

Sotheby's Institute of Art

Digital Commons @ SIA

---

MA Theses

Student Scholarship and Creative Work

---

2023

## The Study of Reciprocal Impact between Dehua and European Porcelain: An Analysis of the Influence on Porcelain Making Skills, Shapes, and Decoration Styles

Xuening Hu

Follow this and additional works at: [https://digitalcommons.sia.edu/stu\\_theses](https://digitalcommons.sia.edu/stu_theses)



Part of the [Asian Art and Architecture Commons](#), [Ceramic Arts Commons](#), and the [Other History of Art, Architecture, and Archaeology Commons](#)

---

The Study of Reciprocal Impact between Dehua and European Porcelain: An Analysis of the  
Influence on Porcelain Making Skills, Shapes, and Decoration Styles

by

Xuening Hu

A thesis submitted in conformity  
with the requirements for the  
Master's Degree in Art Business  
Sotheby's Institute of Art

2023

12,448 words

## **Abstract**

The present study investigates the reciprocal impact between the Dehua porcelain and European porcelain, and possible aesthetics in monochrome by exploring the history and significance of Dehua porcelain in relation to its connection with European porcelain. The article discusses the origins and evolution of Dehua porcelain, including its characteristics, kilns, and exportation to other parts of the world, particularly Europe. It also analyzes the influence of Dehua porcelain on the creation and development of European porcelain, from the Rouen, to Meissen, S.Cloud, and Chelsea company and Sèvres company porcelain. The article also examines the impact of European merchants on the westernization of Dehua porcelain, as well as the existence of universal aesthetics in monochrome. However, the study acknowledges possible limitations due to the lack of literature and access to data, which could affect the conclusions of the research.

## TABLE OF CONTENTS

Table of Contents .....	i
List of Illustrations .....	ii
Acknowledgement .....	iv
Introduction .....	1
1. History of Dehua Porcelain.....	3
What Makes Dehua a Good Porcelain Production Town? .....	3
History of Dehua Porcelain and Dehua Kilns .....	5
Different Dynasties Dehua Porcelain Characteristics .....	12
Dehua Figurines.....	21
2. Dehua Porcelain’s Influence on European Porcelain.....	28
Export of Dehua Porcelain .....	28
European Market of Dehua Porcelain In the 17-18 <sup>th</sup> Century .....	29
Development of Different European Porcelain Manufactures .....	32
Materials and Chemical Composition .....	35
3. European Porcelain’s Influence on Dehua Porcelain .....	37
Merchant Types .....	37
Shipwrecks with Dehua Porcelain.....	39
European Style Blanc de Chine .....	40
4. Monochromic Aesthetic Across China and the West.....	44
Conclusion:.....	46
Bibliography .....	47



## LIST OF ILLUSTRATIONS

- Fig. 1. Google Maps, Dehua Map, © Google Maps
- Fig. 2. 博雅旅游网,Wanpinglun Kiln, @博雅旅游网  
<http://www.bytravel.cn/landscape/57/wanpinglunguyaozhi.html>
- Fig. 3. Dehua, Qingbai Porcelain from the Northern Song Dynasty, c.a. 1000 – 1100, ©中国收藏网
- Fig.4. Dehua, Qingbai Porcelain from the Yuan Dynasty, c.a. 1280 – 1290,@Fujian Museum
- Fig.5. Dehua, Figure, c.a. 1610-1620, © British Museum
- Fig.6. Dehua, Cup from the Ming Dynasty, c.a. 1368-1644, @Fujian Museum
- Fig.7. Dehua, Dragon Teapot from the Ming Dynasty, c.a. 1368-1644, @Fujian Museum
- Fig.8. Dehua, Blue and White Bowl from the Qing Dynasty, c.a. 1769-1850, @Bangkok University
- Fig.9. Dehua, A Dehua Figure of a Seated Guanyin, c.a. Qing Dynasty (1644-1911), last public record @Christie's 2019
- Fig.10. Chaozong He, Guanyin Crossing the Sea, c.a. 1368 - 1644, @Quanzhou Overseas Communication History Museum
- Fig.11. Dehua, Vase, c.a. 1800, @Metropolitan Museum of Art
- Fig.12. Dehua, Guanyin, c.a. 1710-13, @Metropolitan Museum of Art
- Fig.13. Meissen Factory, Teapot, c.a. 1700-10, @Meissen Factory
- Fig.14. Meissen Factory, Buddhist Divinity, c.a. 1710-20, @Metropolitan Museum of Art
- Fig.15. Saint-Cloud Company, Candelabra, c.a. 1726-32, @last public record @ Sotheby's 2018
- Fig.16. Dehua, porcelain from Nanking Cargo, c.a. 1750-1752, last public record @ Christie's 1986
- Fig.17. Dehua, Figure, c.a. 1690, @Victoria and Albert Museum
- Fig.18. Dehua, Figure, c.a. 1700, @Victoria and Albert Museum
- Fig.19. Dehua, Figure, c.a. late 17<sup>th</sup> century-18<sup>th</sup> century, @Victoria and Albert Museum
- Fig.20. Dehua, Figure, c.a. early 18<sup>th</sup> Century, @Victoria and Albert Museum
- Fig.21. Dehua, Madonna and Child, c.a. 1690-1750, @British Museum
- Fig.22. Dehua, Madonna and Child, c.a. 19<sup>th</sup> century, @Victoria and Albert Museum

Fig.23. Dehua, Figure of a Dog, c.a. 1700-1750, @Victoria and Albert Museum

## **Acknowledgement**

Throughout the writing of this thesis I have received a great deal of support and assistance, who I would like to take the time to thank.

I would like to express my sincere gratitude to my advisor, Dr. Eric Wolf, for his guidance and support throughout the process of writing this thesis. His advice were invaluable in helping me navigate the complexities of this thesis.

I would also like to acknowledge the countless scholars whose work paved the way for this project and whose insights and ideas helped shape my thinking. Without their contributions, this thesis would not have been possible.

Finally, I would like to extend special thanks to my friends and family, particularly my friend, Siqi Lu, and my mother, Kangwei Fu, for their unwavering support and encouragement throughout my academic journey. Their love, patience, and understanding helped me to stay focused and motivated, even during the most challenging times.

## **Introduction**

Chinese porcelain has a long history. Dehua porcelain, produced in Dehua, Fujian Province, was one of most known porcelain to Europe. Dehua porcelain's relationship with Europe is inseparable. Trading between Dehua and Europe during the 17th and 18th centuries played a significant role in shaping the development of both Dehua and European porcelain's making skills, shapes and decoration styles, motivating the reciprocal impact between the two.

First, the history of Dehua porcelain, Dehua kilns and its characteristics are discussed. The porcelain was first made in the Shang and Zhou dynasties and peaked in the Ming and Qing Dynasties. Dehua porcelain has evolved from Qingbai (white with a blue-greenish tint), to pure white, and blue and white glazed. Dehua porcelain was exported to other parts of the world as early as the 13th century, yet it wasn't until the 17th century, the Dutch brought Dehua white porcelain to Europe and gained its world well-known name of "Blanc de Chine". The international significance has inspired the invention and development of European porcelain. An analysis is performed on how European porcelain was influenced by Dehua porcelain, including a comparison of the chemical composition between the two. The creation of the Meissen porcelain in Germany, S.Cloud porcelain and Chantilly porcelain in France were all inspired by Dehua porcelain. It was also in the same century, talented Dehua artists started creating figurines in pure white, which pushed Dehua porcelain to peak. In the history of

Chinese porcelain, Dehua figurine is the first porcelain figurine in monochrome color. The figures are mostly religious figures, e.g., Guanyin, Maitreya, Luoha and Tamm figures. Then an analysis is performed on how the European influenced the shape and

decoration style of Dehua porcelain. A discussion is explored on different types of merchants in the 17th - 18th century, who had substantial influence on the westernization of DeHua porcelain. Furthermore, the study also discusses the existence of universal aesthetics in monochrome.

There are possible limitations of the study due to the lack of literature and future discoveries of kiln ruins. Additionally, due to technological advancement, there are new discoveries on materials of Dehua porcelain and any Western porcelain can affect the conclusions of this study. Limited access to data can also affect this research. Due to the nature of this research topic, a significant amount of literature is in China and do not have an e-book, physical limitation of accessing these journals and books can be limitation of the study.

## **History of Dehua Porcelain**

### **What Makes Dehua a Good Porcelain Production Town?**

Dehua porcelain, famous to the western world as “Blanc de Chine”, has a long history tracing back to Shang Dynasty (c. 1600 BC– c. 1045 BC). It’s known to the world for its soft creamy white color and semi-glassy appearance. Similar to all other Chinese porcelain, Dehua porcelain is named after the location of the kilns. With an area of over 2000 square feet, Dehua is located among the Daiyun Mountains where is in the central part of Fujian Province, connecting with Xianyou and Yongtai in the east, Youxi County in the north, Datian County in the west, and Yongchun County in the south [Figure 1]. Dehua’s location, weather climate, and human activities have determined its success in becoming a porcelain manufacturing village.

Dehua's location and natural resources provided a strong foundation for its development into a center for porcelain manufacturing. Locating in the Daiyun mountains, where is mostly lower mountains, Dehua is interspersed with basins and valley terraces. The mountains contain large amounts of kaolin, which is the key materials for clay. Geological surveys have shown that the south, northwest and north of the county contain many kaolin resources. There are 103 known sites filled with fine quality of kaolin that can be easily extracted<sup>1</sup>.

Dehua’s climate is ideal for procuring firewood and other fuels required for firing porcelain because Dehua has a mid-subtropical marine monsoon climate with warm, and humid weather, creating lush greenery and high forest coverage. Additionally, Dehua is connected with waterways, thus people primarily use waterways to transport supplies, food and manufactures. This is critical to the development of the porcelain industry in the

<sup>1</sup> Chen, Jianzhong, Lihua Chen, and Lifang Chen. 2011. “Chapter 2: Taoci zhi lu” in *Zhongguo dehua ci shi*: 23. Shanghai: Shanghai jiao tong da xue chu ban she, 2011.

southern mountains as transport by using manpower and carrying through the mountains were timely and inconvenient. The distribution of water systems also played a crucial role because it not only provides water sources for porcelain making, hydraulic power to make porcelain clay but also facilitates the boating routes for transportation and porcelain sale.

Dehua was civilized over 1000 years ago. This land has a long history of human activities. For its weather climate and location being close to waterways, the population grew and the local economy began to thrive around the time of the Tang Dynasty. Prior to the Tang Zhenyuan period (785-805 AD), Dehua was part of Guiyi within Yongtai County. In the fourth year of Tang Changxing (933 AD), Dehua was officially established as a county. It was part of Quanzhou during the Song, Yuan, and Ming Dynasties, and was under the jurisdiction of Quanzhou Prefecture and Yongchun Prefecture in the Qing Dynasty. The booming of Quanzhou port late also established a foundation for Dehua porcelain industry to succeed.

Geographically, Dehua County, Fuzhou, and Quanzhou form a triangular shape on the map [Figure 1] with waterways running through and around the cities. Mingjiang, the largest river in the region, runs through Fuzhou and merges into the ocean. Fuzhou is the capital city of Fujian and locates less than 200 miles northeast of Dehua. Another river, Dazhang, is one of the main tributaries of the Mingjiang river, flowing in a southwesterly direction through Yongtai before making its way to Dehua. The upper reaches of Daizhang divide into two smaller streams, Chanxi and Yongxi, with the former reaching Dehua County and the latter originating from Daiyun Mountain. The confluence of these two streams occurs at Shuikou Town, creating a distribution center

for porcelain exports. Thus, Dehua's porcelain industry has continued to thrive due to its favorable geographical environment, abundant natural resources, and rich cultural history.

