

Research on the Construction of Emotional Design in Shared Office Space

Bei Fan¹, ZheCheng Han^{2*}, Ying Zhou³, Runkun Li⁴

¹Wuhan Institute of Technology School of Art and Design Wuhan, Hubei

²Wuhan Institute of Technology School of Art and Design Wuhan, Hubei,

³Wuhan Institute of Technology School of Art and Design Wuhan, Hubei

⁴Wuhan Institute of Technology School of Art and Design Wuhan, Hubei

*hzc1997618@qq.com

ABSTRACT

With the rise of sharing economy in modern society and the continuous innovation of working mode, shared office mode is increasing day by day, With the rise of the sharing economy in modern society and the continuous innovation of working mode, shared office mode is increasing day by day, and people's office time is greatly increasing, so the importance of office environment is increasingly prominent. This study not only aims to explore how emotional design meets the functional needs of office space, but also analyzes how emotional design reflects the humanized care for office groups.

Keywords: *Interior space design; Shared office space; Emotional; Design principle*

1. INTRODUCTION

As the sharing economy rises, thanks to the continuous innovation and rapid development of modern shared space design, shared office spaces have started to appear frequently. Shared office overturns the traditional working mode of individual enterprises working independently, dilutes the limitations of the working conditions and environment of company staff, provides more comfortable and humane office conditions and places for the users, and at the same time facilitates users to realise the access, integration and sharing of information resources.

2. THE CURRENT STATE OF SHARED OFFICE SPACE

2.1. Advantages of Shared Office Space

The emergence of shared office space makes it easier for users to get socialised with each other, facilitating the sharing of information and effectively relieving the pressure of high office rents^[1]. Compared to other spaces with shared attributes, shared office spaces emphasise the harmony between "function" and "people", as spaces and buildings are originally designed to provide services to

users, but shared office spaces have additional qualities such as bringing people together, enhancing community spirit, attracting popularity, saving resources and reducing costs. However, shared office space has additional qualities such as bringing people together, enhancing community spirit, attracting popularity, saving resources and reducing costs, which can effectively improve work efficiency.

2.2. Disadvantages of Shared Office Space

Despite the fact that shared office space brings users the convenience of interactive communication, promotes community spirit, information sharing and other benefits, at present there are problems in the application of shared office space such as a single design model and lack of humanization, due to the lack of definition between spaces, unclear functional partitioning and excessive focus of designers on external modelling, resulting in an overly compact space layout and a serious loss of use objects personal privacy space, causing mutual interference between work, reducing work efficiency and extremely easy to produce fatigue and oppressive anxiety^[2].

In response to the problems of single design mode and lack of humanisation, this proposal integrates the creation of emotionality in the shared office space. Office

space not only can meet the functional needs of daily work, but also should pay attention to the emotional needs of users to the office environment, and the emotional design is not only to meet the emotional needs of office workers, but also to reflect the humanistic care for the office population^[3].

3. TEMPLIFICATIONS OF EMOTIONAL DESIGN

"Emotional design" means design with emotion, integrating human feelings and emotions into cold "industrialized products", which will make the products more easily loved by the public. Therefore, many excellent cases have the quality of "emotional creation" for the emotional intervention makes the design out of the general design framework and regulations, with a unique "emotional" temperature. However, "emotional design" is also like a scale difficult to control as the excessive emotional intervention will cause the work of over-design, so that the function and intention of the design work becomes confusing. Thus, how to design the right design has also become a challenge for future designers.

Emotion is a human instinct, and people have been looking for spiritual or materialized emotional support and resonance since ancient times. This will enrich the user's spiritual world.

When designing interior spaces, we should pay more attention to practicality, aesthetics and user experience. Compared with the outdoors, the interior has a more delicate emotional atmosphere, and if the interior environment is complicated, it will easily distract people's attention, generate negative emotions and worsen the user experience. So how to control the scale of "emotional design"? By following the theory of emotional design, which is based on the instinctive, behavioral and anti-color levels proposed by Professor Norman [4], and applying it to the interior space, these three levels will interact with each other and the products designed will be more loved by users.

