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# A COMPARATIVE STUDY OF 17<sup>TH</sup> CENTURY MING AND WESTERN EUROPEAN CHAIRS

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## **Abstract**

Due to the difference which occurs in geographical position, national character and cultural background, China and the West, represented by Western European countries, have created different furniture cultures. In the 17<sup>th</sup> century China, Ming furniture marks the peak of Chinese furniture history. During the same century in the West, Baroque furniture represents in a significant manner a historic renewal in decoration and various techniques. In this paper, the comparative study of Ming and Baroque chairs was based on societal background, decoration, materials and structure. This analysis helps concluding that international trade provided important materials and even visible influences, and on the other hand the two furniture styles clearly reflect two very different kinds of culture.

*Keywords:* comparison, furniture, Ming, Baroque, chairs

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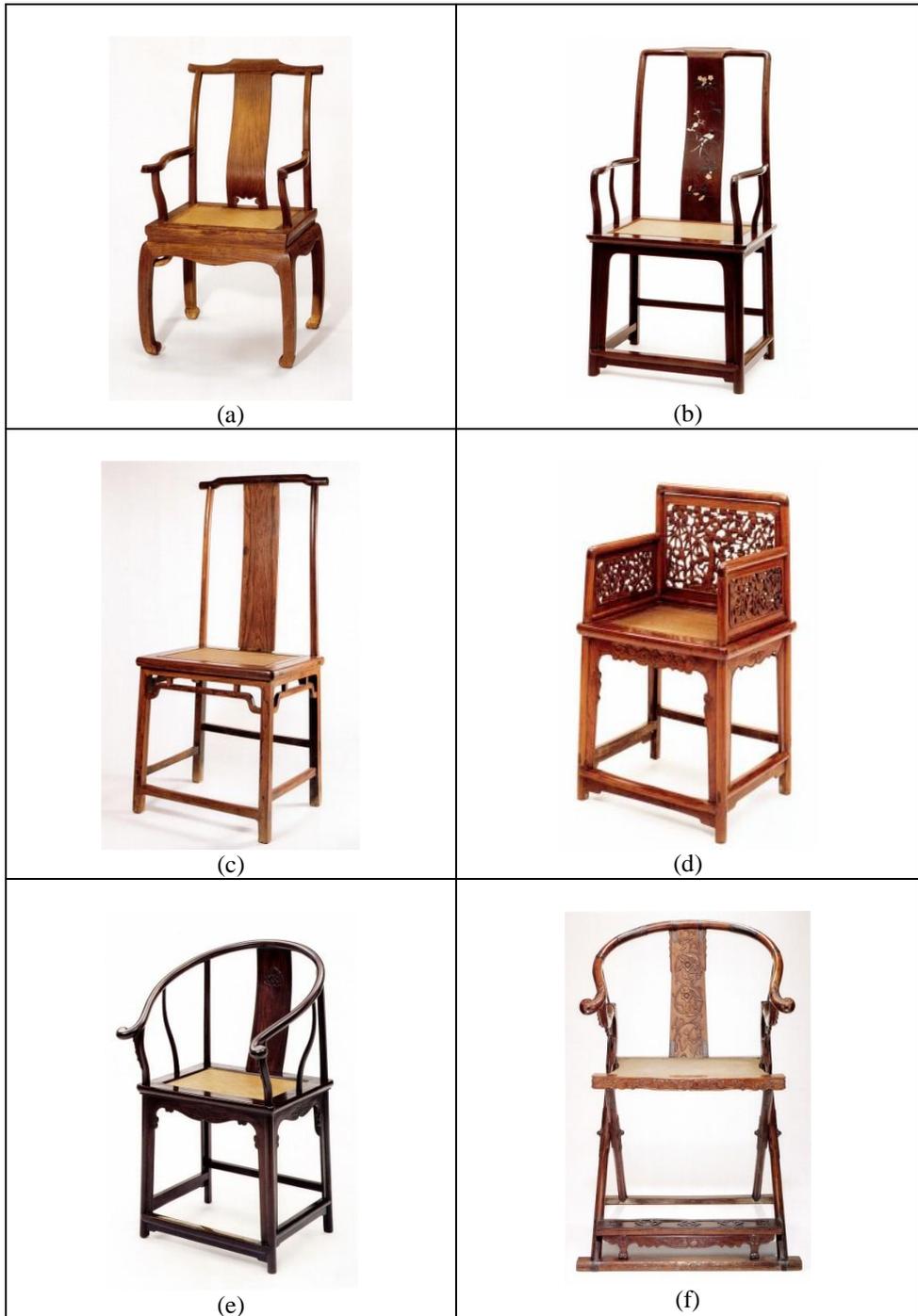
## **1. Introduction**

