Research on Green Idea in Modern Ceramic Products —— Also Discuss the Construction of VR Technology on Ceramic Product Display

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ABSTRACT-"Green design" originated in the 1960s and became a hot issue in modern design research in the 1990s. It embodies the principle of "people-oriented" and becomes the trend of modern design. It evokes modern people's reflection on the original ecological destruction of the environment caused by modern science and technology and culture. Although there are not many contact points between green design and modern ceramic product design, this manuscript introduces the "thinking concept" of "green design" into modern ceramic product design, and deeply studies modern ceramics from various aspects, such as energy, resources, modern family structure, disease prevention and life cycle design of modern ceramic product design. The problem of product design, grasp the development direction of modern ceramic product design, take the road of sustainable development, and open up a new way of ceramic product design that meets the needs of modern social life. This paper also discusses how to use VR technology to construct the display platform of ceramic product design, human-computer interaction and feedback design information, so as to realize green design under VR technology.

1 Instruction

"Green Design is also known as Ecological Design, Environmental Design (design for Environment), Environmental Awareness Design (Environment-Conscious Design). In the whole life cycle of the product, we should consider the environmental attributes of the product (detachability, recyclability, maintainability, repeatability, etc.) and take it as the design goal to ensure the function, service life, and quality of the product while meeting the environmental requirements. The principle of accounting is recognized as the principle of "3R", that is, Reduce, Reuse, Recycle, reduces environmental pollution, energy consumption, recycling, or reuse of products and parts. In other words, to fundamentally prevent pollution and save energy and resources, it is first decided by design, taking into account the negative effects of products and processes on the environment in the design process, and finally eliminating them in a minimum range. "[3]"Green design is an international design trend in recent decades. The background of this trend is the reflection of modern people on the environmental and ecological damage caused by modern science and technology and culture. Its most prominent and important contribution to modern society is to reflect the return of designers' moral and social responsibility." [1] "Green design first appeared in the 1960s. It is the design idea put forward by American design theorist Victor Papanek in his book Design for the

Real World. The biggest function of design is not to create commercial value. Nor is it a competition in packaging and style, but an element in the process of appropriate social change. He stressed that the design should seriously consider the use of limited earth resources and serve the protection of the earth's environment. There were not many people who could understand his point of view at that time. However, since the outbreak of the energy crisis in the 1970 s, his theory of limited resources has been widely recognized. With the development of science and the continuous improvement of human material civilization and spiritual civilization, human beings realize that the living environment is deteriorating day by day, the available resources are drying up day by day, and the further development of the economy is seriously restricted. These problems directly affect human beings. The reproduction of civilization, thus put forward the strategy of sustainable development. Not in the 1980s, first set off a wave of "green consumption" in the United States, and then swept the world. Green refrigerator, environmental protection color TV, green computer, and other green products continue to emerge, and the majority of consumers also advocate green products more and more. Green design has become a hot issue in modern design technology research in the 1990s. Viktor Papanek put forward a big concept of design and put forward a relationship between man and natural ecological balance in the design process. "[2]

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1.1 The Important Strategic Significance of Green Design

It is undoubtedly an important event to study the long-term sustainable development of human beings and the earth with the concept of green design. It is of great practical significance to speed up the construction of "green design" in an all-round way and strive to realize the strategic goal of "building a harmonious society" put forward in the Eleventh five-year Plan at an early date. The implementation of "green design" has broken the green barrier established in the name of green design in international trade.

Some developed countries and the international community have built a new barrier in the field of international trade for the protection of human health and the environment. This is the world today. In a new trend in trade, these developed economies set environmental quality standards higher than those of developing countries to promote new trade protectionism. That is to say, high environmental standards and access conditions are used as a means of restricting import and export so that the traditional trade barriers gradually evolve into environmental barriers until they become green trade barriers. These green barriers make a series of complex and demanding environmental standards to set up obstacles to products and services from other countries under the conditions of resources, energy, ecological environment, and human health. In recent years, countries such as the United States and the European Union have issued a series of relevant green standards, which are difficult to do in developing countries. For example, the international standards organization controlled by developed countries began to implement the International Environmental Supervision Standard system in 1985 to require enterprise products to meet the ISO9000 series quality standard system. The European Union has also launched an environmental management system called ISO14000, which requires the processing of products imported into the European Union to meet the required technical standards. These environmental management system standards require that the product should not contain non-toxic and harmless substances that may cause damage to the human body or other organisms, and have specific provisions on the types of non-toxic and harmless substances and the content of the products.