4. PRINCIPLES OF EMOTIONAL DESIGN

4.1. Instinctive level

1. Material factors. In design, the choice of material usually determines the main influence of the environment. For example, if the interior is made of large areas of wood, it gives a sense of nature and warmth; if a lot of marble and metal are used, it gives a more calm and dignified feeling. Thus, the visual and tactile sensations of the material are also the first elements that stimulate emotions.

2. The color factor. Color is considered to be the most intuitive visual experience and plays a vital role in the formation of emotions. For example, saturated colors such as orange and red are conducive to stimulating exuberant emotions and are mostly used in purposeful public spaces, while less saturated colors such as blue and purple create a quiet and peaceful atmosphere and are mostly used in private resting spaces. The user's emotions will respond to the color signals they receive through their vision.

4.2. Behavioral Level

The behavioral aspect of design dominates the design of practical and functional spaces. If the visual provides the most direct subjective impression, how to continue to drive the user to generate positive emotions, "practicality" and "operability" are the two important directions we should focus on. Behavior level design should be closely related to user needs, explore the user needs of environmental space, emphasize "people-oriented" in the design, follow ergonomics, to meet the basic needs of the user's life, with practicality, safety and comfort as the primary goal. At the same time, according to the user's psychological state, personal habits, lifestyle preferences and other needs, the design is applied to the interior design in a scientific and reasonable manner.

4.3. Reflective Dimension

The reflective level of design is closely linked to the attributes of the environment and focuses on the user's emotional satisfaction and sense of belonging. In the reflective dimension, the regional culture and the user level have a significant impact on the design and are also closely linked to the user's experiences over time. By establishing a bond between the environmental space and the user's experience, it is possible to create a spatial environment with a high level of satisfaction that easily resonates with the user's emotions about the space.

Only when the basic needs of the users' life are met will they begin to seek spiritual satisfaction. Only when the needs of the users' spirit are satisfied will positive emotions arise spontaneously. So the most important thing of the reflection level is to improve the spiritual satisfaction of users. In-depth understanding of the users' needs is essential for every designer in the initial exploration of design solutions. Communication is the most effective way to understand the users' emotional needs. Whether the choice of space materials, the application of color or the control of space partitions and flow lines should carry a kind of atmosphere belonging to the user himself. When the users enter the space, they are willing to put down their defenses against the unknown outside world and find their own sense of

belonging, then this is a successful space design (Figure 1)

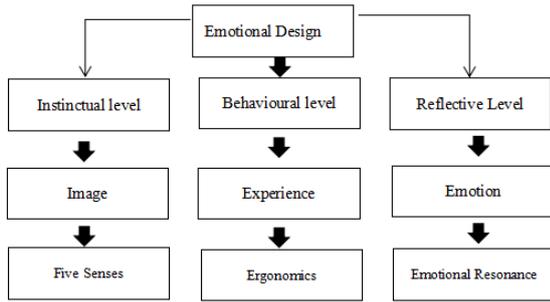


Fig.1 The Three Levels of Emotional Design

5. CASE STUDIES OF EMOTIONAL SHARED OFFICE SPACE DESIGN AT HOME AND ABROAD

5.1. Zhongshan Road Shared Office Space in Chongqing

This is a rich, interesting and efficient shared office space. The project defines shared office space in two ways: first, shared office does not mean that the space is just a single open space, it is also a space where open and private states coexist, such as separate offices, meeting rooms, reading rooms, etc^[5]; second, shared office space needs a variety of composite office spaces, such as places with serious, relaxing, and happy attributes. Therefore, in addition to standard conventional office spaces, free-form office spaces are needed in addition to sitting or standing, such as lounges with relaxation functions, etc.

The project is based on the application of behavioral level, through the analysis of the overall house structure, the design not only opens up the horizontal space, but also strengthens the use of vertical space, and places small spaces inside the space to become a viewing platform within the whole office space, the free office space and the independent space form an interactive relationship of "seeing and being seen"; in the profile design, the open office area is arranged separately from the independent area as a separate office and meeting area, which allows users to switch between two different office spaces to work efficiently or relax and rest independently according to their needs. The open area also has the multiple spatial attributes of a courtyard, maximizing practicality and taking care of users' multiple living needs as comfortably as working at home. (Figure 2)

