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Carved Ivory Puzzle Balls

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Carved Ivory Puzzle Balls

Abstract

The Chinese Carved Ivory Puzzle Balls reference the interest in combining art and nature while designating curiosity in Chinese craftsmanship and imagery affecting a European market. The Chinese Ivory Carved Puzzle Balls have been beloved items in the Gettysburg College collection since they were donated in 1959 by Frank Kramer and John Hampshire. The Puzzle Balls, featuring nine balls were displayed in the Schmucker Hall Library. Alumni love the items and regularly ask about the collection in Special Collections as they represent an aspect of the college they continue to love. [*excerpt*]

Keywords

China, Frank Kramer, John Hampshire, ivory, puzzles

Disciplines

Ancient, Medieval, Renaissance and Baroque Art and Architecture | Fine Arts | History of Science, Technology, and Medicine | Industrial and Product Design | Intellectual History

Comments

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Carved Ivory Puzzle Balls

By Erica M. Schaumberg

The Chinese Carved Ivory Puzzle Balls reference the interest in combining art and nature while designating curiosity in Chinese craftsmanship and imagery affecting a European market.



Ivory Puzzle Ball, China, Ming Dynasty (1368-1643) Gift of John H. Hampshire, Special Collections and College Archives, Gettysburg College – Photo by Sydney Gush

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How was it made?

To create the work, carvers would first have started with a solid piece of ivory that would be turned on a lathe to form a sphere-like structure.¹ The carver would then make the specific layers of the piece before carving the delicate details. Most puzzle balls have approximately twenty layers; several pieces in the Gettysburg College collection have upwards to thirty layers. To begin forming the layers, the carver would have made conical-shaped incisions, from these holes the artist would have been able to carve each ball.² The artist would have then proceeded to create the puzzle ball by working from the inside to the outside by using “L” shaped knives to cut the balls free. Each layer would have a corresponding tool of a different

height, so the artist would be able to reach the specific layer easily.³ Next the carver would place the piece on a wooden block to ensure it would not move so the carver could create the precise lace design on the surface. Once the work was complete, the outer two layers of the ball were fused together to create a thicker layer preventing the ball from breaking.⁴ The long and meticulous process of crafting these balls were only completed by highly skilled craftsmen.



By Erica M. Schaumberg

The large puzzle ball exhibited in *Wonders of Nature and Artifice*, characterizes the excellence in Chinese craftsmanship and desire for objects that translated nature into art. Even though many of the works date to the Chinese Republican Period (1912-1949 C.E.) the puzzle ball represents exotic qualities Renaissance connoisseurs intended to apply to their collections. The displayed puzzle ball measures five centimeters in diameter is intricately decorated with motifs of dragons and scroll work. The dragons are intertwined and cover the entire ball. The exterior layer contains open spaces where light can pass; the areas reveal the second layer that has been left uncarved. Descending layers depict lace-like motifs that are composed of repeated geometric shapes like stars and circles. The layers become more simplified the farther down the layer is positioned. It is estimated the puzzle ball contains about thirty layers.

Throughout Chinese traditions, the dragon has been associated with authority and good fortune as it was synonymous with clothing, palaces, and objects owned by emperors, princes, and other high-ranking officials.⁵ The mythical creature would have drawn Western patrons for the connection to authority and power. The dragon remained a symbol that represented cultural aspects of traditional Chinese imagery which ultimately responded to Western travelers.



Photo by Sydney Gush, Special Collections and College Archives, Gettysburg College

Influence of Puzzle Balls

The puzzle balls have often been referred to as concentric balls for Western consumers. The earliest known document of the puzzle balls in 1388 refers to the intricately crafted pieces as *gui gong qui* or “devils’ work balls”. However, puzzle balls from this time have not survived.⁶ The craftsmanship of these works fascinated European tourists, which resulted in German craftsmen to create their own ivory puzzle balls.⁷



by Lorenz Zick, (1650), Bode Museum Photo By Daderot, Public domain, via Wikimedia Commons