### **History of Dehua Porcelain and Dehua Kilns**

Over three thousand years ago, during the Shang and Zhou dynasties, hard pottery with printed patterns were found being produced in Dehua. The pottery is the predecessor of Dehua porcelain. Thus, the production of ceramics in Dehua has a long history tracing back to prehistoric times when people used clay to make pottery with primitive glaze. In 2007, archaeologists discovered a primitive celadon kiln site from the Western Zhou Dynasty in Jianshan, at the junction of Sanban Town and Yongchun County in the south of Dehua. Within thousands of square meters of the site, many printed light gray hard pottery were found scattering on the hillside. Fudan university analyzed the chemical composition of the specimens and noted the pottery has about 2% of iron and relatively high amount calcium ranging between 10% to over 20%<sup>2</sup>. Judging by the composition, the firing temperature at the time was over 2000 degree Fahrenheit. This is consistent with the firing temperature of celadon produced during the Shang and Zhou Dynasties in southern China. The specimens found were mostly utensils including pots, cups and bowls, etc. Simple decorations were also found on the utensils, such as circles, rope and string, checkered patterns. The patterns were engraved, stacked and stamped onto the pottery. On the edge of the mouth and shoulders of the utensils, traces of wheels and cutting are spotted indicating the technique of using wheels to form clay was already

<sup>2</sup> Chen, Zhongguo Dehua Ci Shi, 88



relatively well practiced. Next to the pottery specimens, remains of a kiln were discovered with burnt soil and ashes in it.

During the Tang and Five Dynasties, Silk Road reached its golden age where it extends through to the Mongolia in the North and Qinghai-Tibet in the South. It provided not only an opportunity for goods and culture to be exchanged between China, Central Asia, India, and Persia, but also a boost in economy. Yet due to the influence of Anshi Rebellion (755-762) and complicated political relations among the countries in the western regions, the Silk Road was blocked. The need overseas for goods made in China remains, thus stimulated the growing of Maritime Silk Roads. According to Ibn Khurradadhbih, a famous bureaucrat and geographer, Quanzhou became one of the four major Chinese ports at the time, where allowed Dehua porcelain to be exported easily<sup>3</sup>. There were many kilns from the Tang Dynasty found in Dehua. They are often small and uses stacked firing method to make porcelain, which makes the firing temperature low. Therefore, it is said pottery making and firing technique were still at a relatively elementary stage during the Tang Dynasty. Judging by the specimens, the porcelain is mostly yellow and brown with blue undertone. The same study done by Fudan University, the porcelain found consists of lower percentage of silicon, but higher percentage of iron and extremely high percentage of potassium.

After entering the Song Dynasty, Dehua Porcelain industry has made great progress and has continuously achieved remarkable results. As of 2016, 249 ancient Dehua kiln sites have been discovered, covering 68 villages in 17 cities and towns within

<sup>3</sup> Duturaeva, Dilnoza. "Between the Silk and Fur Roads: Qarakhanid Diplomacy and Trade." 6 York Research Database, January 1, 1970. <https://pure.york.ac.uk/portal/en/publications/between-the-silk-and-fur-roads-qarakhanid-diplomacy-and-trade>.

Dehua county<sup>4</sup>. Among them, there are 42 kiln sites from the Song and the Yuan Dynasties, 30 kiln sites from the Ming Dynasty, and 177 kiln sites from the Qing Dynasty. During the second year of Zhezong Yuanyou of the Northern Song Dynasty, the Shibo Division was established in Quanzhou to manage and reward overseas trade, which brought new opportunities for the development of Dehua's economy and greatly stimulated the rise of Dehua's porcelain industry. As a result, Dehua porcelain industry has become increasingly prosperous. Following the Song Dynasty, the Yuan Dynasty further encouraged the Maritime Silk Road which led to the maturity of Dehua Porcelain Industry. Marco Polo, a famous Italian merchant, explorer who travelled through Asia along the Maritime Silk Road during the Yuan Dynasty. He was amazed by the prosperity of Quanzhou port. He referred the port as the largest port in the world, and is the Alexander of the East<sup>5</sup>. A bustling hub of commerce, Quanzhou attracts a multitude of merchants, with goods piled high like mountains creating an unbelievable sight. Dehua County lies near Quanzhou port, where the primary trade is in porcelain cups, bowls, and plates. Marco Polo recorded that a single Venetian coin can buy eight Dehua porcelain cups.

Archaeological surveys have revealed that the Song and Yuan kiln sites are mainly located in the Chengguan section of Dehua County, with the Wanpinglun and Qudougong kiln sites being systematically excavated in 1976<sup>6</sup>. Both kiln sites are dragon kilns, also known as “climbing kilns”, is a traditional form of porcelain kiln mainly used in southern China. The kilns are often thin and long, and heavily rely on steep stairs to achieve high firing temperature. The Wanpinglun kiln site dated back to the Song

<sup>4</sup> Chen, Jianzhong, Wenchen Ye, and Zhonggan Lin. *Dehua Yao*. Nanchang, Jiangxi: Jiangxi Mei Shu Chu Ban She, 2016.

<sup>5</sup> Bram, Leon L. *Funk & Wagnalls New Encyclopedia*. New York: Funk & Wagnalls, 1996.

<sup>6</sup> Chen, *Dehua Yao*.

Dynasty. The kiln situates on a hill 3.1 miles towards the west of Chengguan and spans an excavated area of 940 square feet [Figure 2].. The Qudougong kiln site is from the Yuan Dynasty, which sits 0.5 miles east of Chengguan. The kiln situates atop a hill, and spans an excavated area of roughly 11000 square feet. From the kiln site, thousands of porcelain specimens, tools, and kiln furniture were unearthed, providing a comprehensive understanding of the Dehua kiln's production status during the Song and Yuan Dynasties.

From the types and quantities of porcelain unearthed from the Wanpinglun and Qudougong kiln, among the porcelain products of the Dehua kiln in the Song and Yuan Dynasties, Qingbai glazes are the most important, followed by white glazes. Qingbai glaze is between blue and white, but in a broad sense, it still belongs to the category of white porcelain. In addition, there are some blue-green, blue-gray, and caramel-colored glaze wares. The porcelain are all daily utensils. Judging from the discovered kiln remains, Dehua kilns in the Song and Yuan Dynasties had two forms: traditional dragon kiln and chambered dragon kiln. Dragon kiln can create fast air circulation and rapid heating and cooling, which makes the iron sesquioxide in Dehua white porcelain from the Song and Yuan dynasty present a light blue undertone. Dehua white glazed porcelain has maintained a firing temperature range between 2280°F and 2330°F across various dynasties. As soft porcelain, it should not be fired above 2400°F as excessive heat can cause deformity<sup>7</sup>. Therefore, the firing process is strictly and efficiently monitored. Chambered dragon kilns, developed from traditional dragon kilns, divided kilns into multiple chambers to enable better control by manipulating the kiln chamber's slope and openings to regulate airflow and temperature. The new form of kiln improved porcelain

<sup>7</sup> Ayers, John G., and Binling Yuan. *Blanc de Chine: Divine images in Porcelain*. New York: China Institute in America, 2002.

quality and increased quantity produced. Cambered dragon kiln eventually evolved into ascending kiln, which successfully produced milky white Dehua porcelain of Ming Dynasty.

The Dehua Kiln established itself as the center of porcelain production in Fujian during the Ming and Qing Dynasties, with remarkable achievements and prosperity. In the middle of the Ming Dynasty, the Dehua porcelain industry resurged, as noted in the "Bamin Tongzhi" of 1489, which recorded the production of white porcelain in Dehua County<sup>8</sup>. During this time, the kiln sites of the Ming Dynasty were found in Xunzhong, Sanban, and Liekeng townships. In the late Ming Dynasty, white porcelain production became the mainstream of the industry, known for its unique milky white glaze. The export of Ming Dehua porcelain to the West was prosperous. It was during the Ming dynasty, Dehua porcelain became extremely popular oversea, and known as Blanc de Chine in the West.

In the Qing Dynasty, Dehua porcelain was at its golden age, with kilns and workshops scattered throughout the county. Blue and white porcelain became the new mainstream of production, replacing white porcelain. The prosperous Kangxi, Yongzheng, and Qianlong periods of the Qing Dynasty frequently praised Dehua porcelain in poems written by scholars. It was during the early Qing dynasty, Dehua porcelain became more popular domestically. The county annals stated that the Dehua porcelain industry reached its peak during the Qianlong period. However, by the Qing Daoguang period, the industry gradually became less prosperous. In the late Qing Dynasty, China was a semi-colonial society after the Opium War, and the Dehua

<sup>8</sup> Huang, Zhongzhao. *Ba min Tong Zhi*. Fuzhou Shi: Fujian ren min chu ban she, 2006.

porcelain industry fell into a slump due to the invasion of Western imperialism and the political decay of the Qing Dynasty.

In the Ming Dynasty, the Dehua kiln underwent significant improvements from a chambered dragon kiln to an ascending kiln. The ascending kiln is comprising of 5 to 7 chambers<sup>9</sup>. The advantage of such structure is the temperature moves slowly and can be easily controlled by the potters. Typically, the chambers are built on a steep hill and are connected in sequence, with the latter chamber built slightly higher than the previous one. When the first chamber burns, flames flow from top to bottom of the kiln, passing through the ventilation holes and fire passages in the partition wall into the second chamber and proceeding sequentially through the subsequent ones. Eventually, the smoke is discharged from the kiln tail at the last chamber. Since the chambers are built on a staired-shape slope, and each kiln chamber has its own fire door and fire chamber, which makes it more suitable for flame direction and temperature control. Compared to the traditional chambered dragon kiln, the new kiln form saves more fuel, has higher firing temperature, increases porcelain quality and production amount<sup>10</sup>.

In the 1950s, the Dehua Limin Porcelain Factory, among other units, studied ascending kiln ruins and conducted experiments by replicating the ancient kilns<sup>11</sup>. These experiments revealed that such kilns were in step-like shapes ranging from three to nine levels, with a horizontal egg-shaped kiln chamber built at each level and fire paths between them. The antique kilns have a construction status with the first chamber's height

<sup>9</sup> Chen, Dehua Yao, 49.

<sup>10</sup> Chen, Dehua Yao, 60.

<sup>11</sup> Chen, Zhongguo Dehua Ci Shi, 52.

being 118 inches, the second chamber's height being 128 inches, the third chamber's height being 157 inches, and the fourth chamber's height being 196 inches. Each room has a "fire eye" on either side used for throwing loose firewood. The kiln could hold and burn 130 dan of porcelain at a time, with 8 skilled workers taking 7 days to install, 68 hours to burn, and consuming 570 dan of firewood. Even though the kiln can produce so much more porcelain, it was also incredibly expensive and labor-intensive compared to chambered dragon kilns.

In 2001, the Fujian Provincial Museum's archaeological team, together with Dehua County's cultural department, conducted scientific excavation of the white porcelain kiln site in Jiabei Mountain near Dehua<sup>12</sup>. The unearthed kiln remains reveal a long and inclined brick kiln, with kiln chambers divided into sections with fire-retaining walls between them. Compared to the chambered dragon kiln in the Yuan Dynasty, this kiln type has improved, yet not yet considered as ascending kiln. During the excavation of the kiln remains, the majority of the porcelain specimens were white porcelain with thin, light-transmitting white body colors.. The glaze colors included white, milky white (ivory white), and Qingbai. Most of the specimens had bright, moist glaze colors and included various shapes like bowls, plates, saucers, cups, washers, stoves, bottles, jars, spoons, lamps, boxes, inkstones, inkstone drops, holding pots, water injections, impressions, and porcelain sculptures. This archaeological discovery at Jiabei Mountain is a revision of the traditional view that white porcelain was only fired in ascending kilns from the Ming Dynasty. The improved chambered dragon kiln can also

<sup>12</sup>“网上展览 | 闽迹踪寻--福建考古成就展。” 网上展览 | 闽迹踪寻--福建考古成就展 - 展览公告 - 东南网. Accessed May 12, 2023. [http://museum.fjsen.com/2020-02/21/content\\_30182257.htm](http://museum.fjsen.com/2020-02/21/content_30182257.htm). 11

produce mature milky white glazed porcelain. Lastly, the white porcelain of the Ming Dynasty was dominated by milky white glaze, with some having a bluish tint, indicating the gradual improvement and development of ascending kilns.

During the Qing Dynasties, ascending kilns, chambered dragon kilns and traditional dragon kilns were all used to make blue and white porcelain. Among all kilns, dragon kilns were used the most. On average, it takes over 25 hours to fire a traditional dragon kiln<sup>13</sup>. The process starts off by ignite at the kiln head, ending with the fire at the kiln tail extinguished.

