

# Research on the Reuse of Waste Resources in the Design of Indoor Home

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**Abstract:** This project mainly researches the recycling and utilization of waste materials. Through the theoretical basis of aesthetics and living space, the recyclable waste materials are sorted out and redesigned. It involves in the green design concept of home display design, enters into life and the public. The "Non-Waste city" pilot project is planned in the frame of national policy; so as to minimize the plan of landfill Preparations for the study were also facilitated. As a student of environmental design, we use the professional knowledge that we have learned to guide the lifestyle with new design concepts of innovation, coordination, greenness, openness, and sharing, and promote the reuse of domestic waste to form green interior design Design the development mode and promote the utilization of solid waste resources.

## 1. Introduction

Recent years, the home textile industry has developed rapidly and renewed quickly, resulting in excessive backlogs of waste materials such as commoners, which are treated by landfills and incineration, which may cause pollution to the environment or pile up mountains and waste natural space. Therefore, from the perspective of waste recycling and utilization, this project combines waste with modern design concepts, and it will inspire and promote waste research in interior home design research to meet the needs and feasibility of interior home design. Guide the way of life with new design concepts of innovation, coordination, greenness, openness, and sharing, and promote the use of waste recycling to participate in the research of interior home design to form a green design development method, promote the solid waste resource utilization, and respond to the "no waste city" Planning of construction pilot work to "minimize landfill volume". As Yang Mingjie, Forbes China 's most influential designer, a visiting professor at Tongji University and Nanjing University, said: "Design is the solution of the relationship between people, things and the environment." Start with a large amount of domestic garbage for recycling and redesign.

## 2. Definition of Waste

The waste classification includes solid waste and mud waste. Because mud waste is difficult to reuse, research has focused on solid waste. In the definition of waste, there is such a sentence: the use value is basically lost in a certain time or space. The definition of waste itself is under certain conditions, and our research direction is to change the waste itself and its specific time or space range through redesign to create its use value in the new environment. This is also firmly supported by the state and the government. In January 2019, the General Office of the State Council announced a pilot work plan on the construction of a "no waste city". At the second session of the Thirteenth National People's Congress held on March 5, Premier Li Keqiang also proposed to strengthen the treatment of solid waste and garbage. 'No waste city' is an advanced urban management concept. Its ultimate goal is to minimize the generation of solid waste throughout the city, maximize resources and ensure the safe disposal of waste. "Non-waste cities" refers to solid waste. Among these wastes, household waste can be classified as recyclable waste, large waste,

compostable waste, combustible waste, hazardous waste, and other waste. Research focuses on the use of recyclable waste. Recyclable waste includes five types of waste: paper, plastic, glass, metal, and fabric. Collecting these materials can help improve and design interior furniture in response to the 'reduction of landfills' under the "waste-free cities" pilot project plan of.

### **3. Current Status of Solid Waste Treatment and Old Furniture**

In the current state of solid waste treatment, most solid waste treatments pollute the environment. Current waste treatment methods have caused serious pollution of air, water and soil. According to the 2017 annual report of the Ministry of the Environment on the prevention and control of environmental pollution caused by solid waste in large and medium-sized cities, in 2015, 246 large and medium-sized cities generated 186.64 million tons of household waste, and in 2016, 214 large and medium-sized cities generated 18.85 million Tons of household waste. The environmentally sound disposal of household waste is carried out in three main ways: sanitary landfill, incineration and others. Judging from the impact brought by general garbage disposal methods, more than one-third of cities in China are currently facing the dilemma of "garbage siege." Every day, people generate garbage, discharge garbage, and inadvertently pollute our living environment. Landfills are usually disposed of by landfill and combustion. Landfills occupy most of the land, and abandoned landfills no longer cultivate. It cannot be built as a community. The other method is incineration. Although high-temperature burning waste does not occupy most of the land, this method can not only require alarming investment, but also increase the risk of carbon dioxide pollution and the burning of large amounts of carcinogenic gases. The use of waste for home design research will not only raise the awareness of protecting the environment for all, but also bring economic benefits. In a community with a certain number of years, there are many aging furniture and low availability. Similar to sofas, tables and chairs, coffee tables are huge, inconvenient to transport and difficult to handle. Abandonment will cause residents a series of unnecessary economic losses, and the current solid waste treatment methods will also bring huge damage to the environment. The redesign of waste resources can turn these solid wastes into treasures and continue to serve people in the new time and space.