"In 2005, there were 10,000 enterprises around the world received ISO 14000 series standard certification, only 14000 enterprises in China have obtained ISO14000 series standard certification, while Japan has more than 6000 enterprises, accounting for 1/5 of the world. [5] this is very disadvantageous to a large international trade exporter. In recent years, China has suffered serious losses due to the restrictions on its products in this regard. In 2002, China's exports worth 7.4 billion US dollars were blocked by "green barriers". In 2004, 1 billion US dollars of furniture exports failed to cross the threshold of EU green barriers. In the face of the more and more strict development trend of green design in the international community, we should carry out the research of modern ceramic product design products (modern daily ceramic products) conforms to the trend of green design.

Otherwise, we are at a disadvantage in the fierce international trade competition.

There are not many points of agreement in modern ceramic product design from the surface of green design, but the deep analysis of the "green design concept" has its substantive content. Because modern ceramic product design products belong to the category of modern design. All have a design, production, marketing, and other links and processes, and finally, enter the circulation market as goods. The application of the concept of "green design" in the design of modern ceramic products can shorten the presence of ceramic products in China. The distance in one field can break the trade barrier of developed countries as soon as possible so that the ceramic products of our country can be exported smoothly.

1.2 Green Design Is The Only Way For Modern Design.

When people enjoy the abundant material civilization brought by modern science and technology, the negative influence of modern science and technology is also quietly coming. To obtain high yield grain, cotton, and other plants, pesticides, and fertilizers were used to absorb the biological chain and finally into the human body. Chemical fertilizer not only binds the land but also makes the grain produced lose its original taste. To change the color, appearance, and taste of the goods, they want to change the color, appearance, and taste of the goods. The use of lean meat essence, formalin, magdala red, and other toxic additives to cause great harm and disaster. On the other hand, the unrestrained design of modern life aggravates the unlimited demand for natural resources. For example, after the industrial revolution, the number of forests felled by human beings in the process of development is hundreds of times as much as the sum of the previous felling. This large area of cutting has caused vegetation degradation, desertification, soil and water loss, flooding, climate warming, and seriously affected the ecological balance of the earth. For example, the pursuit of a comfortable life has made refrigerators and air conditioners, but the production of leaky Freon has caused ozone layer voids, the sun. Harmful rays directly radiate the surface of the earth, which makes the earth lose the protection of the natural barrier. The probability of various skin diseases and lesions of human beings is greatly increased in the field of modern design.

The most serious design for natural damage is modern architecture, such as large fully closed shopping malls, supermarkets rely entirely on electricity to supply cold and borrow heat, limited energy consumption. In recent years, there is also a lack of the concept of "green design" in the construction of infrastructure and people's living environment in China. For example, the design of family housing, the connivance of developers on the motivation of goods and the psychology of consumers' comparison, as well as the fact that the state is not strict in controlling this, the region pulls the classics. The policy needs of the economy, the larger and larger the modern housing area, the more luxurious, a housing area of 180 square meters, living room design area unexpectedly in 60 square meters

80 square meters. Designers have failed to take into account the tense situation of the land in our country, let alone the excessive consumption of energy when heating and cooling in large areas of housing, which has indeed given rise to the prosperity of human society today.

The uncontrolled claim of nature by human beings has indeed given rise to the prosperity of human society today, but there are various crises behind the prosperity, such as soil desertification, water resources pollution, farmland, increasingly barren land, condensation, massive carbon dioxide emissions resulting in Greenhouse Effect climate, sulfur dioxide emissions resulting in acid rain climate, and so on, all of which pose a great threat to human survival. Therefore, it is a problem that contemporary designers must think deeply about from protecting human life, protecting natural ecology, and safeguarding the common prosperity of man and the natural environment for a long time.