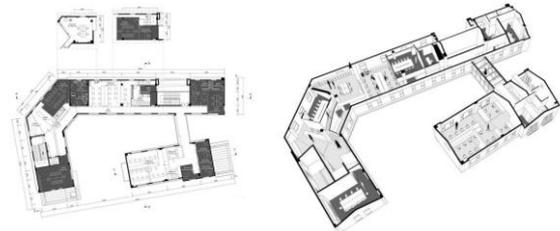


Fig.2 Project Plan and Profile

Image source: Internet

On the instinctual level, wood veneer and volcanic rock panel are basically used as a theme material, which is intended to maintain the commercial attributes of the office space while avoiding the problem of losing the original unique value of many shared office spaces due to excessive pursuit of entertainment. This design not only makes the Zhongshan Road shared office space physically and mentally enjoyable for all types of office workers, but also maintains the essence and passion of the office at all times. The overall color palette of the project is low in saturation, mostly in wood and gray, giving users a sense of calmness and dignity, and giving them a sense of relaxation at home. (Figure 3)



Fig.3 Project Interior Rendering

Image source: Internet

5.2. Second Home Shared Office Space in London

This is a shared office space with acrylic dividers and permeable mobility. The project provides a shared office environment for over 30 small companies. Its work partitioning model is also highly liberalized for whether it is a single seat for 75 people space, a small independent office space for 5, 7, 10 people, or even a large space for 20 people can be used flexibly according to the company's needs ^[6].

The design of the project space focuses on public spaces open to all users, with seven meeting rooms and several breakout spaces for reading and communication scattered throughout each area. The designer chose high glazing for the interior walls of the office, and used curved surfaces to differentiate the work areas, allowing for efficient and convenient interaction between tasks. The color palette is a brilliant yellow, which encourages the user to work with a dynamic and visually striking atmosphere. The large desk in the central office can be raised and lowered by remote control to make room for

yoga and Pilates classes during the day, or used for small concerts, parties, dinners, meetings or movie screenings in the evening, taking good care of the user's daily needs. (Figure 4)



Fig.4 Orange Public Space, Green Transport Space with Yellow Office Space

Image source: Internet

To minimize the confusion and chaos caused to users by the complex space, the designers cleverly used two of the latest design techniques of the moment. Firstly, the use of a permeable visual environment and continuous spatial structure prevents users from getting lost or trapped in the office space, and secondly, the use of acoustic carpets, curved ceilings and walls greatly reduces noise disturbance in adjacent spaces. These design approaches used to enhance the comfort of the high-density environment also deliver additional spatial effects, with the overall visual effect not only enhancing the centripetal force of the space, but also making it appear far more open and spacious than it actually is. (Figure 5)



Fig.5 Interior Space Rendering

Image source: Internet

Through the comparison of domestic and foreign cases, it is clear that although the material process may be different, the most important thing is that the design cases fully reflect the understanding of the local customs, such as the inclusive and easy-going national style and the passionate open socialization abroad, the spatial environment focuses on the user's own attributes, and achieves "people-oriented" design. The spatial environment focuses on the users' own attributes and achieves a "human-centered" design that meets the user's spiritual needs while inspiring positive work efficiency.

Table.1 Comparative Analysis of Domestic and International Cases of Emotional Shared Office Space Design

Same point	Difference	
At home and abroad	Overseas	Domestic
Focus on the safety of user use and user experience, pay attention to the color and material matching, and fully reflect the humanistic care.	The functional partitions are clearly easy to flow, with the latest design products of the moment, but sometimes the color palette is overly saturated and prone to aesthetic fatigue.	The interior materials and color scheme make the users feel tranquil and can effectively relieve work pressure, but the functional partitioning is complicated and the users lack private space.

6. DESIGN APPROACHES FOR EMOTIONAL SHARED OFFICE SPACE

6.1. Application at the Instinctive Level

6.1.1. Elements of Color

In space design, color plays a particularly important role. Color often gives the most intuitive feeling, and the first impression of a space mostly comes from color, and the visual stimulation of different colors will cause different emotional changes for users. Therefore, the use of color elements should resonate with users. In the design of shared office space, gray, which reflects calmness and rationality, or green, which has a healing function, can be used. Designers should consciously match colors to create works that satisfy users, and control the warmth and saturation of colors based on the positioning and function of the space, to prevent too many high-saturation colors from causing visual fatigue by keeping people in a state of mental exhilaration for a long time; at the same time, too many low-saturation colors should be avoided. saturated colors, which will make the space lifeless and produce depressing negative emotions (such as Figure 2 and Figure 4).