However, the puzzle balls were less intricate and layered. The hand carved balls were fitted with elaborately designed pedestals that mimicked the geometric composition of the puzzle balls. The carved ivory balls crafted by Lorenz Zick were not detailed in the same manner as the works by Chinese craftsmen. The singular ivory layer has been polished smooth without any carvings reminiscent of the details in the carved ivory from China. The works in the image above establish the European interest in creating similar works of art, but artisans were not equipped with the skills or tools that could intricately create carved ivory puzzle balls like their Chinese counterparts. German

craftsmen were undeniably the most established in Europe to carve such works, but still lacked techniques exhibited in China. Contemporary auction houses like [Sotheby's](#) continue to refer to the works of art as puzzle balls the works of art exemplify Chinese craftsmanship and intrigues viewers between their combination of art and nature.

Ivory in China and Europe

Ivory was considered a luxurious material to produce works of art. Similar to other mediums in China, ivory was used for centuries. The use of ivory in Chinese art dates to as far as 4,000 years ago.⁸ Multiple types of ivory were used in China depending on the era. Even though the mammoth was and has been extinct for thousands of years, remains of mammoth tusks were continually reliable and favored by carvers. Indian Elephant ivory was popular before the species became nearly extinct in China as the surface develops a yellowed patina overtime.⁹ By the T'ang dynasty (618- 907 CE), Chinese carvers adopted to working with walrus ivory that would eventually be used throughout later periods.¹⁰ The high commercial demand and increased difficulty to sourcing Chinese ivory forced workshops to import ivory.¹¹ By the sixteenth century, imperial workshops disbanded giving way to the rise to small studios in areas where the traditional artform survived among craftsmen. To distinguish the studios across the country, artists would sign their name and corresponding workshop on the item.¹² Towards the end of the Ming dynasty, the Western city, Zhangzhou became influential in developing the artform in a global context and established relationships with European merchants beginning with Spanish correspondents who colonized the nearby Philippines.¹³

Ivory was associated with knowledge or “scholarly taste” to many Europeans.¹⁴ The precious material was often included in gifts for European leaders and aristocrats. Chinese and other European leaders displayed ivory to convey diplomatic relations between Eastern and Western nations. In 1685, Kangxi emperor received five pieces of ivory from Dutch diplomats to signify the relationship between both nations.¹⁵ Ivory was favored by Chinese and European consumers because of the delicate appearance and luxurious quality of the material, but ivory also became deeply rooted in political and mercantile alliances.



By Kanguole, Public Domain, via Wikipedia

1. Alice Minter, James Care, and Richard Hird. “A Chinese Export Carved Ivory Hanging Puzzle Ball, Probably Canton, circa 1860” *From Earth to Fire*, (Sotheby's, London, UK. <http://www.sothebys.com/en/auctions/ecatalogue/2017/from-earth-to-fire-117301/lot.231.html>).

2. John H. Hampshire, "Description of Chinese Objects of Art Given to Gettysburg College in 1959." *Papers of Frank Kramer Box 3-17*. (Special Collections and College Archives/Musselman Library, Gettysburg College, Gettysburg, Pennsylvania.) 1.
3. Minter, "A Chinese Export Carved Ivory Hanging Puzzle Ball, Probably Canton, circa 1860".
4. Ibid.
5. "Chinese Symbols", *China: Journey to the East*. (The British Museum. London, UK. https://www.britishmuseum.org/pdf/Chinese_symbols_1109.pdf) 3.
6. *Chinese Ivories: from the Shang to the Qing: An Exhibition*, 118.
7. Woodhouse, *Ivories: A History and Guide*. 49-50.
8. Charles Platten Woodhouse, *Ivories: A History and Guide*. (New York: Van Nostrand Reinhold Co., 1976) 76.
9. *Chinese Ivories: from the Shang to the Qing : An Exhibition*. (London: The Society, Distributed by Sotheby Publications, 1984) 9.
10. Woodhouse, *Ivories: A History and Guide*, 75-76.
11. *Chinese Ivories: from the Shang to the Qing: An Exhibition*, 9.
12. Ibid. 82.
13. Ibid. 35.
14. Ibid. 118.
15. Ibid. 130.