

## *Original Paper*

# The Feedback Effect of the Geographic Distribution of Jewelry Consumption Markets at the End of the Silk Road (Europe, North Africa) on Upstream Origins during the Ming and Qing Dynasties

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### ***Abstract***

*The movements of the silk road trade during the Ming and Qing Dynasties was not simply a one way flow of goods from East to West, but a circular and recursive system wherein consumer demands from downstream markets fed back into upstream production systems. This paper studies the particular impact of the jewelry and luxury ornament consumption market in Europe and North Africa on the manufacturing centers of China from the 14th to 19th centuries. With the maritime trade routes overtaking land routes, “jewelry” went from barter and exchange of loose gemstones to a market of goods like filigree silver, Cantonese enamels, and mounted organic stones. The European market demanded more customization and specific adaptations due to the popularity of chinoiserie and the growing colonial wealth, Chinese workers had to change previous motifs and use technologies like painted enameled ones. Concurrently, the North African market, which was both consumers of specific beadwork and ornaments and suppliers of Mediterranean red coral, applied a different set of production standards that focused more so on religious or cultural use. This study uses historical trade data and material culture analysis to show that due to the geographic separation of these markets, Chinese production centers were forced into a specialization that led to a separation of export-style from domestic-style jewelry and ornamentation in Guangzhou (Canton). The findings show that the economic as well as aesthetic feedback from far-flung markets was mainly responsible for technological invention and the labor division in late imperial China’s luxury craft sector.*

**Keywords**

*Ming and Qing Dynasties, Silk Road Trade, Jewelry Consumption, Europe and North Africa, Production Feedback, Canton System, Material Culture*

**Introduction**

The historical story of the Silk Road has mostly centered on getting goods to go over long distances over Eurasia, with the latest research looking much more at the study of how people buy in faraway places—and how those wishes led to the way things were made where they came from. During the Ming (1368-1644) and Qing (1644-1911) eras, the interweaving of the world's maritime networks pushed China's manufacturing strength directly, continuously into touch with Europe, North Africa's consumption practices. While silk, tea, porcelain take center stage historically, the trade in what might be termed “jewellery”—personal adornments, precious metal work, gemstones, small bits of value-added ornamentation—gives another perspective to this feedback loop. Unlike with bulk commodities, jewelry and precious ornaments were culturally specific. This meant that Chinese artisans had to take into account the specific tastes of different geographically distant markets. This paper asserts that the spatial distribution of those terminal markets absorbed more than China's excesses, they actively reorganized what upstream was producing. They dictated the use of new materials as well as different design languages and the way the factories in cities like Guangzhōu, organized their workforce.

The range of the feedback will be based on the differences between the European and North Africa market. Europe during the time when it was going through the Renaissance and industrialization stage had a curiosity towards the exotic when encountering Chinese jewelry and luxury crafting items. They would request objects that were fit for the functional use they needed like fans, brooches, snuff boxes and so on but wanted them to retain their “Oriental” look. However, the North African littoral, while within the Islamic world, was also connected to the Mediterranean coral trade and followed an opposite trade route, exporting raw material to China but importing finished good, like prayer beads, amber, and some kind of silver ornaments (Yang, 2024). This paper will examine these different feedback loops of the Chinese upstream producers who were forced into this bifurcated market reality. By analyzing trade records, materials and the styles' evolution, we will show how the demand for “the end of the road” traveled back to reshaped workshop of the “beginning”.

**1. The North African Market: Raw Material Reciprocity and Cultural Adaptation**

While trading with the western markets including the Maghreb and the Ottomon controlled areas of the southern Mediterranean, the Chinese maintained a very different jewelry trade than they did with Europe, one based on material reciprocity of aesthetic preferences, as well as religious standards (Wu, 2018). A key vector of this relationship was the trade in Mediterranean red coral (*Corallium rubrum*)

(Wang & Jiang, 2025). This red coral was harvested off the coasts of North Africa and Italy, where it held great cultural and official significance for Ming and Qing China. Unlike European market, which primarily required the Chinese finished artistry, it was North African that became the source of supplies for feeding the Chinese upstream jewelry industry (Liu & Yang, 2023). But this was no one-way street; the exportation of coral to China resulted in a counterflow of finished Chinese goods adapted to North African taste. As per historical documents, when Chinese artisans understood what the Islamic buyers from North Africa would like they made certain types of prayer beads out of amber, mouthpieces from jade for smoking pipes, and jewelry out of silver which is geometric or floral because that was more Islamic art than pictures of people. This market gave feedback right away and in kind quantity: High-quality North African coral became available for the Qing to make it an official marker of the second rank among officials, binding the imperial court's demand to North African coral workers through an unwavering need.

