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The Jewelry of Eleonora di Toledo in the Official 1545 Portrait by Bronzino

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The Jewelry of Eleonora di Toledo in the Official 1545 Portrait by Bronzino

A Capstone Project Submitted in Partial Fulfillment of the
Requirements of the Renée Crown University Honors Program at
Syracuse University

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and Renée Crown University Honors
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Abstract

In 1545, Eleonora di Toledo, the wife of Cosimo de' Medici Duke of Florence, sat for her state portrait by Agnolo Bronzino. Bronzino depicted Eleonora in formal attire adorned with many jewels. This thesis examines both the iconographic significance of her jewelry and the methods of jewelry construction. Divided into three chapters, this investigation looks at Medici symbols within the jewelry design, alterations to the jewelry in portrait replications, and the techniques used in the creation of the jewelry.

In the first chapter of this thesis, I discuss Medici *imprese* (a familial emblem or coat of arms) integrated into the jewelry that Eleonora di Toledo wears in the 1545 portrait. I argue that Eleonora's fashionable jewelry symbolized Cosimo's dynastic pretensions and the political rebirth of Florence.

The second chapter is a study of alterations to Eleonora's original jewelry of 1545 as depicted in three later portrait reproductions: *Eleonora with son Francesco* of 1549, the posthumous *Eleonora di Toledo* of 1562, and her portrait of 1575 in the studiolo of Francesco. My analysis revealed that Bronzino painted a fabricated imitation of Eleonora's jewelry in the former two portraits while the latter displays changes mimicking popular Renaissance wedding jewelry that served to emphasize Eleonora's long and happy marriage to Cosimo.

In the third chapter, I discuss the art of the Renaissance goldsmith, focusing on the materials and techniques for creating Eleonora's jewels as recorded in Benvenuto Cellini's treatises. To understand the process, I spent five months making replicas of her portrait jewelry in a metalsmithing studio. In addition to comparing and contrasting my methods against Cellini's, I document my experience and elaborate on the effort required of a contemporary jeweler to recreate Renaissance pieces historically made by a team of artisans.

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Chapter 1
The Jewelry of Eleonora di Toledo
in the Official 1545 Portrait by Bronzino:
Jewels of the Medici

In 1545, Eleonora di Toledo, the wife of Cosimo de' Medici Duke of Florence, sat with her son Giovanni for her state portrait by Bronzino (Fig. 1). Eleonora was twenty-three years old at the time and had been married to Cosimo for six years. Her son Giovanni was three years old. Bronzino depicted Eleonora in formal attire adorned with many jewels. The portrait and Eleonora's fashionable jewelry symbolized Cosimo's dynastic pretensions and the political rebirth of Florence. In this thesis I seek to understand the symbolic intention of each jewel, decoding messages that helped Cosimo establish himself as a legitimate member of the European aristocracy, that marked Eleonora as a new Medici woman, and that proclaimed her role as a mother and wife. The jewelry also alluded to her husband Cosimo's hopes for future generations of Medici.

In the first chapter of this thesis, I will discuss Medici *imprese* integrated into the jewelry that Eleonora di Toledo wears in her official portrait of 1545 and the messages that these inclusions conveyed. The second chapter is a study of alternations to Eleonora's original jewelry of 1545 as depicted in three later portrait reproductions: *Eleonora with son Francesco* of 1549, the posthumous *Eleonora di Toledo* of 1562, and her portrait of 1575 in the studiolo of Francesco. My analysis revealed that Bronzino painted a fabricated imitation of Eleonora's jewelry in the former two portraits while the latter displays alterations mimicking popular Renaissance wedding jewelry. For the third chapter of this thesis, I will discuss the art of the goldsmith, focusing on the tools and techniques for creating

Eleonora's jewels as recorded in Renaissance goldsmith's treatises. I will describe and analyze my attempts at recreating her official portrait jewels.

In this first chapter I argue that the inclusion of established family symbols in Eleonora's official portrait jewelry identifies her as a Medici woman while communicating messages of Medici power and permanence. To begin, I discuss Eleonora's portrait and the formal qualities of each jewel, accompanied by a discussion of the court artists Agnolo Bronzino and Benvenuto Cellini. I outline Medici family history and Eleonora's relation to Cosimo, followed by an analysis of Medicean imagery and *impres*e in each piece of Eleonora's jewelry. The presence of the matrimonial pearls underlines Eleonora's virtue and her union with Duke Cosimo. The *impres*e of the laurel and *broncone*, or cut branches, evident in the pendant and belt symbolize the re-growth of the Medici line and their ability to return to the ducal throne with power. The diamond pendant and rosette sleeve pins with a sharp point signify the Medici *impresa* of the point-cut diamond and reference the immortality of the family. I associate the colors of the three gems on the girdle to the *impresa* of the three Medici plumes. I also discuss how the gemological symbolism of each stone reinforces Eleonora's connection to the Medici.

Eleonora di Toledo's official portrait is a masterpiece of the Italian Mannerist period. She sits on a terrace on a red cushion in front of a glowing, artificial aura of ultramarine. Bronzino also included a small vignette of a marshy

landscape in the lower right corner, suggesting an outdoor setting.¹ Eleonora composes herself in a reserved and poised posture, reinforced by her serious, inanimate expression. Her rigid body language proclaims stability and certainty.² Eleonora's flawless, porcelain skin juxtaposes against the saturated blue background. A gold mesh and pearl snood pulls back her amber hair in a manner that emphasizes her round forehead and pearl drop earrings. Eleonora's right hand pulls Giovanni close to her side, while her left hand rests weightlessly on her lap. She wears an extravagant and heavily brocaded dress fashioned of white silk embroidered with black arabesques and gold pomegranates. A large pomegranate design marks the center of Eleonora's cylindrical bodice. A diamond pendant attached to a tightly fitting string of pearls hangs from her neck and a longer string from her shoulders. Eleonora also wears a heavy gold, jeweled belt around her waist that continues to cascade down her lap. Her left hand holds part of the chain in place while pointing to the belt's terminating pearl tassel.

Eleonora's portrait artist, Agnolo Bronzino, was Florentine-born. He studied under Jacopo Pontormo to develop his mature, Italian Mannerist style. His paintings possess a gentle enamel finish, saturated in jewel-like color.³ He imbues his subjects with a sense of static, unemotional elegance that made him a favorite portrait painter among the Florentine elite.⁴ Vasari records Bronzino's portraits, praising them as "very natural, made with incredible diligence, and finished in

¹ Janet Cox-Rearick, *Bronzino's Chapel of Eleonora in the Palazzo Vecchio* (Berkeley: University of California, 1993), 37.

² *Ibid.*, 37.

³ Charles McCorquodale, *Bronzino* (New York: Harper & Row, 1981), 23.

⁴ *Ibid.*, 28.

such a way that nothing more could be desired.⁵ In the 1540s, Cosimo became head of the Florentine Republic and assigned Bronzino as the official Medici court painter with his first major painting commission for the walls of Eleonora's private chapel inside the Palazzo Vecchio.⁶ A couple years later Bronzino created the iconic image of Eleonora, becoming the model for numerous other portraits that him and his workshop would produce. Bronzino spent the majority of his career in the service of the Medici.

In Eleonora's portrait, Bronzino depicted several luxurious and fashionable adornments. She wears two pearl necklaces, a common component in many sixteenth-century female dresses.⁷ The longer of the two consists of forty-seven large pearls with seed pearls in between each large pearl. It extends from Eleonora's shoulders to the top of her abdomen, resting on the upper portion of the pomegranate in the design of her dress. A second pearl necklace encircles her neck and suspends a large diamond pendant. Eight sweeping *archetti* or arcs create its high setting⁸ and four points develop into prongs that hold the diamond in place. A gold wreath surrounding the setting displays at its four corners interlaced, white enamel ribbons in the shape of an "X" flanked by three green leaves. Additionally, individual pearls adorn her gold snood, or hair adornment,

⁵ Carl Brandon Strehlke and Elizabeth Cropper, *Pontorno, Bronzino, and the Medici: The Transformation of the Renaissance Portrait in Florence* (Philadelphia, PA: Philadelphia Museum of Art, 2004), 4.

⁶ Janet Cox-Rearick, *Bronzino's Chapel of Eleonora in the Palazzo Vecchio* (Berkeley: University of California, 1993), 94.

⁷ Maria Hayward, "Mary Tudor: Pearls for a Princess, Pearls for a Queen," *Jewellery History Today* Sept.-Oct. 2011, 3.

⁸ In goldsmithing, a 'setting' is defined as the metal fixture into which a jewel is set. It refers to the area around the stone.

and gold *fichu*, or shoulder net. Pearl drop earrings attached to gold hoops hang from her ear lobes.

Bronzino depicted three rows of decorative jeweled buttons, sewn on each sleeve. The button features a rosette pattern with a sharp, pyramidal point in the middle (Fig. 21). Thirty-four buttons are visible on her left arm and eight on her right arm while a fourth row probably continues around the back of each arm. Traditional in Italian fashion, ribbons terminating in elaborate aglets⁹ or decorative jeweled buttons¹⁰ that held the removable sleeve panels together. The slits created by this attachment allowed for Eleonora's white *camicia*, or undershirt, to show from beneath.

A jeweled, gold girdle¹¹ surrounds Eleonora's waist and continues down her lap (Figs. 27 and 28). It features three diamonds, four rubies, one emerald, one large pearl, and a seed pearl tassel. The girdle connects in a chain-link system with black enamel patterning decorating each ring. Jeweled settings intersperse between sections of chain. The settings utilize the same *archetti* as the pendant with intertwined *broncone* or cut branches around the outside. A large faceted ruby and a diamond that leads off to the tassel create the centerpiece of the girdle. Working around the waist rests a faceted diamond on her right side and a single emerald cabochon on the left side, the only gem with no brilliant facets and of a

⁹ The contemporary definition of an aglet is the metal sheath on the end of a lace or ribbon, similar to the ends of shoelaces. But during the Renaissance, these were very decorative and made by the hand of a jeweler.

¹⁰ Roberta Orsi Landini and Bruna Niccoli, *Moda a Firenze, 1540-1580: Lo stile di Eleonora di Toledo e la sua influenza* (Firenze: Pagliari Polistampa, 2005), 82-83.

¹¹ A Renaissance girdle refers to a jeweled belt, often made of gold that fastens around the waist.

considerably duller color than the others. In the shadow under Eleonora's left hand hides a third diamond linked to a section of chain, followed by a large pearl encased in two interlinked *broncone*. A swirl of seed pearl strands collecting in a gold cap adorned by black enamel arabesque designs and three small rubies set with *archetti* concludes the girdle.

Scholarship concerning Eleonora's portraits suggests that Benvenuto Cellini created the Duchess's adornments.¹² A Florentine native, Cellini became both a sculptor and jeweler for courts in France and Italy. In his early career he worked in Rome producing medals, seals, vessels, and coins at the papal mint.¹³ Cellini's gold saltcellar for Francis I, encrusted with bright enamels and luminous gems, claims its fame as one of his most sensational works.¹⁴ Cellini became the court jeweler for the Medici in the early 1540s and also produced the famous bronze statue of Perseus.¹⁵ His fame owes much to his autobiography, which recounts his experience at various courts.¹⁶ Cellini also wrote treatises on goldsmithing that detail jewelry techniques and materials.¹⁷ Often in his writings Cellini mentioned specific works commissioned for Eleonora and personal encounters with her that can be insightful when interpreting her jewels.

¹² Maria Sframeli, *I gioielli dei Medici: dal vero e in ritratto* (Livorno: Sillabe, 2003), 24-25.

¹³ Derek Parker, *Cellini: Artist, Genius, Fugitive* (Stroud: Sutton, 2003), 29-79.

¹⁴ *Ibid.*, 139.

¹⁵ *Ibid.*, 165.

¹⁶ For more information see Cellini, Benvenuto, and John Addington Symonds. *The Life of Benvenuto Cellini*. 1949.

¹⁷ For more information see Cellini, Benvenuto, and Charles Robert. Ashbee. *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture*. New York: Dover Publ., 1967.

To understand the Medici symbols embedded in Eleonora's jewelry, it is important to first know the history of the Medici and the state of Medici affairs at the time of the portrait. The Medici family had their beginnings as a wealthy banking family and had been unofficial rulers of Florence since the early 1400s when Giovanni di Bicci de' Medici began the family business. His son Cosimo inherited the family bank but was arrested by a rival faction in 1433 and sentenced to exile, only to have it lifted after one year.¹⁸ Upon his return, the bank continued to grow and became the largest in Europe in the 15th century.¹⁹ It is from this base of wealth that the Medici family acquired political power in Florence and used their money to sway the law.²⁰

Piero followed in 1464, Lorenzo the Magnificent in 1469, and the incompetent Piero II in 1492, who, after forfeiting the ports of Pisa and Livorno to French troops, was responsible for the expulsion of the Medici for the second time, from 1494 to 1512.²¹ Meanwhile, Giovanni de' Medici held influence in Rome as a cardinal, and in 1512 he persuaded Pope Julius II to restore the Medici to their position in Florence, taking the city by papal force.²² Giovanni later became Pope Leo X. The Medici held power in Florence for 15 years, until 1527, when they were expelled for the third time. In 1530, the Medici regained power in

¹⁸ Dale Kent, *The Rise of the Medici: Faction in Florence, 1426-1434* (Oxford: Oxford UP, 1978), 1.

¹⁹ Raymond De Roover, *The Rise and Decline of the Medici Bank, 1397-1494* (Cambridge: Harvard UP, 1963), 75.

²⁰ Dale Kent, *The Rise of the Medici: Faction in Florence, 1426-1434* (Oxford: Oxford UP, 1978), 39.

²¹ Christopher Hibbert, *The Rise and Fall of the House of Medici* (London: A. Lane, 1974), 186.

²² *Ibid.*, 214.

Florence after an eleven-month siege of the city by a Spanish army.²³ A new constitution was established in 1532 with Alessandro de' Medici as the first Duke of Florence.²⁴

Alessandro, however, was not a direct descendant of Piero II, but probably the illegitimate son of Giulio de' Medici (future Pope Clement VII) who in turn was the nephew of Lorenzo the Magnificent.²⁵ Alessandro was the last member of the senior branch of the Medici. He was assassinated in 1537 by a distant cousin, Lorenzino de' Medici, and died without a legitimate heir to the throne.²⁶ Though his marriage to Margaret of Austria was noble, she bore him no children. Alessandro's only children were illegitimately born by his mistress. Power then passed to Cosimo I de' Medici, the first of the junior branch of the Medici to rule Florence in 1537.²⁷

Periods of exile, an assassination, and two issues of illegitimacy mark these moments in Medici history, which did not do well for popular faith in the Florentine Ducal family. By the time Cosimo came to power, there was a need to restore the strength of the Medici and establish himself as a legitimate heir to the Ducal throne. The need to restore power reappears in the design and symbolism embedded in Eleonora's jewelry, as I will explain later.

²³ Christopher Hibbert, *The Rise and Fall of the House of Medici* (London: A. Lane, 1974), 250.

²⁴ *Ibid.*, 251.

²⁵ *Ibid.*, 253.

²⁶ *Ibid.*, 256.

²⁷ John Rigby Hale, *Florence and the Medici: The Pattern of Control* (London: Thames and Hudson, 1977), 127.

Cosimo was the underdog. He came to power at 17 years of age, relatively unknown to Florence.²⁸ Influential men of the city supported Cosimo in hopes that they could rule through him, benefiting themselves at the state's expense. They wanted Cosimo to be their young, inexperienced "puppet," set-up to fail.²⁹ But he proved himself to be much smarter and ambitious than they thought. When Florentine exiles, most famously the Strozzi family, heard of Alessandro's death, they sent in troops with support from France hoping to destroy Medici power under the newly elected and vulnerable Cosimo. But when Cosimo heard of the approach, he sent his best troops and succeeded in defeating the enemy army, taking Florence for himself.³⁰

Next, Cosimo turned his attention to a bride. Two years after he took power, he married Eleonora as a step towards restoring Florentine stability because heirs were needed for the re-establishment and continuation of Medici rule in Florence.³¹ Twice in the sixteenth century, the lack of legitimate heirs had caused crises for the Medici family. Cosimo sought a wife of noble lineage. Eleonora brought Spanish connections as the second daughter of the Viceroy of Naples, Don Pedro Alvarez de Toledo, who was Charles V's lieutenant governor. She fulfilled her duties, giving Cosimo eleven children and thereby ensuring these

²⁸ John Rigby Hale, *Florence and the Medici: The Pattern of Control* (London: Thames and Hudson, 1977), 127.

