

Research on the Cultural and Creative Brand of Digital Mortise and Tenon

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Abstract: Among the traditional craftsmanship of the Chinese nation, there are few widely used and immortal craftsmanship like the mortise and tenon structure. How to bring out the value of traditional Chinese cultural craftsmanship is very important in today's economic and social civilization. The new research perspective has enriched the theoretical basis of the inheritance and development of traditional culture. The mortise and tenon joint constitutes a smart and flexible framework, and the matching between them is more natural and seamless. mortise and tenon are like souls hidden in two pieces of wood. This kind of national and traditional technology should be combined with the development of science and technology, form a brand-new mortise and tenon cultural brand, and establish a new confidence of national culture to inherit and carry forward.

Keywords: Mortise and tenon; Cultural; "Hemu"

1. Looking for the New Trend of Digital Mortise and Tenon on the Basis of Current Situation

1.1. Analysis of current situation of mortise and tenon

At present, the inheritance research of the mortise and tenon cultural tradition, Fanmu home furnishing is relatively successful in the industry. It has been adhering to the concept of "let the art be of life, let the life be of art", and is committed to let the art return to life. While inheriting the traditional Chinese mortise and tenon technology, the modern aesthetic concept is used to interpret the essence of oriental aesthetics, and the design of the mortise and tenon structure has been more used in the furniture. Lv Mujiang not only insists on making furniture with traditional craftsmanship, but also using plain primary colors of wood, mortise and tenon, and wood wax oil to resist the invasion of time and eliminate pollution. In recent years, the market has been developed in the form of carpentry training and education. Although it promotes the existing status of the traditional culture, it still stays on the material of wood. The inheritance effect is achieved, and the development can be more innovative.

1.2. The trend of combining modern technology with mortise and tenon

The mortise and tenon structure is studied as a design element, and it is applied to the promotion of digital brand mortise and tenon. By combining with the digital brand and applying the mortise and mortise structure in the digital technology, not only the connection mode has been enriched, but also the traditional structure has a new

change. The traditional crafts are inherited, reproduced and displayed through innovative forms of expression.

Mortise and tenon can be combined with the traditional techniques of national culture to form a brand through digital creative professional characteristics so that more people can understand, accept and apply to the excellent treasures of their own nation. Digital image is more conducive to the preservation, communication and dissemination of mortise and tenon art. For example, mortise and tenon digital animation and APP use computer technology and 3d model to visually present mortise and tenon structure and show the details of mortise and tenon in the form of application, so as to convey traditional craft culture to more modern people in a modern way and play a positive role in the traditional handicrafts.

Mortise and tenon art is reflected in our memory as a structure, a part of architecture, and an application of furniture. However, with the development of society, we find its beauty today, and we will continue to give it new functions in the future. For example, although mortise and tenon appeared earlier than Chinese characters, the application and aesthetics of Chinese characters are more in line with the development of the society, as well as the structure of mortise and tenon is so delicate and accurate. We can use the structure of mortise and tenon to design fonts, so as to add the beauty of fonts to mortise and tenon design. There are various forms of contemporary art, such as multimedia art, animation art, installation art and so on, which play an important role in the combination with mortise and tenon as well as complete more forms of mortise and tenon art.

2. The Establishment of Digital Mortise and Tenon Brand

2.1. Research foundation of brand establishment

Playing shavings is the common memory of several generations. The impact is deeply imprinted in the growth of a person, which has led many people to be interested in handicrafts, machinery, models and all hands-on things. The emergence of an event must be accumulated in a long term. In fact, it will not happen as instantaneously as people see it, and mortise and tenon are produced by this invisible emotional factor. If you love something, you will continue to think about it until it comes up.

With years of digital art education, professional people do professional things. Experiences in graphic and image teaching, and more than ten years of creative design work that is helpful to accurately grasp each service object, establish and promote its brand products, and now it should be handier to apply to its own digital mortise and tenon brand. Professional modern design thinking, strong art skills, aesthetic feeling, creativity, knowledge of all aspects, such as literature and common sense, how to communicate with people, how to "sell" your creativity to the public, persuasive ability, as well as the ability to communicate with the team, all of above accumulated over the years are conducive to the establishment of the brand.