In addition, the North African markets functioned as a filter for what kinds of “jewelry” were exported by the Chinese; these goods tended to be items of intrinsic value or religious utility rather than the more superficial European “curiosities.” North Africa's caravan routes which were connecting to the Red Sea and then connecting to the maritime networks of the Indian ocean made the way for Chinese semi-precious stones and imitation gems. Chinese glassmakers in Boshan and Guangzhou were making “Peking glass” beads designed to look like turquoise and lapis lazuli, precious stones highly valued in the Arab world, by the time of the Qing dynasty. This substitution is a reaction to the economic feedback from the markets that desired the aesthetic but rejected the cost of the prestige materials. When the North African consumer had his heart set on particular colors-especially dark red and blue—and particular forms, like spherical beads for tesbih (prayer rosaries), that shaped up the mold forms and the chemicals Chinese glass foundries used. This relationship implies a model of production where the physical properties of the output were set as a function of the cultural and religious requirements of the geographic terminus.

**Table 1. Comparative Typology of Jewelry and Luxury Ornament Exports to Terminal Markets (1700-1850)**

Feature	European Market	North African / Islamic Mediterranean Market
Primary Materials	Silver (Filigree), Mother-of-Pearl, Enamel on Copper, Ivory	Jade, Glass imitations, Amber, Imported Coral (re-worked)
Key Product Forms	Fans, Brooches, Bracelets, Snuff Boxes, Hair Ornaments	Prayer Beads (Tesbih), Pipe Mouthpieces, Signet Rings, Amulets
Design Aesthetic	“Chinoiserie” (Pagodas, Dragons, Landscapes), Rococo hybridity	Geometric patterns, Floral motifs, Calligraphic elements, Aniconic

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Functional Use	Fashion accessory, Curio display, Social signaling	Religious ritual, Personal adornment, Talismanic protection
Feedback Result	Adoption of painted enamel techniques; creation of “Export Silver”	Development of high-quality glass imitation gems; specific bead standardization

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## 2. The European Market: The Chinoiserie Craze and the Invention of Export Luxury

During the Ming and Qing dynasties there was strong demand for Chinese jewelry and precious ornaments in the European consumption market, this was fueled by a desire for the exotic. Therefore, it was necessary for China’s production methods to undergo a profound transformation in order to achieve a compromise between Eastern aesthetics and Western utility. European nobility class and the emerging bourgeoisie wanted to merge Chinese craftsmanship in their day-to-day fashion and interior design as the maritime trade grew in the 17th and 18th centuries. They didn’t want real Chinese jewelry—what was sold wasn’t sized for Europeans or made for European body types—but a new type of things. Chinese goldsmiths and silversmiths working in Canton began to receive the wooden model and metal prototype made in Europe which they needed to replicate, adapt or embellish in the manner suited to the taste of Chinese. This direct commissioning is the purest feedback from the market: the end consumer was designing the product for the manufacturer. And the result was “Chinese Export Silver” which featured heavy, heavy, very intricate repoussé, very dense Chinese kind of Chinese narrative being made and applied to these very distinctly Western forms like tea sets, card cases, very elaborate belt buckles. The upstream producers needed to master Western assay standards and forms while still preserving the “exotic” visual language that gave it market value.

Perhaps most important of them all in response to European demand was the creation of the painted enamels that Chinese referred to as “foreign colors” or yangcai (Yang, 2022). The technique of painting enamels on copper substrates was introduced to the Qing court by European missionaries and traders, it was quickly adopted by Guangdong workshops to meet Europeans’ love of colorful jewelry and accessories with images. Unlike the domestic Chinese market, which always favored the delicate and translucent jade, or the simple, bright and elegant high-fired ceramics, the European market always preferred vibrancy and realism in decoration. This feedback caused a break between the production line on the imperial workshops and the Canton private kilns, the latter started producing large quantities of cuff links, chatelaines and snuff boxes with rustic European scenes as Chinese border (Yang & Song, 2025). This is an example of how the geographic distribution of the market—which buyer was based in Paris, London, or Rome and thus influenced which chemical palette the artisans used on their objects. the power of the European market’s feedback loop was great enough to create an entirely new genre of Chinese art, produced in China but for all intents and purposes solely meant to be consumed by the outside world, as if it didn’t even exist in an internal Chinese space.