²⁹ *Ibid.*, 127.

³⁰ Christopher Hibbert, *The Rise and Fall of the House of Medici* (London: A. Lane, 1974), 263.

³¹ Konrad Eisenbichler, ed. *The Cultural World of Eleonora di Toledo: Duchess of Florence and Siena* (Aldershot: Ashgate, 2004), 18-19.

crises were to not to be repeated. The birth of Giovanni, her second son featured in the official portrait beside Eleonora, ensured the future of the Medici as Dukes of Florence and the continuation of the family line.³²

Cosimo truly loved Eleonora, adding to the public persona of stability to their relationship. He did not converse or have intimate relations with any lady except his wife during his marriage.³³ The theme of stability and a fruitful union with Eleonora reoccur in Medici art as propaganda tools that Cosimo employed during the early part of his reign.³⁴ Their faithful relationship restored confidence in the family and legitimized Cosimo as Duke, despite his affiliation with the “second” branch of the Medici. I find that Cosimo utilized these same propaganda tools in Eleonora’s official portrait jewelry.

A modest and faithful woman, Eleonora followed the Jesuit order. In her day-to-day life she strictly adhered to court protocol with occasional indulgences in gambling. Florentines admired Eleonora for her physical beauty and fecundity but were also offended by her proud Spanish manner. Marucelli, a contemporary diarist, writes that Eleonora’s heart was with the Spanish and that her presentation remained haughty.³⁵ Jesuit Diego de Guzman noted in 1560 that Eleonora “has no affection for anyone from another nation, nor does she wish to speak with any of

³² Konrad Eisenbichler, ed. *The Cultural World of Eleonora di Toledo: Duchess of Florence and Siena* (Aldershot: Ashgate, 2004), 76-77.

³³ Franco Cardini, *The Medici Women* (Firenze: Arnaud, 1997), 33.

³⁴ Maurice Brock, *Bronzino* (Paris: Flammarion, 2002), 81.

³⁵ Konrad Eisenbichler, ed. *The Cultural World of Eleonora di Toledo: Duchess of Florence and Siena* (Aldershot: Ashgate, 2004), 153.

our men who is not Spanish.”³⁶ Even when she strolled in the city, Florentines noted Eleonora with her Spanish entourage of servants and Spanish ladies-in-waiting.³⁷

Despite Eleonora’s new life as a Medici woman, she still retained many elements of her Spanish character and dress while at court. Spanish costume stylized the lines of the body and often featured fabric of brocaded pomegranate patterns in gold and silver, similar to that of Eleonora’s dress (Figs. 4, 5 and 7).³⁸ The bodice Eleonora wears is distinctly Spanish because it moves the neckline up, flattens the breasts until they almost disappear, and transforms the body into a cylindrical shape to lengthen the waist.³⁹ The black that dominates the brocade pattern was frequently worn in Spanish costume as an essential color.⁴⁰ One of Eleonora’s Spanish ladies-in-waiting, Ysabel de Renoso, made the gold snood and *fichu* that appear in Eleonora’s official portrait.⁴¹ Eleonora also brought the

³⁶ Konrad Eisenbichler, ed. *The Cultural World of Eleonora di Toledo: Duchess of Florence and Siena* (Aldershot: Ashgate, 2004), 185.

³⁷ *Ibid.*, 153.

³⁸ Joe A. Thomas, "Fabric and Dress in Bronzino's Portrait of Eleonora of Toledo and Son Giovanni," *Zeitschrift Fur Kunstgeschichte* 57, no. 2 (1994), 266.

³⁹ François Boucher and Yvonne Deslandres, *20,000 Years of Fashion: The History of Costume and Personal Adornment* (New York: H.N. Abrams, 1987), 227.

⁴⁰ *Ibid.*, 224.

⁴¹ Roberta Orsi Landini and Bruna Niccoli, *Moda a Firenze, 1540-1580: Lo stile di Eleonora di Toledo e la sua influenza* (Firenze: Pagliai Polistampa, 2005), 137.

Spanish style for pearl earrings to Tuscany.⁴² Dangling earrings signified immodesty, an adornment worn by Florentine harlots.⁴³

I will now interpret Eleonora's jewelry keeping in mind that she was a Spanish woman in a Medici portrait. Her image in the painting combines Spanish elements that she brought with her from the court at Naples, and Medici elements that represent her future with Cosimo. While her dress exudes Spanish influence, I claim that her jewelry is distinctly Medici due to the presence of established Medici *impresae*.

An *impresa* is a device in a picture usually accompanied by a motto and created by noble personages.⁴⁴ The device becomes an emblem, hallmark, or logo of that particular person or family. Throughout the course of Medici rule marked by cycles of exile and restoration, many Medici rulers created their own, personal *impresa* that re-instated their power.⁴⁵ Examples of established *impresae* imagery that reappear in Eleonora's jewelry include the *diamante* with the motto *semper*, *broncone*, the laurel and the three plumes. The emblem of the *diamante* depicts a point-cut diamond ring with an interweaving ribbon inscribed with the Latin phrase meaning 'always'. *Broncone* represents a laurel branch that has been cut or

⁴² By looking at paintings of her contemporary Iberian counterparts such as Joanna of Castile in Fig. 5, Isabella of Portugal in Fig. 6, her daughter Maria of Spain in Fig. 8, Catherine of Austria Queen of Portugal in Fig. 9, and Eleanor of Austria Queen Consort of Portugal in Fig. 7, one can see that they all wear pearl drop earrings. Eleonora most likely brought the fashion for wearing earrings with her from Spain to Florence.

⁴³ Roberta Orsi Landini and Bruna Niccoli, *Moda a Firenze, 1540-1580: Lo stile di Eleonora di Toledo e la sua influenza* (Firenze: Pagliai Polistampa, 2005), 32.

⁴⁴ Definition of *Impresa* (online; Merriam-Webster Dictionary), <http://www.merriam-webster.com/dictionary/impresa> (accessed 11 Feb. 2013).

⁴⁵ Janet Cox-Rearick, *Dynasty and Destiny in Medici Art: Pontormo, Leo X, and the Two Cosimos* (Princeton, NJ: Princeton UP, 1984), 15-40.

the stump of a tree. The construct of the three plumes consisted of three feathers in white, red, and green gathered inside a point-cut diamond ring.

Cosimo utilized dynastic imagery from the inception of his rule and it continued into the *apparato* for the celebration of his marriage to Eleonora.⁴⁶ The references to established Medici *imprese* in Eleonora's jewelry connect Cosimo to the family tradition and assert himself as a new Medici ruler of noble lineage. The Medici motifs mark Eleonora as a Medici wife and symbolically represent the political rebirth of Florence. Eleonora's jewelry set an example for her children's jewels and other Medici women to come, most notably Giovanna of Austria. My analysis of her jewelry will follow in the order of her long pearl necklace, the diamond and wreath pendant, the sleeve pins, and finally her girdle.

Eleonora seems to have had a genuine love of pearls. Cellini writes in his autobiography that Eleonora once procured a strand of pearls from a merchant and entered the wardrobe of the Duke to seek Cellini's help in persuading him to buy them for her.

After watching us at work a while, she turned to me with the utmost graciousness, and showed me a necklace of large and really fine pearls...I should like the Duke to buy them for me; so I beg you, my dear Benvenuto, to praise them to him as highly as you can.⁴⁷

⁴⁶ Janet Cox-Rearick, *Dynasty and Destiny in Medici Art: Pontormo, Leo X, and the Two Cosimos* (Princeton, NJ: Princeton UP, 1984), 3.

⁴⁷ Benvenuto Cellini, Anne Macdonell, David Ekserdjian, and James Fenton, *The Autobiography of Benvenuto Cellini* (New York, NY: Alfred A. Knopf, 2010), 374.

However, Cellini gave the Duchess his honest opinion, that the pearls had many defects and were not worth the merchant's price. The Duchess turned high-tempered with Cellini:

I have a mind to possess these pearls; so, prithee, take them to the Duke and praise them up to the skies; even if you have to use some words beyond the bounds of truth, speak them to do me service; it will be well for you!⁴⁸

Despite their flaws, the Duke bought the pearls to gratify the Duchess.⁴⁹ Cosimo replied "Whatever makes her happy. I am always in need of such gems."⁵⁰

Cellini's story is important to my study not only because it shows her preference for pearls, but it also reveals Cosimo as the buyer of her jewels. Eleonora brought fortunes to the Medici family through her dealing in grain, land, and property.⁵¹ She purchased the Palazzo Pitti in 1550 for the expansion of her family.⁵² Eleonora could afford to buy her own pearls, yet Cosimo purchased them. When studying the portrait jewels, I believe that Cosimo acted as the primary commissioner for her adornments.

⁴⁸ Benvenuto Cellini, Anne Macdonell, David Ekserdjian, and James Fenton, *The Autobiography of Benvenuto Cellini* (New York, NY: Alfred A. Knopf, 2010), 375.

⁴⁹ *Ibid.*, 375.

⁵⁰ *Ibid.*, 375.

⁵¹ Charles McCorquodale, *Bronzino* (New York: Harper & Row, 1981), 69.

⁵² *Ibid.*, 69.

Eleonora owned many strands of pearls, evident in the quantity recorded in the inventory of Cosimo's jewels in 1566-72, a few years after Eleonora's death in 1562. Listings 244 to 247 describe many strings of pearls of various forms.⁵³ Agostino del Riccio in *The History of the Stones* in 1597 writes that pearls are particularly suitable for brides inducing those who wear them to live modestly and chastely.⁵⁴ They reminded the wearer to be honest. Renaissance art often depicted pearls adorning Venus, goddess of love. Pearls represented purity, loyalty, virtue, and blissful love,⁵⁵ all qualities that describe Eleonora and Cosimo.

I argue that Eleonora wore the large pearl necklace for her portrait, as opposed to her many other strands, because it was a symbolic and sentimental piece related to her marriage to Cosimo. Maria Salviati, Eleonora's mother-in-law, ordered the purchase of the grand pearl necklace.⁵⁶ The strand consisted of fifty pearls originating from Venice, a major port city where beautiful gems and pearls came in for trade from the Mediterranean.⁵⁷ Forty-seven pearls remain visible to the viewer, corroborating that the portrait necklace is the one in the purchase record. Cosimo most likely gave the pearls with her wedding ring.⁵⁸ Upon the occasion of the marriage in 1539, Eleonora came by boat from the

⁵³ Maria Sframeli, *I gioielli dei Medici: dal vero e in ritratto* (Livorno: Sillabe, 2003), 26.

⁵⁴ Roberta Orsi Landini and Bruna Niccoli, *Moda a Firenze, 1540-1580: Lo stile di Eleonora di Toledo e la sua influenza* (Firenze: Pagliai Polistampa, 2005), 47.

⁵⁵ Maria Hayward, "Mary Tudor: Pearls for a Princess, Pearls for a Queen," *Jewellery History Today* Sept.-Oct. 2011, 3-4.

⁵⁶ Roberta Orsi Landini and Bruna Niccoli, *Moda a Firenze, 1540-1580: Lo stile di Eleonora di Toledo e la sua influenza* (Firenze: Pagliai Polistampa, 2005), 47.

⁵⁷ *Ibid.*, 47.

⁵⁸ *Ibid.*, 47.

Spanish court of Naples and made a grand entrance at the port of Pisa. Accounts indicate that she was adorned with the nuptial gifts of the Medici family including the long necklace of pearls and a precious diamond ring.⁵⁹ Florentines could have recognized her long pearl necklace as the same strand she wore on her entrance into Pisa. Eleonora's depiction wearing the matrimonial pearls made a statement to the Florentine viewer about the united families of the Alvarez and the Medici.

I believe that Eleonora's long pearl necklace became a symbol of her role as Duchess of Tuscany. Replica portraits of Eleonora repeatedly depict her wearing the same abdomen-length pearl necklace of large pearls alternated with tiny seed pearls (Fig. 10), draped across the shoulders in an oval shape. Giovanna d'Austria followed Eleonora's reign as Granduchess of Tuscany, and she adopted the same style of pearl necklace, as seen in Giovanni Bizzelli's 1586 portrait of her (Fig. 12). She wears an abdomen-length pearl necklace of alternating small and large pearls that form an oval shape across her chest. The resemblance between the pearl necklaces is uncanny. Giovanna took over Eleonora's legacy, adhering to the fundamental criteria of her style in clothing, colors, and jewelry.⁶⁰ Clearly, Giovanna d'Austria took Eleonora's place as the next Duchess by imitating her signature long pearl necklace. The pearl necklace became a symbol for the role of the Granduchess of Tuscany, a fashion begun by Eleonora in Bronzino's portrait.

⁵⁹ Roberta Orsi Landini and Bruna Niccoli, *Moda a Firenze, 1540-1580: Lo stile di Eleonora di Toledo e la sua influenza* (Firenze: Pagliai Polistampa, 2005), 48.

⁶⁰ *Ibid.*, 40.

On the shorter of the two pearl necklaces dangles a stunning diamond pendant (Fig. 16). As part of Cosimo's wedding gift, he had presented Eleonora with a necklace set with a diamond.⁶¹ The pendant depicted in the portrait could be the alleged wedding gift. It recalls a moment in Cellini's autobiography when he had been called by the Duke to judge the value of a diamond of more than thirty-five carats, proposed to Cosimo by Bernardo Baldini and Antonio Landi.

Landi to Cellini: "Benvenuto, I am convinced that the Duke will show you a diamond, which he seems disposed to buy; you will find it a big stone. Pray assist the purchase." Cellini's thoughts on the stone after proposed by Cosimo: "I immediately recognized it by its description, both as to form and weight...its water was not quite transparent, for which reason it had been cropped; so when I found it of that kind and quality, I felt certainly disinclined to recommend its acquisition."⁶²

Cellini's story possibly references the pendant that Eleonora wears in her portrait. He notes the grand size and beautiful quality of the diamond but not as clear and radiant as others more desirable. The gem displayed a "cropped" point meaning it was once a four-sided pyramid as diamonds naturally form, but the previous owners cut the tip of the diamond causing it to lose some luster: "its water was not transparent." Despite its flaws, Cosimo purchased the stone and

⁶¹ Giovanna Lazzi, "Gli abiti di Eleonora da Toledo e di Cosimo I attraverso i documenti di archivio," in *Il costume nell'età del Rinascimento. Fondamenti storici e metodologici per lo studio e la valorizzazione dell'abbigliamento*, ed. Dora Liscia Bemporad, (Florence: EDIFIR, 1988), 165.

⁶² Benvenuto Cellini, Anne Macdonell, David Ekserdjian, and James Fenton, *The Autobiography of Benvenuto Cellini* (New York, NY: Alfred A. Knopf, 2010), 340.

commissioned Cellini to make a mount for a pendant for Eleonora. After seeing it finished, the resulting pendant greatly pleased Eleonora.⁶³

I argue that the diamond set in the pendant signifies the Medici *impresa* of the pyramidal diamond ring. The pendant features this important Medici symbol at the center of the painting in order to make a connection to the first branch of the Medici and to mark Eleonora as a Medici woman. The Medici family first adopted the diamond (or *diamante*) as an *impresa* in the fifteenth century, long before Eleonora wore it as a necklace.⁶⁴ They incorporated the symbol into much of the work they commissioned, including inside the Palazzo Medici chapel where it appears embroidered on the trappings of Piero de' Medici's horse and as a textile design in the clothing of his page (Fig. 17).⁶⁵ The diamond ring appears in various Medici manuscripts from the Laurentian Library and in architectural decorations such as the ceiling of the Medici Villa at Poggio a Caiano (Fig. 18). Florentines would have recognized the diamond Eleonora wore in her portrait as a symbol connecting her to this tradition.

