

# Research on the Construction Strategy of Cultural Tourism Night Tour from the Perspective of Urban Organic Renewal

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**Abstract:** Urban organic renewal and development is the key to maintaining sustainable urban development. Based on the urban development model under the concept of urban organic renewal, take the nightscape lighting of Chongqing Airport Road Cultural Tourism as an example. According to the existing ecological, living and production problems of the night landscape and the development advantages of science and technology, culture and other development advantages, how to solve the problems of ecological development, cultural construction, production optimization, etc., through the activation of the ecological function, empowerment of the living function, optimization of the production function, the use of lighting equipment and lighting technology, targeted problem solving, and construction of a balanced development of the city's night landscape. It provides a reference value for the sustainable development of nighttime cities and the construction of strategies for efficient production space, livable living space and sustainable ecological space.

**Keywords:** “Ecological-Production-Living” Concept; Night Landscape; Ecological Space; Living Space; Production Space

## 1. Introduction

With the continuous development of the cultural tourism industry, the new development model of “promoting tourism with culture and promoting culture with tourism” has gradually deepened, emphasizing the deep integration of culture and tourism and the new format of innovative development. At the same time, it is advocated to explore new modes of eco-tourism, revitalize the stock of resources, and release the value of tourism. With the development of the night economy of urban culture and tourism, the transformation of

industrial structure and urban nature, the advancement of production technology and the deepening of the concept of sustainable development, the ecological protection of the urban night environment has gradually become prominent. Due to the interference of the expansion of urban night lighting areas and the update of smart lighting technology on the urban night environment, problems such as lighting pollution, the disorder of biological rhythms of animals and plants, and unreasonable lighting design and planning have gradually become prominent, which hurts the overall night ecological environment of the city. Based on the issue of protecting the urban nighttime ecological environment, the “ecological-production-living” concept has gradually had a profound impact on the development of urban nighttime landscape space, guiding the harmonious development of the city from the aspects of ecology, production and living.

The Jinshan area of Cuntan International New Town on Airport Road is in a critical period of quality improvement due to the transformation of its urban nature. Faced with a series of problems such as the development of urban nighttime ecological landscape, lighting system renewal, and unreasonable planning of landscape lighting, this paper proposes a cultural and tourism night tour space construction strategy and a nighttime landscape renewal design concept based on the concept of “ecological-production-living” based on urban organic renewal. The nighttime landscape environment of the Cuntan International New Town Jinshan Area of Airport Road is transformed and designed from the three aspects of ecology, living, and production, to create an urban night space based on ecological construction and coordinated development of life and production. The scientific landscape design concept of “ecological-production-living”

provides relevant theoretical guidance and practical reference for urban sustainable development.

## 2. Theoretical Research

### 2.1 Overview of the “Ecological-Production-Living” Concept

Urban organic renewal is the necessary reconstruction of areas in the city that are no longer suitable for integrated urban social life. It takes sustainable development as the core, emphasizes the integration of ecological protection concepts in the renewal process, and is committed to creating a biodiversity-friendly and eco-friendly urban environment. At present, China’s urban cultural tourism night landscape lighting has developed from traditional lighting methods to smart cultural tourism night lighting methods, and urban night lighting has changed from “incremental” to “stock”, and from “expansion” to “optimization”. Based on this situation, urban organic renewal is an important means to improve the urban night lighting environment and promote the sustainable development of the urban night environment. Based on the organic renewal of the city, this study deeply integrates the concept of “ecological-production-living”, starting from the ecological protection issues of urban cultural tourism night landscape lighting, and combining urban life and production to create an integrated organic night cultural tourism landscape lighting environment.

The concept of coordinated development of “ecological-production-living” is a new development idea proposed in response to the contradiction between urban economic development and ecological protection in the context of China’s new era. It emphasizes the coordinated development of ecology, production and life, realizes the harmonious coexistence of humans and nature, and promotes the sustainable development of the economy and society [1]. The concept of “ecological-production-living” first emerged in the “ecological-production-living” agricultural management model in the early 1980s, which emphasizes the scientific, efficient and enterprise-oriented production of agricultural products, while maintaining the ecological development of rural natural landscapes, to achieve the coordinated and sustainable

development of production, life and ecology [2]. “Ecological-production-living” includes three parts: production space, living space and ecological space, which refer to areas related to industrial structure, behavioral activity space, ecological service space, etc. [3]. Kates et al. [4] believe that production space and living space are based on ecological space and regional sustainable development can be achieved by coordinating the relationship between humans and land in ecological space. In recent years, many scholars have conducted research on cultural and tourism space based on the concept of “ecological-production-living”. Zhang et al. [5] revealed the influence of tourism development on the “ecological-production-living” space of tourism-characteristic towns by constructing an “ecological-production-living” space classification system.

