

Research on Emotional Design Intervention in Urban Furniture Design

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Abstract:

With the development of cities and the continuous improvement of people's requirements for quality of life, urban furniture design has also become a focus of attention. Traditional design concepts often focus more on the presentation of functionality and aesthetics, neglecting emotional resonance and reflection. However, emotional design, as a new design thinking, can be applied to urban home design, making works rich in soul and humanistic care, and creating positive and profound emotional experiences for people. Therefore, this article will focus on the basic overview of urban furniture and emotional water, and analyze and discuss the problems in urban furniture design. Based on this, it will further explore the specific methods of emotional design intervention in urban furniture design for reference.

Keywords:

Emotional Design, Urban Furniture Design, Interventional Methods

1. Overview of Urban Furniture and Emotional Design

1.1. Definition and classification of urban furniture

1.1.1. Definition

Urban furniture refers to various facilities and installations used in urban public spaces to meet people's basic needs. From fruit crates, benches, traffic signs, trash cans, to parks, squares, bus stops, pedestrian bridges, etc., all belong to the category of urban furniture. The reason why they are called "furniture" is mainly because they have similar functions and functions to furniture in the home, aiming to provide people with a comfortable, convenient, and safe outdoor environment. "Urban furniture" is the Chinese interpretation of "Street Furniture", which is an organic integration of urban landscape and cultural environment, carrying the symbolic significance of urban culture, history, and lifestyle. Through reasonable layout and innovative design, urban furniture can add vitality and charm to the city, becoming an important component of urban development. In short, urban furniture represents people's longing for urban life and their expectations for the outdoor environment. It not only provides basic rest and living functions, but also beautifies the urban environment and creates a warm and comfortable atmosphere for people.

1.1.2. Classification

The types of urban furniture are very diverse, and according to their usage and service functions, they can be divided into the following categories: (1) Public leisure service facilities. It refers to various “furniture” included in public leisure places, such as benches, chairs, tables, sunshades, etc., which helps to increase the comfort of outdoor activities and promote interaction and communication among citizens; (2) Transportation service facilities. This type of furniture mainly includes facilities such as bus stop seats, bicycle parking racks, road signs, and signs, which provide convenient transportation services for citizens and improve the comfort and efficiency of public transportation; (3) Public health service facilities. Refers to various “furniture” set up to meet people's public health requirements, including public toilets, trash cans, disinfectant cabinets, etc., which helps to improve the hygiene level of the urban environment, maintain the health and quality of life of citizens; (4) Information service facilities. This type of furniture includes outdoor billboards, information screens, signage, etc., aimed at helping citizens better understand the urban environment and activities; (5) Beautify and enrich spatial facilities. This type of furniture mainly involves decorative objects such as sculptures, landscape lights, flower boxes, fountains, etc., which can add artistic atmosphere and vitality to urban spaces.

1.2. Definition of Emotional Design

Emotional design refers to stimulating emotional resonance among users through the appearance, function, and color of a product, creating a pleasant, comfortable, or beautiful emotional experience during use. This design concept emphasizes the guidance and shaping of user emotions by the product, promoting a closer emotional connection between users and the product, thereby enhancing their sense of identification and loyalty to the product. Emotional design is not limited to the field of product design, but can also be applied to areas such as architecture and the environment. For example, in architectural design, emotional design can express the designer's emotional views through aspects such as architectural form and material selection, creating a more warm and approachable spatial atmosphere; In environmental design, emotional design can create a pleasant and relaxing atmosphere through greening, lighting, music and other means. Overall, the core of emotional design lies in integrating human emotional needs into design, so that design is no longer just about meeting functional needs, but more focused on the emotional experience and feelings of users.