In summary, Dehua porcelain rose during the Song and Yuan dynasties, with Qingbai glazed wares as the mainstream, and became famous in the Ming Dynasty for creating milky-white glazed wares. In the Qing Dynasty, blue-and-white glazed wares were the mainstay and entered their heyday. Additionally, the structural form of the kiln has gone through the process from dragon kiln, chambered dragon kiln to class kiln.

### **Different Dynasties Dehua Porcelain Characteristics**

The distinctive Dehua celadon pieces from the Shang and Zhou Dynasties to the Tang Dynasty were unique reflection of the porcelain making techniques at the time. Rustic porcelain featuring soft pottery and uneven glaze were only to be found during this era. The porcelain are light green or green with cracks on the surface were usually caused by expansion of the clay during firing. Once the porcelain is out of the kiln, the temperature drop causes the clay shrinks and creating the cracks on the glaze. Glaze are also often not applied to the bottom of the porcelain and porcelain are often smaller, shorter bowls.

<sup>13</sup> Chen, Zhongguo Dehua Ci Shi, 60.

According to the statistical analysis of the discovered kiln sites and archaeological typology, Dehua porcelain in the Song and Yuan Dynasties can be classified into three periods, where the porcelain from each period share similar traits:

The first period being from the late Northern Song Dynasty to the early and mid Southern Song Dynasty, porcelain produced was mainly Qingbai (bluish-white) glazed [Figure 3], followed by white glazed ones. The pottery body has a fine texture that is thin and hard, featuring a white or off-white color. Since the glaze layer is very thin, it gives a crystal-clear and moist look, typically without cracks. The pure white glaze is usually stark white, while the Qingbai glaze appears to be blue-greenish white, with varying shades, ranging from light green to almost white. There were also rare cases that the porcelain from this period being somewhat gray or yellowish white, and the vessels were generally not glazed on the bottom, which reveals the pottery body. Most of the porcelain made during the period were boxes, followed by plates, bowls, washers, dishes, stoves, holding pots, bottles, etc. Boxes were typically molded, while other shapes were primarily made using wheels or a combination of wheels and molds<sup>14</sup>. Clear wheel rotation traces and splicing marks could usually be observed on the vessels. Engraving and stamping methods were used for decoration. Inscriptions such as twining flowers, curly grass, flowing clouds, grate lines, and grate dot patterns, and flower patterns include cabbage flowers, lotus flowers, lotus petals, peonies were mainly engraved on bowls and plates. Stamping were mostly used on the cover of the boxes, and the patterns include lotus, peony, chrysanthemum, daylilies, orchids, horse orchids, camellias, crabapple flowers, curly weeds, reeds, duckweed, reed geese, bees, swimming fish, etc. In addition, some jugs, bottles were also carved or molded with lotus petals,

<sup>14</sup> Chen, *Zhongguo Dehua Ci Shi*, 62.



chrysanthemum petals, curly grass, straight lines, and crossed lines. Porcelain made during this period were still rustic and only practical daily use wares were produced.

The second period was from late Southern Song Dynasty to early Yuan Dynasty. Porcelain made during this period were mostly blue-greyish glazed [Figure 4], followed by Qingbai glazed ones. There were also some blue-greenish and brown glazed porcelain. The pottery body during this period continued to exhibit the slightly rough characteristics as seen in earlier stages. Blue-greyish and blue-greenish glazes were created based on the Qingbai glaze, with slight variations in the composition of the glaze and kiln temperature leading to lighter colors compared to celadon from the Shang, Zhou, and the Tang Dynasty. Brown glaze was imitated by black glaze wares from the Jian kiln in the Song dynasty, but the glaze was thinner and it remained common for the glaze to not be applied to the bottom of vessels, adding to their rustic appearance.

In terms of shape, vessels during this period became more varied. Circle footed vessels became wider and shorter. Real-footed vessels, the bottom of the foot was cut inwardly, appeared which was a significant change from previous styles. Both molding and wheel making techniques were used during the forming process. During this period, decorative patterns were characterized by simplicity and a somewhat careless style<sup>15</sup>. Engraved or stamped patterns were similar as previous period; patterns often featured curly grass grate patterns, slender lotus flowers, and twining motifs.

The third period was from the mid Yuan Dynasty when Qingbai and white glaze wares were massively produced. During this period, improvements were made to the quality of the clay body, resulting in a white, delicate and hard material. The white glaze was likewise delicate with a warm tonality, with some even appearing milky

<sup>15</sup> Chen, Dehua Yao, 32.

white. This eventually became the Blanc de Chine known to the West during the Ming Dynasty. The Qingbai glaze was water-clear, with the thicker parts of the glaze presenting a light green hue and strong luster. Among the pieces unearthed from the Qudougong kiln, a kiln from the Yuan Dynasty, molds of various vessels have been found, on which negative patterns were engraved<sup>16</sup>. Varieties and quantities of ceramics were more abundant, with solid-footed piece replacing ring-footed became more popular. Porcelain pieces made during this period were more slender.

In terms of decoration, the main change was the extensive use of molding methods and more new complicated and exquisite patterns created. The slender lotus petal and scrolled grass patterns were the most popular patterns, with other motifs such as butterflies, flying phoenixes, chrysanthemum petals, and broken branches of peonies also started appearing more often. Some bowls and dishes were embossed with lotus, dragon, and chrysanthemum petals. Additionally, religious and thematic patterns such infants playing, lions playing with balls, money, longevity and blessing became popular.

During the Ming Dynasty, Dehua porcelain reached its golden age. Dehua white porcelain at the time were highly regarded for their quality and appearance. The pottery body was characterized as being delicate, soft-looking, yet firm and dense, with a crystal luster. The glaze was even, thin, and pure, closely attached on the pottery body to form a seamless seal. The color was warm, moist, transparent, smooth, and resembling jade looking. Popular colors of Dehua white porcelain during the period can be divided into three main categories: milky white, pure white, and white with hint of green. Milky white often had a yellow undertone, or pink undertone. The porcelain was referred as “ivory white” if the undertone was dark yellow, “cream white” if the undertone was light

<sup>16</sup> Site of Qudougong Dehua Kiln. Accessed May 12, 2023.  
[http://en.chinaculture.org/library/2008-02/15/content\\_33589.htm](http://en.chinaculture.org/library/2008-02/15/content_33589.htm).

yellow. On the other side, porcelain with pink undertone resembling the color of a baby's skin, affectionately known as "baby red" and is the most highly-valued color of Dehua white porcelain. Milky white glazes [Figure 5] were the most common of the three types and are often referred to as "Jianbai porcelain" in modern ceramics. In Ming and Qing ceramic writings, Dehua white porcelain is referred to collectively as "Baijian," representing Fujian white ("bai") porcelain.

Chemical formula was significantly changed to produce the white porcelain in the Ming Dynasty. Measurements indicate that the content of ferric oxide in Ming Dynasty Dehua white porcelain ranging from 0.18% to 0.35%, which was much lower than that of Qingbai porcelain in Song and Yuan Dynasties<sup>17</sup>. The glaze had less than 10% calcium oxide, and 6% or greater potassium oxide, which would increase the high-temperature viscosity of the glaze, thus increasing the evenness of the glaze and brightness. The percentage amount of potassium oxide in the pottery body and the glaze was the same during the Ming Dynasty, resulting the almost glass like transparency look of the porcelain. Despite being exceptionally thin, generally 0.1 mm to 0.2 mm, the translucent pottery body coupled with a thin layer of bright, white glaze create an overall appearance of translucent jade. Although thin, the glaze layer appears plump and moist to the naked eye. Additionally, the potters during the Ming Dynasty improved the composition of the clay as the ratio of the soft clay and hard clay were 7:3, so the clay was softer and more suitable for creating figure models<sup>18</sup>. Dehua white porcelain during the Ming Dynasty have two categories: sculpture figures and living utensils. Living utensils can be divided into three categories: shrine objects, eating utensils, stationery. Shrine objects were mainly used for display in temples, ancestral halls, or study.

<sup>17</sup> Ayers, *Blanc de Chine: Divine Images in Porcelain*, 40.

<sup>18</sup> Chen, *Dehua Yao*, 70.

Common vessels include furnaces, goblets, and bottles. Common vessels of eating utensils were holding pots, cups, teapots, bowls, plates, dishes, and spoons. Stationery were usually made with jade, metal, and stones in the previous Dynasties. During the Ming Dynasty, potters started to become creative and made porcelain stationery and shaping them like animals.

In terms of decoration, Dehua porcelain during the Ming Dynasty was more complicated and delicate. Mold printing, stacking and carving methods were utilized to create lively patterns on the vessels. Common thematic patterns were animals, including mythical animals, flowers and religious figures. Stacking method was a common method used during the Ming Dynasty, which was not utilized earlier. Potters used a brush, dipped in mud and drew patterns on the surface of the pottery. Decals was a similar decorating method as stacking, potters stuck-up a kneaded, or molded small objects on the surface of the pottery. After glazing and firing, the decals are relatively clear, while the stacking patterns are relatively vague. Therefore, potters at the time often stacked first and then pasting decals. This technique was commonly used for cups and pots. An example of the unique and innovative products of Dehua Kiln were Jue-shaped cups with patterns such as plum blossoms, which were popularly known as plum blossom cups. These cups combined the physical characteristics of bronze Jue and rhinoceros horn cups, and were improved upon and adorned with decorative designs. One such cup is featured in the Fujian Museum collection, with a large, oval, deep ring mouth and a round, multi-lobed cup body with stubby feet [Figure 6]. The cup is decorated with plum blossoms and fish and dragon patterns, with bent plum branches reaching in the air and rocks piled on either side of the lower part of the cup. One side is adorned with crouching tiger patterns,

and the other with deer patterns. Another similarly sized cup in the museum collection has an octagonal mouth, an oval ring foot at the bottom, and six upward protruding plum tree trunks to support the cup body. The decoration on both sides is minimalist yet elegant, featuring plum branches and blossoms. Larger patterns, such as figures and animals can also be stuck-up onto the pottery. As an example, a pot displayed at the Fujian Museum with a unique design featuring three dragons stacked on top of each other [Figure 7]. The pot has a straight body with a lid placed at the center of the top, a small dragon sitting on the lid, and another dragon on the left reaching out as the handle. The last dragon locates on the right side, climbs up the pot, and its mouth opens into the stream. The composition of the pot showcases a perfect combination of the stillness of the pot and the motion of the dragons, which makes it a great piece of art.

During the Ming Dynasty, Dehua figure models pushed the craftsmanship of Dehua porcelain to the peak. The majority of these figures embody Buddhist deities, including but not limited to Guanyin, Bodhidharma, Tathagata, Maitreya, and Arhat. Additionally, the sculptures also depict gods from folk beliefs, such as Guandi, Mazu, and Xuantian Emperor, as well as rarely other famous historical figures. The next section “Dehua Figure Models” of the chapter will cover the details on this topic.

Beyond taking experiments on creating figure models, Dehua porcelain’s decorations and shapes were also evolving with more Westernized ideas throughout the Ming Dynasty as the porcelain being exported and popular in the West. Chapter 3 will discuss in details on how Dehua white porcelain changed under Western influences.

The white porcelain dominated industry in Dehua until the end of the Ming dynasty, when its quality and production began to decline. According to Zhou

Lianggong's "Min Xia Ji," Dehua porcelain tea cups were exquisite and were filled with white slip, which would gradually turn green over time<sup>19</sup>. Dehua white porcelain lost its market also due to a taste change overseas as its primary market during the mid-Ming Dynasty was in Europe. During the early 16th century, the Portuguese started smuggling porcelain from Guangdong, Fujian, and Zhejiang, but eventually established legal sea trade and transported blue and white porcelain from Jingdezhen to Europe, which was highly favored for its unique decoration patterns. During the early 17th century, Dehua began producing blue and white porcelain to cater to the international market as the demand for white porcelain dwindled.