Furniture is necessary for human life and society, it is a substantial part of civilization; in the same way as the development of human society-history of furniture is visibly progressive. Furniture comes from life, and services for life; its changes and developments depend on the changes of the lifestyle and family patterns. It reflects people's culture, customs, and national traditions, with the blend of distinctive characteristics of the times.

In China, *Ming* furniture - with hardwood furniture produced in the Suzhou area as representative - exists between the middle-later period of the Ming dynasty and the *Yongzheng* and *Qianlong* (two emperors) period of the Qing dynasty from 16<sup>th</sup> century to the early 18<sup>th</sup> century. The *Ming* furniture, an important design and aesthetic phenomenon, is the peak of the development of Chinese furniture, with its consistent and outstanding style [1]. Economic development, social mobility, a sharp rise in the interest in aesthetics, and the skill of artisans refined over many generations, all intersected for a longer period in order to bring the evolution of furniture design to its full and radiant maturation [2].

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**Figure 1.** Some Ming chairs: (a) Official's hat chair, (b) Southern official's hat chair, (c) Lamphanger chair, (d) Rose chair, (e) Round-back chair and (f) Folding chair [2].

In the same historical period as China during the Ming and Qing Dynasties, in Europe **Baroque** furniture represents typical characteristics of the development and outstanding achievements in the historic evolution of furniture. The 17<sup>th</sup> century saw the Baroque style come into fashion, initially as a grandiloquent expression of the importance of Italian city states, which were gradually overtaken by a unified France [3].

The chair is a kind of common furniture; plays an important role in daily life. It is often a significant challenge for furniture designers and furniture makers. Chairs, having often a representational role in the interior, are to be seen as important vectors of style and manufacturing techniques. In this paper, a few **Ming** and **Baroque** chairs were chosen for study.

There are six main kinds of **Ming** chairs shown in Figure 1.

- Official's hat chair: is perhaps foremost amongst the various traditional **Ming** chair forms, exhibiting dignity and poise.
- Southern official's chair: is characterized by armrests and crest rails that turn down into the vertical posts. Chinese craftsmen term this right angle joint a 'pipe joint', which reflects a resemblance to a smoking pipe. Their use results in an overall smooth, fluid impression.
- Lamphanger chair: side chairs, or chairs without arms, appeared from the Song dynasty through the Qing dynasty with little change to the basic form. The term 'lamphanger chair' corresponds to the small chair-like oil-lamp racks that could be hung on a wall or placed on a table.
- Rose chair: is characterized by its relatively low height, small size, and angular construction with straight-member back and armrests. This chair's association with the ladies quarters is based primarily on the small size as well as the effeminate term 'rose chair'.
- Round-back chair: developed into one of the most graceful chair forms of traditional furniture. Its rounded backrest and smooth, downward sloping armrest are exceptionally comfortable for supporting the elbows and arms.
- Folding chair: was popularized during the Song dynasty, from which period both round-back and square-back examples are in evidence. The folding chair was also popular with the Qing emperors, who maintained some of the traditions of the nomadic Manchu tribesmen and enjoyed outings to the countryside.

**Baroque** originated in Italy, between the end of 16<sup>th</sup> century and early 17<sup>th</sup> century and spread into other countries of Western and Central Europe. Every country had its own national Baroque style [4, 5]. In the 1620s, the **Baroque** furniture was already seen in the Netherlands. Some of the most famous **Baroque** chairs were created for the French king Louis XIV and his courtiers; hence the French Baroque style is called Louis XIV, a style representing a powerful monarchy. The two significant components of the English Baroque are William & Mary and Queen Anne. These Baroque styles were very popular in England at that time [3, 6].

Figure 2 shows four important **Baroque** chairs.



**Figure 2.** Some Baroque chairs: (a) A Louis XIV armchair, carved and gilded walnut (1675); (b) William & Mary high back chair, beech wood (1700), [<http://www.furniturestyles.net/>]; (c) Dutch armchair, turned and carved oak wood, dark stained, cane seat and back d Queen Anne walnut side chair [<http://www.subkoffantiques.com/6936.html>].