The motto of the Medici *diamante*, "*Semper*," translates to "always" or "forever" in Latin. *Semper* refers to the diamond as the hardest stone that no metal, saw, or blade can cut. An excerpt from Cellini's treatise on goldsmithing

⁶³ Maria Sframeli, *I gioielli dei Medici: dal vero e in ritratto* (Livorno: Sillabe, 2003), 25.

⁶⁴ Janet Cox-Rearick, *Dynasty and Destiny in Medici Art: Pontormo, Leo X, and the Two Cosimos* (Princeton, NJ: Princeton UP, 1984), 16.

⁶⁵ Franco Cardini, *The Chapel of the Magi in Palazzo Medici* (Firenze: Mandragora, 2001), 47.

attests to the astounding durability of the diamond. During Renaissance times, faceting the stone required rubbing two diamonds together:

Diamonds you can never cut alone, you must always do two at a time on account of their exceeding hardness, no other stone can cut them; it is a case of diamond cut diamond. This you do by means of rubbing one against the other until a form is produced...and with the diamond powder that falls from them in the process, the final polish is subsequently given.⁶⁶

The hardness of the diamond, in combination with the motto *Semper*, suggests the durable strength and eternal life of the family. Eleonora's pendant would have carried similar connotations because Cosimo's ascension to the Ducal throne after the assassination of Alessandro ensured the continuation of the Medici. The diamond pendant, then, represents a calculated choice of adornment to communicate messages of Medici durability during a time of instability and transition of power between family lines.

The diamond, as a jewel, has another Renaissance meaning that Florentines could have recognized. The diamond dust left from the process of faceting a stone is lethal and was commonly used as poison in Renaissance times. In his autobiography, Cellini recalls a time when Lione, goldsmith of Arezzo, mixed diamond dust in his meat to kill him.⁶⁷ In this sense, the diamond set in

⁶⁶ Benvenuto Cellini and Charles Robert Ashbee, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publ., 1967), 31.

⁶⁷ *Ibid.*, 232.

Eleonora's pendant refers to the power of the family, implying that no one dare cross the Medici.

A gold wreath with green enameled leaves surrounds the diamond. The wreath motif derives from Greek and Roman antiquity, periods of artistic production that inspired the rebirth of the Italian Renaissance. Olympic athletes, Roman rulers, and scholars wore the laurel wreath on their heads.⁶⁸ Many Renaissance artists, including Cellini, utilized such ancient motifs in interior decoration, architecture, painting, and on functional objects. I believe that Eleonora's pendant depicts a laurel wreath due to the presence of the green enameled leaves on the four axes and the motif's popular use in Renaissance art.

Considering that Eleonora is depicted in a Medici portrait wearing Medici jewelry, the choice of a laurel wreath above all other types of foliage represents a calculated decision. As an *impresa*, the laurel dates from the time of Lorenzo il Magnifico.⁶⁹ It became a symbol of Medici restoration and an ideal "all-purpose" symbol for the family.⁷⁰ It often took the form of a wreath that encircled Medici *impreses* such as the *palle* or portraits of the ducal couple (Figs. 19 and 20).⁷¹ It is likely that Eleonora's pendant continues with this same tradition, encircling the *diamante impresa*.

⁶⁸ Marcel De Cleene and Marie Claire Lejeune, "The Bay Laurel," *Compendium of Symbolic and Ritual Plants in Europe 2* (Ghent: Man & Culture, 2003), 126-139.

⁶⁹ Janet Cox-Rearick, *Dynasty and Destiny in Medici Art: Pontormo, Leo X, and the Two Cosimos* (Princeton, NJ: Princeton UP, 1984), 17.

⁷⁰ *Ibid.*, 17.

⁷¹ *Ibid.*, 17.

The Medici made a wide range of associations between the laurel and the *broncone*; Both symbols implied re-growth and renewal during periods of Medici restoration.⁷² Instead of taking the form of a wreath, the laurel also appeared as cut branches with sprouting leaves such as the *broncone* that adorn the ceiling of the Medici Villa at Poggio a Caiano (Fig. 18). In ancient lore, the laurel was the attribute of the triumphant Jupiter and the healing God Apollo. It could never be struck by Jupiter's lightning, and if cut to a *broncone*, the tree never disintegrated but instead grew back with more vigor.⁷³

Because of the laurel's regenerative qualities, Cosimo de' Medici used laurel, *broncone* imagery when he came to power, as shown in his portrait by Bronzino in the 1540s (Fig. 3).⁷⁴ Behind Cosimo, Bronzino depicted a stump and a sprouting laurel branch. The broken tree and branch is a variation on an *impresa* specific to Cosimo, in which the image was paired with the Vergilian motto, 'Uno avulso non deficit alter' (when one is torn away a second does not fail).⁷⁵ Its meaning is clear: the extinction of the primary branch of the family and Cosimo rising to take its place.⁷⁶ The laurel *broncone* stood for Cosimo's legitimate succession despite Alessandro's murder. Cosimo saw the characteristics of the

⁷² Janet Cox-Rearick, *Dynasty and Destiny in Medici Art: Pontormo, Leo X, and the Two Cosimos* (Princeton, NJ: Princeton UP, 1984), 18.

⁷³ *Ibid.*, 18.

⁷⁴ Many copies of the official portrait of Cosimo I in armor were made to send to other courts. These copies often included a stump with a sprouting olive branch, symbolic of his peaceful intentions but also symbolic of the *broncone*, which is a Medici symbol. However, the Sydney painting referred to here includes a sprouting laurel branch instead of an olive branch.

⁷⁵ Robert Simon, "Bronzino's Portrait of Cosimo I in Armour," *The Burlington Magazine* 125.966 (1983), 533.

⁷⁶ *Ibid.*, 533.

laurel reflected in himself, a new branch of the family growing back with more vigor.

Eleonora's pendant includes the laurel to mimic Cosimo's symbolic and propagandistic theme. The cut laurel *broncone*, explicitly refers to Alessandro's assassination, which left the Medici without an heir. Eleonora played a crucial role in re-establishing Medici strength by providing Cosimo with sons for the continuation of the second family line. It is reasonable to concur that the laurel wreath pendant signifies Eleonora's duty to "sprout" and "re-grow" the second Medici line. The inclusion of the laurel wreath connects her to Cosimo, marks her as a Medici woman by using established family imagery, and declares the return of Medici power. The diamond and the laurel leaves in Eleonora's pendant both send a strong message of Medici immortality and permanence.

Besides being a beautiful and symbolically Medicean gem, Eleonora's diamond also served a powerful, supernatural function. Those who lived in medieval times and during the Renaissance believed that stones had magical properties that benefited the wearer.⁷⁷ This is confirmed by prescription for gout from the physician of Lorenzo de' Medici: "have a heliotrope mounted in a gold ring in such a way that it touches the skin. If you do this, the gout and arthritic pains will never return."⁷⁸ They also believed that gems, like colors, had a

⁷⁷ "Pendant." *Victoria & Albert Museum: Search the Collections*. Victoria & Albert Museum, London. Web. 28 Mar. 2012. <<http://collections.vam.ac.uk/item/O33865/pendant/>>.

⁷⁸ Diana Scarisbrick, *Rings: Jewelry of Power, Love, and Loyalty* (New York: Thames and Hudson, 2007): 149-150.

symbolic meaning that even the uneducated could read.⁷⁹ Most often, the magical properties and color symbolism were in concert with each other. Diamonds invoked the qualities of fearlessness, invincibility, strength, courage, valor and fortitude in its wearer.⁸⁰ White symbolized virtue, honesty, faith, victory, triumph, and sincerity.⁸¹ Green emerald symbolized chastity, joy, and youth.⁸² Emerald even possessed healing qualities when worn.⁸³ Red ruby signified strength, courage, love and generosity.⁸⁴ Eleonora wears all three of the mentioned stones.

Similar to her pendant, Eleonora's sleeve pins also derive from an ancient design and display a connection to Medici imagery. Eleonora owned multiple sets of decorative sleeve pins. Recorded in Cosimo's inventory of 1566-72 are 193 gold rosettes in gray, white, and black enamel, which Eleonora would have owned.⁸⁵ In her portrait, she wears a similar style of rosette button. Greeks and Romans used the rosette as an architectural decoration in the middle of ceiling coffers, on triumphal arches, and on the cornices of buildings. Renaissance artisans revitalized the design by adorning a variety of surfaces with it, including on doors, ceilings, buildings, columns, interior architecture, and even on jewelry. For example, the cornice of the Medici Palace imitates the rosette-studded cornice

⁷⁹ Lucia Ricciardi, "Medicean Symbols: 'Balls' and Emblems in the 15th Century," in *The Chapel of the Magi in Palazzo Medici*, Franco Cardini (Firenze: Mandragora, 2001), 75-76.

⁸⁰ Heather Holian, "The Clues in the Jewels: A Case for Companion Portraits of Francesco I and Lucrezia De'Medici," *Southeastern College of Art Conference Review* 14, no. 5 (2005), 475

⁸¹ Lucia Ricciardi, "Medicean Symbols: 'Balls' and Emblems in the 15th Century." in *The Chapel of the Magi in Palazzo Medici*. Franco Cardini (Firenze: Mandragora, 2001), 76.

⁸² Paola Tinagli, "Portraits 1480-1560: Beauty and Power," *Women in Italian Renaissance Art: Gender, Representation, Identity* (Manchester: Manchester UP, 2000), 98.

⁸³ *Ibid.*, 98.

⁸⁴ Lucia Ricciardi, "Medicean Symbols: 'Balls' and Emblems in the 15th Century." in *The Chapel of the Magi in Palazzo Medici*. Franco Cardini (Firenze: Mandragora, 2001), 76.

⁸⁵ Maria Sframeli, *I gioielli dei Medici: dal vero e in ritratto* (Livorno: Sillabe, 2003), 48.

of antiquity (Fig. 22). Gilded gold rosettes adorn the Studiolo of Francesco I and the coffered ceiling of the Palazzo Vecchio (Figs. 23 and 24). Rosettes came in many shapes and sizes with varying leaf decorations, but always with a central “flower bud.”

The rosette buttons that Eleonora wore for her portrait diverge from the typical design by the addition of an exaggerated pyramidal point instead of a flower bud in the center (Fig. 21). This alteration clearly echoes the shape of the diamond in its natural pyramidal form, a symbol of Medici strength and permanence. I therefore believe that Eleonora’s sleeve pins display a specially designed rosette that symbolizes Cosimo’s strength as the newly established Duke. The pyramidal point of each rosette is so sharp that it has a threatening quality. The sharp rosettes mimic the two points of the besagues⁸⁶ on the breast of Cosimo’s armor in his 1545 portrait by Bronzino, painted at the same time as Eleonora’s (Fig. 2). The “point” utilized in both portraits openly displays Medici power and stands as a caution to enemies.

The rosette design reappeared five years later in the portrait of Maria de’Medici. Maria was Cosimo and Eleonora’s eldest daughter. Bronzino painted her portrait in 1551 wearing similar sleeve pins with pyramid points (Fig. 25). They exhibit smaller dimensions with a greater emphasis on the roundness of the swirls and conical, less threatening, points in the middle of the rosettes.

⁸⁶ Besagues are circular, pointed armor attachments designed to protect the armpits.

The last piece of jewelry I will discuss is Eleonora's girdle. Renaissance women considered the girdle an essential and versatile jewelry item because it could adorn the body as a necklace, belt, hair band, or garland.⁸⁷ Eleonora wears her girdle as a decorative belt. A strikingly large ruby and diamond adorn the center of the girdle, which communicate messages of Medici wealth alongside the *impresa* of the *diamante*. Cellini wrote in his treatises on goldsmithing that four precious stones are made of the four elements. He spoke of a ruby of fire valued at 800 scudi, an emerald of the earth valued at 400 scudi, a diamond of water valued at 100 scudi, and a sapphire of the air with the least value at 10 scudi.⁸⁸ Thus, the ruby placed at the center of the composition symbolizes Medici wealth, since Renaissance jewelers like Cellini valued it as the most expensive gem. Dimensionally quite large and cut with many facets, Eleonora's luxurious ruby drew attention to her husband's riches. Its position next to the diamond evokes the *impresa* of the Medici *diamante*. Together, the two gems assert the strength and wealth of the family, messages that Cosimo was eager to establish as the new Duke.

Eleonora's girdle displays four rubies and three diamonds. The persistent combination of diamonds and rubies in jewelry was a Medici phenomenon that

⁸⁷ Roberta Orsi Landini and Bruna Niccoli, *Moda a Firenze, 1540-1580: Lo stile di Eleonora di Toledo e la sua influenza* (Firenze: Pagliai Polistampa, 2005), 250.

⁸⁸ Benvenuto Cellini and Charles Robert Ashbee, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publ., 1967), 22-23.

served to identify family members.⁸⁹ Eleonora began the custom, and her children as well as other noble Medici women continued it. Medici family tradition entailed giving diamond and ruby jewelry to young female family members, particularly brides.⁹⁰ Cellini mentions in his autobiography a remark made by the Duke that he is always in need of gems for sons and daughters.⁹¹

The large quantity of faceted rubies and diamonds contrasts with an emerald cabochon on the right side of Eleonora's belt. Its singular existence on the edge of her girdle initially appears odd, and the stone displays no brilliant facets in comparison to the others. I believe the reason for the presence of the emerald in Eleonora's girdle is that the three gem colors mimic the personal *impresa* of Piero de' Medici. He used the device of three feathers in red, white, and green encircled within a diamond ring. The colors represent the three theological virtues: green for Hope, white for Faith (which is pure), and red for Charity (which is ardent).⁹² Piero included his *impresa* in the fittings of the horse he sits atop in the procession of the Magi in the Chapel of the Magi in the Palazzo Medici Riccardi (Fig. 17). From left to right in consecutive order along Eleonora's girdle is the white diamond, the red ruby, and the green emerald. Their color and arrangement appears intentional to connect Eleonora to another old

⁸⁹ Heather Holian, "The Clues in the Jewels: A Case for Companion Portraits of Francesco I and Lucrezia De' Medici," *Southeastern College of Art Conference Review* 14, no. 5 (2005), 475.

⁹⁰ *Ibid.*, 475.

⁹¹ Benvenuto Cellini, Anne Macdonell, David Ekserdjian, and James Fenton, *The Autobiography of Benvenuto Cellini* (New York, NY: Alfred A. Knopf, 2010), 366.

⁹² Lucia Ricciardi, "Medicean Symbols: 'Balls' and Emblems in the 15th Century," in *The Chapel of the Magi in Palazzo Medici*, Franco Cardini (Firenze: Mandragora, 2001), 74.

Medici symbol. Representing Piero's *impresa* in Eleonora's girdle asserts Cosimo's noble lineage and his claim to power.

The three gem colors incorporated in Eleonora's belt may also have invoked personal qualities that she wanted to enhance or that served to protect her. Renaissance women wore jewelry as protective amulets such as a pendant in the Victoria and Albert Museum (Fig. 30).⁹³ The reverse of the pendant is backless, allowing the stones to touch the skin of the wearer and transfer their properties. The inscription reveals that the stones warded off epilepsy and invoked the help of God, Jesus, and Mary.⁹⁴ Likewise, the gems on Eleonora's girdle had protective qualities and revealed color symbolism relating to the Medici family. Green emerald possessed healing traits and symbolized youth.⁹⁵ The emerald possibly served Eleonora as a protective element, to keep her in good health. White diamond symbolized chastity, honesty, faith, truth, and sincerity.⁹⁶ The gem kept her faithful to Cosimo and invoked the qualities of a chaste wife. Diamond also proclaimed Medici victory and power as a stone that brought invincibility to its wearer. Red ruby signified strength, courage, love and generosity.⁹⁷ It symbolized Eleonora's love for Cosimo and visually declared Medici strength. All of the gem colors and their characteristics refer to Eleonora

⁹³ "Pendant." *Victoria & Albert Museum: Search the Collections*. Victoria & Albert Museum, London. Web. 28 Mar. 2012. <<http://collections.vam.ac.uk/item/O33865/pendant/>>.

⁹⁴ Ibid.

⁹⁵ Paola Tinagli, "Portraits 1480-1560: Beauty and Power," *Women in Italian Renaissance Art: Gender, Representation, Identity* (Manchester: Manchester UP, 2000), 98.

