

Research on the Connection and Coordination of Urban Planning and Architectural Design Based on Sustainable Concept

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ABSTRACT. *In recent years, China's urbanization process has been accelerating. In the process of urban planning and construction, the contradictions between humans and nature, the contradictions between contemporary construction and sustainable development in the future have become increasingly prominent. Under such circumstances, it is necessary to take sustainable development as the basic guiding concept of urban planning and construction, and make reforms and innovations in urban planning and construction. The overall planning form of urban planning and design is urban architecture. In urban architecture, it is necessary to clarify the restrictive role of urban planning, and rationally implement architectural design under the guidance of urban planning. On the other hand, architectural design is the grasp of the implementation of architectural planning. Only by carrying out architectural design can we realize the design ideas of urban planning. This article briefly describes the theory of architectural design and urban planning, discusses the interrelationship between urban planning and architectural design, and gives suggestions for the coordination of urban planning and architectural design.*

KEYWORDS: *Connection, Coordination, Urban planning, Architectural design, Sustainable concept*

1. Introduction

The concept of sustainable development is a guiding concept that balances natural ecology with human activities, short-term benefits, and long-term development. It is of great significance to social and economic development and progress. For cities, sustainable development refers to the premise of ecological environment protection and energy conservation in the urban planning and construction stages, so as to achieve long-term urban development. At present, China's urban construction is increasingly innovative, large and medium-sized cities are increasing, urban planning is expanding, and urban planning and design are facing many construction challenges and opportunities. Proper architectural design

will greatly affect the appearance of the city. In order to further promote the integration of urban planning and design, it is necessary to scientifically understand and treat the relationship between the two. In order to properly handle the connection between architectural design and urban planning, it is necessary to formulate correct and reasonable urban planning solutions for urban planning and design, and scientifically plan the design and development of cities and overall planning. Therefore, the relationship between architectural design and urban planning and design Have a profound exploration of harmonious development.

2. Overview of Urban Planning and Architectural Design

Conceptual urban planning and design of the two is to analyze the shortcomings in the urban design process in a scientific way. To determine the development trend of the city, fully coordinate the spatial layout of the city, make practical arrangements, and carry out the layout of relevant urban construction. Increase the competitiveness of urban development, enable cities to better exert their unique charm in development, and achieve the main goal of urban economic development. The design of the building means that before constructing the actual building, the designer can imagine the problems that may occur during the construction of the building according to the relevant design needs, realize the reasonable design of the building, and pursue scientific, aesthetic, affordable, and convenient aspects. Planning and design, to meet the needs of the city on a maximum basis, complement the planning and design of the entire city, and use the form of documents or drawings.

Similarities and differences between urban planning and architectural design Urban planning and architectural design are equally important, that is, they play a guiding role in architecture. Urban planning is the basis of urban construction, and the architectural design plan is the guidance for the concrete implementation of construction projects. However, due to the different subjects of their design and planning, there are many differences. Analyzing the similarities and differences between the two helps to reasonably view their relationship. Urban planning and architectural design are also said to be divided into overall and partial relationships. Architectural design is an important part of urban planning. Architecture is an integral part of urban spatial structure. Urban planning and design is the overall layout of the city. However, architectural design It belongs to the branch of urban design, and the architectural design must be based on urban planning. Architectural design has a vital impact on urban planning and design and has a very positive effect. Architectural design goals are clear and implemented according to the construction project, and the specific details of the design revolve around the construction goals. The construction is designed in strict accordance with relevant design standards, and reasonable analysis and implementation are carried out in accordance with its regulations. Aspects have been well coordinated and developed. In urban planning, architectural design should be used as the foundation's foothold. Full consideration should be given to the relevant impacts of architectural design in all aspects to strengthen the local design of the city. This method is used to strictly advance the

overall planning. Many aspects of urban planning should be considered, such as the current national regulations, the economic situation of the city, and the specific tasks of design will be based on the comprehensive consideration of the layout results. Architectural design strictly needs to be designed according to the city's relevant planning [2], and in terms of architectural design, urban planning and design should be used as the main reference for urban architecture, and the current planning goals of the city should be regarded as the main goals of urban design.