Li et al. [6] constructed a coupling and coordinated evaluation index system of the “ecological-production-living” system, evaluated and analyzed the development level of the “ecological-production-living” system in various cities in Guizhou Province, and explored the “ecological-production-living” characteristics and related connections of different tourist cities. Sun and Zhou [7] proposed a reference strategy for rural landscape renewal based on the concept of “ecological-production-living” and cultural tourism-oriented villages, realizing the integrated development of ecological landscape, life landscape, and production landscape. Zhang et al. [8] systematically explored the renewal strategy of the cultural tourism-oriented rural landscape with regional characteristics under the “ecological-production-living” development model and proposed a sustainable cultural tourism-oriented rural landscape to achieve the harmonious development of ecological landscape, life landscape, and production landscape. Wang [9] analyzed the evolution law of the “ecological-production-living” spatial pattern and its ecological and environmental effects and used quantitative models and GIS multi-dimensional spatial analysis methods to refine the optimization strategy of the “ecological-production-living” spatial pattern in Chongqing. Chen et al. [10] constructed an evaluation index system for “ecological-production-living”, conducted data

analysis on Chongqing's spatial layout, and analyzed the status of Chongqing's spatial development. Li and Fang [11] constructed an urban ecological-production-living space functional classification system and discovered problems in the functional relationship between the three spaces through evaluation research.

In summary, sustainable development is based on "ecological-production-living", and the rational planning of ecological, living, and production spaces has guiding significance for the harmonious development of cities. However, existing studies mostly apply the "ecological-production-living" concept to urban construction and rural cultural tourism development, while there are few studies related to urban cultural tourism night tour spaces. Therefore, guided by the "ecological-production-living" concept, exploring the renewal strategy of urban cultural tourism night tour spaces is an important research direction worthy of discussion and has certain practical significance.

## 2.2 Construction of "Ecological-Production-Living" Space

The concept of "ecological-production-living" includes three spaces: ecology, production, and living (Table 1). Ecological space refers to a space that has an ecological protection function, plays an important role in maintaining sustainable development and ecological security, and can provide ecological services. It guarantees production space and living space. Ecological space is the basis and premise of production space and living space and is the premise of sustainable urban development. Production space refers to a regional space that mainly provides agricultural products, industrial products, and service products. It is a place where people engage in production and business activities, and mainly includes agricultural production space and industrial production space. As a necessary space for urban economic development, production space plays an important role in the operation and future development of the urban economy. Living space is the place used by people for their daily life activities, providing the necessary space conditions for people's residence and public activities, mainly including urban living space and rural living space [12]. Living space not

only includes the space to maintain people's basic living needs but also includes the cultural space to meet people's spiritual needs.

**Table 1. Construction of "Ecological-Production-Living" Space**

Primary space	Secondary space	Land use zoning
Production Space	Agricultural production space	Farmland protection area
		Forestry area
		Pastoral areas
Living Space	Industrial production space	Industrial and mining area
	Urban living space	Urban construction land
Ecological Space	General and important ecological space	Rural construction land
		Natural and cultural heritage protection areas
		Scenic tourist areas
		Forestry area
		Pastoral areas

## 3. Feasibility Analysis of Urban Cultural Tourism Night Tour Renewal under the Concept of "Ecological-Production-Living"

### 3.1 Feasibility Analysis

The "ecological-production-living" development model complements the main types, components, and renewal directions of urban nighttime cultural and tourism spaces. With the penetration of the "ecological-production-living" concept research in cultural and tourism spaces, it can provide a renewal basis for urban cultural and tourism nighttime spaces, open up new nighttime lighting landscape perspectives, and provide strong support for the construction strategy of cultural and tourism nighttime spaces under the organic renewal of cities.