During the Qing dynasty, from the Shunzhi to Kangxi periods (1661-1683), the government implemented strict policies to sever connections between the mainland and Zheng Chenggong, severely damaging private maritime trade in Quanzhou that had been continuously developing since the mid-Ming dynasty. The strict policies led to a decline in the porcelain industry along the Quanzhou coast, forcing many artisans to move to the mainland to continue their work. During this period, Dehua porcelain experienced a new development opportunity due to its unique quality and influence in the overseas market. Skilled artisans flocked to Dehua, and capital investments flooded into the local porcelain industry, resulting in the emergence of many new porcelain kilns. During the Kangxi period, social stability and rapid foreign trade development led to the peak of Dehua kiln domestically. According to research, Dehua had 177 blue-and-white kiln sites in the Qing dynasty, which was the highest number of kiln sites in history. Almost all discovered kiln sites from the Qing dynasty produced blue-and-white porcelain [Figure 8], with an unprecedented scale and production volume. While influenced by Jingdezhen blue and

<sup>19</sup> “非遗里的闽人智慧: 千秋绝色中国白 薪火不息德化瓷 - 文化旅游 - 泉州台商投资区.” 19 非遗里的闽人智慧 | 千秋绝色中国白 薪火不息德化瓷 - 文化旅游 - 泉州台商投资区. Accessed May 12, 2023. [http://www.qztsnews.com/2022-07/13/content\\_1407942.htm](http://www.qztsnews.com/2022-07/13/content_1407942.htm).

white porcelain, Dehua gradually formed its own individual characteristics that were different from Jingdezhen's. Due to the migration of potters at the time, Dehua's blue-and-white porcelain eventually influenced blue-and-white porcelain production throughout the entire Fujian Province.

The glaze of Dehua blue and white porcelain during the Qing Dynasty was made of local materials with excellent soil quality. The iron oxide in the glaze was found low, but the percentage of potassium oxide was relatively high, resulting in unique “sticky rice” like look and milky white glaze that were difficult from other porcelain kilns, such as Jingde kilns. Daily utensils like bowls, plates, pots, cans, and vases dominated the shape of the porcelain. Most of the product designs were traditional and normative, with hand-painted decorative patterns being very free, showing rough brush strokes, and a simple taste of folk culture. In terms of the color, glaze thickening and blackening were common, giving rise to the unique "earthworm mud pattern". The porcelain was soft, and the carcass was often thicker to prevent deformation. The ring foot became shallower and more rounded than of the Ming Dynasty, showing the honest and simple characteristics.

The decorative designs found on Dehua blue and white porcelain were a significant reason why the porcelain were so popular. During the early Qing Dynasty, the pattern composition varied from densely packed to sparsely scattered, with the outlines first being sketched and then repainted for a layered effect. There were mainly three categories of decorating themes: landscapes, animals and plants, and figures. Landscape paintings were commonly found in large scroll formats on shallow, round vessels. The animal and plant patterns included mostly mythical animals such as dragons, phoenixes, and unicorns, and similar plants as the earlier dynasties. Figure paintings depicted

historical and mythical scenes, such as The White Snake Telling Stories and King Wen's Visit to the Sages, etc.

It was not till the Qianlong and Jiaqing years of the Qing Dynasty, Dehua blue and white porcelain reached its best quality. The decoration composition became noticeably more lively, with more vivid depictions. There was an increase in paintings depicting customs such as courtyard railings, trees, and rocks. In figure paintings, where depictions of characters based on novels or dramas became less common, and instead, there were more paintings of only one or two figures in a courtyard or landscape scene, such as intellectuals, scholars, women, musicians, and shepherds. There was also an increase in paintings depicting real-life social activities such as fishing, woodcutting, farming, and reading, as well as images of women, children, and the elderly sitting against natural scenery or houses. Such harmonious compositions that were either freely expressed or finely detailed, all convey a strong sense of life that led to its popularity in the market.

### **Dehua Figurines**

The figure models are the most unique creation of Dehua porcelain. The subjects of these models are mostly Buddhist or Daoist. It has dominated the interest of modern viewers and was largely meant for devotions in public or domestic shrines. Since Buddhism was introduced to China from India during the Han Dynasty, it gradually gained popularity across the country, thanks in part to the advocacy of the ruling class. As Dehua came under the jurisdiction of Quanzhou, more Buddhist temples were gradually built. Concurrently, folk beliefs in various gods were also widespread. This led



to the development of various forms of Buddhist-themed art, including murals, stone carvings, clay sculptures, wood carvings, and metal sculptures. As a result, Quanzhou earned the title of "Buddhist country in southern Fujian." In Duhua County, there were 55 temples during the Song Dynasty and 9 temples in the Ming Dynasty<sup>20</sup>. During the Jiajing period of the Ming Dynasty, the famous temples included 10 and 4 temples, respectively. For example, Daiyun Temple in Chishui Town was admired for its spiritual beauty by the monk Zhiliang during the Tang Dynasty. After his death, his disciples brought his body to Daiyun Mountain and enshrined a statue there. Similarly, Chengtian Temple in the city was where the monk Xingduan of the Five Dynasties cultivated himself. Villager Cheng Guozhi donated land to build the temple, which was later expanded with clay sculptures of Vajra and Shakyamuni Buddha, among others. Jinye Cave in Gai De Township was where two Taoists, Wu Jichuan and Xu Youshan, settled, and their statues were enshrined by the villagers after their death. The fertile soil of folk religious beliefs nurtured the art of carving religious figures, and Duhua produced a group of painting masters and sculpture masters. According to the "Duhua County Annals," Ji Tingsheng was a skilled calligrapher and painter of Buddha from the west gate during the Ming Dynasty. His works were highly valued for their majestic and dignified appearance of the great beings with exquisite shadows, resembling the compassion of the Samadhi. The energetic creation of various Buddhist art activities and the integration of various drawing techniques served as the foundation of the rise of Duhua porcelain figure model. Being entirely white, the color represents purity which making it a great choice for religious figures. Dehua potters use the white color to great

<sup>20</sup> Chen, Dehua Yao, 45-49.

effect, expertly sculpting every contour and curve to bring the figure to life. Chapter 4 further explores the possible association between the Roman sculptures and Dehua porcelain figure models, as well as the existence of universal aesthetics in monochrome color.

The most common subject in figure models is the Guanyin statue. Guanyin, also known as "Avalokitesvara", is a bodhisattva in Buddhism. Because of her belief in helping all sentient beings, regardless of their status, she is revered as the "Bodhisattva of Great Compassion". During the reign of Tang Emperor Li Shimin, the name was changed from "Guanshiyin" to "Guanyin" to avoid using the emperor's name. Initially depicted as male, her image gradually became female after the Yuan Dynasty. Her exquisite appearance and compassionate nature have made her one of the most influential deities in folk belief. Devotees believe that by reciting her name, she can instantly hear their voice and help them achieve liberation from suffering. As Guanyin is widely revered among the people, she has naturally become a popular subject for artistic creation. For example, the One-Leaf Guanyin [Figure 9] is depicted floating on a lotus flower, the Guanyin strolls on a cloud, the Life-prolonging Guanyin wears a precious crown with a Buddha image on top, and the Guanyin sits on a lotus leaf in the water with her hands hanging low. There are many other manifestations of her image, such as the Quan Yin with three eyes and eighteen arms, and the child-giving Guanyin holding a baby. These religious images have provided abundant creative materials for the art of porcelain carving in Dehua during the Ming Dynasty.

The production and forming process of the Ming Dynasty porcelain sculptures primarily involved mold-making with a small amount of hand-building. The process

began by making a mold. Potters referred to the blueprints or drawings of the relevant characters to design the samples, and to make a solid main body sample of a certain specification with clay. This sample was then broken down into components for de-molding purposes, typically into three sections: the head, body, and base, each cut into front and back pieces. The mold was then fired in a kiln. Clay was then pushed into the molds to make each body parts of the figure. After de-molding, the parts were adjusted, refined, and reattached to the body, with additional refinement, and decorative elements added to create a complete figure. Excess clay was removed from the parts with focus especially on refining the facial feature and hair. Water polishing was used throughout the refinement process with a soft, damp cloth rubbing the clay to make it easier to bond and sculpt. When the parts were joined, the joint areas were connected with a slurry of clay. Each body parts were assembled separately before being joined together into a whole. When the head was connected to the body, the bottom of the head was made into a solid cylindrical shape and inserted into the chest and neck opening of the body. The joint was filled with porcelain clay, leaving finger marks on the lower part and a vertical joint trace on the upper part of the inner wall of the body. After all parts being assembled, potters used metal or bamboo made knives to further fix the joints, facial features, hair and clothes wrinkles. "Lizi", a polishing tool, was then being used to finely push and scrape all the lines and smooth surfaces. Additional elements such as hands, feet, and decorative features floral designs, bead strings, or clouds were crafted by hand. These must be uniform in size, finely detailed, and realistic looking. After trimming and drying, the sculpture was coated evenly with glaze water, leaving the bottom surface unglazed. It

was then fired in a kiln, which may cause the surface of the base to become slightly rough with traces of oxidized erythema.

The figure models are usually hollow inside, with most Ming Dynasty figures having base, which were molded separately and then attached together. The bottom surface of the base is often oval, and when it was stuck to the body, potters usually added small holes for ventilation purpose. There were also rare cases that figure models were made without molds; Such kneaded figures were typically smaller and shorter than 10 cm in height. Kiln crack marks may appear on the thick base, back, and inner wall of the porcelain due to the expansion and contraction of the firing process after the work was glazed and fired.

During the Song and Yuan Dynasties, the Jingdezhen kilns were famous for their sitting Guanyin statues with underglaze blue or painted decoration, ranging from 20 to 30 centimeters in height, wearing a crown and adorned with jewelry on the chest, with a solemn and dignified appearance. In contrast, during the Ming Dynasty, the Dehua white porcelain sculpture of figures opened up a new world of porcelain art with more diverse subjects and meanings, and even more advanced techniques and craftsmanship.

The greatest potter of Dehua porcelain figure models is He Chaozong from the late Ming period. The scarcity of historical records about He Chaozong has led to difficulties in dating his works. P.J.Donnelly, a collector and specialist<sup>21</sup> in Dehua porcelain, speculates that He was a Kangxi potter and suggests that he worked between 1665 and 1695. However, the discovery of his name in the regional Quanzhou history published during the late Ming in 1612, by Professor Zeng Fan in 1995 offers some new

<sup>21</sup> Donnelly, P. J. *Blanc de Chine: The porcelain of Tehua in Fukein*. London: Faber and Faber, 1969.

insights<sup>22</sup>. According to Yuan Bingling, who conducted further research, the same gazetteer has a record of He Chaozong as a noted potter of porcelain figures who lived in the Ming period and came from Dehua. This is the first time that the true nature of his craft and the time in which he worked are established. However, his output is known only from a few of the hundreds of models stamped with his seals that we have reason to believe are genuine, as he has been hugely plagiarized.

The style of He Chaozong's output and the comparison of his models with the only known blanc-de-Chine figure with a dated inscription, the so-called Caishen, God of Wealth, in the British Museum, suggest that he worked towards the end of the late Ming period, i.e., in the late sixteenth to early seventeenth centuries. Some unmarked early models are relatively heavy and almost roughly constructed, which leads to speculation that He Chaozong's superiority in craftsmanship may be due to his natural ability or being further down the road of technical development<sup>23</sup>.

In the collection of the Quanzhou Overseas Communication History Museum, there is a standing statue of Guanyin Crossing the Sea by He [Figure 10]. The piece is 46 centimeters tall and 15 centimeters wide. The statue's body is fine and white, with a moist glaze that gives it a yellowish hue and a milky appearance. The hair is tied in a high bun with two layers, the top layer forming a spiral bun with a lingzhi-shaped hairpin attached horizontally at the center. A veil-like cloak drapes over the head and shoulders, connected to the garment's body. The face is slightly oval, with delicate features such as slightly closed eyes, a dainty nose, and cherry lips, giving it a dignified and beautiful look. The ears have perforations for ventilation and firing. The back is slightly curved

<sup>22</sup> “刺桐博物.” 泉州文史-泉州市政协.

with round shoulders and a slender body. The neck and upper chest are bare, with a lotus-shaped necklace adorning it. The wide and long robe is tied upwards into a floral crown shape at the bottom of the chest. The left side of the garment shows dense wrinkles and thicker glaze in a deep green color, exhibiting a strong transparent glass texture. The hem of the robe is rolled up and flipped to the right side, giving the impression of fluttering in the wind. The long skirt under the robe trails on the ground, with one foot standing on a treasure bottle. The lotus base is slightly hemispherical with an almost elliptical bottom surface, measuring 13 to 15 centimeters in diameter, and hollow inside with a 2-centimeter-wide edge at the bottom. The inner wall is semi-arc shaped, and the upper part converges into a round hole with a diameter of 3.2 centimeters. The base is fully glazed inside, with the bare clay exposed at the bottom. Visible joints can be seen on the back where the cloak drapes over the head and shoulders. The upper part of the waist is stamped with a square seal with the four characters "He Chaozong Seal" in seal script, with a side length of 1.5 centimeters.