2. Problems in Urban Furniture Design

2.1. Lack of humanized care

In the furniture design of urban public spaces, humanization means prioritizing human needs and comfort, and providing convenient, comfortable, and safe user experiences for urban residents through scientific and reasonable design and layout. At the same time, urban furniture should not only meet functional needs, but also stimulate people's emotional pleasure and sense of belonging, so as to better integrate furniture into the urban living environment. However, based on the current situation, many cities lack humanized care for furniture. The reason behind this is, on the one hand, that some designers often focus more on the aesthetic and functional appearance of furniture, and less on people's real experiences and feelings. For example, some

urban furniture is usually designed to meet standard sizes and specifications, ignoring the diverse needs of different groups such as people with disabilities, children, and the elderly, and cannot truly provide convenience for citizens. On the other hand, some department personnel often prioritize cost when purchasing urban furniture, ignoring the importance of quality and humanization, which directly affects the effectiveness and comfort of urban furniture in actual use.

2.2. Lack of visual extensibility

Different cities have unique characteristics due to their differences in climate, terrain, and landforms, which are often reflected in the architectural style, cultural landscape, and living habits of local residents. This means that in urban furniture design, attention should also be paid to the presentation of these characteristics, so that people can feel the unique charm and atmosphere of the city in daily life, making the urban space more warm and comfortable. However, in actual design, we often see a large number of city furniture with similar or even identical styles, lacking personalized customization and visual expression for different cities, making it difficult to enhance the attractiveness of the city. In addition, with the development and evolution of cities, their image and style will also change. This means that urban furniture design should also consider the diversity and variability of urban development, so as to better reflect the characteristics of the city's era and humanistic spirit. However, in some urban furniture designs, such changes are not considered, and the design lacks flexibility and adaptability, making it unable to maintain consistency with the urban image, resulting in a sense of disconnection between urban furniture and the urban environment.

2.3. Lack of continuity in urban context

With the development of economic globalization, modernist design has become increasingly internationalized, leading to significant global uniformity. Although the process of urbanization in our country is very fast, and a bustling scene is magnificent, in this trend of national and local integration, we also face the challenge of cultural homogenization, and the inherent historical context of cities is gradually being cut off. Specifically, the development of cities has brought modern convenience and comfort to people, but urban furniture design neglects the historical culture and traditional customs of the city, lacking continuity of the city's context. In the pursuit of modernity and internationalization, some designers often adopt universal design styles and elements, ignoring the unique cultural backgrounds and traditional characteristics of different regions, resulting in a lack of resonance with local culture in urban furniture, and unable to truly reflect the unique charm and spirit of the city and the times. In this situation, although the living environment and material living standards of urban residents have been improved, they may lose their original cultural identity and sense of belonging, which is not conducive to the sustainable development of the city.

3. Methods of Emotional Design Intervention in Urban Furniture Design

3.1. Instinctive Emotional Design of Urban Furniture

Instinctive emotional design refers to the unconscious intuitive emotions that are unconsciously triggered by the appearance characteristics of a product, such as shape,

color, material, etc. In urban furniture design, emphasizing the design of instinctual emotions is crucial as it can enhance people's sense of pleasure when using urban furniture and stimulate their love and desire for life. Therefore, designers should deeply explore people's potential emotional needs and integrate them into every detail of urban furniture, so that products are not only cold objects, but also carriers of emotions and memories. Specifically, designers can make urban furniture not only practical but also a work of art by carefully designing appearance features such as rounded curves and simple lines, which can better integrate into people's lives and create a comfortable and comfortable atmosphere. In addition, color design is also an important component of urban furniture's instinctive emotional design, as different colors convey different emotions and associations. Designers should carefully choose and match colors in urban furniture design to stimulate people's positive emotions. For example, bright colors can enhance a person's vitality and pleasure, while soft colors can bring a feeling of relaxation and tranquility. In addition, different materials bring different feelings to people. Therefore, in the design process, materials with comfortable touch and visual pleasure can also be selected to arouse people's unconscious emotional resonance, increase their liking and affection for urban furniture.