3. The Connection between Urban Planning and Architecture

Architectural design is the verification of urban planning. Discussion according to urban planning refers to the discussion of the feasibility of urban realization planning. In the process of urban planning and design, the feasibility of urban planning will be demonstrated in many aspects due to the influence of the city's background civilization, comprehensive strength and other reasons. Among them, architectural design is one of the important influence factors. By exploring the feasibility of architectural design, to prove whether urban planning is reasonable and scientific, but urban planning demonstration based on architectural design can only be applied to some parts of the process, and its scope of application should be noted.

Urban planning restricts architectural design The situation of urban architecture will affect the level of urban planning. Therefore, relevant government departments have imposed certain regulations on construction projects, including the height of building complexes, building density, building plot ratio, and green rate. Within the planning area of the indicator, during the construction period, the building design must meet the above indicators. qualified. The constraints imposed by urban planning on architectural design will greatly reduce difficulties in urban planning and promote sound planning for urban construction. 3.3 Urban planning and architectural design influence each other Urban planning and architectural design will affect the future development of the city, and complement each other's design shortcomings. The scale of a city is a sanctuary for architecture. Therefore, it is necessary to consider the urban environmental impact factors in the design in order to achieve the goal of harmonious design performance and the city to achieve the requirements of architectural design. Building architecture is the main component of urban planning. Architectural design that cannot be underestimated in urban planning, the size and number of buildings will directly affect the spatial structure and layout of the city, as well as urban traffic conditions and landscaping.

4. Relationship between the Concept of Sustainable Development and Urban Planning and Construction

The relationship between the concept of sustainable development and urban planning is the relationship between means and goals, guidance and guidance, implementation and implementation. Sustainable development is the ultimate goal of urban planning, and sustainable development goals need to be achieved through urban planning. The concept of sustainable development guides urban planning, and

urban planning can implement the concept of sustainable development. It can be said that urban planning is a form, sustainable development is its content, content determines the form, and the form obeys the content. There is also a relationship between guidance and guidance between sustainable development and urban construction. Urban construction must strictly follow the concept of sustainable development, and ensure the implementation of the concept of sustainable urban development in terms of laws, regulations and policies. The concept of sustainable development is mainly based on the time axis between urban planning and urban construction. The three are in a state of contradiction and symbiosis. Taking time as the axis means that the concept of sustainable development is a long-term guiding ideology. It is a time dimension based on “past + status quo + future” and can be used as a continuity basis for urban planning. The urban planning mainly focuses on the recent development of the city. Its cycle is generally about 20 years. Urban planning is constrained by the concept of sustainable development, which in turn restricts the construction of the city. The time span of urban construction is the shortest, generally within 5 years, and it is the top layer of the urban development sequence. The state of balance between contradictions and symbiosis refers to not only promoting the current economic and social development, but also leaving a certain space and resources for long-term development. This is a contradiction in the current urban development and urban planning can be very effective Balance the relationship between the concept of sustainable development and urban construction. Based on the concept of sustainable development, urban planning and construction should be a long-term act. With the development of cities, urban planning is constantly updated and urban construction is continuously strengthened.

In order to effectively implement the guiding principles of sustainable urban development, urban planning and construction under the guidance of sustainable development concepts should follow the following principles: First, coordinate the harmonious development of people and nature. Urban planning and construction under the concept of sustainable development should coordinate the harmonious development of human and nature, and seek a stable balance point for urban development and construction and ecological protection. Second, coordinate urban and rural development. Widening the gap between urban and rural development alone will bring huge social problems, and the sustainable development of cities is inseparable from the support of rural areas. Therefore, urban planning and construction under the concept of sustainable development should coordinate urban and rural coordinated development. Third, coordinate regional development. Urban planning and construction based on the concept of sustainable development should focus on the regional level, strengthen regional linkages and cooperation between cities, complement each other, avoid duplication of construction and waste of resources caused by duplication of urban functions, and reduce vicious competition between similar cities. Fourth, coordinate domestic development and opening up. As the largest, highest-standard, full-featured, and earliest-opening border city on the China-Russia border line, Heihe City's sustainable development must not only focus on the development of the city itself, but also on international cooperation. Therefore, urban planning and construction under the guidance of the concept of sustainable development must also follow the principle of coordinating domestic

development and opening up.