⁹⁶ Lucia Ricciardi, "Medicean Symbols: 'Balls' and Emblems in the 15th Century," in *The Chapel of the Magi in Palazzo Medici*, Franco Cardini (Firenze: Mandragora, 2001), 76.

⁹⁷ Ibid., 76.

and the Medici. However, when red ruby is paired with blue sapphire it can signify pride, cruelty, and anger.⁹⁸ This may explain why Cosimo excluded sapphires from Eleonora's jewelry.

The settings created for the diamond, ruby, and emerald show a connection to the Medici *impresa* of the *broncone*. Two intertwined *broncone* branches encircle each gem and tie together where the chain attaches to the setting (Figs. 31-33). *Broncone* branches also encase the large pearl at the end of the girdle's chain and attach to the tassel (Fig. 28). The details of the metalwork show the cut "stumps" of the laurel branch. Lorenzo the Younger, Pope Leo's nephew and a grandson of Il Magnifico, first used the *broncone* as an *impresa* and the Medici continually used it afterwards.⁹⁹ I have pointed out examples of the *broncone* used by the second Medici line in Cosimo's portrait (Fig. 3), and by the first Medici line in the ceiling of the Medici Villa at Poggio a Caiano (Fig. 18). The laurel *broncone* symbolized the regeneration of the second Medici line because it is a plant that always grows back after being cut. Janet Cox-Rearick quotes in her book *Dynasty and Destiny in Medici Art*, "Florence will flourish in a new Golden Age under the evergreen laurel of the Medici; winter is over and in spring the stump will sprout again."¹⁰⁰ The *broncone impresa* in the settings of Eleonora's girdle serve as a metaphor for the severed first Medici line and for her duty as Cosimo's wife to 'regenerate' the second line.

⁹⁸ Lucia Ricciardi, "Medicean Symbols: 'Balls' and Emblems in the 15th Century," in *The Chapel of the Magi in Palazzo Medici*, Franco Cardini (Firenze: Mandragora, 2001), 76.

⁹⁹ Janet Cox-Rearick, *Dynasty and Destiny in Medici Art: Pontormo, Leo X, and the Two Cosimos* (Princeton, NJ: Princeton UP, 1984), 16.

¹⁰⁰ *Ibid.*, 24.

Eleonora wore the Medici *broncone* in her jewelry because she was integral in providing Cosimo with a noble family lineage and “growing” heirs to extend the Medici Empire. By the time Bronzino painted her official portrait she had already provided him with two male heirs, one of whom (Giovanni) is included in the painting. Equally so, her daughters would eventually be married off to noble families across Europe, which provided the Medici with important contacts for political and economic alliances. Cosimo and Eleonora married off their girls as if they were tools for making agreements.¹⁰¹ The couple vigorously involved themselves in producing Medici children and rebuilding Medici power.

The *broncone* jewelry design reappears in the portrait of Maria de’ Medici by Bronzino in 1551 and in the *Portrait of a Lady in Red* of 1532 (Fig. 35), thought to be Cosimo’s mother, Maria Salviati. I previously mentioned Maria de’ Medici wearing sleeve pins similar to Eleonora’s. She also wears diamond earrings with two *broncone* entwined around the setting with cut stumps (Fig. 34). Adorning the first-born daughter with sumptuous jewels in the Medici style highlighted her importance as the first to be married off. Like Eleonora, the young Maria had a duty to “regenerate” the Medici line. At the time of her 1551 portrait, her future marriage would provide the family with important connections and

¹⁰¹ To name a few examples, the first daughter Maria de’ Medici was engaged to Alfonso II, Duke of Ferrara before she died of Malaria. Cosimo then had his younger daughter, Lucrezia de’ Medici, replace Maria and marry Alfonso II to secure a connection. Isabella de’ Medici married Paolo Giordano I Orsini to secure a relationship with the powerful Roman Orsinis. As for the boys, Francesco married Giovanna of Austria in 1565, which consolidated imperial connections. Ferdinando’s marriage to Princess Christine of Lorraine in 1589 procured a Medici alliance with France, as French power rivaled Spain’s.

alliances. Maria's *broncone* earrings continue the same program of Medici jewelry symbolizing stability and restoration.

The artist and the subject of *Portrait of a Lady in Red* (Fig. 35) are still under dispute. The painting is thought to be either from the hand of Bronzino or his teacher Pontorno, and some believe the subject to be Cosimo's mother, Maria Salviati. If this is true, the jewelry she wears shows a strong link to the Medici. She wears a pyramid-cut diamond ring on her right hand and a chain necklace with links resembling the two intertwined *broncone*. Her *broncone* links consist of stylized tubular shapes, without cut stumps like Eleonora's jewelry. Maria Salviati was a patriotic woman. The Florentines favored her over Eleonora Marucelli, a contemporary diarist, wrote after the death of Maria Salviati, "The city was very unhappy because they remained in the hands of a barbarian Spaniard [Eleonora] who was the enemy of her husband's country."¹⁰² As a Medici woman, Maria would have sported the *broncone* in her jewelry to proudly display her son's position as Duke of Florence. She, too, felt her role in the reestablishment of the new Medici line.

After 1545, *broncone* jewelry ceased to appear in Medici portraits. However, an emerald necklace with *broncone* settings is recorded as number 436 of the 1566-72 inventory of Cosimo's jewels. Cosimo gave it to his daughter-in-

¹⁰² Konrad Eisenbichler, ed. *The Cultural World of Eleonora di Toledo: Duchess of Florence and Siena* (Aldershot: Ashgate, 2004), 153.

law Giovanna of Austria.¹⁰³ The inventory describes one of the emeralds of particular splendor: “[O]f Peru, 19 karats of color set in an enameled *broncone*.”¹⁰⁴ The account proves that Giovanna of Austria, Grand Duchess of Tuscany following Eleonora, continued with a similar jewelry style rich with references to Medici *imprese*. I believe that Eleonora and the jewelry she wore in her portrait set an example for the Medici jewelry that followed.

When looking at Eleonora as a carefully crafted icon, we see that jewelry assumed the same identifying role on Eleonora and Medici women as the family’s coat-of-arms served on Medici architecture or monuments.¹⁰⁵ They both mark property of the Medici and proclaim Medici power. In the case of Eleonora, the jewelry identifies her, not as Spanish, but as rather distinctly Medici through the inclusion of such *imprese* and symbols as the wedding pearls, the *diamante*, wreath, laurel, *broncone*, ruby, and rosettes. Eleonora’s jewelry in the official portrait became a medium by which to display her Medici connections. More important, the jewelry marks her connection to Cosimo, his hopes for the future generation of the Medici, and Eleonora’s duty to remain loyal to him and produce a new line of Medici heirs.

¹⁰³ Maria Sframeli, *I gioielli dei Medici: dal vero e in ritratto* (Livorno: Sillabe, 2003), 26.

¹⁰⁴ *Ibid.*, 26.

¹⁰⁵ Heather Holian, "The Clues in the Jewels: A Case for Companion Portraits of Francesco I and Lucrezia De'Medici," *Southeastern College of Art Conference Review* 14, no. 5 (2005), 475.



Fig. 1 Agnolo Bronzino, Eleonora di Toledo with son Giovanni, 1545, oil on panel, 115 x 96 cm. Galleria degli Uffizi, Firenze



Fig. 2 Agnolo Bronzino, *Cosimo I in Armor*, 1545, Uffizi Gallery, Florence



Fig. 3 Agnolo Bronzino, *Cosimo I in Armor*, mid 1540s, Gallery of New South Wales, Sydney



Fig. 4 Fabric Sample, 1500s, brocaded velvet with cream background, Bargello, Florence



Fig. 5 Nicolaus Alexander Mair von Landsbut, *Joanna the Mad of Castille with her children*, 1500s



Fig. 6 Titian, *Portrait of Isabella of Portugal, wife of Holy Roman Emperor Charles V*, 1548, Prado Museum, Madrid



Fig. 7 Joos Van Cleve, *Eleonor of Austria, Queen of France*, 1530, Kunsthistorisches Museum, Vienna



Fig. 8 Antonio Moro, *Portrait of Mary of Austria, wife of Maximilian II Infanta Maria of Spain*, 1551, Museo del Prado, Madrid



Fig. 9 Antonio Moro, *Infanta Caterina of Spain, Queen of Portugal*, 1552, Museo del Prado, Madrid



Fig. 10 detail of Eleonora's pearl necklace from Fig. 1



Fig. 11 Agnolo Bronzino, *Portrait of Eleonora di Toledo*, 1543, Národní Gallery, Prague



Fig. 12 Giovanni Bizzelli, *Portrait of Giovanna d'Austria, Granduchess of Tuscany*, 1586, Uffizi Gallery, Florence



Fig. 13 Unknown Jeweler, *Gold Hoop Earrings*, found in Eleonora's tomb in San Lorenzo, 1500s, Il Museo degli Argenti, Palazzo Pitti, Florence



Fig. 15 Titian, *La Bella*, 1536, Palatine Gallery, Florence



Fig. 16 Detail of Eleonora's pendant in Fig. 1



Fig. 17 Benozzo Gozzoli, *Detail of Procession of the Magi*, 1459-61, Fresco, The Magi Chapel, Palazzo Medici Riccardi, Florence



Fig. 18 Andrea di Cosimo Feltrini with the collaboration of Franciabigio, *ceiling of the Salone di Leone X*, 1518, Villa Medici, Poggio a Caiano (Prato)



Fig. 19 Medici coat of arms with eleven balls, from a manuscript of the commentary to Aristotle's *De Anima* by Niccolò Tignosi da Foligno, 1500s, Biblioteca Medicea Laurenziana, Florence



Fig. 20 Adriaen Haelwegh, *Eleonora di Toledo and Duke Cosimo de' Medici*, 1500s, engravings, Gabinetto dei Disegni e Stampe degli Uffizi, Florence



Fig. 21 Detail of aglets in the painting of Fig. 1



Fig. 22 Cornice of Palazzo Medici Riccardi, mid 1400s, Florence



Fig. 23 Rosette decoration on the ceiling of the Sala dei Cinquecento, 1550-60s, Palazzo Vecchio, Florence



Fig. 24 Rosette decoration on the ceiling of the Studiolo of Francesco I, 1570-73, Palazzo Vecchio, Florence



Fig. 25 Bronzino, *Maria de' Medici*, Detail of Sleeve Pins, 1551, Uffizi Gallery, Florence



Fig. 26 Dionigi Nigetti, Ceiling Rosette in the Room of the Maps, 1550s, Palazzo Vecchio, Florence

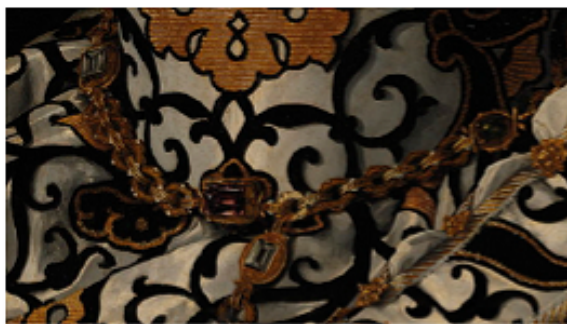


Fig. 27 Detail of girdle in Fig. 1



Fig. 28 Detail of the tassel on Eleonora's girdle in Fig. 1



Fig. 30 Unknown English Jeweler, *Pendant*, 1540-60, Victoria and Albert Museum, London



Fig. 31 Detail of ruby and broncone setting in Fig. 1



Fig. 32 Detail of diamond and broncone setting in Fig. 1



Fig. 33 Detail of emerald and broncone setting in Fig. 1



Fig. 34 Agnolo Bronzino, *Maria de' Medici*, Detail of diamond, pearl, and broncone earrings, 1551, Uffizi Gallery, Florence



Fig. 35 Agnolo Bronzino?, *Portrait of a Lady in Red*, 1532,

Chapter 2
Deviations from the 1545 Official Portrait
Jewelry as Depicted by Bronzino

After the presentation of the 1545 official portrait of Eleonora di Toledo by Bronzino (Fig. 1), her serene and regal image became a model for numerous later paintings but with minor stylistic changes, postural changes, and additions in objects or people. As I have already established in Chapter One, the jewelry as depicted in the 1545 portrait was heavily embedded with Medici dynastic imagery and *imprese*. The pearls, pendant, girdle, and sleeve pins all display important symbols for the regeneration of the second Medici line and Cosimo's hopes for his reign. It is reasonable to believe that her jewelry was also copied in countless later portraits due to its important significance. However, in three later portraits, *Eleonora with her son Francesco* of 1549 by Bronzino (Fig. 2), a posthumous portrait produced in the studio of Bronzino in 1562 (Fig. 3), and a later 1570-75 posthumous portrait painted inside the Studiolo of Francesco I by Alessandro Allori (Fig. 4), I find that the official portrait jewelry is present but it deviates slightly in form and imagery. Why then, given the official portrait jewelry's many Medici associations, did the jewels change?

I will begin my discussion with the 1549 portrait of *Eleonora with her son Francesco* (Fig. 2). Eleonora is depicted wearing her gold snood studded with pearls, two pearl necklaces, pearl drop earrings, and the famous girdle (Fig. 6), as was featured in the 1545 portrait. However, the symbolically significant *broncone* settings evident in Figure 5 of the official portrait have disappeared from the girdle. They are instead replaced by simple swirled gold work around the ruby and diamond, while the emerald is left with a setting of little to no decoration. In

this setting, two curved bands encircle the gem and terminate in pairs of swirled spirals at the top and bottom of the stone. The girdle's connecting chain no longer includes the elaborate links with intricate black enamel details. Instead, the chain links appear to be thick, tubular wire formed into an oval with pairs of decorative swirled spirals on the top and bottom of the link, details that mimic the swirled gold work around the ruby and diamond. The exclusion of such important Medici imagery in the official portrait jewelry leads me to ask, "Did Eleonora commission from her court jewelers a second girdle of a different style? If so, why was the *broncone* excluded?"

To understand if this girdle was an actual piece owned by Eleonora, one must first understand the intent for the painting's creation. Bronzino painted *Eleonora with her son Francesco* to accompany a portrait of Cosimo, intended as diplomatic gifts to Antoine Perrenot, Bishop of Arras.¹⁰⁶ Even though Cosimo initially commissioned the painting, Eleonora responded with clear instructions on how she wished Bronzino to paint it: "Francesco should be depicted in a tunic of red brocade, the most beautiful he (Bronzino) knows and is able to paint, and a cape lined in marten sable."¹⁰⁷ Eleonora asked Bronzino to avoid painting her dress in brocade, but another type of cloth that was equally luxurious, so that he could finish the portraits quickly.¹⁰⁸

¹⁰⁶ Bruce L. Edelstein, "Bronzino in the Service of Eleonora di Toledo and Cosimo de' Medici: Conjugal Patronage and the Painter-Courtier." (*Beyond Isabella: Secular Women Patrons of Art in Renaissance Italy*. Ed. Sheryl E. Reiss and David G. Wilkins. Kirksville, MO: Truman State UP, 2001), 225.

¹⁰⁷ *Ibid.*, 226.

¹⁰⁸ Paola Tinagli, "Portraits 1480-1560: Beauty and Power," in *Women in Italian Renaissance Art: Gender, Representation, Identity* (Manchester: Manchester UP, 2000.), 84.

Evidence from the terms of the commission makes it clear that Bronzino felt hurried to finish the painting. Bruce Edelstein deduced through existing letters between the shop and court assistants that Bronzino had little to work with to model the painting, not even clothes of the Duchess and Francesco.¹⁰⁹ Bronzino had to request to have their clothes sent to him. I can infer that Eleonora and her court assistants probably did not send Bronzino the jewelry, specifically the girdle, for the creation of the painting. Since Bronzino was encouraged to paint luxurious fabric without any tangible examples, I can infer that he was also encouraged to paint jewelry from his imagination. Bronzino most likely attempted to paint Eleonora's girdle from memory of her official portrait or in an invented style of his own. He excluded the *broncone* and replaced it with decorative swirls on account of time constraints. Eleonora did not necessarily own the girdle that she wears in *Eleonora with her son Francesco*.