## **Dehua Porcelain's influence on European Porcelain**

### **Export of Dehua Porcelain**

During the Qin and Han Dynasties, South China Sea shipping routes were established, enabling Chinese trade to expand. However, it wasn't until the Song and Yuan dynasties that China's trading sailboats, equipped with the nautical compass and advanced shipbuilding technology, gained control over the western Pacific Ocean and the Indian Ocean for centuries. The government recognized the potential of maritime trade and established shipping departments in Guangzhou, Mingzhou, and Quanzhou, among other cities. Quanzhou Port, located in southern Fujian, became a major trading port, earning a reputation as prosperous as that of Alexandria Port. Thanks to its close proximity to Quanzhou Port, the Dehua Porcelain Industry flourished and products porcelain to East Asia, Southeast Asia, Africa and eventually to Europe in the Ming Dynasty. Archaeological discoveries in Japan, the Philippines, Indonesia, and other countries have unearthed a plethora of Song and Yuan Dehua porcelains, such as sea bowls, military holders, powder boxes, and bottles, to name a few. The white lotus-petal bowl discovered at the Kilwa site on the coast of East Africa is identical to similar products from the Qudou Palace Kiln in the Yuan Dynasty, providing evidence that Dehua porcelain was imported to Africa.

In the Ming and Qing Dynasties, Western colonial powers, such as Portugal, Spain, Netherlands and England, explored new sea routes and expanded their territories into the East, leading to a boom in maritime trade. The lifting of the ban on trading with foreigners during the Longqing and Wanli periods brought merchants from different regions, creating a bustling trade where Chinese porcelain was exchanged for exotic

spices and perfumes, and profits were lucrative. The Ming Dynasty marked the peak of Dehua white porcelain production, with exquisite porcelain sculptures and household items finding their way to Europe and America. Archaeological expeditions in the 1980s unearthed Dehua porcelain artifacts in Jamaica, including white porcelain tea cups, Guanyin figurines, and lion insertions made in the 17th century<sup>23</sup>. These relics were carried by Spanish "Manila" galleons and represent the furthest reaches of Dehua porcelain exports. The Spanish colonized Manila in the Philippines in 1571, turning it into a hub for trade between China and Spain<sup>24</sup>.

### **European Market of Dehua Porcelain in 17-18<sup>th</sup> century**

When Dehua porcelain was exported to Europe in the 17<sup>th</sup> century, the Dutch were particularly fond of Dehua porcelain, and they established a monopoly on its trade in Europe. They introduced it to other countries, such as Germany, France, and Italy, where it quickly gained popularity among the elite and the middle class.

As the demand for exotic goods and luxury items grew in Europe, porcelain from China became highly appraised. Dehua porcelain's milky white color, translucency, and intricate designs made it particularly attractive to European buyers. The Portuguese were among the first Europeans to import Chinese porcelain, and they established trading posts in Quanzhou and other Chinese ports in the early 16th century. Dehua porcelain was among the items that they traded, and it quickly gained a reputation for its beauty and quality. The Dutch East India Company, or VOC, played a significant role in the

<sup>23, 24</sup> “刺桐博物.” 泉州文史-泉州市政协, 2018.

<http://www.qzxx.gov.cn/qzws/xgwx/201901/P020190122595391726271.pdf>.



porcelain trade, and it established a porcelain warehouse in Amsterdam in 1602<sup>25</sup>. Dehua porcelain was among the items that the VOC imported, and it quickly became popular among the Dutch elite.

Dehua porcelain was also highly prized in other European countries, including England, France, and Germany. In Germany, Dehua porcelain was highly sought-after by collectors, and it was often used to create elaborate table settings for wealthy households. The Meissen porcelain factory, which was established in the early 18th century, was heavily influenced by Chinese porcelain, and it produced many pieces that were modeled on Dehua designs. According to the collection records of the National Museum of Fine Arts in Dresden, Germany in 1721, there are more than 10,000 pieces of East Asian porcelain, a large number of which are Chinese blue and white porcelain, multicolored porcelain and Dehua porcelain, as well as Yixing purple sand wares from the Kangxi period. There are nearly 500 sets, of which almost half of the pieces is Dehua porcelain and makes the largest collections of Dehua porcelain outside of China<sup>26</sup>. Most of the Dehua porcelain collected here belongs to Blanc de Chine, which is divided into three parts: first, the complete set of porcelain figurines and various porcelain dolls, which are placed on small walls mixed with bacon as interior decorations; second, various porcelain bowls and butter saucers and other dishes, as well as salt shakers, children and spices; three, tea utensils, such as teapots, milk jugs, dregs basins and coffee cups. The existence of these small items shows that they were indeed used at the royal table. English merchants, in particular, were known to import large quantities of Dehua porcelain, which they sold at high prices to wealthy customers. In France, Dehua porcelain was highly valued during the reign of Louis XIV. The French king was an avid collector of

<sup>25, 26</sup> “刺桐博物.” 泉州文史-泉州市政协.

porcelain, and he established the Royal Porcelain Factory at Sèvres in 1756. Dehua porcelain was among the items that the factory produced, and it influenced the development of the rococo style that was popular in France at the time.

Despite its popularity, Dehua porcelain faced competition from other porcelain-producing regions in China, such as Jingdezhen and Guangzhou. Jingdezhen, in particular, was known for its blue and white porcelain, which became highly prized in Europe during the 17th century. However, Dehua porcelain's milky white color and intricate designs ensured that it remained a popular choice among European buyers. It was said that Blanc de Chine provided a contrast to the heavy interiors of European contemporaneous homes. A wide variety of small Dehua white figure models became particularly popular and were often displayed in the small closets attached to many ladies' private withdrawing rooms<sup>27</sup>. The porcelain's white color often stood out brightly against lacquered and mirror-backed shelving.

The overseas market for Dehua porcelain declined in the 18th century, due to various factors. First, there was an increasing demand for more colorful and ornate porcelain styles, which Dehua porcelain was not able to provide. European porcelain manufacturers such as Meissen and Sèvres were producing highly decorative and intricately designed pieces, which were more in line with the tastes of the time; Secondly, the market for porcelain was becoming increasingly competitive, with more countries producing their own porcelain and importing it from China. After America gained independence in 1784, it began trading with China. American agents in China took special orders from clients and brought the porcelain to Europe. Thus, Americans were able to cut out the profit of the local Chinese porcelain merchants, and disrupted the

<sup>27</sup> Donnelly, P. J. *Blanc de Chine: The porcelain of Tehua in Fukein*.

ecosystem of local Dehua porcelain industry at the time; Lastly, the decline of the Ming and Qing dynasties in China also had an impact on the production and export of Dehua porcelain. Political instability and economic turmoil in China led to a decrease in the quality and quantity of porcelain being produced, which in turn affected the demand for Dehua porcelain in Europe.

Europeans had a particular fondness for the following shapes of Dehua porcelain: Dehua white figure models, tea wares, vases, and animal sculptures. The figurines and animal sculptures were popular due to their intricate design and exquisite craftsmanship. Europeans often used the figurines as decorative objects and adore their delicacy. On the other hand, tea wares were incredibly popular for its craftsmanship and practicality. These items were often used in high society tea ceremonies and were considered a sign of wealth and refinement. Lastly, vases were often shaped tall and narrow, with decorations such as plants and animals. Within the collection of Metropolitan museum, a Dehua Blanc de Chine vase came from an Ireland collection dated back to the 18<sup>th</sup> century [Figure 11]. The vase is shaped in an elongated version of Chinese traditional meiping. It is decorated with plum blossoms, clouds and dragon around the neck and the body.

### **Development of Different European Porcelain Manufactures**

Dehua's porcelain had a profound influence on European porcelain industry. Europeans were fascinated by the porcelain's delicacy, yet incredibly high durability. France was the pioneer on attempting to make porcelain. Rouen porcelain, which was made in Rouen, France during 1673 to 1696, obtained a fifty-year royal patent to make porcelain. The factory mainly produced blue and white Chinese porcelain, with very little

white porcelain inspired by Dehua Porcelain. The French attempted to mimic the true Chinese hard-paste porcelain, yet failed to only produced soft-paste porcelain. It wasn't until a German alchemist Johann Friedrich Böttger (1682-1719), who successfully produced the first European hard-paste porcelain that looked just like Dehua Blanc de Chine. Under Emperor Augustus (1670-1733)'s order to make white, exquisite, yet durable porcelain, Böttger succeeded in formulating a stable porcelain clay recipe in 1708 after countless attempts<sup>28</sup>. He established the famous Meissen royal factory in 1710 and remained the dominant European porcelain factory until taken over by the French Sèvres factory. Böttger imitated Blanc de Chine by molding the original Chinese porcelain. He first would create a plaster mould of the sample porcelain and then apply the clay within the mold. Thus, the final product was often smaller than the original Dehua ware. In the collection of Metropolitan Museum of Art, a red-stoneware version of Guanyin made in between 1710-13 was a predecessor version of the later Meissen white porcelain [Figure 12]. Prior to successfully producing the hard-paste porcelain, Böttger were focused on making red-stoneware sculptures and wares. He used the same technique of creating a cast, or mould of the Chinese porcelain. All the Meissen moulds are currently stored at the mould archive in Germany<sup>29</sup>. Besides the Dehua figurines were imitated, Böttger also created many tea wares. He once imitated a Dehua teapot from the early 17<sup>th</sup> century, where the original teapot has three dragons on it. Böttger re-created the teapot with some twists [Figure 13]. The dragons were replace by lizards and lion to suit the preferences of the local market and to differentiate itself from the original porcelain piece. The Meissen Ceramics Factory produced many imitations of Dehua rhinoceros horn cups,

<sup>28, 29</sup> “Meissen Porcelain: History and Characteristics.” Bellamysworld, August 6, 2021. <https://bellamysworld.com/blog/meissen-porcelain-history-and-characteristics>.

usually decorated with plum branches. The shape of the Meissen large bowl is very different from that of Chinese porcelain, which shows that Meissen porcelain is gradually breaking away from the mechanical imitation of East Asian ceramics and is beginning to form its own style and pattern.

Early Meissen wares were only able to imitate appliqué patterns, such as plum branches on Dehua bowls and teapots. In addition to learning applique technology, Meissen porcelain also tried Linglong technology. They used the double-layer Linglong bowl in the royal collection as a sample. At that time, this exquisite hollow-out carving technique was too difficult for the ceramic artisans of Meissen. The few remaining utensils had numerous kiln cracks, and this attempt ended in failure.

In between 1710-20, Böttger expressed the cheerful Chinese statue of the big-bellied cloth bag monk in Western style [Figure 14]. Although the imitation is similar to the original, the imitation has a smaller belly and smiles unnaturally, even in a twisted smile. After Böttger's successful creation of hard-paste porcelain, the demand of Blanc de Chine rose to another level. British Chelsea company and French Saint-Cloud company invested huge sum of money in research to meet the market demand. The potters at Saint-Cloud company took the innovation to another level. They attempted to add precious metals to the design, such as gold and silver, to make the porcelain more valuable. A rare pair of silver-mounted two light candelabra from a private collection exhibited at the Sotheby's [Figure 15]. The candelabra shows mark of the factory from between 1726-1732. The piece is formed as white porcelain magot figure attached to a silver made base, and silver branches reaching up as candle holders. At this time, European porcelain factory was no longer a true reproduction of Dehua porcelain, but a

product mixing Western European local styles, and Chinese culture. Europeans grew a concrete manifestation of the wild, imaginative fantasy of ancient China.

