

## Study on the Integration of Urban Cultural Elements in Modern Interior Architectural Decoration

Jianying Song<sup>1,a,\*</sup>, Haiyan Tan<sup>2</sup>

<sup>1</sup> College of Architectural Engineering, Guangzhou City Construction College, Guangzhou, Guangdong, 510925, China

<sup>2</sup> Guangdong Institute of Arts and Science, Department of Arts and Media, Lianjiang, Guangdong, 524400, China

<sup>a</sup> 328408309@qq.com

\*corresponding author

**Keywords:** Modern Interior, Architectural Decoration, Urban Cultural Elements, Integration Studies

**Abstract:** In order to improve the comprehensive benefit of modern indoor building system, we need to carry out a sound environmental protection design of modern indoor building system, so as to adjust the scientific environmental protection coordination of every link in modern indoor building. with the acceleration of urbanization in our country, we also put forward higher requirements for building environmental protection design. under the background of coordinated development, we analyze many factors that affect building environmental protection at present, and give reasonable solutions according to these problems, so as to lay a certain foundation for the future development of our architecture. This paper discusses the integration of urban cultural elements in modern interior decoration, hoping to bring practical opinions.

### 1. Introduction

Energy is an indispensable part of the development of modern society and the support of people's life. Although the energy on our earth is very much, it is not inexhaustible, because their existence is limited, but our human over-reclamation of it to collect energy is also less and less. China has always been a large population, energy consumption is also huge, so environmental protection is urgent. In our country, construction has always been the largest consumer of energy, and with the continuous development of the economy and society, construction is also more and more, the consumption of energy is also increasing year by year. Therefore, in this form of severe situation, how to integrate environmental protection has become an urgent problem in the construction industry, this paper is around the modern indoor building environmental protection design countermeasures to study and discuss, hoping to truly provide scientific and effective environmental protection measures for the construction industry.

### 2. The Technical Principle of Modern Indoor Architecture

The factors that may affect the environmental protection of buildings are often reflected in the use of new energy sources such as wall, door and window building materials. Building materials can make full use of natural energy and reduce unnecessary consumption of non-renewable energy. The larger the building body size, the more heat is needed. From the point of view of building energy efficiency, it is necessary to maintain the size of the building as much as possible, but also to be environmentally friendly, because the larger the window area of the building, the greater the heat transferred through the outside to the building, and the heat consumption of heat transfer and air penetration will be used more and more in environmental protection buildings[1]. So in the architectural design problem, according to the environment as far as possible according to the surrounding environment changes, appropriate reduction of window area. In order to greatly reduce

the heat transfer coefficient of the building structure, we must also pay attention to the choice of maintenance materials. The maintenance structure accounts for 77% of the total heat consumption of the whole building. If you want to be environmentally friendly, you have to start with that.



Figure 1 Architectural decoration

### **3. Modern Indoor Architecture Technology**

#### **3.1. Building Corporate Roof Environmental Protection Technology**

Because the roof is directly exposed to the air and subjected to large areas of solar radiation for a long time, it will deteriorate and aging, and then face environmental problems. Green roofs can help absorb the ultraviolet radiation and heat from the roof by planting green plants that are viable and grow well. This method can effectively solve the problem of roof environmental protection.

#### **3.2. Environmental Technology for Windows and Windows In Buildings**

Energy consumption of doors and windows usually comes from radiation, convection, air penetration and so on, so to reduce energy consumption. We should pay attention to the design skills of doors and windows, take into account the direction and proportion of doors and windows, and the most important thing is the choice of windows and doors glass[2]. In order to improve the environmental protection of windows and doors glass, to achieve the purpose of environmental protection.

#### **3.3. Environmental Protection Techniques for Building Walls**

As the main part of the external structure of the building, the wall occupies a large part of the building energy consumption and reduces the heat transfer coefficient of the wall. This saves us a lot of energy. The specific methods of wall skill include : (1) selecting wall material with good heat insulation. (2) Add some insulation measures inside the wall, such as fault insulation. (3) Apply a small amount of polymer mortar outside the exterior wall to serve as insulation.

### **4. Concrete Measures and Suggestions for Rectification of Modern Indoor Buildings**

#### **4.1. The Government Should Pay Enough Attention to Environmental Protection Buildings and Introduce Some Favorable Policy Guidelines**

Countries and governments need to fundamentally adopt and implement appropriate preferential policies for these new and renewable sources of energy to promote the development of renewable energy. increase economic consumption in this area. Through legislation to promote building environmental protection, establish and improve building environmental protection laws and regulations and related policies. For example, while combining construction with new energy, we should take corresponding supporting measures and protection measures to promote the application

and development of building new energy[3]. At present, many regions provide subsidies for environmental independent heating, which is a good environmental protection promotion policy for construction. and many construction industries should respond positively. In addition, we need to establish certification of environmentally friendly products to encourage participation in the construction and application of environmentally friendly buildings.



Figure 2 Architectural decoration

#### **4.2. The Construction Sector Shall Actively Study and Apply Advanced Technologies**

According to the relevant scientific investigation, it can be found that the greenhouse gas emissions from building energy consumption account for more than 25% of the building energy consumption emissions. Therefore, the problem of environmental energy consumption is also becoming more and more serious, and it must be solved as soon as possible. To promote the technological progress of building environmental protection, suitable new energy sources can be selected according to the characteristics of different regions, such as promoting solar energy environmental protection in high altitude areas. For example, the solar energy environmental protection projects that Xinjiang has begun to implement are typical demonstration areas for building applications[4]. Building designers should fully grasp the new energy application technology, such as solar energy environmental protection system, geothermal environmental protection system, ground source heat pump environmental protection system and other knowledge related to building environmental protection system, and use it in practice, in order to effectively achieve the purpose of efficient environmental protection.