## **4. The Necessity of Waste Recycling in Home Design**

### **4.1. Waste Adds New Color to the Furnishing Design**

Promote the utilization of waste resources, apply the knowledge we have learned, and use innocuous solid waste as raw materials in the interior furnishing design, so that they have the role of interface decoration and make the interior decoration more artistic. In the design of modern interior environment, without the combination of space design, the art of space and its cultural taste are trivial. In the design and implementation process, furnishing art design should be considered, and the pursuit of environmental art will be comprehensive and clear. There are three commandments in the Ten Commandments of the famous German Dieter Rams: "Good design is innovative, good design is practical, and good design is environmentally friendly." New design methods are introduced in combination with waste. The furnishing design is undoubtedly an innovation in interior home design, leading a new trend in green design. By applying the special material of waste to interior home design, the waste that is about to be discarded will become an indispensable furniture in life. Supplies, it also shows that practicality is an important standard for design; redesigning and applying solid waste such as waste paper, waste plastic, waste glass, waste metal and waste cloth to our daily homes, helping the country's "no waste city" policy supports environmental protection from the source of furniture materials. The focus of "waste resource design" is to better use waste in interior furnishing design, and to develop and innovate waste redesign. As an important part of the indoor environment, furnishings play an important role in the indoor environment and play an important role in linking design and household waste to the life and consumption of the population.

#### **4.2. Waste Reuse Promotes Policy Practice**

The report of the 19th National Congress of the CPC put forward the goal of "establishing a sound economic system for the development of a low-carbon and carbon cycle". Green development is an inevitable choice for the development of the new era, and waste recycling is a way to deepen the recycling economy practice. Recycling waste into home design is an inevitable way for the development of green economic life. From the proposal and promotion of "no waste city" and the promulgation of the "Circular Economy Promotion Law", waste recycling intervention in home design can not only improve the quality of life, but also promote the take-off of green circular economy. While building a "no waste city", coherent policies and plans will be formulated, and a set of models that can be replicated and promoted nationwide will be developed by 2020 according to a set timetable. This research will lay a solid foundation for comprehensively promoting the construction of a "no waste city". Recycling a large amount of solid waste into the most needed home design in our daily life will help solve the problem of urban solid waste pollution and improve the people's sense of acquisition and participation in improving the quality of the ecological environment.

#### **4.3. Waste Redesign Innovative Aesthetics**

The huge convenience of life brought about by the redesign of wastes for residents to solve the problem of relocating old furniture is the embodiment of the "complexity of human scale and function" in post-modern urban aesthetics. According to postmodern urban aesthetics, household waste is recycled for interior design: cities designed based on these values are stable, sustainable, moderately growing, and self-sufficient cities. Recycling of waste resources and continued stable urbanization emphasize the modest combination of urban expansion with population growth and environmental capabilities. Innovative reuse of waste promotes healthy urban standards in post-modern urban aesthetics that place emphasis on human scales, functional composition, diversification of life, and historical tolerance. Recycling waste is an innovative living environment and lifestyle aesthetics. The construction of the environment and lifestyle actually means that according to the preferences of the space owner, the various components of the house are used in the reconstruction, including "small scenes", unique or different styles or styles, which can correctly express the residence The feelings and feelings of the people, as long as the residents are comfortable. The reuse of waste makes the layout of the house better, so that various furnishings show different colors in quality space, value and style. The use of waste for furnishing design not only has a unique aesthetic and design sense, but also demonstrates personal taste and quality, and can further sublimate the original ideological content of the product.

#### **4.4. Recycling Promotes Environmental Protection**

Recycling of domestic waste promotes environmental protection, and paying attention to the problem of waste in daily life is effectively raising people's awareness of the reuse of the environment, resources and waste, raising awareness of the importance of protecting the environment and resources, and enhancing environmental protection for the entire population. Consciousness. Only by establishing a general awareness of environmental protection can we form a social force to protect the environment together. The purpose of waste recycling is to save space for domestic use, effectively develop a rational use of domestic waste, and realize the recycling of resources again: reduce resource waste, protect the environment, inherit sustainable development, and respond to President Xi Jinping's "beautiful scenery, that is golden mountain and silver mountain". Possibility of "landscape" and "practical utilization" of waste to realize its diversified value. Through the research on the recycling and reuse of waste materials in interior design, the recycling and reuse of waste is more humane, comprehensive, and systematic, and the waste materials are better applied to interior home design. Recycling of waste protects the environment, reduces resource consumption, and conforms to the national sustainable development strategy.

#### **4.5. Reuse of Waste Promotes Economic Benefits**

From an economic perspective, the recycling of waste resources can not only reduce costs, but also enrich internal space. Recycling conventional resources and non-renewable resources, and reusing abandoned resources in new time and space through various artistic design methods. The redesign of renewable resources also follows the principle of low-consumption design, which provides new forms, new life forms and artistic characteristics to solid waste. This makes it possible to properly disseminate environmental concepts of sustainable development and recycling economic development. The re-designed home furnishings from waste resources meet the functions of conveying information, convenient use, convenient transportation, and sales promotion to obtain economic benefits, and at the same time, form unique home furnishings unique characteristics, showing the designer and owner and the unique aesthetic taste of furnishings. Make waste an important material carrier and communication carrier for modern furnishing design, turn it into a treasure, and promote the concept of protecting the environment and recycling waste.