In 1740, Vincennes porcelain factory was founded. The factory then moved to Sèvres in 1756, and renamed as Manufacture nationale de Sèvres (Sèvres factory)<sup>30</sup>. The porcelain factory mostly produced polychrome porcelain as the taste in Europe shifted. However, it was noted the factory created biscuit porcelain, which took large inspiration from Dehua porcelain. Biscuit porcelain is unglazed, white porcelain as final product that gives a matte appearance. The factory often made small figurines in biscuit. Often the figurines depicted classical mythology, allegorical figures, religious scenes, and portraits of prominent individuals. Popular motifs included animals, flowers, and pastoral scenes.

### **Material and Chemical Composition**

Dehua porcelain is primarily composed of kaolin, quartz, and feldspar. The recipe of Dehua porcelain has always remained a secret, until Jesuit Father Francois Xavier d'Entrecolles unveiled the key ingredients to European ceramicists. The key ingredients of Dehua porcelain is kaolin, a type of clay that was only to be found in certain regions of the world. The Meissen factory luckily was able to find the first European deposits of kaolin near Dresden, enabling them to produce hard-paste porcelain. Dehua porcelain contains very low levels of potassium, higher levels of calcium and silicon. The calcium oxide (CaO) and potassium oxide (K<sub>2</sub>O) in Dehua porcelain is typically around 5-6% each, aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) is around 20%, and silicon dioxide (SiO<sub>2</sub>) is about 70-75%. Calcium and silicon determine the hardness and fire resistance of porcelain<sup>31</sup>.

<sup>30</sup> “Sèvres Manufactory (the J. Paul Getty Museum Collection).” Getty. Accessed May 12, 2023. <https://www.getty.edu/art/collection/group/103KC9>. 35

<sup>31</sup> Chen, Dehua Yao, 30

Kaolin naturally contains incredibly high amount of the two chemicals, which made Dehua porcelain easily hard-paste porcelain. Meissen porcelain has similar amount of potassium oxide (K<sub>2</sub>O) as Dehua porcelain, due to the use of potash feldspar in its production. Potassium promotes the melting of the glaze, increase its fluidity, and make the glaze surface smoother, more transparent and more even, giving the porcelain a shinier look. On the other side, due to the scarcity of kaolin in Europe, the calcium oxide (CaO) and silicon dioxide (SiO<sub>2</sub>) in Meissen porcelain are 0.2% and 60% respectively, which are much lower compared to Dehua porcelain<sup>32</sup>. Additionally, Meissen porcelain has approximately 36% of aluminum oxide (Al<sub>2</sub>O<sub>3</sub>), which is slightly higher than that of Dehua porcelain. Aluminum plays an important role in increasing the hardness and fire resistance of porcelain. Due to its high melting point and hardness, aluminum can increase the durability and wear resistance of porcelain. Higher concentration of aluminum in Meissen somewhat makes up the lacking of calcium and silicon<sup>33</sup>. However, such difference still made European porcelain less durable than Dehua porcelain.

<sup>32</sup> Du Paquier porcelain: Artistic expression and technological mastery. A ... Accessed May 12, 2023. 36

[https://www.researchgate.net/publication/259978294\\_Du\\_Paquier\\_Porcelain\\_Artistic\\_Expression\\_and\\_Technological\\_Mastery\\_A\\_Scientific\\_Evaluation\\_of\\_the\\_Materials](https://www.researchgate.net/publication/259978294_Du_Paquier_Porcelain_Artistic_Expression_and_Technological_Mastery_A_Scientific_Evaluation_of_the_Materials).

<sup>33</sup> 5 mean oxide composition of Meissen porcelain objects 4. Accessed May 12, 2023.

[https://www.researchgate.net/figure/5-mean-oxide-composition-of-meissen-porcelain-objects-4\\_tb11\\_259978294](https://www.researchgate.net/figure/5-mean-oxide-composition-of-meissen-porcelain-objects-4_tb11_259978294).

## **European Porcelain's influence on Dehua Porcelain**

Europeans had large influence on Dehua porcelain. As Dehua porcelain became so popular in Europe during the Ming and Qing Dynasties, local Dehua porcelain merchants have identified the primary market being overseas. Thus, to better sell the products and cater the tastes of European clients, local potters started to incorporate foreign customs, motifs into the design of Blanc de Blanc. These porcelain were named Waixiao Ci, meaning porcelain for export only. This chapter explores how Europeans' tastes westernized the design of Dehua porcelain by exploring the motifs, shapes and decorations used for export only porcelain. Additionally, a discussion is illustrated for different types of porcelain merchants at the time as their impact on the westernization of Dehua porcelain was substantial.

## **Merchant Types**

There were three types of powerful merchants during the Ming and Qing Dynasties that played an essential role on exporting the Dehua porcelain: Maritime merchants, government official merchants and foreign merchants.

Maritime merchants were usually very wealthy, own their own boats. They often each cover a port at Quanzhou and overseas<sup>34</sup>. Since Dehua locates in the mountains, with inconvenient traffic conditions, it cost a fortune to deliver porcelain from the kilns to ports. The rich merchants were often not Dehua locals but merchants from other larger cities, such as Xiamen and Quanzhou. The merchants first took orders from clients, or

<sup>34</sup> Chen, *Zhongguo Dehua Ci Shi*, 209.



gathered market information regarding which styles of porcelain sell the best overseas. Then they travelled back to Quanzhou port and placed orders with Dehua potters. The merchants in advance leased out loans to the potters to produce the customized porcelain. After potters produced the porcelain, maritime merchants would hire smaller retail merchant to transport the large quantity of Blanc de Chine to Quanzhou port. The smaller retail merchants only trade porcelain domestically as they don't have the capital nor manpower to travel overseas. Additionally, maritime merchants often had good relationships with export governors, who ensures the merchants get export patents on time to meet the demand.

Government official merchants, who have inseparable connections with the imperials, were the most powerful merchants. There were members of the ruling class, which makes only a few of those at the time, yet they were powerful enough to affect the trading and export law. Part of their duties were to import the best quality porcelain for the imperials and export imperial's gift to overseas. Thus, they obtained special export patents that allowed them to export more smoothly and sometimes to ignore tax<sup>35</sup>. They commissioned the potters in the name of imperials to make the most exquisite porcelains and underpaid the potters, then sold the porcelain to overseas for very high price. Thus, these corrupted merchants became incredibly rich during the Yuan and Ming Dynasties due to the prosperity of the trade and popularity of the porcelain in the West.

Foreign merchants were often foreigners who travelled, and decided to settle in Quanzhou. Some even built families with local women<sup>36</sup>. Foreign merchants existed long prior to the Ming and Qing Dynasties, yet it wasn't until then, Dehua porcelain was taken to Europe. The Dutch merchants were the first to build trade relations with Dehua. They

<sup>35, 36</sup> Chen, *Zhongguo Dehua Ci Shi*, 210-211.

ordered various types of customized European style Blanc de Chine, which were mass-produced and exclusively sold in the Netherlands, and neighboring countries.

### **Shipwrecks with Dehua Porcelain**

Shipwrecks were discovered around the world carrying Dehua porcelain evidencing the export and the favorable styles of the porcelain. One of the largest discovery was the Tek Sing, which departed from Xiamen port and sank in the South China Sea in 1822, was discovered in May 1995<sup>37</sup>. The ship was found carrying over 350,000 pieces of porcelain that includes mostly Dehua blue and white, Blanc de Chine, and some other brown porcelain cups, plates, saucers, bowls, and figurines.

The Götheborg departed from China in 1745 and sank on its way back into Gothenburg harbor. The ship was owned by the Swedish East India Company, which was established in 1731, to trade in East Asia. The company successfully had a 15-year monopoly on trade with China. The ship has made three journeys to China and traded Swedish timber, tar, iron and copper for tea, porcelain and silk. In 1984, the shipwreck was discovered and over 140,000 pieces of porcelain were found. Among them, there were many Dehua traditional blue and white, and Blanc de Chine bowls, plates, cups and figurines<sup>38</sup>. There were also some Dehua porcelain with more rare decoration such as gilt gold and, mother of pearls.

The Geldermalsen, also known as the “Nanking Cargo”, a Dutch East Indiaman carrying tea, porcelain and gold sank in 1752 on its way to Batavia<sup>39</sup>. The ship was

<sup>37</sup> “Recovered Cultural Relics of Tek Sing Shipwreck on Show at China Maritime Museum.” 39 International Alliance of Museums of the Silk Road-. Accessed May 12, 2023. <http://www.musesilkroad.com/en/?c=news&a=view&id=274>.

<sup>38</sup> Johansson, Bengt. *The Golden Age of China Trade: Essays on the East India Companies' trade with China in the 18th century and the Swedish east indiaman götheborg*. Hong Kong: Standard Press, 1992.

<sup>39</sup> “Research and Excavations of the First East Indiaman Götheborg 1738-1745.” The Porcelain Cargo of the East Indiaman Gotheborg (1745). Accessed May 12, 2023. <https://gotheborg.com/project/porcelaincargo.shtml>.

discovered in 1985 and over 23000 pieces of porcelain were found, which 845 were Blanc de Chine, including cups, bowls, cases, figurines. Large amount of the discovery were auctioned at Christies in 2004.

### **European Style Blanc de Chine**

The strong demand and popularity of Dehua porcelain in Europe drove the innovation of the porcelain. Merchants requested the potters to make various customized Dehua porcelain with western elements targeting for European clients, and were for export only. The customized porcelain were often based on traditional Dehua porcelain shape, with modification on the decoration to better fit the taste of Europeans. The design often replaced the traditional Chinese motifs with Western ones. There were also attempts of porcelain recreating European metal utensils, including coffee cups, coffee pots, teapots, drinking wares, etc. In the 17<sup>th</sup> century, tea was first imported to Europe and quickly gained its popularity among the upper class for its fragrance and taste. With its increasing popularity, tea sets were in high demand. Dutch porcelain merchants saw the opportunity. Various delicate porcelain teas wares were imported and sold for high prices. Merchants travelled to Dehua with handful of European drinking utensils and asked Dehua potters to imitate and brought back large quantities of Dehua porcelain back to the West. In the cargo of the Nanking Cargo shipwreck in the 1752, a batch of Dehua blue and white porcelain imitating European metal utensils was found. There were porcelain saucers, sugar jars, tea cups, teapots, etc [Figure 16]. Dehua potters also reproduced the westernized wares produced by European porcelain factories<sup>40</sup>. For example, the teapot Böttger at Meissen factory re-created mentioned in the previous

<sup>40</sup> Koh, N K. "Nanking Cargo." Chinese Antique Ceramics (porcelains). Accessed May 12, 2023. <http://www.koh-antique.com/shipwreck/shipwreck2.html>.

chapter is a good example of westernized Dehua porcelain. In this case, Böttger changed the dragons to lizards and lions. Merchants brought the new teapot back to Dehua as it became very popular in the West. The merchants asked Dehua potters to reproduce the Böttger teapot and sold them overseas afterwards. The other westernized Dehua porcelain often fell into the following categories:

1. Porcelain depicts chivalrous themes. There were large quantities of such porcelain being made in Dehua for export purposes. The porcelains often depict riders on horseback with a three-cornered hat in western clothing. There are multiple such Dehua figurines in the Victoria and Albert Museum collection. One figurine, about 31cm in height, features a seated knight wearing a three-cornered hat, with a wig with wavy brim cascading down his shoulders, a high nose bridge, and large face features [Figure 17]. The rider, wearing traditional knight long coat and sash and neckerchief, turns to his right in the saddle and his outstretched right arm holds a sword-hilt. The figurine is said to be from the Qing Dynasty, ca. 1690. During the same period, the popularity of these sculptures among European Dutch merchants continued to grow, variation of the rides started to appear as merchants riding on horses, lions, unicorns, and other creatures with Chinese characteristics. Another figurine of 6.7cm tall is in the Victoria and Albert museum, featuring a European man riding a lion with the right arm holding against the chest [Figure 18]. The rider wears European dress and a three-cornered hat. The combination of Chinese and European elements created an interesting yet unique perspective of culture exchange.

