

# Integration of ceramic joint doll and fashion play

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**Abstract:** Ceramic Art dolls have been very popular in Europe since the 19th century. Their unique ceramic materials, smart expressions and exquisite costumes can represent the owner's status. Trendy play is a kind of popular toy in recent years. Its popularity mainly benefits from the appearance design of trendy fashion and futuristic sense. Combine the classical flavor with modern fashion, and take this as the project theme for analysis and research.

**Key words:** ceramics; Joint doll; Tidal couple

## 1. The origin and development of ceramic dolls

### 1.1 Origin of ceramic doll

According to records, ceramic dolls with an overall height of about 10-15 cm have appeared in Corinth, Greece, while dolls with movable joints have appeared from the 4th century BC to the 3rd century BC. At present, the only known ceramic doll with the image of children was found in the villa site in eastern Pyrenees.

The real movable joint dolls we often talk about now are not all made of ceramics. Usually, only the limbs are made of ceramics. The hair is carved with some concave and convex texture on the ceramics and coated with glaze of various colors instead. In order to enhance the mobility and quality of the doll, the body part will be sewn with cloth and filled with other materials. The dolls made by this splitting process can achieve high quality and patience, so up to now, there are still many ceramic dolls made by this splitting material.

### 1.2 The technology of early ceramic doll

A set of six clay dolls found in East Pyrenees is similar to the technology of impression ceramics. The so-called image ceramic is fired after the grain is printed on the unfired ceramic embryo. In the 19th century, due to the limitations of materials and technology, there were few changes in the expression of dolls' faces. Such dolls were called baby face dolls. Until the early 20th century, more companies and manufacturers began to focus on the research of dolls with more infectious expressions and added more designs to the dolls' faces. These more realistic and detailed dolls had different expressions, It seems that they have different identities and are called character face dolls.

At that time, the popular ceramic dolls were mostly made of plain porcelain and white glazed porcelain. Among them, the porcelain dolls made of plain porcelain are usually not glazed, but a strong background color will be added in the production, and the English "Bisque" of plain porcelain also has the meaning of the term thick soup, so this kind of doll made of plain porcelain is called "thick soup Doll".

### 1.3 Representative antique ceramic doll

Bisque doll, French for *Poupee en biscuit*, is a popular doll between bourgeois ladies and daughters in Europe in the 19th century. The pottery doll equivalent to its predecessor was made in Germany in the mid-19th century. Ceramic dolls are made of ceramics, so they are often called China Dolls. There are representative antique ceramic dolls in every region. At the end of the 19th century, French plain porcelain dolls were in the ascendant because of their exquisite production. The French soup doll industry reached its peak, and a large number of high-end doll manufacturing companies mushroomed. Under the background of the development of the industrial revolution, the style of ceramic dolls changed, from a mature lady to a lovely doll with children's image.

In addition to French thick soup dolls, German antique thick soup dolls are an important branch of the large category of antique thick soup dolls. The most representative is small squint goodly, which originated in the early 20th century and represents the peak period of German thick soup dolls. JDK 221 is one of the most popular facial mask numbers in this series, The most recognizable thing is its feathered lower eight character eyebrow. Its face is as red as a mature apple, and its round eyes squint in one direction, revealing innocence or cheap and cute; At the same time, with the rapid expansion of industrialization, the pioneers of the advertising industry and the art world began to work together to seek innovation, which to a large extent promoted the new process of the development of ceramic dolls. At this time, the United States, with the help of art, made many achievements in commerce. The most representative works are tomato soup dolls and just me, which have a unique temperament, With a small cherry mouth and a calm expression, it reveals arrogance and loveliness. In addition to these two series of dolls, there is also a familiar doll called "buerjia". Am353 is one of the well-known small squint face masks produced by Armand Marseille. Its image is lovely, lively and bright, and its lovely appearance of tightly pursing its lips with laughter is unforgettable; In addition to the exquisite production of ceramic dolls in these European countries, there are also ceramic dolls in economically developed Russia and Japan. At the beginning of the 20th century, the author rose O'Neil, in cooperation with ceramic factories, independently developed a series of all ceramic cupids, which were introduced to Japan during the Showa period and in the middle of the 20th century and received a warm response, Japanese manufacturers have developed a series of chubbi toys based on celluloid and rubber according to local characteristics. The red or small shield on chubbi's belly is the most distinctive feature of chubbi. A few of them still retain the original silk clothing and original packaging cartons. There are also rare hand-painted shoes and all black versions. At that time, some doll exhibitions also ordered special large-size all ceramic versions with glass eyes. At the end of the 20th century, the Japanese antique ceramic music doll Sankyo Showa doll, whose body is made of ceramic and cloth, is plump and lifelike. Unlike the ceramics mentioned above, this ceramic doll can emit beautiful music sounds; Russia is more famous for the Enchanted Doll, which has unique charm and is covered with precious gems,

giving the doll noble temperament.

## 2. Development status of ceramic doll

The development of ceramic dolls has a history of nearly 200 years. The doll culture has a long history. It originated in Germany, but it should be rooted in the bottom. It appeared earlier in China, because in ancient China, ceramic materials were used in the production of dolls because they were easy to obtain. According to historical records, the earliest extant pottery doll sculpture in China was unearthed at the Neolithic site in the east of Houwaton, Sanjiazi Village, Donggou County, Liaoning Province. This may be the prototype of a pottery doll. It can be seen that ceramic dolls have developed for a long time, which has laid an important foundation for the development of modern ceramic dolls. With the rapid development of economy and technology in recent years, the demand for ceramic products in the global ceramic market is diversified and personalized. European and American countries pay more attention to the color, shape, safety and environmental protection of ceramic products; China focuses more on the design, cultural connotation and practical performance of ceramic products. With the restrictions of energy and raw materials, and the rising labor costs year by year, developed countries and regions are gradually transferring technology and production capacity to developing countries, and the world ceramic production center is gradually transferring to developing countries. Under the background of the world ceramic industry, ceramic dolls make market choices and inclinations.

