of "unity of heaven and man," where the boundaries between man and environment, body and space are gradually blurred, and a human-centered idealized spatial form is thus born. In the ancient Western world, the understanding of the relationship between the body and space was mainly developed from the urban space, the concrete place of human life. For the ancient West, where urban civilization started earlier, the planning and design of urban space is not only a practical technology but also the source and sustenance of spatial ideas and the concept of the body contained therein. Therefore, when thinkers in the ancient Western world understood the relationship between space and the body, they usually started from the bodily perspective, looking for a methodology for the construction of the spatial structure. Whether the cult of the body in ancient Greece, the architecture of Vitruvius in ancient Rome, or the ideas of John of Salisbury and De Mondville in the Middle Ages of planning the structure of the city in accordance with the bodily organs, they all reflect this pragmatic tendency to understand the relationship between space and the body. The development of Western medical science since William Harvey has given a scientific, ethical cast to the idea of the body in spatial thought, which in turn gave birth to the modern rationalist concept of spatial thought and the body.

Second, the different awareness of the problems of the concept of the body in Chinese and Western spatial thought reflects the epistemological difference between ancient Chinese and Western spatial thought. Put differently, the starting point of the concept of the body in ancient Chinese spatial thought is a philosophical reflexive reflection, while the concept of the body in ancient Western spatial thought focuses more on the connection between space and body in a practical sense, or the mutual influence of the two in spatial planning and design. If the concept of the body of ancient Chinese spatial thought is more of a kind of philosophical thinking, lacking realistic spatial planning and concrete connection with ancient urban construction, contrarily, the concept of the body of ancient Western spatial thought attaches great importance to the realistic meaning of the relationship between space and body. This reflects the fundamental difference between ancient Chinese and Western spatial thought: Chinese spatial thought grasps space and the environment from the perspective of human feelings and experiences, with a strong subjective color, while Western spatial thought understands space from the perspective of realism and assesses the connection

between space and body from a utilitarian perspective. This is the epistemological difference between ancient Chinese and Western spatial thought of the body or the difference in the way they think about the relationship between space and the body. The former way of thinking is speculative, while the latter is technical. The former regards the connection between space and the body as a kind of intersubjectivity embedded in the natural world, while the latter sees this connection as an objective measure that can be applied to urban planning and design. This difference has further led to their differing influences on later conceptions of the body in spatial thought.

Third, due to the differences in the objects of concern and consciousness of problems between ancient Chinese and Western spatial thought, their concepts of the body naturally yielded different ways of thinking about the relationship between space and the body, resulting in significantly different influences on later generations. Specifically, the concept of the body in ancient Chinese spatial thought leads to a humanistic path of understanding the relationship between space and the body, while in ancient Western spatial thought, it leads to a rationalistic path of understanding their relationship. Western spatial thought has become more influential in modern society, while Chinese spatial thought, as a complement to it, has gradually gained much attention since the second half of the 20th century. Therefore, from a diachronic perspective, there is a direct historical relationship between the concept of the body of ancient Western spatial thought and modern rationalist urban planning theory, while as the concept of the body of ancient Chinese spatial thought deviates from rationalism and pragmatism, it has not received due attention for a long time. However, with the gradual development of humanistic spatial thought in the Western world, ancient Chinese spatial thought, especially its consideration of the relationship between space and the body, has received increasing attention from urban spatial researchers (Tong, 2020, 115; Ding, 2019, 21; Liu, 2010, 21). This time-honored tradition of humanistic spatial thinking will provide us with an essential ideological basis for understanding the shortcomings of today's "orthodox planning theory" that dominates urban planning discourse.

In addition, unlike the striking differences between the ancient Chinese and Western spatial thoughts on the concept of the body, modern Chinese and Western spatial thought and their underlying concepts of the body show many similarities. As previously mentioned, since the rapid circulation of technology, capital, and ideas in the era of globalization has become the norm, exchanges of modern Chinese and Western ideas will inevitably accelerate. In the field of spatial thought, the rationalist spatial thought of the Western world, through which it has held a global technological advantage since the industrial revolution, has gradually evolved into a consensus in the field of urban spatial planning and design through the global flow of ideas, and modern Chinese spatial thought has also been deeply influenced by it. The most crucial prerequisite for rationalist spatial thought is to separate space from the body, which is undoubtedly a departure from the two-in-one concept of space and the body in ancient Chinese and Western spatial thought. This ultimately leads rationalist spatial thought to ignore the ubiquitous human factor in urban space. Therefore, we must return to the concept of the body of ancient Chinese and Western spatial thought to resolve the dilemmas of modern spatial thought. Specifically, the key to transcending rationalist spatial thought is to rediscover the human and bodily presence in urban space, which is the focus of the "heaven and man are united as one" concept of space and the body as well as the most crucial inspiration of ancient Chinese and Western spatial thought for modern spatial thought.

#### 5. Conclusion

This paper compares and analyzes the similarities and differences between ancient and modern Chinese and Western spatial thought based on the concepts of the body contained in them. The comparison shows that the differences between ancient Chinese and ancient Western spatial thought on the body manifest in three aspects: different objects of concern, different awareness of problems, and different influences on later generations. From a diachronic perspective, this article argues that compared with the significant differences between ancient Chinese and Western spatial thoughts on concepts of the body, modern Chinese and Western systems of spatial thought show greater similarity in their concepts of the body, which are mainly reflected in the rationalism of the relationship they posit between space and the body. This rationalist way of understanding the relationship, in fact, separates them, ignoring their interaction, and thus, it differs sharply from the concepts of the body of ancient spatial thought. In order to transcend the limitations of modern rationalist spatial thinking, it is necessary to seek renewed inspiration from classical thought and discover its humanistic value. Specifically, this requires us to rediscover the human factor emphasized in classical thought in the process of urban space planning and design so as to provide a necessary stage for individual physical practice and activities. Therefore, modern urban space not only serves the interests of space managers,

planners, and investors but also meets the needs of a wider group and sustains the individuality of urban space users.

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