2. Porcelain depicts upper class leisure activities. During the 17th century, the Dutch merchants in Dehua ordered figurines depicting scenes of European upper class daily

leisure activities, which became very popular. The grandeur of scenes depicts the rich entertainment lifestyles of European families, and they are now part of the collection in many European museums or private collections. In the collection of Victoria and Albert museum, there is a figurine group of a European musician and a young boy [Figure 19]. The musician sits on a stool with the left leg raising up on the right knee, playing an instrument. The boy standing next to the musician holds a bag in his left hand. Both figures dress in European dress and wear three-cornered hats. Another popular sculpture theme is Blanc de Chine depicts hunting scenes. The sculptures are often a group of figurines showing each rider, equipped with guns, sitting on a horse.

3. European family day to day scenes. The sculptures are often group figurines depicting the entire family in a rounded circle. Generally, the male master is on the left and the female master is on the right. There are also usually pets in the sculpture. For example, a group figurine at the Victoria and Albert museum named “Admiral Duff and Family” [Figure 20]. The sculpture shows an arrangement of four characters. The male master is on the left, wearing traditional European clothing, holds a cup in hand. A dog sits in front of the master. The female master stands next to male master with a monkey in front of her. Two children stand next to the parents. Such sculptures are often from the early 18th century, and are often based on Dutch genre paintings.

4. Porcelain depicts Christianity. During the Qing Dynasty, Dehua potters were asked by the merchants and Christian missionaries to make Western religious figurines. In the collection of British Museum, there is a DeHua figurine that depicts Madonna and child [Figure 21]. The female figure is standing on the head of a lion and holding a boy in arms. The figure is remodeled after the traditional Guanyin statue, who is often depicted

on lotus or cloud and holding a child, representing the goddess in charge of pregnancy. However, the two figures of this statue have European features and curly hair. Thus, this sculpture is identified as the Virgin Mary holding the baby Christ. Another piece from the Victoria and Albert museum is similar to the one at British museum [Figure 22]. This to conclude that there were great quantity of Christianity themed porcelain being exported to Europe and were incredibly appreciated for its delicacy and exquisite.

5. Dehua porcelain also produced small ornaments and toys that has western decorations. The porcelain sculptures are often small animals such as dogs, lions, and tigers, etc. Victoria and Albert museum has a small figure of dog porcelain sculpture in its collection [Figure 23]. The sculpture is from early 18th century and about 15cm tall. The porcelain is sculpted with great details showing the dog seated, mouth open and wears a collar with a small bell attached to it. Such lifelike miniatures were highly popular among upper class and royal families as toys and decoration for homes.

## Monochromic aesthetic across China and the West

Dehua porcelain is famous for its milky white color, often being connected with the sense of purity. Among all the shapes and wares, Dehua porcelain figurines produced during the Ming Dynasty were the most popular around the world. It is not only because the crafting and details, but also the color of it. The figurines that are considered for best quality are the ones of white color with a pink undertone. The pinkish white color almost depicts the color of human skin, where makes the figurine more lively. In Chinese culture, there is a long-standing tradition of valuing simplicity and minimalism. Additionally, the color white has a symbolic significance of being used during the period of mourning, and thus also associated with rebirth, purity and innocence<sup>41</sup>. The birth of Dehua figurines and its monochromic aesthetic possibly indicates a sense of purity and simplicity that align with Buddhism principles. The monochrome porcelain, with its exquisite glazes and shapes, also allows the fundamental sense of the material to shine without the need for additional decoration<sup>42</sup>. Last but not least, monochrome ceramics have a long history in China dating back to the Han Dynasty. Thus, it was a tradition for the potters to make monochromic porcelain.

On the other side, western historians have also explored the aesthetics of monochrome sculptures. Fehrenbach discusses the variety of tones and textures evident in so-called monochromatic stone<sup>43</sup>. He states that color was often associated with

<sup>41</sup> “Oriental Porcelain: China : Haywood, Maude : Free Download, Borrow, and Streaming.” 44 Internet Archive, June 1, 1890. <https://archive.org/details/jstor-25586084>.

<sup>42</sup> Suzanne G. Valenstein, “A Handbook of Chinese Ceramics - Metpublications - the Metropolitan Museum of Art.” A Handbook of Chinese Ceramics - MetPublications - The Metropolitan Museum of Art. Accessed May 12, 2023. [https://www.metmuseum.org/art/metpublications/A\\_Handbook\\_of\\_Chinese\\_Ceramics](https://www.metmuseum.org/art/metpublications/A_Handbook_of_Chinese_Ceramics).

<sup>43</sup> Fehrenbach, Frank. Coming alive: Some remarks on the rise of “monochrome” sculpture in the Renaissance, 2011. <https://www.journals.uchicago.edu/doi/abs/10.1086/sou.30.3.23208561>.

enlivenment in the early modern period as a popular motif. The separation of color and sculpture was experimented with by different artists throughout the Renaissance period. Early on, coloration is used foremost to create the monochrome look to imitate a precious material. Later, some artists argued monochrome sculpture tends to radiate a more mysterious life than polychromed ones. Time can affect the surface of a marble statue to radiate a softer, more skin like finish. The growing aesthetics of monochrome sculpture during the Renaissance is said to be an exploration of using “dead” material for live bodies.

The seemingly coincidence of the birth of white Dehua porcelain in China and fond of monochrome look of sculptures in the West could possibly suggest a universal monochromic aesthetic or if there were any possible cause and effect relationship between the two. Was the birth of Dehua porcelain led to the growing aesthetics of monochromic sculpture in the West, or vice versa? Further research should be conducted to examine such theory.



## **Conclusion**

In conclusion, the present study sheds light on the reciprocal impact between Dehua porcelain and European porcelain during the 17th and 18th centuries. The analysis shows the Dehua porcelain served as a source of inspiration for European porcelain, especially the invention and development of European hard-body porcelain. As the popularity of Dehua porcelain increase in Europe, the main market shifted to Europe. Dehua porcelain started to be westernized. European decoration styles' appearance on Dehua porcelain evidencing culture exchange.

Additionally, as a monochrome ceramic, Dehua porcelain figurines, especially those with a pinkish white color, were the most popular and valued during the Ming Dynasty due to their exquisite crafting and alignment with Chinese cultural values of simplicity and purity. On the other side, monochromatic sculptures was explored during the Renaissance period in the West. There is a possibility of a universal monochromic aesthetic, or a cause-and-effect relationship between the birth of Dehua porcelain and the growing aesthetics of monochromic sculpture in the West, but further research is needed to examine this theory.

## Bibliography

- 5 mean oxide composition of Meissen porcelain objects 4. Accessed May 12, 2023.  
[https://www.researchgate.net/figure/5-mean-oxide-composition-of-meissen-porcelain-objects-4\\_tb11\\_259978294](https://www.researchgate.net/figure/5-mean-oxide-composition-of-meissen-porcelain-objects-4_tb11_259978294).
- Ayers, John G., and Binling Yuan. *Blanc de Chine: Divine images in Porcelain*. New York: China Institute in America, 2002.
- Bram, Leon L. *Funk & Wagnalls New Encyclopedia*. New York: Funk & Wagnalls, 1996.
- Chen, Jianzhong, Lihua Chen, and Lifang Chen. *Zhongguo dehua ci shi*. Shanghai: Shanghai jiao tong da xue chu ban she, 2011.
- Chen, Jianzhong, Wenchen Ye, and Zhonggan Lin. *Dehua Yao*. Nanchang, Jiangxi: Jiangxi Mei Shu Chu Ban She, 2016.
- Donnelly, P. J. *Blanc de Chine: The porcelain of Tehua in Fukein*. London: Faber and Faber, 1969.
- Du Paquier porcelain: Artistic expression and technological mastery. A ... Accessed May 12, 2023.  
[https://www.researchgate.net/publication/259978294\\_Du\\_Paquier\\_Porcelain\\_Artistic\\_Expression\\_and\\_Technological\\_Mastery\\_A\\_Scientific\\_Evaluation\\_of\\_the\\_Materials](https://www.researchgate.net/publication/259978294_Du_Paquier_Porcelain_Artistic_Expression_and_Technological_Mastery_A_Scientific_Evaluation_of_the_Materials).
- Duturaeva, Dilnoza. "Between the Silk and Fur Roads: Qarakhanid Diplomacy and Trade." York Research Database, January 1, 1970.  
<https://pure.york.ac.uk/portal/en/publications/between-the-silk-and-fur-roads-qarakhanid-diplomacy-and-trade>.
- Fehrenbach, Frank. Coming alive: Some remarks on the rise of "monochrome" sculpture in the ..., 2011.  
<https://www.journals.uchicago.edu/doi/abs/10.1086/sou.30.3.23208561>.
- "A Handbook of Chinese Ceramics - Metpublications - the Metropolitan Museum of Art." A Handbook of Chinese Ceramics - MetPublications - The Metropolitan Museum of Art. Accessed May 12, 2023.  
[https://www.metmuseum.org/art/metpublications/A\\_Handbook\\_of\\_Chinese\\_Ceramics](https://www.metmuseum.org/art/metpublications/A_Handbook_of_Chinese_Ceramics).
- Huang, Zhongzhao. *Ba min Tong Zhi*. Fuzhou Shi: Fujian ren min chu ban she, 2006.

- Johansson, Bengt. *The Golden Age of China Trade: Essays on the East India Companies' trade with China in the 18th century and the Swedish east indiaman götheborg*. Hong Kong: Standard Press, 1992.
- Koh, N K. "Nanking Cargo." Chinese Antique Ceramics (porcelains). Accessed May 12, 2023. <http://www.koh-antique.com/shipwreck/shipwreck2.html>.
- "Meissen Porcelain: History and Characteristics." Bellamysworld, August 6, 2021. <https://bellamysworld.com/blog/meissen-porcelain-history-and-characteristics>.
- "Oriental Porcelain: China : Haywood, Maude : Free Download, Borrow, and Streaming." Internet Archive, June 1, 1890. <https://archive.org/details/jstor-25586084>.
- "Recovered Cultural Relics of Tek Sing Shipwreck on Show at China Maritime Museum." International Alliance of Museums of the Silk Road-. Accessed May 12, 2023. <http://www.musesilkroad.com/en/?c=news&a=view&id=274>.
- "Research and Excavations of the First East Indiaman Götheborg 1738-1745." The Porcelain Cargo of the East Indiaman Gotheborg (1745). Accessed May 12, 2023. <https://gotheborg.com/project/porcelaincargo.shtml>.
- Site of Qudougong Dehua Kiln. Accessed May 12, 2023. [http://en.chinaculture.org/library/2008-02/15/content\\_33589.htm](http://en.chinaculture.org/library/2008-02/15/content_33589.htm).
- "Sèvres Manufactory (the J. Paul Getty Museum Collection)." Getty. Accessed May 12, 2023. <https://www.getty.edu/art/collection/group/103KC9>.
- "刺桐博物." 泉州文史-泉州市政协, 2018. <http://www.qzxx.gov.cn/qzws/xgwx/201901/P020190122595391726271.pdf>.
- "网上展览 | 闽迹踪寻--福建考古成就展." 网上展览 | 闽迹踪寻--福建考古成就展 - 展览公告 - 东南网. Accessed May 12, 2023. [http://museum.fjsen.com/2020-02/21/content\\_30182257.htm](http://museum.fjsen.com/2020-02/21/content_30182257.htm).
- "非遗里的闽人智慧: 千秋绝色中国白 薪火不息德化瓷 - 文化旅游 - 泉州台商投资区." 非遗里的闽人智慧 | 千秋绝色中国白 薪火不息德化瓷 - 文化旅游 - 泉州台商投资区. Accessed May 12, 2023. [http://www.qztsnews.com/2022-07/13/content\\_1407942.htm](http://www.qztsnews.com/2022-07/13/content_1407942.htm).