3.2. Behavioral and emotional design of urban furniture

Behavioral emotional design focuses on the interaction and emotional connection between users and products, which refers to the use of carefully designed interaction methods, visual effects, sound, and touch details of products to make users feel various emotions such as pleasure, comfort, or satisfaction. In other words, behavioral and emotional design should be "people-centered" to make the product conform to human behavior levels, meet their usage needs and expectations. Therefore, in urban furniture design, designers should fully consider human behavioral characteristics, analyze people's behavioral habits and needs in urban space, and combine the functionality of furniture with emotional factors. For example, when placing benches in public places, consideration should be given to the body shape and physical condition of different groups of people, and seat sizes and structures that conform to ergonomic principles should be designed to allow everyone to sit comfortably without feeling urgent or troubled. In addition, humans are a system for information transmission and processing. To meet their information acquisition needs, designers need to fully consider human perception and cognitive characteristics in urban furniture design, ensuring that furniture is easy to recognize and use. For example, when designing signs in urban parks, in order to increase interactivity, a touch screen can be used, allowing people to easily access the overview of the city park, understand the introduction of attractions, activity information, etc. In addition, the behavioral and emotional design of urban furniture also needs to pay attention to the emotional experience generated by users during use. By adding soft materials to the surface of furniture, adding detailed decorations, and injecting interesting elements, people's love can be enhanced.

3.3. Reflection on Emotional Design of Urban Furniture

Reflective emotional design refers to a complex and profound spiritual experience triggered by people's association, resonance, and deep reflection on the information conveyed by product design. This feeling is not only limited to the appearance, but also triggers deeper emotional resonance through the intersection with the individual's

deep beliefs, memories, and cognition. The depth and breadth of emotional reflection depend on an individual's thinking ability and the diversity of trigger points. Some people may have a keen appreciation and be able to deeply understand and reflect on the information conveyed by the product; And some people may need more time and space to perceive and interpret. In urban furniture design, reflecting on emotional design means that designers should not only view urban furniture as a functional tool for use, but also as a carrier that can influence people's emotions and thinking. Therefore, in the specific design process, designers should trigger emotional resonance from the depths of people's hearts, create urban furniture that allows people to have a more profound and rich emotional experience through the intersection of individual beliefs, memories, and cognition, and add more warmth and humanity to the urban space. For example, placing carved benches with local cultural characteristics in urban parks, or setting up seats with iconic urban architectural elements on the streets, can allow people to experience the history and charm of the city while using them, and enhance their emotional investment and sense of belonging to the city.

4. Conclusions

In summary, emotional design plays an important role in urban furniture design. By designing instinctive emotions, behavioral emotions, and reflective emotions for urban furniture, it is possible to evoke more intuitive emotional resonance and deep thinking among people, and provide a comfortable, convenient, and safe user experience. In the future, we should further explore the deep application of emotional design in urban furniture, focusing on the integration with urban planning and cultural resources. At the same time, technological innovation should be utilized to combine emotional design with intelligence, providing people with a more intelligent, personalized, and interactive urban furniture experience. It's believed that through continuous research and practice, we will be able to create more emotionally resonant and creative urban furniture, bringing more beauty and joy to people's lives.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

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References

- [1] Yao, Y.K. Research on the Design of "Empty Nest Youth" Kitchen Electrical Products Based on Supply Theory. Fujian A&F University, 2023.
- [2] Ning, X.Y. Research on the design of integrated furniture products for people and pets based on emotional interaction. Guilin University of Electronic Science and Technology, 2023.
- [3] Sun, H. Research on Emotional Design of Pencil. Jiangnan University, 2013.
- [4] Wang, L. Research on Emotional Design of Outdoor Furniture. Fujian A&F University, 2014.

- [5] Zhao, Y.Y. Research on Emotional Design of Pregnant Women's Clothing. Jiangnan University, 2015.
- [6] Zhao, X.B. Research on Emotional Design of Occupational Clothing in New Elderly Apartments. Zhongyuan Institute of Technology, 2018.
- [7] Yin, J.X. Research on Lighting Products Based on Emotional Design. Beijing University of Chemical Technology, 2018.
- [8] Li, J.P. Research on Enshi Traditional Food Packaging Design Based on Emotional Design. Wuhan University of Technology, 2017.
- [9] Luo Q. Research on Emotional Design of Jingchu Local Specialty Packaging. Wuhan University of Technology, 2016.
- [10] Su, L. A Study on Emotional Design of Toys for Preschool Children, Shanghai Normal University, 2019.



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