Eleonora died on the 17th of December, 1562. That same year, shortly after her death, the workshop of Bronzino painted a commemorative portrait (Fig. 3). Eleonora's portrait is waist length. She stands in front of a parapet upon which her hands rest, exposing a ring not seen in the official portrait. The parapet also hides any girdle. Bronzino's workshop included the same beautiful brocaded dress, gold snood studded with pearls, two pearl necklaces, diamond pendant, pearl drop

¹⁰⁹ According to Bruce Edelstein, Bronzino instructed Pierfrancesco Riccio to mail an urgent request for a red velvet tunic belonging to Francesco and for a red satin overdress belonging to Eleonora. Lorenzo Pagni sent a response on January 20th, 1550, a letter that still exists and refers to Bronzino's specific request. Edelstein speculates that without real models, Bronzino needed a pair of clothes to paint what was most likely the portrait *Eleonora with her son Francesco*.

earrings, and rosette sleeve pins. In all respects, the posthumous portrait closely followed the decorative scheme of her official portrait but with elements included that refer to her death and virtue. For example, an empty vase in the background with an inscription refers to Eleonora as the virtuous woman of Proverbs 31: 10-13.¹¹⁰

The diamond pendant that rests on her neck excludes the wreath and laurel leaves worked in gold and enamel (Fig. 7) that made a direct reference to the laurel *imprese* and the sprouting of the laurel bush used as a Medici symbol to reference virtue, strength, victory, renewal and immortality.¹¹¹ Two curved, gold bands encircle the diamond and terminate in swirled spirals. Pairs of intercepting spirals flank the diamond at the top and bottom of the setting (Fig. 8). The prongs created from the scallops around the stone have disappeared. This style of swirl setting shows striking similarities to those on Eleonora's girdle painted thirteen years before (Fig. 6). These observations prompt questions about the existence of Eleonora's pendant given its stylistic association to the girdle that I have already stated was not a real piece.

In spite of the differences, the pendant in question for the posthumous portrait may actually be the same pendant as that depicted in the 1545 official portrait, now seen from the rear. Renaissance jewelry put equal importance and

¹¹⁰ According to Konrad Eisenbichler, ed. *The Cultural World of Eleonora di Toledo: Duchess of Florence and Siena*. (Aldershot: Ashgate, 2004.), 245. An empty vase was a symbol of death but also referenced virtue in the Renaissance.

¹¹¹ Janet Cox-Rearick, *Dynasty and Destiny in Medici Art: Pontormo, Leo X, and the Two Cosimos* (Princeton, NJ: Princeton UP, 1984), 18.

detail upon both the back and front of the jewel.¹¹² Pendants were intended to hang freely and therefore the backs are always richly decorated and in many cases, the theme continues all the way around in the manner of a small three-dimensional sculpture.¹¹³ Isabella d'Este from the court in Mantua was known to have owned a jewel in 1516 composed of two cornucopias of gold and diamonds, with a diamond crown above, a large emerald, and ruby below.¹¹⁴ On the reverse was "Isabella" spelled out in tiny diamonds. Such a reversible Medici jewel also exists, dated around 1586.¹¹⁵ Figure 11 displays a pendant richly worked in gold, enamel, and stones that frames a portrait miniature of Virginia de' Medici by Alessandro Allori in oil on silver. The backside reveals a miniature depicting *Juno as Protectress of Brides* painted with just as much care as the portrait in the front. Due to examples like these, a logical reason for the difference in framing could be attributed to the reversible quality of the pendant.

Still, the argument for the pendant's being an invention is stronger. Eleonora had already passed away; Therefore her clothes and accessories, specifically the jewels, for this portrait may not have been given to the artist and his shop. Furthermore, if one compares jewelry in other allegorical or Madonna and Child paintings by Bronzino (Figs. 12-18), it becomes apparent that the same swirl pattern is used in the jewelry worn by the Virgin Mary, Cupid, and Venus. In particular the brooch resting on the back of cupid in Figure 13 displays clearly

¹¹² Clare Philips and Ian Thomas, *Jewels and Jewellery* (London: V&A, 2008), 30.

¹¹³ *Ibid.*, 30.

¹¹⁴ Yvonne Hackenbroch, *Renaissance Jewellery* (London: Sotheby Parke Bernet, 1979), 18.

¹¹⁵ *Ibid.*, 18.

the pairs of swirls that meet on each side of the stone, creating a setting that is extremely similar to the pendant of the 1562 posthumous portrait in Figure 8. One can see in Figures 13,14, 16, and 18 that the jewels all share design elements specific to Bronzino: gold with swirls, allegorical figures, female figures, and masks. These examples represent a style of jewelry that Bronzino invented himself through painting, and he carried this style to paintings of real sitters such as Eleonora. The 1562 posthumous pendant, then, was not an actual piece that Eleonora wore but rather invented by Bronzino and his workshop.

After Bronzino's memorial portrait of Eleonora in 1562, no further independent portraits of her were painted.¹¹⁶ She was only depicted as Cosimo's consort in works celebrating their long and fruitful union in "couple portraits."¹¹⁷ One of these couple portraits is Alessandro Allori's portrait of Eleonora in the Studiolo of Francesco I in the Palazzo Vecchio in 1570-75 (Fig. 4). Eleonora is painted in a lunette that is situated directly across the room from Cosimo's lunette portrait. In this way, her eyes link to her husband Cosimo's portrait on the other side of the room. This is an idealized, youthful portrait of Eleonora, but with contemporary clothing and accessories.¹¹⁸ The allegorical scheme that surrounds her lunette depicts the zodiac of the fertile seasons, making a reference to her fecundity and marriage.¹¹⁹ The fresco above Eleonora's portrait is dedicated to the element of air and Juno, while the niche below her portrait contains Giovanni

¹¹⁶ Konrad Eisenbichler, ed. *The Cultural World of Eleonora di Toledo: Duchess of Florence and Siena* (Aldershot: Ashgate, 2004), 248.

¹¹⁷ *Ibid.*, 248.

¹¹⁸ *Ibid.*, 250.

¹¹⁹ *Ibid.*, 250.

Bandini's bronze statue of Juno.¹²⁰ Eleonora was commonly associated with the goddess Juno, the complement to Cosimo's Jupiter. The portrait in the Studiolo with the iconography of Juno is therefore a final tribute to the duchess during Cosimo's lifetime as the goddess of matrimony.¹²¹ One can see how the iconography and the paired portraits all serve to commemorate Eleonora's long and happy marriage to Cosimo. It is evident that the Studiolo portrait of Eleonora has many matrimonial connotations.

The theme of matrimony exhibited in the painting may be a result of the commissioner's request. Eleonora's son, Francesco I, was the patron for his parents' portraits in the Studiolo created between 1570-75. By this time his mother had passed away and his father, Cosimo, had remarried his second wife, Cammilla Martelli, in 1570. After learning that his father took a commoner for a wife, Francesco reportedly left the room in tears and humiliation.¹²² Cammilla did not play a political role and brought a new indulgent style to the Florentine court.¹²³ By the end of the 1500s, the language of appearances brought by Cammilla manifested the power of money and material pleasure.¹²⁴ Francesco despised Cammilla so much that within the first five hours of his father's death, Francesco became Duke and his first order of business was to forcibly admit Cammilla to a convent at one in the morning with few of her luxury

¹²⁰ Konrad Eisenbichler, ed. *The Cultural World of Eleonora di Toledo: Duchess of Florence and Siena* (Aldershot: Ashgate, 2004), 250.

¹²¹ *Ibid.*, 252.

¹²² Caroline Murphy, *Isabella de' Medici* (London: Faber and Faber Limited, 2008), 206.

¹²³ Roberta Orsini Landini and Bruna Niccoli, *Moda a Firenze, 1540-1580: Lo Stile Di Eleonora Di Toledo E La Sua Influenza* (Firenze: Pagliai Polistampa, 2005), 38.

¹²⁴ *Ibid.*, 38.

belongings.¹²⁵ Obviously, Francesco had a strong aversion to his father's "showy" wife. It would seem natural for him to miss his mother, Eleonora. Possibly for this reason he commissioned the Studiolo portraits of his parents in their youth, as they were in their happy marriage. This may account for the inclusion of so much matrimonial imagery and for some of the changes in Eleonora's jewelry from the official portrait jewelry of 1545.

One of these small changes can be seen in how Eleonora is posed with her girdle (Fig. 10). When compared to Figure 5 showing the original girdle, the design is the same, even the ruby and diamond settings have their same placements on the belt. However, Allori chose to accentuate the large pearl on her tassel by depicting Eleonora clutching the pearl with her left hand between her pointer and thumb finger. In this way, Allori pays tribute to Eleonora's love for pearls. And by accentuating the large pearl, he also commemorates her chastity and loyalty to Cosimo. Pearls were a common gift to Renaissance brides, and Eleonora in fact received a pearl strand for her wedding to Cosimo.¹²⁶ Therefore, the pearl between her fingers serves to reference their marriage and faithful union.

The pin that Eleonora wears on her breast in the Studiolo portrait does not appear in any other portrait of Eleonora and differs in style from the 1545 official portrait jewels. Still, it serves to strengthen the theme of matrimony that is already very prevalent in the painting. The breast pin consists of two gems, stacked on top

¹²⁵ Caroline Murphy, *Isabella de' Medici* (London: Faber and Faber Limited, 2008), 257.

¹²⁶ Maria Sframeli, *I gioielli dei Medici: dal vero e in ritratto* (Livorno: Sillabe, 2003), 47.

of each other and flanked by what appears to be two gold putti. The top-most stone sits above the putti's heads. It displays a circular form, no facets, and has a deep red or black color. The gem could be a dark ruby, garnet, or onyx. The stone in the middle, adorned by putti on each side, is a faceted, square diamond of large dimensions. A pearl drop hangs from the bottom of the diamond setting. The pin is symmetrical, sculptural, and ornamental in design.

The discussion of this style of symmetrical pin with two stacked gems goes back to the second half of the fifteenth century and the early Renaissance when three items of jewelry were the most common type of marriage jewelry set: the head brooch, the shoulder brooch (later reversible as a pendant in the early Renaissance), and a string of pearls.¹²⁷ A Florentine sumptuary law of 1472 even attempted to limit bridal ostentation by stating that for the first three years of marriage new wives could wear necklaces and two brooches, one on the shoulder and one on the head; for the second three years they could wear one necklace and one brooch, and after that nothing.¹²⁸ The brooch was a common item for bridal jewelry. The shoulder brooch worn by Bianca Maria Visconti, wife of the Duke of Milan, exemplifies the earliest and most typical design for a marriage jewel: an enameled gold angel on top of two stones aligned vertically (Fig. 19). Marriage jewels included symmetrical, figural decorations and usually included two stones stacked on top of each other.

¹²⁷ Luke Syson and Dora Thornton, *Objects of Virtue: Art in Renaissance Italy* (Los Angeles, CA: J. Paul Getty Museum, 2001), 43.

¹²⁸ Marian Campbell, *Medieval Jewellery in Europe 1100-1500* (London: V&A, 2009), 96.

Goldsmiths began to adapt the marriage brooch for an alternate use hanging from a necklace. Marriage pendants retained the same symmetrical design as the brooches, including two stacked gems, a pearl drop, and the traditional figure of an angel. The woman in Figure 20, thought to be Florentine, wears an enameled gold angel brooch on her necklace, attachable with a moveable hook. The Florentine woman in Figure 21 displays her enameled angel brooch in the background with other common dowry and betrothal items. Portraits of Italian brides and wives with marriage brooches, such as these, proclaimed the sitter's marital status.

Later, marriage brooches/pendants departed from the traditional angel imagery and replaced it with other symmetrical symbols of betrothal flanking vertically stacked stones (Figs. 22 and 23). The woman in Figure 22 wears a pendant featuring two flaming cornucopias, emblems of Hymen, goddess of marriage.¹²⁹ Likewise, Figure 23 is a painting that may have been intended to mark the subject's betrothal by the display of the central pendant. The two figures of putti frame the central table-cut ruby and stand on top of matching cornucopias, which are emblems of abundance and fertility.¹³⁰ Paired putti represent an image often included as fertility symbols in items given and exchanged at betrothal and marriage.¹³¹ These pieces show a departure from the traditional angel figure, replaced by symmetrical imagery referencing betrothal. They also show that

¹²⁹ Luke Syson and Dora Thornton, *Objects of Virtue: Art in Renaissance Italy* (Los Angeles, CA: J. Paul Getty Museum, 2001), 49.

¹³⁰ *Ibid.*, 57.

¹³¹ *Ibid.*, 57.

marriage jewelry made an adaptable transformation between brooches and pendants.

I believe that the brooch that Eleonora wears in the Studiolo portrait (Fig. 9), though difficult to see, shows striking similarities to the marriage pendant with a pair of putti just described in Figure 23. In Eleonora's brooch, two gold putti flank two central stones. I have already established that paired putti act as common fertility symbols in marriage items. The putti may stand on cornucopias, symbols of abundance and fertility. The brooch terminates in a pearl drop, much like many marriage brooch and pendant examples. We could include Eleonora's brooch within the same vein of symmetrical marriage jewelry. The brooch utilizes common betrothal imagery within the basic structure of known marriage brooches/pendants with stacked gems that I have highlighted previously as examples.

The Studiolo portrait of Eleonora included a marriage brooch because Francesco wanted to emphasize her faithful and "fruitful" union with Cosimo. I believe that the brooch most likely did exist as a betrothal gift from Cosimo. Francesco probably held sentimental attachments to the piece as a memory of his parents' happy marriage, especially since he exerted so much disdain against his father's new replacement wife, Cammilla.

An unknown Florentine goldsmith's sketch from the mid- to late sixteenth century (Fig. 24) exhibits design similarities to the marriage brooch in the Studiolo portrait and seems to confirm the existence of Eleonora's pin. The brooch/pendant incorporates similar marriage jewelry iconography, again, symmetrical putti standing on cornucopias bursting with fruit and a large central stone with another vertically stacked gem placed above the putti's heads. Scholarship concerning marriage jewelry believes this preliminary sketch to depict a marriage brooch/pendant based on its iconography.¹³² It could be the same piece that Eleonora wears in the Studiolo portrait.

The final change one can see in the Studiolo portrait is in Eleonora's pendant. Where before, the pendant showcased a large diamond. Now, a ruby replaced the diamond. Ruby, especially in Medieval times, seems to have been associated with marriage.¹³³ From roughly 1100-1500, rubies were believed to reconcile discord and combat lust, ideal to help in marriage.¹³⁴ Quite possibly, this lore of the power of the ruby continued to be believed into the Renaissance. If one surveys all of the marriage pins and pendants I've mentioned previously (Figs. 19-23), the central stone in every piece is a large ruby. This confirms that ruby was the stone of betrothal and marriage. However, this symbolism is not to be confused with my argument in Chapter One. The ruby was the most expensive of gems and was adopted by the Medici as a symbol for the family that all Medici

¹³² Luke Syson and Dora Thornton. *Objects of Virtue: Art in Renaissance Italy*. (Los Angeles, CA: J. Paul Getty Museum, 2001.), 58.

¹³³ Marian Campbell, *Medieval Jewellery in Europe 1100-1500* (London: V&A, 2009), 96.

¹³⁴ *Ibid.*, 96.

women wore, but the ruby also had a significance apart from the Medici family as the gem that was generally used for betrothal. Therefore Eleonora is depicted with a ruby set in her pendant instead of the original diamond so as to make an even stronger connection to her marriage to Cosimo and to mimic popular marriage jewelry. Additions and changes were made in the Studiolo portrait to put a greater emphasis on marriage and faithful union as opposed to the original intent of the portrait jewelry, which was to proclaim Eleonora as a Medici woman and display Medici imagery as a way to voice Cosimo's hopes for the future.