2 Green Design Concept in Ceramic Product Design

Green design is also called ecological design and environmental design in concept. Its name is different, but its connotation is the same. The core of "green design" is "3R (Reduce, Reuse Recycle) not only minimizes the consumption of substances and energy and reduces the emission of harmful substances, but also enables products and parts to be easily recycled and recycled or reused." The design of ceramic products can easily classify, recycle or reuse the "3R" products and parts introduced above, which is difficult to some extent. Therefore, this paper uses the concept of "green design". The design and application of modern ceramic products are expounded. It is considered that the "concept" is not in full accordance with the requirements of "3R", but on the whole, it is discussed in three aspects, that is, the strategic consciousness of saving resources, protecting the environment and sustainable development. Compared with the previous design, "green design" is a kind of restrictive design, so it is more challenging and the responsibility entrusted to the designer by the times.

2.1 Modern Ceramic Product Design and Environmental Resources

Modern ceramic product design and resources, rational utilization of energy, since the outbreak of the "energy crisis" in the 1970s, human society has really realized the significance of the strategic development of resources and energy, from the Iran-Iraq war to the invasion of Iraq by the United States, in fact, it is a war around energy issues. Japan, an Asian power, is an island with scarce resources. It is most aware of the crisis of resources and energy. Japan has adopted a series of strategies in the protection and development and utilization of resources. Despite Japan's dense forests, it is wood and wood products are imported. Japanese German cars consume the least fuel and save the most energy. Japan also imports a large number of coal reserves in Undersea, strategic consideration, energy crisis. China is a country where

resources and energy are not rich, and some of the energy needs to be imported. After the reform and opening up, the productive forces have been fully liberated, extensive industrial production methods, and a great waste of resources and energy. China consumes 1/3 of the world's energy consumption, while the GTP index is only 4%. Such as the Chinese metropolis of Beijing, Shanghai, some large shopping malls, hotels, winter waiters wear shirts, summer wearing spring and autumn shirts, customers suffer the most, "winter into the door sweaty, go out a cold" serious waste of energy.

The concept of "green design" is the concept of sustainable development and sustainable production. Designers should first consider the problems of resources and energy, and consider the problem of sustainable development, no matter what kind of design designers are engaged in. In the design, we should not only meet the needs of present people but also take into account the needs of future generations, so as not to endanger the future survival of future generations as far as possible[6].

According to the concept of sustainable development of "green design", the following preliminary design concepts and ideas are formed for the design of modern ceramic products:

2.1.1 Matching Design of High and Low Temperature Porcelain for Daily Use

Based on the consciousness of saving energy and considering the practical needs of the product, the matching form of high and low-temperature porcelain is used to design. In the flat disk design of western tableware, the material characteristics of high-temperature hard porcelain cutting without knife marks should be considered first. If low-temperature porcelain is used to make a flat disk, it is easy to leave scratches in cutting, while other instruments are cut without cutting tools, then low-temperature porcelain is used. This kind of design can not only pay attention to practical problems but also pay attention to energy conservation. This kind of design may be troublesome in production, but in mass production, energy saving is a large number.

2.1.2 Simplified form Design of Ceramic Decoration

Ceramic decoration part of metal oxide and some rare metals, such as gold, silver, and so on. These metal oxides are limited resources, and we all know that the metal pigments decorated with ceramics can not be recycled, especially the rare metal raw materials, and it is a pity to use too much because of people's diversified needs for ceramic products can not be decorated without decoration, according to the concept of "green design", ceramic products can not be decorated too much. The author puts forward a simplified form of decoration. The purpose of this paper is to simplify the decoration under the premise of satisfying the beautification of ceramic products, to save the amount of rare metal colorant.

2.2 Modern Family structure and Ceramic Product Design

The traditional Chinese family population combination is composed of three generations and four generations as the basic pattern of the family, and the family population is generally more than six. The traditional Chinese family model has been continuing to the middle and late 1980s. This kind of family structure model has formed a series of daily necessities design for this family model. Daily ceramic meal, tea set design can be said to be the representative of daily necessities in this period, such as 45, 56 cutlery, 7, and 13 tea sets. At that time, these supporting forms were in line with the actual situation of the social family population structure, and it was a more scientific design supporting form of meal and tea set.