- Louis XIV chairs were large, grand and comfortable, having usually upholstered backs and seats, covered with tapestry, brocade of large pattern, or ruby velvet enriched with gold galloon. During the first half of the reign of Louis XIV the legs of chairs were straight, and turned or carved in a squarish effect, like pedestals. Their wooden structure was often lavishly carved, with acanthus leaves, multiple scrolls, minute foliage, and it could be gilded.

- In the William and Mary period, many tall upholstered chairs without arms and with rectangular shaped backs that do not extend to the seat frame were popular. They were decorated mostly by turning and carving, sometimes coloured painting was applied on wood. They were luxurious furnishings intended to show wealth and status. The high back with an arched cresting was fashionable in the 1690s, and showed off luxurious fabrics well.
- In the 17<sup>th</sup> century the furniture craftsmen of England had learnt many valuable lessons from the influx of Dutch immigrant woodworkers and designers and this is seen most clearly in the development of the famous Queen Anne style of chairs. Queen Anne side and dining room chairs, made of walnut, had graceful backs, perhaps inspired by specific Ming designs, rounded top rails, and the arms set in a manner that made the whole chair design a harmony of curves, exquisitely simple but intrinsically elegant, satisfying with supreme skill the demands of both comfort and fashion [7].

## **2. Comparative aspects**

### ***2.1. Comparison based on a societal background***

#### ***2.1.1. China***

After the Yuan dynasty ruled by Mongolian emperors, during the Ming dynasty the economy and, subsequently, urban handicrafts were starting to recover and develop.

From the middle of the Ming period, with the development of landscape gardening and architecture, the furniture skills and techniques improved in a fast pace.

Some furniture technology books were written. ‘LU BAN JING’ is a book about woodworking, ‘XIU SHI LU’ deals with wood finishing techniques and ‘WAN WU ZHI’ describes a detailed classification of furniture [8].

Between 1405 and 1433 the famous Chinese admiral ZHENG HE and his crewmen had been seven times to South-East Asia, West Asia and Africa for trading. Hence they were able to import many valuable wood species for furniture making, such as ZITAN, HUANG HUA LI, JI CHI MU, HONG MU, NAN MU etc.

#### ***2.1.2. Western Europe***

The word ***Baroque*** originates in the Portuguese word *barroco* meaning ‘imperfect, irregular pearl’. Starting in Italy, at the end of late Renaissance and Mannerism, Baroque art and architecture are instruments of power of both the Catholic church renewal (the Counter Reformation) and the absolute monarchy in European countries like France, Spain, Great Britain, Germany, The Netherlands [9].

Ching describes Baroque architecture as “a style of architecture originating in Italy in the early 17<sup>th</sup> century and variously prevalent in Europe and the New World for a century and a half, characterized by free and sculptural use of the classical orders and ornament, dynamic opposition and interpenetration of spaces, and the dramatic combined effects of architecture, sculpture, painting, and the decorative arts” [10].

In contrast to the balanced, rational, and straight lines of Renaissance, we see dynamic, dramatic, flashy details, rich, sculptural and spectacular facades, abundant foliage decorations, dramatic colour contrasts [11].

The lacquering techniques, the art and techniques of inlay, marquetry and parquetry were introduced from the Far East and defined the rich and glamorous aspects of aristocratic residences.

## 2.2. Comparison of specific furniture decoration (chairs)

### 2.2.1. Colours

**Ming** chairs: transparent finishing, visible wood grain, natural colours of wood, use of wood stains and lacquer. The main colours are yellow, red, brown, but also dark purple or black. Sometimes the back was painted with another colour than the rest of the chair.

**Baroque** chairs: gilt wood or transparent finish of wood, upholstered with colourful and precious fabrics. Contrasts between the gilded wood and the upholstery fabrics coloured in red, black, dark blue and dark green revealed the luxurious, royal approach.

### 2.2.2. Engraving work

Engraving is an important decoration technique for both the **Ming** and the **Baroque**. It includes such techniques as full relief, relief sculpture, openwork carving and the combined method of relief sculpture and openwork carving [12]. For the Ming chairs we notice relief sculpture and openwork carving. The Baroque chairs show full and relief openwork carving. The typical carved ornaments are presented in Table 1.