6.1.2. Material Elements

There are many kinds of common materials, and different materials express different emotions. The tactile and visual stimulation brought by the texture and color of materials is also the main way to generate emotions.

According to the overall style of the space, the appropriate selection of materials, the attention on the matching of materials and the expression of their own beauty can bring the audience a different emotional experience.

Table.2 Emotions of Color and Material

material	The emotional qualities of materials	Color	The emotional symbolism of color
log	Natural and friendly	Red	Enthusiastic, lively, flamboyant, excited, bombastic, and easily inspired by courage.
marble	Solemn and warm	Orange	Passionate, frenetic, stylish, youthful, sporty, fast and furious, there's something energizing about it.
metals	Icy sharp	Blue	Tranquility, freedom and freshness, blue also represents openness, stability and peace.
glass	Modern and light	Green	Fresh, healthy and hopeful, it is a symbol of life; it represents a sense of security, calm and comfort.
plastic	Light and lively	Grey	Elegant, simple and calm, grey gives a sense of reality and a sense of stability and stability.

6.2. Behavioral Level Applications

6.2.1. Security and Privacy

Security is a basic guarantee of human survival, and when a space user cannot gain a sense of security, anxiety, fear and a fidgety psychological state can arise. Under the premise of security, people also need a relatively private space that can be undisturbed by the outside world when needed. Therefore, movable partitions can be added to the partitions of workstations, which can meet not only the users' need for personal privacy space and the requirement for safe distance in the post-epidemic era, but also their social and work needs for multi-person and group communication and discussion (Figure 6).



Fig.6 Schematic Diagram of the Partition

Photo credit: Design[J]

6.2.2. Comfort and Practicality

"Comfort" and "practicality" are indispensable in any space. Whether the physiological needs are met or not is related to the change of people's emotional experience. The existence of space is for people, and space design should be "people-oriented", and the practicality of its function is equally important in the design process. In the shared office space, retail machines, coffee vending machines and other equipment that can meet the dietary needs of users can be added, while ergonomic office supplies should be provided to reduce physiological fatigue at work, so as to maintain work efficiency.

6.3. Application of the Reflective Dimension

6.3.1. Sense of Satisfaction

The interior space should meet the emotional needs of the users, so that they can get strong emotional feelings such as happiness, joy and pleasure. Its impact on the audience is subtle and can touch the deepest emotions of their hearts. Therefore, in a shared office space, all factors such as the age, biography and cultural level of the user should be integrated to match the most suitable design solution for the users, so that the users can obtain satisfaction more easily and thus achieve an increase in work efficiency.

6.3.2. Sense of Belonging

In the design process, designers should communicate more with the users, understand their preferences and consider the audience's emotional needs in furniture modeling, material use, color matching, space form and other aspects. When the users are working, that will make them feel as comfortable as the office at home. During the design process, designers should think from the perspective as the users do, understand more the customers' emotional needs, and create a design work in line with the audience's psychological needs. To tell stories with feelings and decorate the space with feelings, such an interior environment is alive and has a soul, and only such an interior space atmosphere can give users a strong sense of belonging.

Emotional design is ultimately based on humanistic and psychological care for the users. For the same design pattern, a more aesthetic or practical design always brings physical pleasure to the users, and mental appeasement or emotional pleasure is the role of emotional design, focusing on the embodiment of human-centeredness, which influences how the users perceive the feelings brought by the environment and what kind of feedback they give^[7].

7. CONCLUSION

In the past space design, designers focused more on the attributes of the space and ignored the role of people themselves in the space. When designers were designing, they first considered functionality and spatiality, and often ignored the psychological and emotional changes of people in the space. However, space serves for people, and people are the center. Through the development of design ecology in recent years, society has also gradually discovered the importance of people themselves. Design is also developing in the direction of humanization, and "human-centered" design is becoming more and more important. Therefore, a good emotional design is also inseparable from the application of the three levels in practice. Only by distributing a reasonable proportion of the three levels of design in the public office space can a modern work group office environment be designed properly.

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