#### **4.3. Make Clear the Relevant Environmental Protection Development Plan and Make Good Environmental Protection Design Plan**

We should make clear the concept of building environmental protection, formulate scientific, accurate and detailed planning arrangements for building environmental protection, and make full use of abandoned land in urban space to carry out environmental protection design experiments, such as environmental protection transformation of abandoned factories, so as to "turn waste into treasure ". The environmental protection construction of the building is best to choose the new building with strong plasticity to improve the environmental protection benefit, and the building should ensure the environmental protection and green ecology. To improve the sustainable development efficiency of the environment, the planning and design personnel must be given the conditions to meet the building condition principle before carrying out the environmental protection design. It is the most effective design method to use environmental factors to adapt environmental protection to local conditions.



Figure 3 Architectural decoration

#### 4.4. Respect for Principles Relating to Coordinated Development

First of all, we should respect the coordinated development, the planning process should be combined with the actual development, and follow the principle of seeking truth and pragmatism. It is determined that urban construction should be based on the actual population of the city and the needs of economic development and construction. It is necessary to protect the agricultural cultivated land in our country, while the urbanization construction, also can not sacrifice the agricultural cultivated land as the exchange condition. Planning and designers must carefully consider the problem between urban construction and cultivated land protection, which not only needs to be in line with urban construction, but also to ensure that the source of farmers' income is in a stable state, so as to ensure the balanced and coordinated development of the national economy[5]. In addition, the development of urban construction should be adapted to local conditions. Each region has its advantages and disadvantages, so urban and rural development should make full use of its advantages to develop economic benefits. For example, cities on both sides of the Yangtze River are mainly zonal distribution based on water, which can lead to local economic development and tourism, which is the advantage of topographic advantages in urbanization construction. Therefore, in coordinating the contents, phases and programmes of the plan, the planning and design staff must be given the conditions to meet the principle of local conditions.

#### 4.5. Development of Specific Plans for Integrated Development

We will strengthen cooperation between land administration departments and urban construction planning departments and do a good job in linking up the "two plans ". The two departments should unify and coordinate the management work, strictly implement the planning system, and earnestly achieve the "unified planning, unified land requisition, unified development, unified construction, unified management" four "unified ". Land use planning in urban areas should be based on land adjustment plans under the overall land use plan. The scope and control of land development formed in urban planning can not exceed the control standard of urban development master plan. The land use standard of urban planning and construction needs to be designed strictly according to the requirement of maintaining balance of total area, and the overall quality of cultivated land should be improved. Carry out the road development concept of "tapping the potential of connotation ". At present, in urban planning and land use, we should make great efforts to adjust our ideas, and turn the "extensive" construction mode, which is based on expansion, into the "connotation tapping potential" road development concept, which can give full play to the spatial benefits. Urban planning should clarify the concept of land transportation protection and formulate scientific, accurate and detailed land use planning arrangements. The construction of new buildings is best to choose high-rise buildings to reduce the occupation of national land, and the building should ensure sufficient height and area. Improve the utilization rate of wasteland, not blindly

expand the surrounding areas of the city, and take the urban center as the transformation area. Using environmental factors to adapt to local conditions is the most effective way of design.

## **5. Conclusion**

Since entering the 21st century, the sustainable development of our country has become the only way of modern development. For building environmental protection to always carry out the idea of people-oriented sustainable development, at present, the progress of urbanization in China is gradually improving, so the demand for construction is also gradually rising, gradually there is a contradiction between the supply and demand of construction and energy, this problem is the first task to be solved urgently by the relevant departments. In the process of coordinated development, we should respect the relevant concepts of sustainable development, then carry out scientific and effective planning according to the specific actual situation, and fully ensure that while environmental protection is achieved, it should also ensure its scientific nature and sustainability, so as to conform to the natural law of urban construction.

## **Acknowledgements**

The research has been supported by Guangdong Province Academic Brand Building Program in 2016 of the Department of Education of Guangdong Province “Guangdong Province Higher Vocational Education First Class Academic Brand Building of Architectural Engineering Technology”(2016gzpp016)

## **References**

- [1] Su, Guan. Yang. Application of Traditional Elements in Modern Architectural Decoration Design. *Henan Building Materials*, no. 3, pp. 119-121, 2020.
- [2] Xie, Xiaowen., Tan, Xiangdong. A study on exterior facade decoration of Songpu Ocean in Harbin. *Furniture and Interior Decoration*, no. 9, pp. 26-27, 2019.
- [3] Yao, Chaoxi. Application of Traditional Elements in Architectural and Decorative Design. *Building Materials and Decoration*, no. 14, pp. 111-112, 2019.
- [4] Zhou, Siyu. Application of Local Cultural Elements in Longzi Ancient Villages. *Beauty & Times*, no. 6, pp. 92-94, 2019.
- [5] Wang, Yuke. Analysis on the Application Value of Traditional Architectural Decorative Elements in Modern Architectural Design. *Building Materials and Decoration*, no. 14, pp. 100-101, 2018.