5. STRATEGIES FOR THE LINKAGE AND COORDINATED DEVELOPMENT OF URBAN PLANNING AND ARCHITECTURAL DESIGN BASED ON THE CONCEPT OF SUSTAINABILITY

Architectural design takes urban planning and design as the direction. Through the analysis of the relationship between urban planning and design, it can be found that to achieve sustainable development in architectural design, it is necessary to take the content of urban planning and design as its obedience elements in the design process. Effective implementation to ensure the harmony between the architectural design and the urban environment, to meet the needs of urban development at the current stage, architecture as an expression factor of the urban landscape, has an important role in reflecting the image of the city, but at this stage some architectural designers are in the process of designing. It ignores the relationship between architecture and urban humanities, and blindly regards the construction project as an independent individual, so that although the content of the construction project is outstanding, it is difficult to integrate with the ideal of urban development. Therefore, in the process of architectural design, urban planning and design should be taken as its development direction. Before the urban planning and design is determined, a comprehensive and effective analysis of the natural environment and human landscape development status of the city as a whole for a long period of time will be provided for the building. The design provides great direction guidance, and the architectural design combined with the macro decision-making of urban planning and design can ensure that it coexists in harmony with the surrounding environment.

Urban planning and design should actively absorb the advantages of architectural design. Architectural design and urban planning and design are both independent and closely related. After a long period of exploration and successful introduction of architectural design experience in western developed countries, architectural design, significant progress has been made in space applications, function matching, and equipment selection, and the ability to innovate has also been improved, which indicates that China's architectural design has been continuously improved in terms of design content. As urban macro-design, urban planning and design has a certain difference, and each city has its own historical and cultural characteristics. Therefore, in urban planning and design, multiple aspects must be comprehensively considered to ensure that on the premise of harmonious architectural design and urban environment, actively promote the innovative development and personalized exploration of architectural design.

Establish and implement the standard review system for architectural design schemes. The balance between the relationship between urban planning and design needs to be measured and supported by the standard review system for architectural design schemes. In the process of establishment, urban planning and design units need to content, development status, and trends determine standards, establish a system, and give innovative guidance to implement its own fairness, fairness, and openness, and be more comprehensive, detailed, standardized, and professional in content. It can be seen that urban planning and design are architectural designs. The

basic guarantee for sustainable and standardized development. The determination of the standard review system for architectural design schemes by urban planning and design units has a positive role in ensuring the overall harmony of urban planning and architectural design. Architectural design is more likely to deviate from the speed, trend and overall environment of the urban development while seeking individual development. The establishment of a standard review system for architectural design schemes is an important basis to ensure that it is basically synchronized with urban development. The architectural design department attaches great importance.

Promote the overall coordination of urban planning and architectural design. Although urban planning and architectural design have significant mutual independence, the coordination and unification of the two is the basic guarantee for the improvement of urban construction efficiency and the prerequisite for the continuous acceleration of urbanization development. Architectural design should be carried out in conjunction with urban planning and design. On the premise of comprehensive and accurate grasp of the main directions and specific policies of urban planning and design, ensure that the design concepts and goals are the same as urban planning and design in the general direction. Urban planning and design are usually based on the original building group within the planning scope, and further improve and improve the functions of various areas of the city to promote the continuous development of the city as a whole. Therefore, the architectural design must be combined with the pace of urban planning and design to ensure that its design is in harmony with the urban man-made and natural landscapes, while ensuring its continuous optimization.

5. Conclusion

In the new era, urban architecture changes with each passing day, bringing severe challenges to urban planning and design. In order to better handle the relationship between urban planning and architectural design, it is necessary to strengthen the research on the correlation between the two and clarify the inherent relationship between them. Provide a basis for sustainable urban development. Although there are many differences between urban planning and architectural design, the two are very closely related. Urban planning demonstration requires the basis of architectural design, and architectural design is restricted by urban planning and design. Based on this, the design audit system should be carried out. Perfection, promote complementarity and coordination between the two, and strive to achieve coordination and innovative development.

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