The Medici *imprese* in Eleonora's 1545 official portrait jewelry symbolized the political rebirth of Florence, helping Cosimo establish himself as a legitimate member of the European aristocracy and mark Eleonora as a new Medici woman. In the replica portraits, the original overtly political intention of the jewels was minimized by the exclusion of *imprese* and various changes. *Eleonora with her son Francesco* in 1549 and the 1562 posthumous portrait replace the laurel and *broncone* with swirled frames invented by Bronzino that serve no symbolic function. Jewelry pieces like these didn't exist, conceived under time constraints or lack of models. Deviations of the official jewelry emphasized alternative symbolic contexts. The inclusion of a marriage brooch and a ruby pendant in the Studiolo portrait create a lasting marriage image of the couple and strengthen the interpretation of the jewelry as betrothal gifts. The marriage brooch probably existed as an actual piece. Eleonora's jewelry was often copied and the replica portraits show changes that provide for different

interpretations. In the years following the 1545 official portrait we find that her adornments took on other forms and meanings.



Fig. 1 Agnolo Bronzino, Eleonora di Toledo with son Giovanni, 1545, oil on panel, 115 x 96 cm. Galleria degli Uffizi, Firenze



Fig. 2 Agnolo Bronzino, Eleonora di Toledo with son Francesco, 1549, oil on panel, Palazzo Reale, Pisa



Fig. 3 Agnolo Bronzino and Workshop, Eleonora di Toledo, 1562, oil on panel, 77.8 x 58.7 cm. Wallace Collection, London



Fig. 4 Alessandro Allori, Eleonora di Toledo, 1570-1575, Studiolo of Francesco I, Palazzo Vecchio, Florence



Fig. 5 detail of Eleonora's girdle in Fig. 1



Fig. 6 detail of Eleonora's girdle in Fig. 2



Fig. 7 detail of Eleonora's pendant in Fig. 1



Fig. 8 detail of Eleonora's pendant in Fig. 3



Fig. 9 detail of Eleonora's necklaces and pin in Fig. 4



Fig. 10 detail of Eleonora's girdle in Fig. 4



Fig. 11 Alessandro Allori, *Portrait of Virginia de' Medici and Juno as Protectress of Brides*, 1586, oil on silver, gold, enamel, precious stones, Thyssen-Bornemisza Coll., Lugano



Fig. 12 Agnolo Bronzino, *Allegory of the Triumph of Venus*, 1540-1545, oil on wood, 146 x 116 cm. National Gallery, London



Fig. 13 detail of the jewelry on Cupid's back as shown in Fig. 12



Fig. 14 detail of Venus's head dress as shown in Fig. 12



Fig. 15 Agnolo Bronzino, *Holy Family with John the Baptist*, 1540, oil on panel, 117 x 89 cm. Galleria degli Uffizi, Florence



Fig. 16 detail of the brooch worn by the Virgin Mary in Fig. 15



Fig. 17 Agnolo Bronzino, *Venus, Cupid, and Satyr*, 1553-1554, Galleria Colonna, Rome



Fig. 18 detail of the brooch worn by Cupid in Fig. 17



Fig. 19 Bonifacio Bembo, Detail of *Blanca Maria Visconti, Duchess of Milan*, 1460-70, tempera on panel, Pinacoteca di Brera, Milan



Fig. 20 Antonio del Pollaiuolo, Detail of a *Portrait of a Woman*, 1470-80, tempera on panel, The Metropolitan Museum of Art, New York

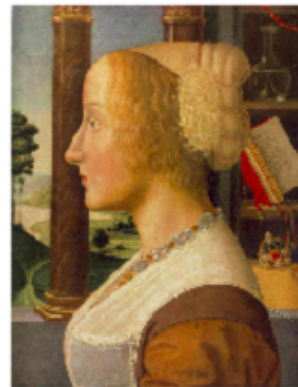


Fig. 21 Bastiano Mainardi, *Portrait of a Woman*, 1490-1500, tempera on panel, Staatliche Museen, Berlin



Fig. 22 Emilian (?), Detail of *Portrait of a Young Woman*, 1500-10, oil on panel, Private Collection, Scotland

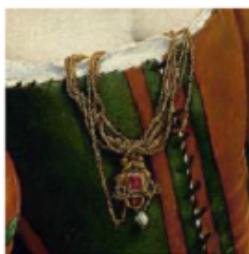


Fig. 23 Lorenzo Lotto, Detail of *Portrait of a Woman as Lucretia*, 1530-3, oil on canvas, Venice, National Gallery, London



Fig. 24 Goldsmith's Design, pen and ink and wash, Florence, mid- to late sixteenth century, Gabinetto dei Disegni, Uffizi, Florence

Chapter 3
The Art of the Renaissance Goldsmith:
Tools, Techniques, and Materials involved in the
Reproduction of Eleonora's 1545 Portrait
Jewelry

As a bench jeweler, I am always curious about the construction of Renaissance jewelry that I study in paintings. While Chapters 1 and 2 illuminated the symbolic and iconographic significance of Eleonora's jewels, Chapter 3 adds to the understanding of the jewelry from a technical standpoint. In this chapter, I deconstructed the portrait jewelry by identifying each piece according to its material and technique. I then made replicas of Eleonora's jewelry to reveal Benvenuto Cellini's process and test my research. This chapter will allow art historians to appreciate the craftsmanship involved in the making of the jewelry and help contemporary jewelers reproduce Renaissance techniques today.

I will begin by providing an introduction to the culture of goldsmithing in Renaissance Florence and its pertinence to the arts. By using Benvenuto Cellini's treatises on goldsmithing, I will discuss common Renaissance jewelry processes as well as particular techniques employed by Cellini. These include the type of metal, the techniques of lost wax casting and embossing, details of construction, materials, settings, altering gems with foil, and enameling. This will give a clear summary of the methods involved in Renaissance jewelry. I then dissect Eleonora's adornments and relate Cellini's goldsmithing processes to each piece of portrait jewelry. The last part of Chapter 3 discusses my replication of Eleonora's portrait jewelry. In addition to comparing and contrasting my methods against Cellini's, I document my experience and elaborate on the effort required of a contemporary jeweler to recreate Renaissance pieces historically made by a team of artisans.

Scholarship concerning Eleonora's portraits suggests that Benvenuto Cellini created the Duchess's adornments.¹³⁵ He became the court jeweler for the Medici in the early 1540s.¹³⁶ Cellini mentioned specific works commissioned for Eleonora in his autobiography that lead one to believe he also created her portrait jewelry. I looked to Cellini's treatises on goldsmithing and sculpture as my primary text. The treatises include thirty-six chapters specific to Renaissance jewelry production, ranging in topics from setting a ruby and tinting diamonds to casting and miniature work. The text was essential in revealing common Renaissance jewelry processes that I could apply to the recreation of Eleonora's adornments. To explicate his instructions, Cellini often referred to Pope Clement VII's morse (Fig. 1) and the salt cellar for Francis I as examples. Both the salt cellar and the designs for the morse exist today. They represent the few surviving visual records of Cellini's techniques that contemporary jewelers can reference to better understand the processes described in the treatises. In this chapter, I often reference the Pope's morse in relation to Eleonora's adornments.

Additionally, I gathered information from personal interviews with scholars and jewelers in Florence, Italy, January 7-11th 2013. My questions centered on jewelry techniques in Eleonora's jewelry. I benefited greatly from extended conversations with Dottoressa Maria Sframeli, Director of the Museo degli Argenti and curator of the Medici jewelry exhibit at the Palazzo Pitti.

¹³⁵ Maria Sframeli, *I gioielli dei Medici: dal vero e in ritratto* (Livorno: Sillabe, 2003), 24-25.

¹³⁶ Derek Parker, *Cellini: Artist, Genius, Fugitive* (Stroud: Sutton, 2003), 165.

Dottore Riccardo Gennaioli, research assistant specializing in cameos and goldsmithing techniques at the Museo degli Argenti. Giovanni Melli, proprietor of an antique jewelry business on the Ponte Vecchio and Carlo Cecchi and Piero Cosci, Florentine jewelers who create jewelry in a sixteenth century Florentine style.

In the Italian Renaissance, many artists began their artistic education as goldsmiths. The goldsmith's *bottega* was recognized as the best training school in accuracy of line and clarity of style, even for those destined for greater art.¹³⁷ Cellini states that "there were ever so many (Florentine artists) who commenced in the goldsmith's art and took their inspiration from it for various other arts, such as sculpture, architecture, and other notable lines of work."¹³⁸ For example, Filippo Brunelleschi's Florence Duomo exists as an icon of the Italian Quattrocento, yet Brunelleschi began his career as a goldsmith in the *Arte della Seta*, the silk merchants guild that included goldsmiths, metalworkers, and bronze workers. Cellini records him as "the first goldsmith who gave new vigor to the glory of architecture."¹³⁹ Among others were Andrea del Verocchio, Michelozzo, and Baccio Bandinelli.¹⁴⁰

¹³⁷ Joan Evans, "Chapter Four: The Early Renaissance," in *A History of Jewellery, 1100-1870* (Boston, MA: Boston Book and Art, 1970), 82.

¹³⁸ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 4.

¹³⁹ *Ibid.*, 4.

¹⁴⁰ Joan Evans, "Chapter Four: The Early Renaissance," in *A History of Jewellery, 1100-1870* (Boston, MA: Boston Book and Art, 1970), 82.

Cellini begins his treatises by mentioning famous goldsmiths who set the standard for Florentine jewelry production. The first artisan he recorded is a bronze sculptor, Lorenzo Ghiberti. Cellini praises the *Gates of Paradise* and lauds Ghiberti as a master of small cast work, a field in which “no man can touch him.”¹⁴¹ In the Italian Renaissance the goldsmith’s art and the arts of the painter and sculptor were intimately linked.¹⁴² Sculptors began their career working on a small scale as goldsmiths and often continued to make jewelry even as their work grew in size.¹⁴³ Jewelry’s basic techniques and style are similar to those used in bronze sculpture.¹⁴⁴

A number of painters began their training as goldsmiths such as Sandro Botticelli, Antonio Pollaiuolo, Domenico Ghirlandaio, Andrea del Sarto, Andrea Mantegna, and Lorenzo di Credi.¹⁴⁵ Such training resulted in painters that could paint practicable jewels and portraits that replicate the sitter’s adornments with exacting precision.¹⁴⁶ I have observed that compared to other artistic periods, Renaissance paintings show remarkable accuracy in jewelry construction, materials, and technique. When studying Cellini’s technique visible in Eleonora’s jewelry, one must remember that her portrait artist, Agnolo Bronzino, lived in this

¹⁴¹ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 2.

¹⁴² Joan Evans, “Chapter Four: The Early Renaissance,” in *A History of Jewellery, 1100-1870* (Boston, MA: Boston Book and Art, 1970), 82.

¹⁴³ Carl Hermarck, “Countries and Cultures: Italy,” in *The Art of the European Silversmith, 1430-1830*, vol. 1 (London: Sotheby Parke Bernet, 1977), 1.

¹⁴⁴ Joan Evans, “Chapter Four: The Early Renaissance,” in *A History of Jewellery, 1100-1870* (Boston, MA: Boston Book and Art, 1970), 83.

¹⁴⁵ *Ibid.*, 82.

¹⁴⁶ *Ibid.*, 82.

culture conducive to the goldsmith's art. Although he never studied as a goldsmith, Bronzino paints jewelry with incredible detail and sharpness of brush. His clear depictions are critical to my identification of Renaissance jewelry techniques.

Two types of workshops dominated the goldsmithing industry in the Italian Renaissance: the workshops at a princely court or a guild-regulated workshop.¹⁴⁷ Under the guild system in Florence, the silk merchants incorporated goldsmiths into the *Arte della Seta* because they specialized in luxurious textiles, brocades, and church vestments that were often laced with gold or silver thread.¹⁴⁸ The process for becoming a master goldsmith within the guild was long and arduous.¹⁴⁹ The young boy usually began an apprenticeship and worked his way to the journeyman position, which could last as long as 10 years and included studying abroad.¹⁵⁰ To become a master, the journeyman had to complete a series of goldsmithing tests and a final masterpiece, without assistance.¹⁵¹ The average master goldsmith kept a retail shop with a workshop that consisted of two apprentices and two or more journeymen.¹⁵² Guild laws restricted the amount of assistants so that masters' shops couldn't rival others within the guild.¹⁵³ The

¹⁴⁷ Edward Lucie-Smith, "Renaissance Attitudes," in *The Story of Craft: The Craftsman's Role in Society* (Ithaca, New York: Cornell University Press, 1981), 145.

¹⁴⁸ R. Burr Litchfield, *Florence Ducal Capital, 1530-1630* (New York: ACLS Humanities E-Book, 2008), 223.

¹⁴⁹ Edward Lucie-Smith, "Renaissance Attitudes," in *The Story of Craft: The Craftsman's Role in Society* (Ithaca, New York: Cornell University Press, 1981), 144.

¹⁵⁰ *Ibid.*, 146.

¹⁵¹ John Frank Hayward, *Virtuoso Goldsmiths* (London: Sotheby Parke Bernet, 1976), 38-39.

¹⁵² *Ibid.*, 19.

¹⁵³ *Ibid.*, 42.

guild also prohibited master goldsmiths from leaving to work elsewhere abroad.¹⁵⁴

Goldsmiths employed by rulers and princely courts, such as Cellini, had the advantage of being exempt from guild restrictions and regulations.¹⁵⁵ They did not have to complete mastership tests and could be employed at a skillful journeyman's status.¹⁵⁶ These goldsmiths usually traveled from court to court, finding consistent work with high-ranking patrons and their collection of specialized jewelers. At the court of Cosimo de' Medici, many of the goldsmiths were German, Flemish, or Italian.¹⁵⁷ The Medici workshop included a unique mixture of specialized goldsmiths: three goldsmiths made usable plate, one worked for the mint and cast silver statuettes, two specialized in enamel, and three practiced all aspects of the craft.¹⁵⁸ All of these head craftsmen were then backed by a large number of *lavoranti* that assisted with making the pieces.¹⁵⁹ One can imagine an entire team of jewelers at the Medici court. Goldsmithing was a group process. The most sophisticated Renaissance pieces required a wide range of specialized skills.¹⁶⁰ For this reason, one jeweler did not make courtly objects alone.¹⁶¹

¹⁵⁴ Edward Lucie-Smith, "Renaissance Attitudes," in *The Story of Craft: The Craftsman's Role in Society* (Ithaca, New York: Cornell University Press, 1981), 146.

¹⁵⁵ *Ibid.*, 144.

¹⁵⁶ *Ibid.*, 145.

¹⁵⁷ John Frank Hayward, *Virtuoso Goldsmiths* (London: Sotheby Parke Bernet, 1976), 20.

¹⁵⁸ Anna Somers Cocks and Charles Truman, *Renaissance jewels, gold boxes and objets de vertu* (New York: Vendome Press, 1984), 24.

¹⁵⁹ *Ibid.*, 24.

¹⁶⁰ *Ibid.*, 24.

¹⁶¹ John Frank Hayward, *Virtuoso Goldsmiths* (London: Sotheby Parke Bernet, 1976), 19.

Alessandro Fei's painting of a sixteenth century goldsmith's workshop in the Studiolo of the Palazzo Vecchio (Fig. 2) shows an accurate depiction of the Medici court goldsmiths at work. In the composition, goldsmiths construct vessels, plates, coins, and jewelry. The jeweler in the foreground holds a crown similar to that worn by the Medici Duke. The outside corridor of the Uffizi creates the workshop setting. To prevent any forgery, goldsmiths worked in full view of the street.¹⁶² Records even show masters incurring fines for working upstairs or in backrooms.¹⁶³ Cellini would have worked in an outdoor, group setting similar to Alessandro Fei's depiction. I believe that he acted a type of "department head" at the Medici goldsmith workshop. Cellini most likely approved of the designs with Cosimo de' Medici and oversaw the production of the pieces. Eleonora's jewels were probably realized at the hands of numerous specialized craftsmen at the Medici court.

Cellini's treatises give thorough descriptions of the kinds of materials and techniques the court goldsmiths were probably using at their workbenches. Beginning with the base material of precious gold metal, which was supplied from deposits in Bohemia, Spain, and South America with the discovery of the New World.¹⁶⁴ Cellini stated in his treatises that he utilized twenty-two and a half

¹⁶² Anna Somers Cocks and Charles Truman, *Renaissance jewels, gold boxes and objets de vertu* (New York: Vendome Press, 1984), 28.