At the same time, the night space of urban cultural tourism is a continuation of the daytime space of the city and covers ecological space, production space, and living space. It is an important part of the harmonious development of the city and can further enrich the practice of the "ecological-production-living" concept. Therefore, based on the "ecological-production-living" concept, we interpret the new ideas for the deep integration and development of urban cultural tourism night tourism, orderly building of the night landscape space of cultural tourism, and achieving the ideal state of sustainable development of the urban night lighting

environment.

### 3.2 Translation of the “Ecological-Production-Living” Characteristics of Urban Cultural Tourism Night Tour Space

The concept of “ecological-production-living” constructs the coordinated development of cities from the three aspects of ecology, living and production. It was originally proposed to guide the overall construction of cities. This study integrates the concept of “ecological-production-living” into urban micro-spaces

**Table 2. Translation of the “Ecological-Production-Living” Characteristics of Urban Cultural Tourism Night Tour Space**

Space Type	Space transformation	Spatial representation	Characteristics
Ecological Space	Nighttime natural ecological space	Vegetation greening area of building space Living areas of plants and animals	Green, ecological, sustainable
Living Space	Nighttime public interactive space	Leisure activity venues Cultural perception space Public service facilities	Functionality, culture, interactivity
Production Space	Nighttime commercial production space	Shopping space in the commercial building Night market experience space	Commerciality, profitability, participation

## 4. Current Situation Analysis of the Jinshan Area of Cuntan International New Town on Airport Road

### 4.1 Overview of Regional Advantages

The Jinshan area of Cuntan International New Town on Airport Road is in Liangjiang New District, Chongqing. It is a high-standard planned construction area in Chongqing, with a new urban positioning of “international consumption center city core, new highland for urban form display, and a new window for opening up to the outside world”. Its regional location is superior, located on the main road near the airport and close to the light rail station, with convenient and fast transportation. It has a strong commercial base (Outlets, IKEA, Chongqing Meilian International Warehouse & Transport Co., Ltd, Meixin Group Co., Ltd., Jinshan Yiku) and a cultural and artistic atmosphere, forming a park-style commercial center, gathering a large number of people, attracting nearby residents and tourists to visit and shop, and providing a certain living space for surrounding residents and tourists while having a rich urban commercial production base. At the same time, the surrounding green plant coverage rate is high, the ecological resources are relatively rich, and the regional ecosystem is improved.

### 4.2 Current Situation Analysis of Cultural

and combines the cultural tourism development model and the specific nighttime and space to organically update the three spaces in the region. Introducing large-scale ecological, living, and production spaces into small regional spaces, combining the characteristics of “ecological-production-living” with the characteristics of cultural tourism night space, and optimizing small regional spaces to achieve the improvement of the overall spatial quality of the city (Table 2).

### and Tourism Night Tour Space

#### 4.2.1 Degradation of natural ecological landscape

The nighttime ecological landscape of Jinshan District in Cuntan International New Town on Airport Road has degraded, natural resources are fragmented, and the experience of natural ecological space for cultural tourism night tours is limited. Due to the economic development and construction of the city, ecological resource management has been neglected, and the lighting ecological construction in landscape planning is rarely mentioned in the design. Designers are usually required to master the characteristics of plants and animals, regional characteristics and other factors, and fail to fully understand the important impact of artificial lighting on the survival and growth of plants and animals in the ecological environment, resulting in imperfect protection and construction of the nighttime ecological environment. Through field research on the original nighttime ecological environment in the Jinshan area of

Cuntan International New Town on Airport Road, it was found that some plant cultivation in the area was missing, and the road greening was imperfect, forcing the landscape ecological function to degenerate. At the same time, due to the lighting projects of commercial buildings along the pedestrian street, excessive light exposure and excessive use of high-power translucent floodlights, the

spill light, interference light and reflected light on the surface of the building over-illuminated the living environment of animals and plants, disrupting the day and nightlife rhythm of animals and plants. The lighting facilities of some landscape nodes are unreasonable, such as the unreasonable configuration of landscape lights set in lawns and woods, and the lighting equipment emits excessive radiation energy, which has a serious impact on the living space of animals and plants.