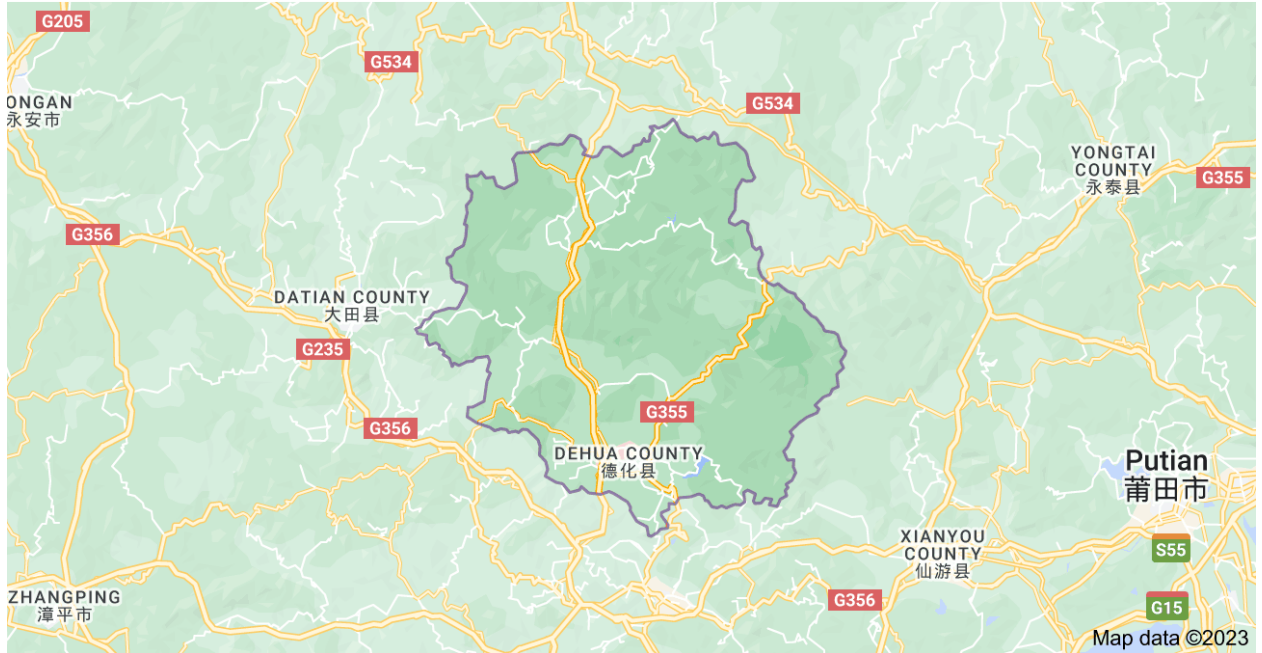


Fig. 1. Google Maps, Dehua Map; © Google Maps



Fig. 2. 博雅旅游网, Wanpinglun Kiln, @博雅旅游网  
<http://www.bytravel.cn/landscape/57/wanpinglunguyaozhi.html>



Fig. 3. Dehua, Qingbai Porcelain from the Northern Song Dynasty, c.a. 1000 – 1100, ©  
中国收藏网

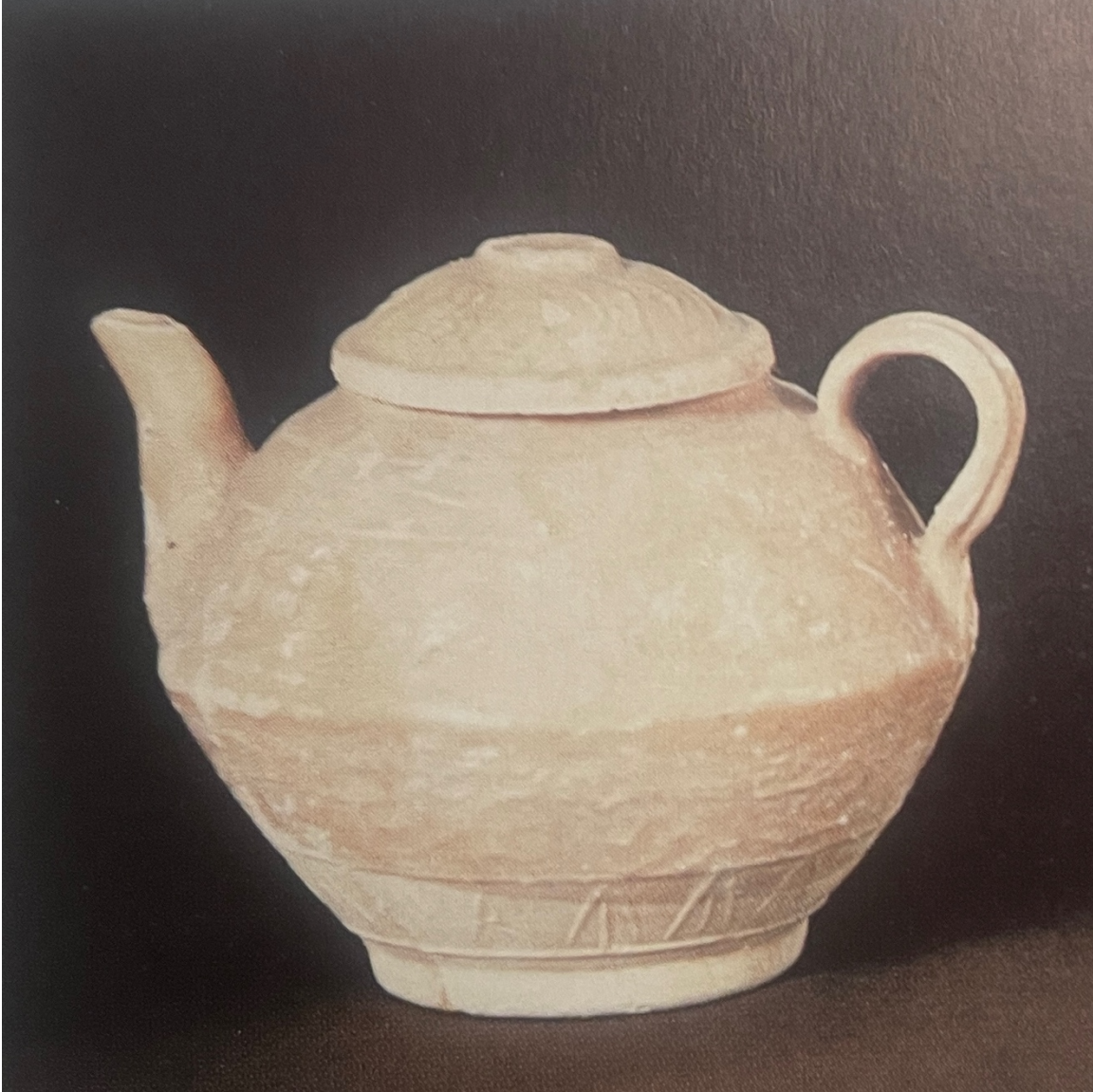


Fig.4. Dehua, Qingbai Porcelain from the Yuan Dynasty, c.a. 1280 – 1290, @Fujian Museum





Fig.5. Dehua, Figure, c.a. 1610-1620, © British Museum



Fig.6. Dehua, Cup from the Ming Dynasty, c.a. 1368-1644, @Fujian Museum





Fig.7. Dehua, Dragon Teapot from the Ming Dynasty, c.a. 1368-1644, @Fujian Museum



Fig.8. Dehua, Blue and White Bowl from the Qing Dynasty, c.a. 1769-1850, @Bangkok University



Fig.9. Dehua, A Dehua Figure of a Seated Guanyin, c.a. Qing Dynasty (1644-1911), last public record @Christie's 2019



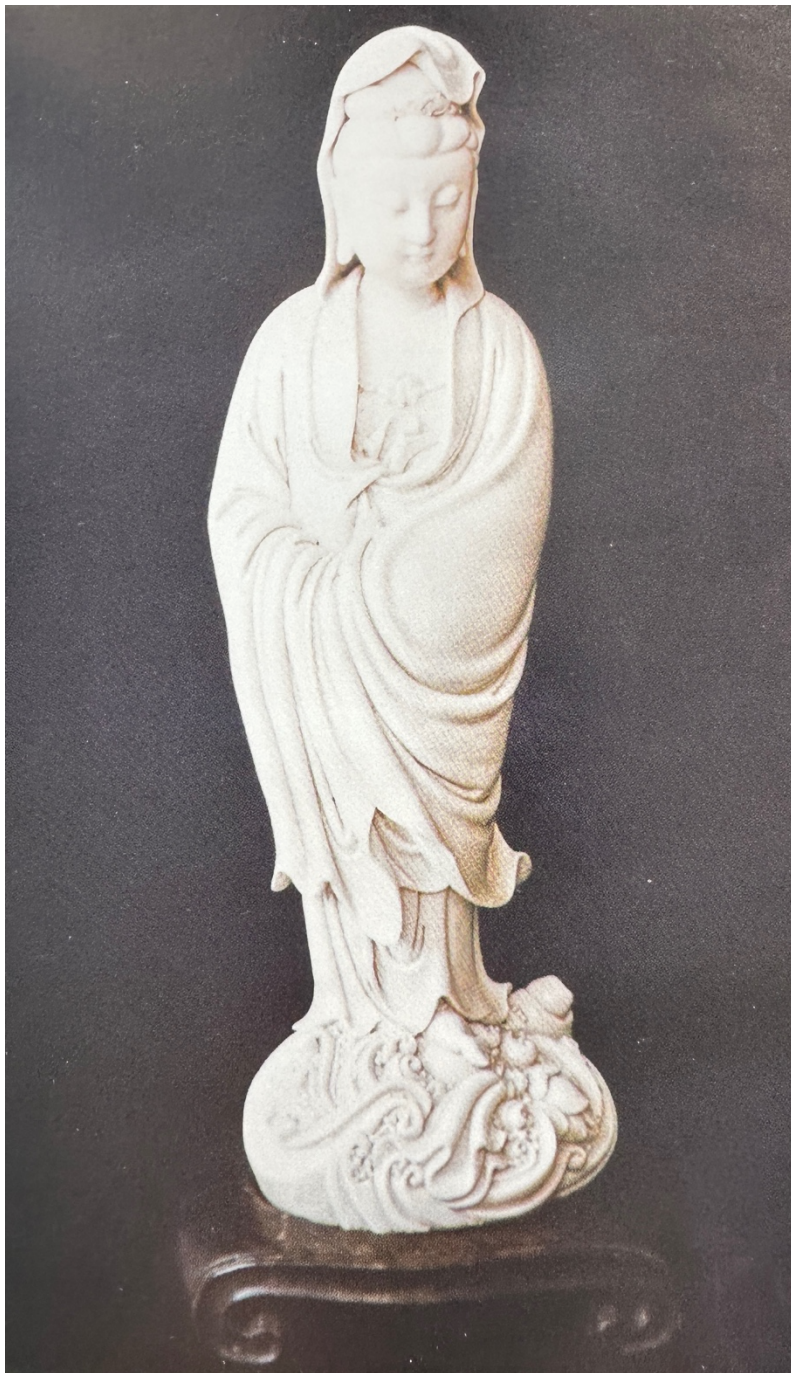


Fig.10. Chaozong He, Guanyin Crossing the Sea, c.a. 1368 - 1644, @Quanzhou Overseas Communication History Museum



Fig.11. Dehua, Vase, c.a. 1800, @Metropolitan Museum of Art



Fig.12. Dehua, Guanyin, c.a. 1710-13, @Metropolitan Museum of Art



Fig.13. Meissen Factory, Teapot, c.a. 1700-10, @Meissen Factory



Fig.14. Meissen Factory, Buddhist Divinity, c.a. 1710-20, @Metropolitan Museum of Art





Fig.15. Saint-Cloud Company, Candelabra, c.a. 1726-32, @last public record @ Sotheby's 2018



Fig.16. Dehua, porcelain from Nanking Cargo, c.a. 1750-1752, last public record @ Christie's 1986





Fig.17. Dehua, Figure, c.a. 1690, @Victoria and Albert Museum



Fig.18. Dehua, Figure, c.a. 1700, @Victoria and Albert Museum



Fig.19. Dehua, Figure, c.a. late 17<sup>th</sup> century-18<sup>th</sup> century, @Victoria and Albert Museum



Fig.20. Dehua, Figure, c.a. early 18<sup>th</sup> Century, @Victoria and Albert Museum



Fig.21. Dehua, Madonna and Child, c.a. 1690-1750, @British Museum



Fig.22. Dehua, Madonna and Child, c.a. 19<sup>th</sup> century, @Victoria and Albert Museum



Fig.23. Dehua, Figure of a Dog, c.a. 1700-1750, @Victoria and Albert Museum