**Table 2. Estimated Export Volume Shifts of Key Ornamental Commodities at Canton (Selected Years)**

Year	Raw Textiles (Piculs)	Silk & (Pieces)	Porcelain (Pieces)	Gold & (Estimated Value in Taels)	Silver & (Estimated Value in Taels)	Wares	Ornamental Curios (Pieces)	Fans &
1700	500		150,000	2,000			5,000	
1750	3,200		800,000	15,000			40,000	
1780	5,500		1,200,000	45,000			120,000	
1820	8,000		2,500,000	110,000			350,000	
1840	9,500		1,800,000	180,000			500,000	

### 3. Upstream Transformation: The Canton System and Specialized Labor Division

The increased demand from Europe to North Africa required a spatial and organizational restructuring of production in China, which was most visible through the growth of the Canton System (1757-1842) as a funnel. Because Guangzhou was the single legal port for much of the Western trade then, feedback signals from the ends of the Silk Road was packed and focused onto a single location, this is how a hyper-specialised manufacturing zone was formed. What happened with the upper origin's consequence was that there was a flow of skilled manual labor from the middle countries to the coast (Yang, 2017). Artisans skilled at ivory carving, lacquer, silversmithing, and other skilled craftsmen moved from old centers such as Su Zhou and Nan Jing to Guangzhou to get closer to the "Hong" merchant families who held contracts with the European East India Companies. This was not mere demographic movement, but an organized movement of workshops in Canton which moved to adopt proto-industrial methods to satisfy the volume and velocity requirements of annual wind trade. For the jewelry and luxury ornament industry, this was the dismembering of craft into assembly line pieces, with some employees preparing the silver filigree wire and others hammering out the shape and different group mounting the stones or applying the enamel.

With centralization, a rapid response was possible to changes in fashion in Paris or in London - a loop of feedback about 18 months long (one round trip). If a shipment of fans with the pearl-shelled faces was popular in London, then the news of such a sellout would quickly find its way back to Canton for the next season and immediately result in a rapid increase in the production of pearls in the Pearl River Delta. And it would stop production for all those items that didn't sell. This responsiveness was restricted to the export sector (Liu, 2018). Domestic production, subject to slowly changing traditions and imperial edicts, stayed the same, but the export-oriented workshops at Canton were always changing. The feedback from the geographic location of its consumers pushed them to source from broader networks as well because since Europeans preferred mother-of-pearl and tortoise shell, Canton was setting up deep supply chains to Southeast Asia to meet this demand. Therefore, "the end" of the Silk Road in Europe determined the resource extraction pattern of "the middle" in Southeast Asia,

through the manufacturing center in China.

**Table 3. Inflow of Silver vs. Outflow of Luxury Goods – The Economic Feedback (1700-1830)**

Period	Annual Silver Inflow to China (Million Pesos)	Avg. Inflow to Silver	Major Origin of Silver	Primary Manufactured Offset (Goods)	Impact on Upstream Production Capitalization
1700-1750	3 - 5		Spanish America (via Manila/Europe)	Porcelain, Raw Silk	Moderate: Expansion of private kilns in Jingdezhen.
1750-1800	6 - 10		Spanish America (via UK/US traders)	Tea, Silk Fabrics, Lacquerware	High: Emergence of large-scale merchant banking to finance workshops.
1800-1830	10-15 (declining later)		Global Circulation	Tea, Silver, Enamels, Export Painted	Very High: Sophisticated credit systems allowing artisans to stockpile raw materials (precious metals).