With the continuous increase in China's population, the population of China has increased by more than 700 million in less than half a century. Family planning once became the basic national policy of our country. After about 30 years of effort, it has basically controlled and cured the Matthew effect of the population. The strategy of family planning and governing the country has directly led to the miniaturization of family structure in modern cities in China, and the family of three has become the basic pattern of modern families. At the same time, it also leads to the supporting design pattern of various household goods based on this family structure model. The response of urban housing construction is more prominent in this respect. Modern architectural design determines the area of the modern housing unit according to the current family population structure and designs some practical examples. Provide reasonable housing to meet the needs of people's lives. In the aspect of ceramic design, the old matching method is still used, and many daily ceramic products in the market are still old matching faces[7]. As a modern daily ceramic designer, how to consider the matching form of modern ceramic products and develop new products in an all-round way according to the contemporary family structure and the concept of green design should be the perspective of new product development and the starting point of new product design.

With the concept of "green design" to analyze the original daily ceramic design, it is not difficult to see that the number of ceramic products is slightly larger, and it is difficult for the family of three to use them in ordinary meals, resulting in idle and wasteful products, a few or a dozen idle items, as a family, but from the total amount of the whole social family, it should not be a small number. From the aspect of resources and energy, this paper discusses and understands from the strategic height of the long-term sustainable development of the human living environment, which is the problem that modern designers actively face and need to understand. The concept of "Green Design" seems to be on the surface with the design of daily ceramics. It is hard to see that in the design of modern daily-used ceramics and ceramic products, there is great potential to be excavated, and more and more new designs can be used to fill the new lifestyle of the new era. With the change of the outlook on life and the value of the modern people, the structure

of the social family is also changing. For example, single-parent families and single-parent families are increasing, which provides the design material and available elements for modern daily-use ceramic and ceramic product design[8].

Therefore, from family structure, the concept of "green design" is instructive and scientific in modern ceramic product design.

2.3 Modern Disease infection and Ceramic Product Design

In the 21 century, there seem to be more and more diseases spread by human beings, such as atypical pneumonia, anthrax, AIDS, hepatitis, tuberculosis, avian influenza, and so on. How did human life become so fragile? Human fear of infectious diseases is growing, almost to the point of tiger change! the nightmare memory, which was first popular in atypical pneumonia in 2003, is particularly new. For this reason, people are very careful in all aspects of life, such as eating, dressing, using, and contact with people. The requirements for the hygienic conditions of their own living environment are getting higher and higher, and the awareness of prevention is also increasing. In terms of use, disposable towels, shaving knives, toothbrushes Toilet cushions, gloves, etc., have become a new necessity in modern society. However, the transmission of contact germs has not been solved in some aspects of people's activities. With the development of the economy in our country, all kinds of service industries, such as hair salons, baths, hot springs, and Internet cafes, are open one after another, and the ways of transmission of contact diseases are increasing. According to media reports, "there are more germs on the keyboard of Internet cafes than in toilets," and the spread of germs is very serious. In terms of diet, there is no optimism, despite the use of disposable dishes, lunch boxes, plastic food bags, although the buffet diet to solve this kind of problem, the traditional Chinese diet and customs Used to, such as wedding celebration ten people a table, you chopsticks I a tablespoon eating custom can not solve this kind of problem. As a ceramic product designer, how to make use of new concepts in the design of daily porcelain to guide life, create a new way of life, and solve the problem of disease transmission caused by diet.

China's diet is indeed rich and colorful, but eating habits are indeed detrimental to the current society in preventing the spread of disease. Can we solve this kind of problem by using the method of Chinese food and western food? Can designers follow this idea? According to Chinese cuisine and western food, a new kind of tableware is designed to meet the objective needs of modern society. Chinese western food can be described as a new way of life combined with China and the West. First, it maintains the characteristics of Chinese food color, fragrance, taste, and beauty, and enjoys rich delicacies. The second is to eliminate the psychological pressure of infectious diseases and enjoy a rich material life[9].