#### 4.2.2 Fading of cultural and tourism living space

The construction of nighttime cultural and tourism living space in Jinshan area of Cuntan International New Town on Airport Road is lacking, the cultural style is lacking, and the quality of nighttime living space needs to be improved. The lighting design of the original living space is imperfect, and the lighting performance is scattered, which is mainly reflected in the need to update the cultural and tourism lighting landscape, the lighting in the public activity area is messy, and the level of architectural lighting beautification is uneven, and the landscape festival lighting is missing. In general, the overall night lighting is not uniform, and the node lighting beautification is missing, which cannot achieve the spatial effect of staying longer and generating more interactions. At the same time, the spiritual life space and night cultural space are not prominently reflected, and the cultural attributes of the Jinshan area of Cuntan International New Town on Airport Road are not fully considered. The cultural shaping of architectural space, leisure landscape space, cultural tourism night tour experience space, and detailed landscape nodes is not perfect. The advantages of lighting cannot be fully utilized to express the cultural characteristics of the space, it cannot effectively attract residents and tourists to stay and stop, and it cannot maximize the transformation of the

unique cultural value in the region into economic value.

#### 4.2.3 Lack of vitality in production space

The night economy is another production space in the city, which can effectively continue the daytime economy. Compared with the production stage during working hours during the day, the production function of the space can be more effectively exerted during the nighttime stage to achieve production benefits. The night production space in the Jinshan area of Cuntan International New Town on Airport Road is mainly commercial shopping space. The optimization and lighting update of the production space can create a good shopping experience environment and extend the economic production benefits of the commercial shopping space. In the original commercial shopping space, there were problems such as missing lighting equipment, incomplete lighting areas, and insufficient lighting effects. The commercial space failed to utilize thematic lighting design and failed to integrate with the cultural and tourism night tour development model, resulting in insufficient attractiveness of the night space and reduced traffic. It was impossible to achieve the “long stay, more interaction” effect of the production space, resulting in a lack of vitality in the space.

### 5. Renovation Design Strategy for the Jinshan Area of Cuntan International New Town on Airport Road

In response to the cultural and tourism night lighting issues in the Jinshan area of Cuntan International New City on Airport Road, combined with the “ecological-production-living” concept, the problem is focused on three areas: natural ecological space, cultural and tourism living space, and commercial production space (Table 3).

**Table 3. Existing Problems and Updating Methods in the Region**

Existing issues	Problem refinement	Update methods	Update form
Degradation of natural ecological landscape	Lack of ecological lighting equipment	Filter lighting equipment	Add ecological lighting equipment
	Nighttime ecosystem destruction	Overall ecological design	Reduce damage to animals and plants and improve the ecosystem
Cultural and tourism living space fades	The nighttime cultural space is not fully formed	Cultural characteristics extraction	Create a cultural experience environment
	The nighttime cultural landscape is not prominent	Cultural landscape facilities	Use lighting to shape the landscape and create a cultural atmosphere

Lack of vitality in production space	Outdated production facilities	Adding production facilities	Add smart landscape facilities
	Low-quality production environment	Micro-update design	Update the lighting environment and enrich lighting themes

### 5.1 Restoring the Nighttime Ecological Landscape Space

Fully consider the ecological requirements of the urban landscape, construct the light environment in each area under the basic conditions of ensuring ecology, and reduce the harm of excessive light to animals and plants through the rational use of lighting facilities and the establishment of a lighting ecosystem.

(1) Reasonable use of lighting equipment. Artificial lighting has a great impact on the growth of plants and animals. At the same time, the light intensity should be reasonably planned according to the tolerance of the plants, and lighting equipment with overly concentrated lighting, such as LED lights, should be used less to prevent uneven lighting from affecting the differences in plant growth and development. The lighting design of the Jinshan area should be planned according to the light cycle of different plants.

(2) Establish a nighttime ecosystem. Construct a nighttime ecosystem in the Jinshan area of Airport Road along the light rail line and the Jinyu Avenue area and design the lighting with the theme of "smart, interactive, functional, and internet celebrity holy land". Based on meeting the urban lighting function, add special lighting to enhance the nighttime visual experience, strengthen the city's attractiveness, and create a Chongqing city brand name card. The lighting construction along the Light Rail Line 3 is the focus of the entire design. This line is the only way to enter the main urban area and is a good ecological area with a variety of animals and plants. The light environment design of this line aims to create an ecological forest environment and use lights to create a light and shadow forest between the woods and fortresses. Combined with the smart big data system, "independent partitions and smart dimming" are achieved, and the light intensity is adjusted in different partitions to meet the different needs of animals and plants for light and reduce the impact of light on animals and plants. The plant landscape lighting construction of Jinyu Avenue sets the lighting level according to the phototropism of plants, reasonably controls the light form, light intensity, and light cycle, reduces the adverse

effects of artificial light on plants, and provides better conditions for plant growth and restoration while satisfying a good viewing experience (Figure 1).