## 2.3. Comparison of materials

### 2.3.1. Wood

The wooden materials for **Ming** chairs usually were some *hardwoods*, such as sandalwood (ZI TAN), yellow rosewood (HUANG HUA LI), rosewood (HONG MU), chicken-wing wood (JI CHI MU), ebony (WU MU), ironwood (TIE LI MU). Walnut (HE TAO MU), camphor wood (ZHANG MU) and bamboo were also used. However, the terminology for Chinese wood species can be confusing. Wang Shi Xiang divided the species of wood used for Chinese

traditional furniture into 2 groups: *hardwoods* and *softwood* [13]. In China, the term *hardwood* refers generally to tropical wood, whose density, hardness and imperviousness to boring insects qualify them as ‘hard’. The term *softwood* is given in contrast to the other miscellaneous woods, though most of the wood species used in furniture manufacturing are hardwoods according to the western botanical language [14]. For *Ming* chair seats pillows covered with silk or cotton fabrics were used, as well as woven cane. For the chairback marquetry, sometimes marble or semiprecious stones were used.

**Table 1.** The typical carved ornaments.

Category	Ming-style		Baroque	
	Pattern	Symbolism	Pattern	Significance and/or symbolism
Plants	Lotus Bamboo Pomegranate Peony	Purity and perfection longevity Fertility and numerous progeny King of flowers love and affection and feminine beauty	Acanthus leaves Acanthus scrolling Rosettes Lilies	Ancient Roman inspiration, from the imperial period
Animals	Magpie Dragon Duck Fish Peacock Phoenix	Blessing of happiness Power Conjugal fidelity Wealth and health Beauty and dignity Empress and beauty	Lion (head, leg, paw) Eagle Dolphin Shells	Symbol of power Symbol of power Symbol of monarchy Symbol of wealth
Personage	Buddhism	Blessing	Apollo Putti (little angels or children) Other elements of Roman mythology	Symbol of Louis XVI, the Sun-king Purity, innocence Royal and/or imperial power
Others	Chinese words auspicious clouds, geometric pattern	Blessing, good fortune, longevity, happiness	Geometric patterns from ancient Rome Scrolls and acanthus scrolls Turned elements Vase balusters – various shapes	From the Renaissance

The most frequently used wood species for the **Baroque** chairs were oak, walnut, chestnut, mahogany and ebony, with ornamental parts, usually inlays, made of rosewood, sandalwood, tulipwood. There was much gilding, marquetry and carving, with mounts and inlay of onyx, porphyry, lapis-lazuli, ormolu, brass, and coloured woods. Gobelins tapestry and Lyons velvet and brocade were the main covering materials for upholstery.

### 2.3.2. *Finishing materials*

The main **Ming** chairs' finishing was transparent. A thin clear lacquer coating was a common finishing for finely figured woods. There were three basic types of Chinese lacquer finishing: semi-transparent lacquer; opaque lacquer, and clear lacquer. Opaque lacquer sometimes was used for the back of chair as a background for painting. Tung oil was also used for **Ming** chairs finishing, mostly as a thinner for lacquer finishing. Wax finishing was usually used after another finishing. Beeswax or Chinese wax was applied melted and rubbed after curing to get shiny surfaces.

Trade with the Far East provided inspiration for lacquering and other finishing techniques of the Baroque chairs. The technique called Japanning describes the European imitation of Asian lacquerwork, originally used on furniture. The word originated in the 17<sup>th</sup> century. Japanning is known as the technique of applying black lacquer on wood surfaces, although red, green and blue pigmented lacquers were also used. The Western European lacquering craftspeople used varnishes with a resin base, shellac or similar to shellac, applied in heat-dried layers which were carefully polished for a glossy finish. The art of japanning developed in 17<sup>th</sup> century Britain, France, Italy, and the Low Countries [<http://en.wikipedia.org/wiki/Japanning>]. Vernis Martin, a lustrous lacquer substitute was widely used from the beginning of the 18<sup>th</sup> century to decorate furniture. Louis XIV furniture was often enriched with lavish gilded bronze decorations. Linseed oil and bee wax were also used for Baroque furniture at that time.