¹⁶³ *Ibid.*, 28.

¹⁶⁴ *Ibid.*, 23.

karat gold to twenty-three karat gold.¹⁶⁵ Karat refers to the purity of the gold in terms of the quantity of copper and silver alloys. As a general rule, the higher the karat, the purer and the softer the gold is. Pure gold is too soft to be worked with tools. Cellini states that anything higher than twenty-three karats is too difficult to work with and dangerous to solder.¹⁶⁶ Cellini's choice of karat has the benefit of malleability without too much softness, while also containing a high gold content.

Cellini discussed two techniques when referring to the creation of metal pieces: casting (*fusionne*) and embossing (*sbalzare*). Casting was the most common method of Renaissance jewelry production in multiples.¹⁶⁷ First, Cellini made a model of the jewelry piece in wax. Then, he made a mold in two halves with two rectangular frames such as the example in Figure 3.¹⁶⁸ Cellini filled each frame with dense and moistened sand, similar to clay.¹⁶⁹ He dusted the surface with charcoal powder to prevent the wax model from sticking and pressed each frame into the model like a sandwich.¹⁷⁰ A channel, or sprue, extended to the outer edge of the mold, allowing a space for the molten metal to pour inside.¹⁷¹ From this mold, Cellini could produce multiples in metal without decreasing the quality of the mold. The resulting metal components had a fine granular texture on the

¹⁶⁵ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 45.

¹⁶⁶ *Ibid.*, 45.

¹⁶⁷ Anna Somers Cocks and Charles Truman, *Renaissance jewels, gold boxes and objets de vertu* (New York: Vendome Press, 1984), 42.

¹⁶⁸ *Ibid.*, 42.

¹⁶⁹ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 62.

¹⁷⁰ Anna Somers Cocks and Charles Truman, *Renaissance jewels, gold boxes and objets de vertu* (New York: Vendome Press, 1984), 42.

¹⁷¹ *Ibid.*, 42.

surface, described by Cellini as *arena di tufo*, which had to be worked over or chased with tools after being freed from the mold.¹⁷²

Casting uses a large quantity of metal and can cost the commissioner a grand sum of money.¹⁷³ The casting process creates heavy objects that have a tendency to weigh down the wearer. The embossing technique, also called repoussé and chasing, was more highly regarded than cast work, particularly for its difficulty.¹⁷⁴ Embossing is a laborious process that uses hammers and punches to transform a thin sheet of gold into hollow, low relief jewelry. By applying force alternately to both sides of the metal, one can manipulate the form. When Cellini created Pope Clement VII's morse (Fig. 1) he "employed hammers and punches alternately, now from in front, now from the back, keeping the gold of as equal thickness as possible all over," until gradually the figures in relief took shape.¹⁷⁵ Cellini would support the work from "caving-in" while he was hammering it by adhering it to a mixture of stucco, Greek pitch resin, beeswax, and a little brick dust or ground terracotta.¹⁷⁶

To give metal pieces their brilliant finish, Cellini placed them in a clean glass vase and instructed "little children to make water over it, for their urine is

¹⁷² John Frank Hayward, *Virtuoso Goldsmiths* (London: Sotheby Parke Bernet, 1976), 63.

¹⁷³ Anna Somers Cocks and Charles Truman, *Renaissance jewels, gold boxes and objets de vertu* (New York: Vendome Press, 1984), 42.

¹⁷⁴ John Frank Hayward, *Virtuoso Goldsmiths* (London: Sotheby Parke Bernet, 1976), 62.

¹⁷⁵ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 51.

¹⁷⁶ *Ibid.*, 46.

purser and warmer than men's.”¹⁷⁷ Today, jewelers use a heated acidic solution that helps remove unwanted oxidation from metal. I suspect that warm urine served a similar function for Cellini. He mentions using tripoli, verdigris, and ammonia salts for finishing jewelry.¹⁷⁸ Tripoli is a very fine, abrasive rouge compound that gives metal its high shine.

Cellini mentions four precious stones: ruby, emerald, diamond, and sapphire.¹⁷⁹ Diamond exists as the hardest stone with a Mohs hardness index¹⁸⁰ of 10 out of 10. The ruby and sapphire have a Mohs index of 9. At 7.5, Emerald is the softest and is usually cut as a cabochon because it lacks in fire and refractive qualities.¹⁸¹ Cellini gives the ruby pride of place and describes its qualities in depth. Ruby is a red transparent variety of corundum usually from oriental origin of upper Burma that came in for trade in the port of Venice.¹⁸² Cellini stated that rubies were also found in Levant and the Eastern Mediterranean region.¹⁸³ He extolled rubies from the South as the most rare, beautiful, and glowing.¹⁸⁴ Jewelers often substituted bala rubies (*balaschio*) for real ruby.¹⁸⁵ Cellini states that “the balas is a ruby with little color, but it is of the same hardness, and so a

¹⁷⁷ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 57.

¹⁷⁸ *Ibid.*, 57.

¹⁷⁹ *Ibid.*, 22.

¹⁸⁰ The Mohs scale of mineral hardness characterizes the scratch resistance of various minerals through the ability of a harder material to scratch a softer material.

¹⁸¹ Parker Lesley, “Introduction: On Materials and Design,” in *Renaissance Jewels and Jeweled Objects: From the Melvin Gutman Collection* (Baltimore: Baltimore Museum of Art, 1968), 27.

¹⁸² *Ibid.*, 27-28.

¹⁸³ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 22.

¹⁸⁴ *Ibid.*, 22.

¹⁸⁵ Parker Lesley, “Introduction: On Materials and Design,” in *Renaissance Jewels and Jeweled Objects: From the Melvin Gutman Collection* (Baltimore: Baltimore Museum of Art, 1968): 27-28.

gem of the nature of the ruby, and differing from it only in cost.”¹⁸⁶ This substitution was common and Cellini even recorded setting two balas rubies in Pope Clement VII’s morse.¹⁸⁷

A common Renaissance stone setting incorporated *archetti*, or arches, that formed the flower petals of the quatrefoil.¹⁸⁸ Cellini wrote several chapters on how to set stones, yet he never mentioned how to make the iconic quatrefoil setting, nor does he describe the devices that support the stone from below. In his chapter on miniature work for the Pope’s embossed morse, Cellini briefly mentions his technique: “As there were still gems to go upon it I made a base to the work with an eye attached...the precious gems are set firmly with screws and clamps, and last of all the base is firmly screwed on.”¹⁸⁹ This vague description leads me to believe that Cellini set stones in from the back, kept in place by tabs that he pushed over on the reverse or a screw system that fixed the stones in place. He then screwed a base on last.

Screwing a base on the reverse created a closed setting, allowing Cellini to alter the back of the stone underneath the culet. Fraud was difficult to detect because, with few exceptions, all Renaissance gems were displayed in closed

¹⁸⁶ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967): 23.

¹⁸⁷ *Ibid.*, 30.

¹⁸⁸ Diana Scarisbrick, “The Renaissance” in *Historic Rings: Four Thousand Years of Craftsmanship* (Tokyo: Kodansha International, 2004), 64.

¹⁸⁹ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 57-58.

settings.¹⁹⁰ Cellini devoted four chapters to stone alteration, implying that tinting or foiling stones was mandatory procedure regardless of the existing valor of the gem. This process involves placing foils or other materials in the setting where the reverse of the stone sits, below the culet. In his chapter on how to set a ruby, Cellini instructed the use of four to five ruby-colored foils of which “some should be so deep a glow that they seem quite dark with scarce any red at all” and the jeweler should choose the one that gives the most value to the stone.¹⁹¹ In his chapter on how to make foils for all sorts of transparent jewels, Cellini describes how to mix quantities of gold, silver, and copper to make foils in red, yellow, blue, and green.¹⁹² The Renaissance goldsmith would beat down the metal mixture to a fine, featherweight thickness. Colored foils represent the most commonly used Renaissance technique for color enhancement.

Cellini also recorded other materials for stone alteration. For example, he recounted a specific commission involving silk stained with Kermes inside the bezel of a ruby worth 3000 scudi.¹⁹³ He boasted that envious fellow jewelers admired the setting so much that they suspected Cellini to have tinted the stone, a technique forbidden in jewelry except for diamonds.¹⁹⁴ He carefully opened the setting in front of the jewelers’ eyes to confirm his genius.¹⁹⁵ For diamonds,

¹⁹⁰ Anna Somers Cocks and Charles Truman, *Renaissance jewels, gold boxes and objets de vertu* (New York: Vendome Press, 1984), 48.

¹⁹¹ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 24.

¹⁹² *Ibid.*, 28.

¹⁹³ *Ibid.*, 25.

¹⁹⁴ *Ibid.*, 25.

¹⁹⁵ *Ibid.*, 25.

Cellini recorded melting together mastic tears, linseed oil, almond oil, turpentine, and a touch of lamp-black. This produced a sticky substance that adhered to the back of diamonds and amplified their color.¹⁹⁶ Renaissance jewelers used a variety of strange materials in order to add value to a stone.

Jewelers also invented ways to “cheat” a stone, which Cellini disgraces in his treatises. He recorded a jeweler who procured dragon’s blood, a gummy composition sold in apothecary’s in Florence and Rome, and smeared it across the back of an Indian ruby of the weakest color.¹⁹⁷ After fixing the stone in an elaborate setting, the jeweler could have sold it for 100 scudi when it was really worth less than 10 scudi.¹⁹⁸ Cellini went on to discuss doublets (*doppie*) made mostly in Milan for the peasant folk.¹⁹⁹ Doublets involve a thin piece of Indian ruby or emerald attached to the bottom of clear crystals that give the impression of a real gem.²⁰⁰

Cellini devoted a seven-page chapter to the art of enameling, a finely ground glass called frit that creates a smooth, glaze-like finish when fired.²⁰¹ He described enameling as an art born in Florence that spread to France and

¹⁹⁶ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 35-36.

¹⁹⁷ *Ibid.*, 26.

¹⁹⁸ *Ibid.*, 26.

¹⁹⁹ *Ibid.*, 27.

²⁰⁰ *Ibid.*, 27.

²⁰¹ Parker Lesley, “Introduction: On Materials and Design,” in *Renaissance Jewels and Jeweled Objects: From the Melvin Gutman Collection* (Baltimore: Baltimore Museum of Art, 1968), 26.

Flemings.²⁰² Cellini described a particular type of enameling called *champlevé* that involved engraving or chiseling the surface of the metal with troughs as deep as “two ordinary sheets of paper,” which the jeweler would later fill with enamel.²⁰³ He instructed the jeweler to complete two firings, filling the troughs twice.²⁰⁴ Afterwards, Cellini hand polished the surface to an even level with *frassinelle*, or bits of stone and sand, and finally tripoli for a brilliant finish.²⁰⁵ He recommended adding a little quince-seed-water to the frit if the enamel fell out of the troughs, producing a sticky gum.²⁰⁶

Now that I have established Cellini’s techniques and materials involved in Renaissance jewelry production, I will relate his processes to Eleonora’s portrait jewelry. By separating each each adornment into individual parts, I will identify if the pieces were cast, embossed, enameled, or any other process that Cellini may have utilized. My investigation will focus on Eleonora’s sleeve pins, pendant, and girdle that she wears in her official portrait of 1545.

The first items I bring into question are Eleonora’s sleeve pins, thirty-four of which remain visible in the painting. Jewelers commonly utilized lost wax casting in the creation of rosettes because of the large quantity of multiples of the

²⁰² Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 15.

²⁰³ *Ibid.*, 15.

²⁰⁴ *Ibid.*, 19.

²⁰⁵ *Ibid.*, 20.

²⁰⁶ *Ibid.*, 21.

same item.²⁰⁷ Casting provided the greatest efficiency. Vannoccio Biringuccio, in his book on metallurgy called *De la pirotechnia*, wrote in the chapter concerning the small art of casting that the process is most suitable for producing multiples of the same work because it requires the least time.²⁰⁸ Eleonora could wear up to 193 rosette buttons on one outfit.²⁰⁹ Painstakingly embossing each rosette would be an arduous and unnecessary task for Cellini. Therefore, it is likely to believe that Cellini cast the sleeve pins in twenty-two and a half karat gold. Bronzino gives the viewer a hint in the official portrait where a sleeve pin turns the curve of Eleonora's right shoulder and we see the pin from the underside (Fig. 4). The painting reveals a flat back, most definitely lost wax casting. If the underside revealed a hollow back, I would argue the opposite for the embossed technique.

Eleonora's diamond pendant incorporates both techniques of casting and embossing. Cellini more than likely cast the laurel wreath and embossed the quatrefoil setting, soldering the two pieces to each other for the final pendant. The history of the quatrefoil originates from two stone setting styles. For centuries, jewelers secured gems in a bezel setting (a continuous lip around the stone) or in a prong setting composed of four or five claws.²¹⁰ By the late fourteenth century, jewelers combined both techniques to create the iconic quatrefoil.²¹¹ Cellini set all of Eleonora's stones in bezels reinforced by four claws that are embossed out of

²⁰⁷ Anna Somers Cocks and Charles Truman, *Renaissance jewels, gold boxes and objets de vertu* (New York: Vendome Press, 1984), 42.

²⁰⁸ Vannoccio Biringuccio, *The Pirotechnia of Vannoccio Biringuccio* (Cambridge, MA: M.I.T., 1966.), 326

²⁰⁹ Maria Sframeli, *I gioielli dei Medici: dal vero e in ritratto*, (Livorno: Sillabe, 2003), 48.

²¹⁰ Maria Campbell, "Workmanship and Acquisition," in *Medieval Jewelry* (London: Victoria and Albert Museum, 2009), 16.

²¹¹ *Ibid.*, 16.

the cullet similar to that in Figures 5 and 6.²¹² Typically, the jeweler attempted to make the stone appear bigger by raising it high and adding quatrefoils, cinquefoils, or hexafoils that were then subdivided by double arches for grandeur like Eleonora's.²¹³ Cellini would have constructed the round bezel setting from twenty-two and a half karat gold sheet metal, then he embossed the quatrefoils and prongs from the back using a hammer and punches. After Cellini put the stone in place, he pushed the metal lip and prongs over the surface.

Scholar in Medici jewelry and director of the *Museo degli Argenti* in Florence, Dr. Maria Sframelli, confirmed the quatrefoil setting to be made with the embossing technique.²¹⁴ Her research assistant, Dottore Riccardo Gennaioli, seconded this. Examples in the *Museo degli Argenti* show hollow settings created in a similar manner and she believes that Cellini embossed the setting. Carlo Cecchi and Piero Cosci, Florentine goldsmiths that create jewelry in the Renaissance style, believe that Cellini fabricated the settings from sheet gold and finished them with embossed *archetti*.²¹⁵ Otherwise, cast settings would have been too large and heavy for Eleonora to wear.

The laurel wreath around the diamond could have been embossed from the same piece of metal. But a more likely explanation is that Cellini rendered the

²¹² Diana Scarisbrick, "Chapter 6: Decorative Rings" in *Rings: Jewelry of Power, Love, and Loyalty* (New York: Thames and Hudson, 2007), 237.

²¹³ Diana Scarisbrick, "The Renaissance" in *Historic Rings: Four Thousand Years of Craftsmanship* (Tokyo: Kodansha International, 2004), 64.

²¹⁴ Maria Sframelli, interview with the author, January 10, 2013.

²¹⁵ Carlo Cecchi and Piero Cosci, interview with the author, January 7, 2013.

wreath in wax, cast it in gold, and soldered it together with the quatrefoil setting. Looking to existing pieces created in a similar style can help me support my theory that Cellini cast the solid gold wreath. Figure 7 shows a French, Renaissance pendant from the mid sixteenth century. Italian jewelers published engraved pattern books that appeared in Western Europe and the pendant probably represents an original Italian design.²¹⁶ A heavy gold laurel wreath, definitely created by casting, surrounds a scene of Pluto and Proserpine. The artist even separated the wreath in four quadrants with enameled decorations, similar to Eleonora's pendant. I believe that, like this example, Cellini cast the wreath separately and soldered it to the setting afterwards.