Figure 1. Nighttime Ecological Landscape Space

### 5.2 Create the Cultural Interactive Living Space

In the creation of nighttime cultural space, we make full use of the characteristics and forms of expression of light, capture cultural symbols, and use light to make the expression of cultural connotations more obvious and prominent. We use smart lighting technology to integrate light with facilities such as structures to create interactive light and shadow structure devices, achieving a longer stay and more interactive space effect.

(1) Shaping the overall cultural space. In the design and renovation, we focus on cultural attributes and combine the cultural characteristics and product features of each commercial space to shape the nighttime cultural life space. We fully consider the uniqueness of each individual merchant, such as designing the lighting for the facades of outlets and Maxim's Place, grasping the cultural characteristics and providing citizens with a better cultural experience venue.

(2) Shaping of local cultural landscapes. Lighting design is carried out for sculptures, landscape sketches, night walkways, and play areas in the public space of the square. Use the color, type, and expression of light to create a different cultural experience atmosphere, while adding fun and interactivity to the activity space, and creating a harmonious and beautiful living space. For example, in the open space



where the Outlet and IKEA meet, the leaf-shaped structure reconstructed from the evolution of banyan leaves is made of stainless steel with orange paint, embedded with floodlights, and combined with the surrounding dynamic lamp posts to form a colorful fashion theater. The central highlight of the IKEA Node space, the CNC running water art installation drives the venue's vitality and gathers popularity. Through the mirrored stainless steel plate finish, the changing light reflection is reflected, which complements the dry fountain to create a bizarre atmosphere and provide an interesting stay space (Figure 2).



**Figure 2. Cultural Interaction Landscape Space**

### 5.3 Create the Participatory Commercial Production Space

Commercial building facade lighting is the main method, supplemented by optimization of internal lighting in the space. By capturing the brand characteristics of each commercial building, personalized lighting is achieved, and multiple buildings are connected at the same time to optimize the overall lighting unity. Through lighting interactive technology, consumer participation is improved, and the interactivity between commercial space and other spaces is increased, effectively attracting consumers to stay and improving economic benefits.

(1) Optimization of building facades and spaces. To better create a commercial atmosphere and increase the value of commercial production space, the Jinshan area of Cuntan International New Town has created a “three-axis three-node” light show, using

intelligent lighting equipment to create a high-quality nighttime commercial environment. The facades of buildings along the street are optimized, floodlighting is carried out, and projections are added to some areas to achieve the effect of interaction with the light rail opposite and with people. At the same time, according to the cultural and tourism theme characteristics, a night market commercial experience space is added (Figure 3).

(2) Add intelligent landscape facilities. In the landscape renovation design of the Jinshan area of Cuntan International New Town, we added designs such as intelligent interactive rainbow doors and intelligent interactive water curtains, as well as intelligent landscape facilities such as smart signboards, smart landscape lights, and smart seats. We use intelligent landscapes to improve the experience quality and strengthen the production function of the Jinshan area.



**Figure 3. Participatory Commercial Space**

### 6. Conclusion

The introduction of the “ecological-production-living” concept provides a clear direction for the sustainable development of urban cultural tourism night tourism space. While developing the cultural tourism economy, it advocates a cultural tourism night tourism economic development model with ecological sustainability as the core and coordinated development of livable life and efficient production. This research analyzes the problem of night cultural tourism space in Jinshan area of Cuntan International New Town on Airport Road and proposes an organic renewal strategy for night cultural

tourism space in the city based on the concept of “ecological-production-living”, namely, night ecological landscape space, cultural interactive living space, and participatory commercial production space. The strategy aims to achieve the overall harmonious development of urban space through the rational lighting landscape design of the three spaces of ecology, life, and production, and to provide theoretical reference and practical value for the sustainable development of night cultural tourism in the city.

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