### **5. Waste Involved in The Process of Home Design**

In a series of operations involving waste recycling and interior home design, we should strictly abide by the principles of solid waste recycling, properly dispose of them, and promote them properly to drive the society's correct understanding of waste. According to the characteristics of waste materials, make full use of the material's performance and tap its residual value. Through design methods such as changing its structure, color, combination and disintegration, create furnishings with new functions and new aesthetics, and recycle waste. The transformation of wastes extends the useful life of wastes. The innovative transformation of wastes not only saves resources and money, but also replaces wastes with a form to retain them, giving wastes a second life and achieving a unified function and aesthetics.

#### **5.1. Source of Solid Waste**

In campus life, all kinds of plastic waste, batteries, lunch boxes, and old clothes can be seen everywhere. We create a campus waste recycling community, store these wastes, register them for unified storage, so that later design links can incorporate these living solid wastes into the furnishing design and interface design of home design, thereby responding to the country's "no waste city" ", And can reduce the environmental damage caused by waste and improve the status of garbage piles. In the community, organize a waste redesign team to post publicity leaflets to promote the recycling and reconstruction of large-scale waste furniture, such as old sofas, tables and chairs, bed boards, mattresses, wardrobes and other waste furniture. Provide convenience to attract residents to actively participate in the recycling of waste resources, and make domestic waste with a large proportion of solid waste a source of solid waste redesign materials.

#### **5.2. Selection and Classification of Solid Waste**

We will pass strict testing, extract test reports, analyze and research to exclude the waste that will cause harm to human body and the combination of wastes, conduct harmless waste resource reuse and involve in home design research, and design harmless Furnishings for residents' health. Household waste is diverse, complex, and scattered. The treatment methods differ due to its composition and hazards. The collection and classification of general waste uses different methods, and choices are made in an economical and safe manner. Domestic waste in solid waste can be classified as recyclable, large, renewable, combustible, hazardous, and other wastes, while waste that can be used in priority is recyclable waste. Recyclable waste includes five types of waste: paper, plastic, glass, metal and fabric. Based on the nature, shape, size, and residents' needs of these five categories of recyclable waste, we make the most suitable design for each piece of waste.

#### **5.3. Redesign of Solid Waste**

Extraction of various types of waste chemical analysis, combined with design concepts, design

schemes, technical principles, design processes and some details, etc., and finally applied to the design. Based on the design principles of "functionality, aesthetics, and humanity", we propose new and old symbiosis, improve the design, and repair the old and new optimization strategies. Reuse all or part of various wastes as ingredients of other products, and extend the service time and intensity of the product as many times as possible to prevent the product from becoming waste too soon and too quickly. With the visual effects of natural beauty, simple and elegant plots, waste cultural symbols and memory emotions, we successfully build home furnishings to form a new and suitable visual form and use form to serve the lives of residents again and provide them with more Great convenience.

#### **5.4. Bringing Value to Waste After Transformation**

Through in-depth research, screening, and redesign of solid waste, we will use scientific methods to update and repair old furniture, and extend the service time and intensity of the product as many times as possible to avoid premature products. It becomes waste too quickly to increase the value and use value of the waste itself and ensure the residents' experience. From the perspective of waste recycling and utilization, the use of waste into modern design concepts enables waste to be promoted in interior home design, and provides some inspiration for interior home designers to meet the needs and feasibility of interior home design. Increase the application feasibility and scope of furnishings, and let residents know their application methods. Efforts will be made to reuse waste materials to design furnishings to enrich the space for household use, effectively develop the rational use of household waste, and realize the recycling of resources again.

#### **6. Strengthen Publicity and Develop Related Policies and Regulations**

From 2005, the State Council promulgated "Several Opinions on Accelerating the Development of Circular Economy", suggesting the strong development of circular economy. By 2008, the "Circular Economy Promotion Law" was promulgated to make the development of circular economy legal. A series of policies regard green quality as the main mode of economic development in the new era. In the future development of circular economy, we need more detailed policies and laws to promote the positive interaction between the community and universities, and also to transform the results of each art and design college into market demand, and make a contribution to the development of green economy. A contribution that more effectively promotes the sustainable development of the community. At the same time, it provides spaces for residents and creators of urban communities to learn, communicate and exhibit, and promote the formation of a community interactive aggregate of art, design, aesthetics and lifestyle.

#### **7. Conclusion**

All in all, the waste resources that once plagued humanity are now re-examining their functions and values, creating their use functions in a new environment. After professional research and discussion, according to the preliminary waste classification survey and the later research room classification combined with the home design concept, a set of furnishings that can be applied to home design is summarized, and its rationality and feasibility are verified. The sustainable development concepts of "city" and "green mountains are golden mountains and silver mountains" complement each other. It will also join the market and embark on a new path of sustainable development. The waste recycling industry has been underestimated by society in the past, but its development will improve with the development of social life and the advancement of national policies. The resource regeneration method is also an inevitable choice for the development of circular economy, and will eventually provide support for social and economic development.

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