#### 4. Economic Feedback: Silver Flows and the Capitalization of Craft

The greatest feedback mechanism from the European and North African market wasn't about styles, but silver itself—an inflow of vast amounts which became the bloodline of production of luxuries like in China. Silver mines in the Spanish Americas were distributed geographically, and this distribution was mediated by European trade networks (Guo & He, 2023). Hence, when the jewelry of the West was consumed, it was done so using a metal that formed the very bedrock of China's monetized system. This large amount of money made production areas upstream grow a lot. With silver available, it permitted workshop owners in Jiangnan and Guangdong to capital the workshops to an extent never before possible. They could buy raw materials—gold, jewels, ivory—in advance, hire much larger forces, and move from one to make as an order comes in (tailor, for example) to one with stock products on hand (hats). This was especially clear in the trades of jewelry and silversmithing. With silver becoming more easily accessible, albeit still slightly cheaper than other goods, silver jewelry's consumption domestically increased; however, the export was what maintained the high-quality craftsmanship (Tao, 2022).

economic feedback also encouraged people to make quality into something to be bought and sold. The European traders had tight profit margins, so they needed the commodities in consistent quality grades, but for "jewelry" and singular artworks, they were willing to pay more for novelty and complexity. And

thus, this price signal spurred upstream producers to innovate on labor-saving but visually-complicated ways. For example, in filigree, where the fine twisted wires of silver and gold were used, became a hallmark of exports because it produced a large visual presence for the gold yet kept the actual weight (thereby the material cost) less than a solid-cast piece. This was a direct adaptation to the European market's demand for impressive ornamentation at a reasonable price. In North Africa, the economic feedback loop was tied to the coral trade, with the Chinese valuing coral highly meaning that North African traders had the opportunity to secure for themselves significant leverage and in return for Chinese goods receive a high level of high utility durable goods. The balance of trade, therefore, prescribed the standards of quality control within the workshops: different "export grades" were set, and it was Canton Silver that eventually became a recognized standard for purity and workmanship within an international market; in short, it was the insistent assay demands from Western buyers.

**Table 4. Chronology of Stylistic Feedback and Production Adaptation**

Time Period	Dominant Market Influence	Market Feedback	Trend / Upstream (China)	Production Adaptation
Late Ming (1550-1644)	Portugal / N. Africa (Maritime & Land)	Curiosities, raw gems, religious beads.	Revival of blue-and-white motifs for export; increased bead production in Shandong.	
Early Qing (1644-1720)	Dutch / Early British	Porcelain as "white gold"; lacquer demand.	Improvement of white glazes; adaptation of Japanese lacquer styles to meet unmet demand.	
High Qing (1720-1790)	France / UK / Italy	Rococo fascination with color/enamel.	Invention of Yangcai (foreign colors); distinct "Canton Enamel" industry; asymmetry in design.	
Late Qing (1790-1860)	UK / USA / Global	Neoclassical mass production needs.	Standardization of "Export Silver" patterns (Bamboo, Dragon, Battle scenes); semi-industrial jewelry processing.	

## Conclusion

The exchanges in the jewelry consumption markets of Europe and North Africa with the upstream Ming and Qing Chinese producers make for an interesting economic history lesson in the old saw of "supply following demand." From the above evidence, it can be known that the "end" of the Silk Road had never passively received the Chinese goods as commodities. The contrary, it was the geographic and cultural specificity of these markets exercising strong feedback, thousands of miles upstream, and piercing through the workshops in Guangzhou, Jingdezhen, and Suzhou. This feedback was on many

layers: it was material, like the coral from North Africa; it was aesthetic, like the European desire for things Chinoiserie and painted enamel; it was organizational, like how it pushed expert labor to be centralized in port centers and silver work to be commodified.

The separation of Chinese luxury production into domestic export happened as a direct consequence of this feedback loop. By the nineteenth century, the Chinese jewel found on the salon table of some Parisian salonette or the North African souk was essentially different in its form, technical treatment and material from a jewel made for the use of a Beijing mandarin and yet was from the same large cultural pool. The Europeans wanted hybridization and North Africa wanted specific religious use, which made Chinese artisans into interpreters of foreign desires. So the geography of consumption was not a map merely of the places where the goods wound up; it told of the goods' development. The artisans of the Ming and Qing were not hermit craftsmen, but rather they took part in an international discourse on taste: the silver of the Americas, the coral of the Mediterranean, and the fashions of European courts all worked together to shape the form of Chinese production in durable new forms. The historical flow reveals the eternal fact that in overseas trade, the origin is carved by the destination.

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