2.2. Establishment of digital mortise and tenon brand-"Hemu"

The central idea of Hemu brand is: a design brand that can change your future life. With the goal of "science and technology change life", Hemu focuses on the combination of mortise-tenon and technology, and designs cultural and creative products that are close to life. Hemu brand creates a "smart space" as a framework and creates many excellent products."Environmental protection, intelligence, cleaning," combined with the characteristics of inheriting the Chinese characters and brand identity, shows a modern sense of artificial intelligence home, etc. The concept of environmental protection and be upright will be integrated into our brand. The Hemu brand LOGO takes the cube as the frame, combined with the word Hemu to form strong ecological fresh and environmentally friendly graphics in a full sense of science and technology, and is rich in inheriting the brand characteristics of fresh, environmentally friendly and intelligent. When users experience our products, we will make corresponding plans according to their habits, preferences and the frequency of use to change the structure. Promotion, integration and creation of our products will give us more chance. Not only do we have offline sales platform and channels, but also strive to develop online marketing app, which can make our products more influential, such as a complete set of VI manuals, basic visual element design, preparation of visual application element design, development of specific application design project, preparation of VI manual, etc.

The reproduction and inheritance of traditional craftsmanship is the basis. The combination of innovation and application with the times is fundamental. Any new thing needs continuous trial, failure, and summary. There is any new form leisurely presented in the process of exploration. Without patience and hard work, we cannot see through the works or clarify a complicated situation, especially in design. Inspiration is the final result of practice. It is impossible to get anything without any effort. Real creative design is not a momentary impulse, but requires more calm thinking, continuous experimentation, continuous innovation and continuous practice, and strives to create a better product design under the brand Hemu.

3. Research and Development of Digital Mortise and Mortise Products under "Hemu" Brand

3.1. Research direction of digital mortise and tenon of "Hemu" brand

The combination of mortise and tenon with technology is the key point of digital mortise and tenon brand. In the process of continuous establishment, a step-by-step method is formed. Mortise and tenon + cultural innovation, inherit the traditional mortise and tenon structure in the first place, respectively represented the existing 33 kinds of common structures by digital images, then derive GIF animation and digital mortise and tenon animation, and finally based on the structure, a new concept pattern is created by combining all kinds of objects reasonably. China has put the cultural and creative industries at the height of cultural innovation for the overall layout, so the combination of mortise and mortise and cultural innovation will be well developed.

Mortise and tenon + 3D printing, combine with 3D printing technology, design and produce experimental effects. Combined with new materials, the structure of mortise and tenon will be materialized. To explore the feasibility of innovative forms and materials, different materials can be used to create components in different layers, so as to enrich and improve the simplicity of mortise and tenon wooden structure.

Mortise and tenon + VR, combined with augmented reality technology, will create the digital graphs in a systematic, demonstrative or interactive way. For example: project information to a plane, and directly use hands to complete the assembly and installation of mortise and tenon structure in space. VR art is an interactive art form based on the new type of man-machine dialogue. Its greatest advantage lies in the construction of dialogue between works and participants.

Mortise and tenon + Internet, more online platform publicity and interaction, use Internet thinking mode to platform digital mortise and tenon brand, which can carry

forward the mission of inheriting traditional national culture and technology. Promote communication ability, show mortise and tenon art, and give positive brand connotation.

3.2. Research methods of digital mortise and tenon of "Hemu" brand

In the research, we should follow the principle from theory to practice. First of all, by consulting a large number of literature materials related to cultural and creative products and tenon-and-mortise structures, we can understand the current research status at home and abroad, and refer to the research ideas of scholars from other countries. Secondly, we can make a comprehensive analysis of cultural and creative products, including their types, materials, structures, manufacturing technology, etc., deeply understand the industry of cultural and creative products, and obtain the needs of consumers through market research. At the same time, we should learn the advanced theory of cultural and creative product design to lay the foundation for cultural and creative product design. Thirdly, we should understand the types and connection principles of mortise and tenon structure by reading relevant literature, observing and experimenting on the mortise and tenon structure, and summarize the characteristics and modern application principles of mortise and tenon structure combined with our own understanding. Finally, we should synthesize the above research contents and analysis results, and reasonably apply the tenon-and-mortise structure to the design of digital cultural and creative products. In the research process, the literature search method, empirical research method and qualitative analysis method were used.

To master the knowledge of mortise and tenon structure, we can find out the information in the books like Wang Shixiang, however, to truly understand this broad and

profound traditional technology, we still need to improve the ability of hands-on and imagination of space art. Therefore, it is still not easy to inherit, especially for those of us who rarely come into contact with handmade art in modern times, we need to work hard to study the basic knowledge.

Digital simulation technology, the application of mortise and tenon structure are processed digitally. Different digital software has different forms of expression. How to be accurate and artistic performance is difficult. With the combination of traditional craftsmanship and modern design, the digital simulation technology in the field of virtual simulation is introduced into the research of mortise and tenon structure design. The feasibility of the application of virtual simulation technology in the design of mortise and tenon structure is verified by an example, which provides a new idea for the design and development of mortise and tenon structure.

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