



Fall 2017

## Carved Ivory Puzzle Balls

Erica M. Schaumberg '18, Gettysburg College

Follow this and additional works at: [https://cupola.gettysburg.edu/wonders\\_exhibit](https://cupola.gettysburg.edu/wonders_exhibit)

 Part of the [Ancient, Medieval, Renaissance and Baroque Art and Architecture Commons](#), [Fine Arts Commons](#), [History of Science, Technology, and Medicine Commons](#), [Industrial and Product Design Commons](#), and the [Intellectual History Commons](#)

**Share feedback about the accessibility of this item.**

---

Schaumberg, Erica M., "Carved Ivory Puzzle Balls" (2017). *Wonders of Nature and Artifice*. 20.  
[https://cupola.gettysburg.edu/wonders\\_exhibit/20](https://cupola.gettysburg.edu/wonders_exhibit/20)

This is the author's version of the work. This publication appears in Gettysburg College's institutional repository by permission of the copyright owner for personal use, not for redistribution. Cupola permanent link: [https://cupola.gettysburg.edu/wonders\\_exhibit/20](https://cupola.gettysburg.edu/wonders_exhibit/20)

This open access student research paper is brought to you by The Cupola: Scholarship at Gettysburg College. It has been accepted for inclusion by an authorized administrator of The Cupola. For more information, please contact [cupola@gettysburg.edu](mailto:cupola@gettysburg.edu).

---

# 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**

Produced as part of a collaboration between Kay Etheridge's course FYS-188: Exploration of the Marvelous: Art and Science in the Renaissance, and Felicia Else's course ARTH 284: Wonders of Nature and Artifice: The Renaissance Quest for Knowledge.

Original version online at <http://wonder-cabinet.sites.gettysburg.edu/2017/cabinet/carved-ivory-puzzle-balls/>

# 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

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.

## 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.<sup>1</sup> 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.<sup>2</sup> 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.<sup>3</sup> 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.<sup>4</sup> 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.<sup>5</sup> 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.<sup>6</sup> The craftsmanship of these works fascinated European tourists, which resulted in German craftsmen to create their own ivory puzzle balls.<sup>7</sup>



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



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](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.