In modern life, despite the use of disposable

appliances, there are still many in the process of use, the use of the equipment wrong. Such as regular drinking water bottles, disposable plastic cups, paper cups, etc. The reason is that these products have serious design problems, they are the same shape, brand, decoration. In particular, in some public activities, the probability of getting wrong is particularly high, which means that the transmission channels of germs are not blocked and increasing.

In the traditional ceramic product design matching, such as nine head tea set matching four cups four plates a pot, four cups the same, the decoration is the same pattern, in the family use also often has the wrong utensil thing, this gives us a kind of enlightenment. To meet the needs of modern life and modern people's fear of infectious diseases, designers should design products that meet the needs of modern life according to this special situation. According to the above situation, the following different schemes can be used in modern life design to solve this kind of problems:

A, the shape is the same, and the decoration pattern is different.

B, different shapes, decoration The pattern is the same plan.

C, the shape is the same, the decorative pattern is the same plus the special decorative marking scheme. The above three schemes can make a good distinction between the equipment used to identify themselves without confusion.

To sum up, human beings spend a lot of manpower and material resources to prevent the spread of disease. As a ceramic product designer who serves people, we should design ceramic products that meet the needs of modern society and conform to the concept of modern society. The concept and modeling of "Chinese food western food" and the simplified design scheme of decoration put forward by the author should be a new design idea in the design of ceramic products. It is consistent with the concept of green design and is a small spark to create modern food civilization.

2.4 Modern Medical and Ceramic Product Design

Human beings have their own instinct to protect. In the primitive period, the vast majority of the human face is a tangible, colored beast, and the protection will soon be reflected for instinctive awareness. In today's society, there are some invisible and powerful killers, such as television, cable, mobile communications, natural and man-made building materials, formaldehyde, ethylene, and radioactive elements. The various harmful toxins in the organism, the dry sound of the car's engine, and the like, have brought great harm to modern people. The achievement of modern science and modern medicine, for people to find the cause of harm, let people know how to use What kind of measures to allow these invisible killers. The contemporary design should also avoid these invisible killers. Design products that are conducive to human physical and mental health. As a modern designer, how to deal with the modern complex harmful factors harmful to people's physical and mental

health, how to carry out new product design according to the restrictive conditions of these adverse factors.

According to the content of modern ceramic product design, designers need to find the opportunity to cut in. In the design and development of modern ceramic products, those who have close contact with people's physical and mental health should be the focus of designers' consideration.

With the popularization of modern electronic technology and paperless office, the screen of a computer has become the main object of the modern office, and the disease of eyes has become the common disease of this group of professionals. Many modern ceramic product designers should avoid the traditional ceramic material characteristics and adopt the sub-light material design as far as possible so that the tired eyes can no longer be stimulated by strong light, to achieve the function of leisure nourishing the mind and dispelling the curse of the office supplies or household utensils of the crowd in this field.

The eye is the window of the mind, which is for people to raise the eyes to an extreme height to understand that the eyes of all animals in nature have a physical attribute, the pupils of the eyes will shrink or dilate with the change of light, the pupils of the eyes will shrink with the change of light, the pupils of light will shrink, the light is weak, the eyes will dilate, and people are no exception. In our real life and work, many cases of burning the eyes due to strong light often occur, such as welders and oxygen cutters. And people who work in the snow, or are trapped in the snow, etc. When it's sunny, we occasionally point our eyes at the sun, when there is a dark or persistent spot in the eyes, which is the reflection of irritation of the eyes. By understanding the relationship between light and human eyes, the design of a secondary light source should be considered when designing all kinds of lamps and lanterns which are closely related to life. For example, the secondary light source design of lighting lamps and lanterns is a good example in our life. The secondary light source is the main source of light that makes the eyes avoid light and plays a lighting role through refracted reflection[10].