The world ceramic market is high-grade, artistic, diversified and personalized. In recent years, in the international ceramic market, affected by the global economic environment, the demand growth has slowed down, but the demand growth of high-grade and high-quality ceramics is still increasing year by year. With the intensification of competition in the ceramic industry, artistic ceramic products with cultural heritage and artistic atmosphere have been transferred. Due to the differences of consumers' living standards, cultural background, artistic aesthetics and other aspects, the demand for products is not exactly the same, which leads to the production and sales of a single variety in the market is difficult to meet the needs of different consumers. In the future, a series of obvious changes will take place in the international ceramic market. Its main characteristics are good product quality, complete functions, multiple designs and colors, and novel shapes. That is, the product is developing towards diversification. At the same time, personalized products with collection, gift and other functions are more and more loved and welcomed by people, and have a large market space. Therefore, in addition to the doll design that meets the public's aesthetic and needs, the ceramic dolls after that also need private Gao Ding's works with a sense of design to meet people's different product needs.

With the development of economy, industrial technology has been maturing, and raw material costs, labor costs and transportation costs are on the rise as a whole. Some ceramic enterprises have started to upgrade production technology and equipment, adopt new and energy-saving automation equipment, and new processes and technologies to replace traditional production methods, so as to realize automatic process and intelligent operation control. It improves production efficiency, improves product quality, and reduces energy consumption and cost. It also means the emergence of designers who need ceramic dolls more.

## 3. Material characteristics of ceramics

Ceramics is the general name of pottery and porcelain. Pottery has appeared as early as the Neolithic age. Porcelain has high temperature resistance, mechanical properties, special electrical properties and excellent chemical resistance, whether as daily necessities or ornamental works from ancient to modern times. Ceramic materials can be roughly divided into two categories. The first category is ordinary ceramic materials. Ordinary ceramic materials have rich sources, low cost and mature technology. According to the performance characteristics and uses, they can be divided into daily-use ceramics, architectural ceramics, chemical ceramics, etc. The second kind is special ceramic material, which is mainly made of high-purity synthetic raw materials and formed and sintered by precision control process, and has some special properties. The first is structural ceramics, which mainly include alumina ceramics, silicon nitride ceramics, silicon carbide ceramics and hexagonal boron nitride ceramics. This kind of ceramics is mainly used to make structural parts. If it is used in ceramic dolls, structural ceramics can be used as a part of limb connection. Functional ceramics include dielectric ceramics, optical ceramics, magnetic ceramics and semiconductor ceramics. Functional ceramics are ceramic materials used in the electromagnetic field, such as the production of integrated circuit substrates, solar cells and so on. Finally, nano ceramics can be widely used when the raw materials and the finished grains reach the nanometer scale. To sum up, the advantages of ceramic materials are: high mechanical strength, good wear resistance, corrosion resistance, thermal stability, rich raw materials, low price, environmental protection and pollution-free products. But at the same time, there are still some unavoidable shortcomings of ceramics: brittleness, low impact resistance, brittleness, low post-processing ability, and the product is not easy to recycle.

## 4. The development of the combination of fashion play market and porcelain puppets

Trendy toys and trendy toys, originated from art toys, are a kind of toys with the concept of art, design, trend, painting, sculpture and other elements as the carrier. They are created by independent artists without fixed models and templates. They are the carrier of artists' understanding and perception of life. At present, they can be divided into hand-made models, blind box dolls, BJD toys. There are four categories of art toys.

In recent years, the development of trendy play has benefited from the vigorous development of secondary meta culture, with animation games as the theme and IP peripheral products, and its market scale is growing rapidly. Because of the different sub categories of trendy

toys, the development and evolution process of each sub category is also different. Since 2016, China Fashion toy company has started to use this form for the sales of its products. They cooperated with toy designers to create small dolls with both artistic and popular features, and expanded the consumption scene through shopping malls and online shopping, driving the popularity of trendy play in China. According to the 2020 white paper on the development of China's brand licensing industry issued by the China toy and Infant Products Association, in 2019, China's authorized IP mainly came from cartoon animation, art and culture, fashion and other types, of which cartoon animation accounted for 26% of the total number and became the largest IP source in the authorized market. From the perspective of the application scenarios of authorized IP, 17% of authorized businesses belong to the toy and entertainment industry, which shows the important impact of IP authorization on the toy (including trendy toys) industry.

In order to ensure flow production and revenue efficiency, in this fast-paced era, most toys are mainly made of PVC. A small number of movable spherical joint dolls made of ceramics, that is BJD dolls, are mostly made by private artists. Due to the small number of producers and the small number of finished products that can be screened through quality inspection, they are generally limited by high prices and difficult to mass produce. As a very special industry, the ceramic industry has a pivotal position in our history. This creation can make our products have their own cultural flavor and better inheritance and development.

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This paper is a research project on the teaching reform of colleges and universities in Jiangxi Province in 2022, “Research on the reform and development of digital media art major under the industrialization of the meta universe” (No.: jxjg-22-11-13);

Achievements of the National Undergraduate entrepreneurship training program of Jingdezhen Ceramic University in 2022.