### 2.4. *Comparison of the wooden structure*

The structure of two representative chairs for **Ming** and **Baroque** are shown in Figure 3. By comparative analysis, some of their characteristics can be summarized as follows:

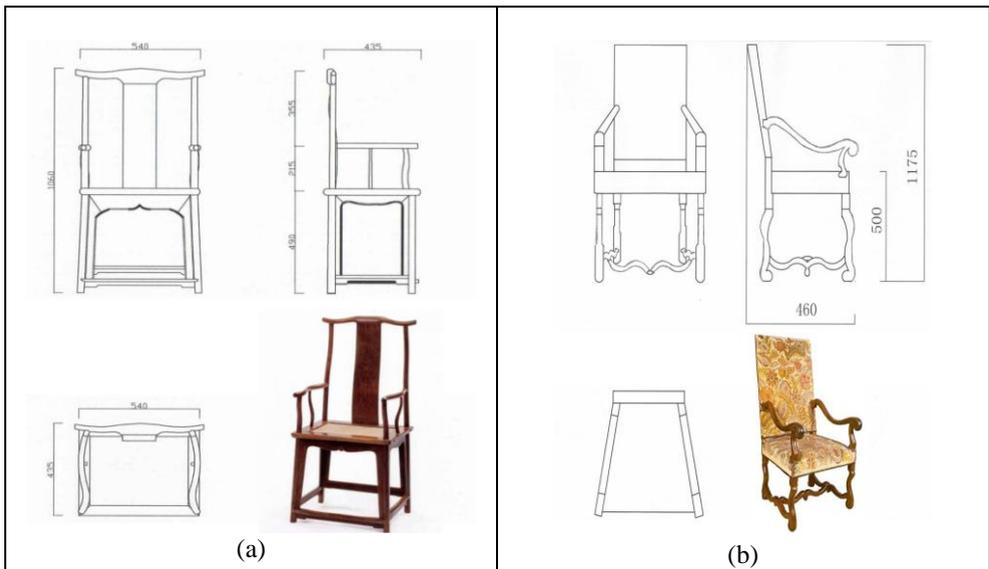
Dimensioning: the Louis IV armchair is 1175mm high and its the seat height is 500mm; the official's hat chair is 1060mm high, the seat height being 490mm. The two chairs have nearly the same dimensions, which are close to the generally recommended by an ergonomic posture, although the seat height is superior to that of similar contemporary sitting furniture. They are both rather comfortable chairs.

The seats: the seat of the Louis XIV armchair is symmetrically trapezoidal and upholstered with colourful fabric, but the Ming chair seat is square and set in thin textile. The Louis XIV chair looks sophisticated, flexible and dynamic due to the curvilinear contours of its wooden components; the Ming chair looks light, handy and peaceful.

The backs: the back of the Louis XIV armchair is upholstered with colourful fabric, its shape is a flat 'C'; the Ming chair has an 'S' wooden back slat. The upholstered back is of course elastic, hence adaptable to the human backrest, and the wooden 'S' back, similar to the body curve, also shows a kind of flexibility .

The legs: the legs of the Louis XIV armchair are carved with scroll patterns, they seem to be slightly moving, and the four legs are connected by an 'os-de-mouton' 'H' stretcher. The Ming chair back legs are long, ending up at the crestrail. Every side of the leg-frame ensemble received a 3-pieces arch-shaped apron with cusped outline. There is a footrest between the two front legs. The bottom stretchers are arranged in the gradual-height arrangement known in Chinese as 'bubugao' that means rising step by step.

The joinery: both chairs have classic, mortise and tenon joinery, but the Louis XIV chair uses only straight tenons for the leg and frame joints while the Ming chair has mitered mortise and tenon joints at a 45° angle at the frame.



**Figure 3.** The structure of two representative chairs: (a) Ming chair, (b) Baroque chair.

### 3. Conclusions

Due to the intensive international trade resulted from the progress of navigation and mapping of a large part of the world, new materials and new techniques speeded up the development of furniture in both compared

civilisations. The first influences coming from the Far-East are noticeable in Western European furniture in the 17<sup>th</sup> century.

Both Ming and western European Baroque style chairs reflect substantial aspects of their cultural background and level of civilization.

In the 17<sup>th</sup> century Chinese courtiers appreciated a concise, sober and rather austere kind of chairs; Western European chairs of the same époque are lavishly decorated, especially those representative of the Louis XIV and William and Mary periods, having also elaborate accessories of the upholstery.

Ming chairs have a light and supple composition; Baroque chairs are heavy and colourful, suggesting majesty and wealth. Simplicity and sobriety become visible at the Queen Anne style chairs (late Baroque).

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