In the design of modern lamps and lanterns, night lamps are one of the best examples of scientific design. Night lights are usually used when people sleep and wake up at night. In the era of poor material conditions, most people use lighting lights as night lamps. When sleeping, people's pupils should be dilated in the dark, but once the lamp hole narrows sharply, which has great harm to the eyes, the night lamp design is to use a soft light source, some through some soft glass cover, weaken the intensity of light, to achieve the best moderation and lighting effect on the human eye. Ceramic materials as lamps and lanterns have strong advantages, modern ceramic product designers in There should be a lot of design space in this respect.

In the aspect of the design of ceramic products, the design of the lamp has been long-established, and in ancient times, there are various kinds of ceramics, such as the lamp of the base, the lamp of the lampshade made of the thin-tire ceramic, These products play an important role in adapting to people's life at that time. In the present

day of people's pursuit of diversified life, the light decoration design for lighting is more and more diverse, and people not only seek the beauty and individuation of the appearance of the lamp decoration, but also gradually realize the knowledge of the light and the human physiology, and scientifically utilize the lamps and lanterns. The research of the orientation "ceramic product design" of the postgraduates of Jingdezhen Ceramic Institute and a plurality of lamp products with modern practical value are designed.

2.5 Life Cycle Design of Modern Ceramic Products

Everything in the world has a life cycle, the difference is that the cycle has a long and short time, such as the life cycle of dogs and turtles is about 100 times different. Today, what the author is talking about is not the life cycle of biology, but the life cycle of products. The purpose of using the topic of the life cycle to clear up the problem of modern product design is how to grasp the life cycle of products with the concept of "green design". In short, how to delay the service life of products, truly achieve value for money and the concrete implementation of the strategy of sustainable use of resources and energy.

With the rapid development of China's economy, commodity competition is becoming more and more fierce, and the life cycle of products is obviously shorter and shorter. For example: now people's necessary mobile phones in life, a brand within a year to launch four to five new models; clothing life cycle is shorter, the four seasons rotating thousands of amorous feelings; in China is particularly prominent is the largest commodity "car" is also emerging in endlessly, 2006 domestic and foreign businesses will launch nearly 100 new cars in China, China is also an unprecedented big deal in the history of cars in the world[11].

In industrial design, selling new products at a fast pace actually accelerates the life cycle of products, so the value of new products is greatly reduced, and the manpower and material resources consumed in the process of product research and development can not be rewarded accordingly.

To sum up, the author believes that the excessive pursuit of industrialization is an important medium to encourage people's uncontrolled consumption, and is the main culprit for destroying the sustainable development of ecological resources and energy.

As far as "green design" is concerned, it is necessary to prolong the life cycle of the product and protect natural resources and energy under the condition of satisfying the use of certain functions. The design becomes a double-edged sword, how to grasp the use of the sword, how to deal with this contradiction, the design of modern ceramic products also needs to consider the design of the product. Starting from the concept of "green design", the product design of ceramics should be considered from the following points:

Designers should have a reasonable design for the functional requirements of the product. Only the function

is reasonable, can it be easy to use, and can be used for a long time.

Designers should grasp the aesthetic feeling of the form of the product, the product should not only meet the requirements of the use of consumer functions but also have a better aesthetic feeling so that consumers can not let go.

The organic unity of functional function and aesthetic function is an important guarantee to prolong the product life cycle. Only practical and beautiful products can consumers not be tired of repeated use.

To make ceramic products achieve the purpose of long-term use, robustness is the basis of ceramic products, incomplete utensils are inconvenient to reuse, therefore, designers have to consider the details of the products. Besides, the designer can select the high-strength ceramic material as a material to guarantee the service life of the product. In summary, the cycle design of the product is a comprehensive design problem. The designer should consider the value of the design and development from its own attributes, and pay attention to the protection of resources, energy, and the design from the viewpoint of long-term development.

The "Zhengde Bowl", which is commonly used in our life, is the most representative product of daily ceramic design. From the Ming Dynasty Zhengde year to the hundreds of years, there is still a strong vitality in the formal aesthetic feeling of appearance modeling and the applicability of use.

2.6 A New Way of Life and the Design of Modern Ceramic Products

The rise of China's economy and the unprecedented prosperity of the social economy, the city construction and development of Beijing, Shanghai, Guangzhou, Shenzhen, and other metropolises in the recent 20 years have fully proved this.

With the deepening of urbanization and the improvement of people's living conditions, the way of life in modern society has also been greatly improved, which brings many business opportunities for modern design. A new way of life quietly enters our lives. It brings many opportunities for modern design, but also provides a large design stage for ceramic art designers.

2.6.1 Modern Family Flower Arrangement and Modern Ceramic Product Design

In recent years, new lifestyles abroad, such as family flower arrangement fashion, have been introduced into our country, and the international flower industry has gradually formed in our country and has become a sunrise industry. The life of a family flower arrangement not only marks the improvement of people's living standards but also marks the improvement of people's cultural quality. With the further development of our country's economy, this new way of life will have a greater potential for development. From the following points:

With the further expansion of the scale of

urbanization in our country, the urban population will further increase, and the new urban residents will become the follow-up group of the new life. Ceramic products will have a large market.

The construction of urbanization To make up for the shortage of man and nature, designers introduce a large number of natural plants into the living environment to embody the design concept of "humanization". This provides a larger design platform for ceramic products.

Modern family decoration results in the existence of harmful substances with formaldehyde and ethylene in the family and living space. A large number of green plants can absorb formaldehyde, ethylene, and carbon dioxide harmful substances in the family environment, which also provides the necessary conditions for modern ceramic products.

The popularity of flower arrangement will also bring different varieties and same-sex flowers. When grass is introduced into indoor and outdoor, different habits will drive the diversified design of modern ceramic products. The diversified construction pattern of the modern urban environment, different places, different environments, need different styles of modeling utensils to coordinate and unify the environment. The diversified design of the family is bound to bring great development to the design of modern ceramic products.

2.6.2 Dietetic Customs and Modern Ceramic Product Design

The relationship and importance between people and food are explained. With the improvement of living conditions, obesity, "three high" patients, and patients with diseases caused by lack of various nutrients have increased dramatically in China. The habit of eating in China has aroused the thinking of the medical profession, and the conscientiousness of diet has been gradually promoted to consciousness. The Chinese diet is indeed diverse and delicious in style, but the cooking process is not scientific. Most of the Chinese diet is fried at high temperature and slow cooking. Vegetables and fruits are fried with this kind of cooking. After cooking, the vitamins are destroyed in large quantities. The fried vegetables are in a deeper bowl, and all the vegetables become rotten yellow for a long time. The vitamins have been cooked twice. Damage, if you change the way you cook, if you change the loading of utensils, the expansion of these diseases will have a turnaround. At the same time, this lifestyle change also provides the design space for modern ceramic products.

According to the scientific dietary requirements, fruits and vegetables try to avoid the high-temperature stir-fry method. Because fried food contains a lot of free radicals, it increases the risk of cancer. At the same time, because of the high temperature, the nutrients in the food are destroyed. The method of boiling water and foaming (this method is more popular in Japan and South Korea, boiling water, putting it into vegetables, when vegetables and water boil for the second time, vegetable color become darker to remove vegetables, pack pot dishes, add seasoning) can protect vegetable vitamins from

damage. At the same time, if we try to avoid the use of deeper bowl utensils in the utensils of vegetables, we can solve the problem of excessive thickness and stacking of vegetables.

In modern life, we can also list more examples to clarify the phenomena of new life and provide more design materials for the design. The new way of life is developed with the development of society, it is not transferred by the will of people, it is closely related to our daily life. It is the soul of the modern designer how the designer can observe life with a keen eye and design a product that is suitable for the modern life custom according to the new life content.

3 Green Design of VR Technology-assisted Ceramic Products

Along with the continuous development of modern society, people's demand for ceramic products is gradually developing [12] in the direction of multi-variety and individuation. The traditional ceramic design is generally made by ceramic craftsmen after the mold through grouting, extrusion, and other methods of batch forming, so inevitably there will be the following two shortcomings: first, product modeling, color, and other elements are based on the artist's aesthetic taste, self-cultivation, so product characteristics are inevitably limited, it is difficult to achieve multi-variety and personalized. Second, it is impossible to establish communication channels with consumers, so it is difficult to flexibly adapt to the ever-changing market demand. Building a VR ceramic product display platform based on cyberspace becomes a necessity so that consumers can customize the personalized elements such as product modeling and color according to their own needs, and truly experience the fun of customizing products through interactive methods, which also makes ceramic design save manpower and material resources, and forms the concept of environmental protection.[13]

3.1. Construction of Cyberspace

The first is UI design, that is, user interface design, including its style, creativity, positioning, etc.; the second is website content design, including dynamic news, product information, contact information, etc.; again, the construction of VR product display platform; finally, the related design of cyberspace, which involves a database, asp scripting language and so on.

3.2 Interactivity of Human-computer Interface

The core of man-machine interface design of ceramic products is design analysis. Through the analysis of people's daily use behavior and consumption behavior, the problem solving scheme and performance evaluation prediction are worked out. Establish the positioning direction of ceramic products, thus providing concept and direction for the design process. In the process of design and analysis, it is actually the process of form creation in

the interactive platform of human-computer environment. In the analysis of human-computer environment, designers can conceive clear concepts and goals, and create ideas with the interaction of information.[14]

3.3 Application of Ceramic Product Display

In the aspect of ceramic product display, it is mainly to transmit ceramic product information to the audience, deepen people's cognition and understanding, and stimulate sales. Through novel and unique ceramic product display design to stimulate people's interest, with the help of modern information technology and multimedia means to transmit information. VR technology is based on the background of rapid development of hardware and network. With the ability of computer operation, VR technology is widely used in ceramic product display with its unique advantages. Compared with the previous single media display method, VR technology can display commodity information through text, picture, sound and animation in various media forms, break through the limitations of the plane, make the audience more in-depth and comprehensive understanding of commodity information, and establish a good interaction between goods and consumers. Effectively solve the problem of insufficient realism in ceramic product display. Merchants can use VR technology to display ceramic products in three-dimensional virtual display, consumers can make a comprehensive evaluation of ceramic products, on the basis of evaluation to decide whether to buy. At the same time, through VR technology, while strengthening the authenticity of commodity display, it can also reduce the cost of publicity.[15]

3.4 Effective Feedback of Design Information Using VR techniques

On the computer platform, various design information elements are simulated and analyzed by using virtual reality technology. Through the dialogue mode of object-machine environment, the information is effectively feedback and the scheme is established. To provide the necessary conditions for the next production of ceramic products. Therefore, on the one hand, the information should reflect the coordination and unification of ceramic products in structure, material, technology and so on, and express the internal scale requirements conveyed by the practical function of the design, that is, the proper effect of the combination of structure, material and technology of ceramic products. On the other hand, it should embody the typicalization of the formation of functional beauty. This process includes the selection, abstraction, generalization, integration and reconstruction of information, which is a regular extraction. In short, virtual reality settings the effectiveness of information feedback should reflect the characteristics of the purpose and compliance of ceramic products.

4 CONCLUSION

The world energy, the rational development and utilization of resources, and the strategic design idea of sustainable development, to the long-term and healthy development of human society in the future, since the seventies of the 20th century, people have begun to realize that the traditional design thought and mode of production, as well as the concept of excessive consumption, which consume a lot of natural resources, have made human beings pay a heavy price. The purpose of development is to create a better life, however, the economic prosperity caused by the industrial revolution comes at the expense of ecological destruction. It is the concrete expression of the thought of "green design" to consider the modern design problem from the long-term harmonious development train of thought of protecting human resources, energy, and protecting the human environment. The introduction of the concept of "green design" into the design of modern ceramic products is a powerful measure to avoid high energy consumption in ceramic industry production, a measure to solve the contradiction between the development of ceramic production and the protection of the ecological environment, and the necessity of the development of modern product design and ceramic product design.

Through the above review, the concept of "green design" in the design of modern ceramic products awareness, methods, and methods have a greater guiding role, but also practical. If modern ceramic product designers can follow this modern design concept for product design, it will play a positive role in the development of human beings and will promote the common prosperity of mankind.

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