When analyzing Eleonora's girdle, using the same strategy of looking to existing jewelry pieces and depictions in paintings can help determine the origin of the belt's design and the techniques used. The style of chain derives from a common necklace design denoting faithful love. The chain repeats in two portraits by Bronzino in the same time period as Eleonora's official portrait: "A Young Woman and Her Little Boy" in 1540 (Fig. 8) and "Lucrezia Panciatichi" in 1545 (Fig. 9). Such necklaces usually incorporated oblong, rectangular links inscribed with latin love words. Lucrezia's necklace reads "Amour dure sans fin," a reference to love and faithfulness.²¹⁷ The Victoria and Albert Museum owns a necklace almost identical to Lucrezia's (Fig. 10) that reads UBI AMOR IBI

²¹⁶ Carl Hernmarck, "Styles: Late Gothic and Renaissance," in *The Art of the European Silversmith, 1430-1830*, vol. 1 (London: Sotheby Parke Bernet, 1977), 43.

²¹⁷ Maurizia Tazartes, *Bronzino* (Ginevra-Milano: Rizzoli, 2003), 112.

FIDES (Where there is Love, there is Faith.) in Roman capital letters.²¹⁸ Necklaces like these were given as wedding presents and inscribed with the initials of the new couple or with amorous mottos.²¹⁹ The basic design for all of these examples includes rosette shaped links in the casting technique with enameled black cloisons in the champlevé enamel technique. Lightweight, plain gold wire links connect each rosette.

Cellini appears to have taken this common chain design and increased it three times its normal size for Eleonora's girdle. Many of the techniques remain the same. The rosette links appear thick and heavy (Fig. 11), likened to the technique of sand casting. Cellini made multiples of five rosette links in between each link. Therefore, he most likely cast all of the links from a single wax mold to make the process quicker. The connecting bands usually created from wire, need to be lightweight in order for the belt to move freely. The bands on Eleonora's girdle appear thin and embossed from twenty-two and half karat gold sheet metal. Cellini used steel chisels and punches to create ribbing on the sides and parallel troughs in the middle for the black, champlevé enamel.

I believe that the black material decorating the girdle is enamel as opposed to niello²²⁰ because this is consistent with the example necklaces that also used

²¹⁸ Jill Hollis, *Princely Magnificence: Court Jewels of the Renaissance, 1500-1630* (London: Victoria and Albert Museum, 1980), 52.

²¹⁹ *Ibid.*, 52.

²²⁰ A black compound of sulfur with silver, lead, or copper, used for filling in engraved designs in silver or other metals.

enamel. Enamel adorned many Renaissance jewelry pieces in delicate patterns. Black designs that appear as niello are actually black enamel in the *champlevé* technique such as the signet ring in Figure 12. If the material were niello, it would appear chunky and less delicate as Cellini says, “*smalto sottile e niello grosse,*” enamel should be fine, niello should be coarse.²²¹ As he describes in his treatises, Cellini created troughs as deep as “two ordinary sheets of paper.”²²² These troughs could be carved into the wax models before casting or incised into the sheet metal with steel tools and punches. Once Cellini embossed or cast the components, he filled the troughs with black frit and fired them to a smooth enameled surface. By using a pumice stone, or *frassinelle*, Cellini sanded the enamel until it was level with the top of the trough and he used tripoli to polish the surface.²²³

Similar to Eleonora’s pendant, the settings on the girdle are constructed of two parts: embossed quatrefoil settings soldered to cast, solid gold *broncone*. The settings display three of the four stones that Cellini mentions in his treatises: diamond, ruby, and emerald. There is a strong possibility that Cellini used bala rubies as an alternative, the same stone that he set in Pope Clement’s morse.²²⁴ He probably altered and enhanced the color of all of Eleonora’s stones since he records foiling and tinting as a jeweler’s common practice.²²⁵ Cellini would have

²²¹ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 17.

²²² *Ibid.*, 15.

²²³ *Ibid.*, 20.

²²⁴ *Ibid.*, 30.

²²⁵ *Ibid.*, 28.

screwed a lightweight back to each setting, like he did for the Pope's morse, in order to hide the materials for stone alteration and provide extra support to the gem's cullet.²²⁶

Now that I have dissected components of Eleonora's jewelry and have identified them according to the most likely techniques, I will describe my replication of the portrait jewelry. My goal for the replicas was to adhere as close as possible to Cellini's processes and design. To understand the basic form of the Eleonora's sleeve pin, I used Adobe Illustrator to simplify Bronzino's renderings to a black and white line drawing (Fig. 13). Like Cellini, I carved the first model of the sleeve pin by hand in wax with specialized carver's tools. Wax is a forgiving material to model with because it can be molded separately and fused together by melting. Figure 14 shows my model for the sleeve pin in which I carved parts of the rosette pin in different colors of wax and melted the pieces together. I followed Cellini's steps by creating a mold from the wax model (Fig. 15). Pouring hot, liquid wax into the mold produced identical wax multiples ready for casting. By attaching the wax models to sprues and arranging them in a manner similar to an interconnected tree, the metal could flow to all parts of the models. I cast 22 sleeve pins in the lost wax casting method that Cellini would have utilized in the sixteenth century.

²²⁶ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 57-58.

I created Eleonora's pendant in a similar manner. I modeled the wreath after the example in Figure 6 by molding thin strips of wax into individual laurel leaves that culminated in a wreath pattern. Crossing tiny wax wires imitate the white ribbons (Fig. 18). The laurel wreath encircles a quatrefoil setting subdivided into double arches. The pendant secures a large 20 x 15 mm imitation diamond stone in a combination bezel and prong set, just like Cellini would have used in Eleonora's jewelry. I attached the pendant to a strand of freshwater pearls of similar dimensions and color as Eleonora's. A pear shaped pearl drop hangs from the bottom of the pendant.

I chose to recreate the waist section of Eleonora's girdle, excluding the chain and tassel. To make the large jeweled components that display the gems, I created quatrefoil settings in wax in the same technique as the pendant. Malleable wax wire helped form the intertwined *broncone* that encircle each quatrefoil setting, similar to how Cellini would have made them (Fig. 19). Faceted 18 x 13 mm stones in red and white imitate the ruby and diamond worn by Eleonora. A 18 x 13 mm dyed green quartz cabochon replaces Eleonora's emerald cabochon. For the rosette links of the chain, I used Adobe Illustrator to make a template of the original form as painted by Bronzino (Fig. 20). This template could then be adhered to sheet wax of an appropriate thickness and cut with a fine tooth saw blade. Carving tools engraved the troughs for enamel directly into the wax. By creating a mold of the wax model, I produced wax multiples for casting.

I used Cellini's embossing technique to create the connecting links of the girdle. I started with strips of 24-25 gauge sheet metal adhered to bowls filled with pitch. Pitch supports the metal from ripping while allowing me to transform the metal with punches, chisels, and hammers. Cellini describes pitch as a mixture of stucco, Greek pitch resin, beeswax, and a little brick dust or ground terracotta.²²⁷ I used thin, narrow punches to hammer the ribbing outwards from the back and to create parallel depressions inwards from the front for the enamel troughs. I constantly alternated between front and back, each time having to burn off the pitch, anneal the metal, and re-adhere the strips to the pitch for continued working. Once satisfied with the embossing work, lightly tapping a hammer on the ribbing helped to curl it inwards on each side and bend the strips into rings. Each ring is soldered on the back seam and connects to a rosette link.

I attempted to recreate a historically accurate version of Eleonora's jewelry based on my research, but at times I deviated from Cellini's techniques and materials. The cost of materials, lack of information, or outmoded equipment caused me to alter the original design. Instead of using gold for my replicas, I chose brass and bronze, considerably harder metals that do not allow me to emboss delicate details like Cellini. Yet both metals have a strong likeness to gold when highly polished and retain the integrity of Eleonora's pieces. I utilized brass sheet metal for embossing and bronze for casting.

²²⁷ Benvenuto Cellini, *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* (New York: Dover Publications, 1967), 46.

Since fired glass will not adhere to bronze or brass, I substituted nail polish in place of enamel. Nail polish is a strong epoxy alternative that keeps the integrity of Eleonora's pieces. Black nail polish adheres to the troughs engraved on the rosette links and on the parallel impressions of the embossed connecting links of the girdle. Green and white nail polish also act as substitutes that decorate the laurel leaves and ribbons on Eleonora's pendant.

Instead of sand casting my sleeve pins like Cellini, I used a modern-day practice called investment casting. This involves pouring a mixture of water and plaster powder into a steel flask where the wax sprue attaches to the bottom (Fig. 15). With this method, plaster encases the wax model. Once heated in the kiln, the wax melts out of the flask leaving a hollow space where the models once occupied. Poured molten metal replaces this empty space from the single opening at the bottom of the flask where the sprue attached to the base. Once the poured metal has cooled, I immerse the hot flask in water and the plaster explodes from the steel flask leaving the bronze models with their sprue channels still attached (Fig. 17).

I also diverted from Cellini's processes for the quatrefoil settings of the girdle and pendant. Cellini would have most likely embossed the setting and cast the laurel wreath separately. He never mentioned how to create an embossed quatrefoil setting in his treatises, probably because it was a common Renaissance setting and seemed second nature. Without proper instructions, I attempted

embossed settings with poor results so I alternatively created cast settings from wax that retain the style of embossed metal (Fig. 17).

To create my version of Cellini's quatrefoil setting for the pendant and girdle, I began with a square block of blue carving wax. First, a deep rectangle and culet was carved in the top of the block where the stone could sit below the surface. This acted as the anchor around which I carved away at the block in a downward motion to reveal the prongs and curved sides of the setting. By sanding the corners of the block, I transformed it into an oval shape and created scalloped depressions in between each prong with delicate carving tools. Burrs and drills helped to remove wax from underneath the setting to make it weigh less and allow light to pass from the back of the stone to refract the light in the gem's facets.

All of the stones I used are imitation materials or lab created gems. The pearls are freshwater pearls instead of Eleonora's expensive strand of, most likely, saltwater pearls from the Mediterranean. The pearl drop hanging from the pendant is a plastic replica taken from costume jewelry. Genuine saltwater pearl drops or baroque pearls are rare. Unlike Eleonora's expensive gems, I replaced lab created corundum for ruby, cubic zirconia for the diamonds, and dyed green quartz for emerald. I also did not alter the stones with foils or tints. The technology for creating gems of the desired cut and color has advanced since the Renaissance. Stone alteration is no longer needed. My open setting in the back allows light to

illuminate the gems and produce the same effect that foils would have done for Eleonora's jewels.

Unlike Cellini, I am no master goldsmith and I do not have a workshop teaming with skilled craftsmen to assist in the process. I singularly created Eleonora's adornments over the course of four months without assistants or specialists. In total, I spent approximately two hundred hours recreating Eleonora's jewelry from the initial designing stages to the finishing polish of the metal. My finished pieces include twenty-two bronze cast sleeve pins, one pearl necklace with a hanging pendant, and the waist section of Eleonora's girdle or belt, excluding the tassel. This experience allowed me to put myself in the position of a Renaissance goldsmith and come away with several reflections. My concluding evaluations of the jewelry help illuminate the level of effort and resources required of a contemporary jeweler to reproduce Renaissance pieces.

If I would have made Eleonora's belt in twenty-two karat gold as Cellini would have done in the Renaissance, the finished piece would weigh approximately eighteen ounces. On the contemporary gold market, twenty-two karat gold costs \$1,200.00 per ounce as of April 23, 2013.²²⁸ That means that only Eleonora's belt, excluding the tassel, would cost a grand total of \$21,600 in gold metal if I were to use the same material as Cellini. Gold is a high-density material that weighs much more than bronze and brass. My replica of Eleonora's belt only

²²⁸ Gold Price in U.S. Dollar, <http://goldpricenetwork.com/goldprice/usa>, (April 23, 2013).

weighs two ounces. I can only image how heavy Eleonora's girdle would have felt for the wearer. Including the tassel, her complete belt would have weighed upwards of thirty ounces, which is a heavy weight to carry around the hips. On the contemporary market, Eleonora's complete belt would cost upwards of \$36,000 to recreate in twenty-two karat gold. This experience has made me appreciate the jewelry for the quantity of precious materials and their contemporary cost.

The Renaissance technique that I found most challenging to master was embossing. Contemporary jewelers have lost this skill, which requires tedious patience. The jeweler must have a keen sense of coordination between the hand, hammer, and the punch. The ability to sense the force required to manipulate a flat sheet into relief while maintaining an even thickness and avoiding punching holes in the surface is a difficult skill to acquire. For the simple embossed rings of the girdle I found myself tirelessly flipping the metal front and back, constantly trying to build up the metal without creating holes or over-stressing the metal to a thin breaking point. That is why I am astounded at the level of detail Cellini accomplished through embossing when I study the delicate figures hammered from a single sheet of gold metal for Pope Clement VII's morse (Fig. 1). The designs for the morse make the embossed quatrefoil settings look easy. I admit my embarrassment at reverting back to wax carving and casting after failed embossing attempts. Replicas of Eleonora's adornments that are more faithful to

Cellini's techniques would require a jeweler that shows confidence and experience in the art of embossing.

The replicas of Eleonora di Toledo's jewelry reveal Cellini's techniques and processes in its physical, tangible form. My study shows that utilizing contemporary jewelry methods and materials can illuminate the workmanship involved in a historical piece while testing the research on Renaissance goldsmithing. This experiment is significant because it uses art making as a tool for historical inquiry and research. Jewelry can be valued for its iconography and meaning, but also for its technicality and virtuosity on the part of the goldsmith. The correlations I made between Cellini's treatises and Eleonora di Toledo's jewelry in her 1545 portrait help jewelry historians understand the culture of goldsmithing at the Medici court with a level of specificity, including the materials, processes, tools, and the variety of jewelers that would have created her jewelry.



Fig. 1 Francesco Bartoli, *Three views of Benvenuto Cellini's mortar for Pope Clement VII*, colored drawings, 1780, British Museum, London



Fig. 2 Alessandro Fci, *Workshop of the Medici Court Goldsmiths*, 1572, Studiolo of Francesco I, Palazzo Vecchio, Florence



Fig. 3 Mold for casting a brooch inscribed "hail mary full of grace." 1300, found at Ashill Norfolk, England
Engraving from *Archaeologia* *xiv* 1805 p. 271



Fig. 4 underside of a sleeve pin from Bronzino's *Portrait of Eleonora di Toledo with her son Giovanni*, 1545



Fig. 5 emerald quatrefoil ring, 1540, Zucker Family Collection



Fig. 6 ruby quatrefoil ring, 1500s, Zucker Family Collection



Fig. 7 Pendant with Pluto and Proserpine, mid-1500s, French



Fig. 8 Agnolo Bronzino, *Young Woman and Her Little Boy*, 1540, National Gallery of Art, Washington D.C.



Fig. 9 Agnolo Bronzino, *Lucrezia Panciatichi*, 1540, Uffizi Gallery, Florence



Fig. 10 Necklace, 1540, Italian origin, Victoria and Albert Museum, London

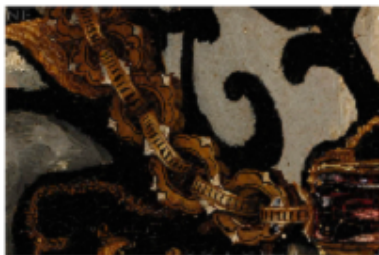


Fig. 11 close-up of girdle, Bronzino's *Portrait of Eleonora di Toledo with her son Giovanni*, 1545



Fig. 12 signet ring with enameled blackwork, late 16th-early 17th century, Zucker family collection



Fig. 13 Laura Marsolek, simplified sleeve pin design

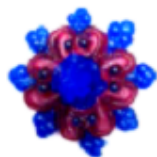


Fig. 14 Laura Marsolek, wax model of a sleeve pin



Fig. 15 mold for making wax multiples



Fig. 16 wax model in steel flask, attached with wax sprues



Fig. 17 recently casted bronze pieces



Fig. 18 wax model for Eleonora's pendant



Fig. 19 wax model for the bronze settings of Eleonora's girdle



Fig. 19 template for the bronze chain links for Eleonora's girdle



Replicas of Eleonora di Toledo's 1545 Portrait Jewelry
Made by Laura Marsolek



Pearl Necklace and Pendant



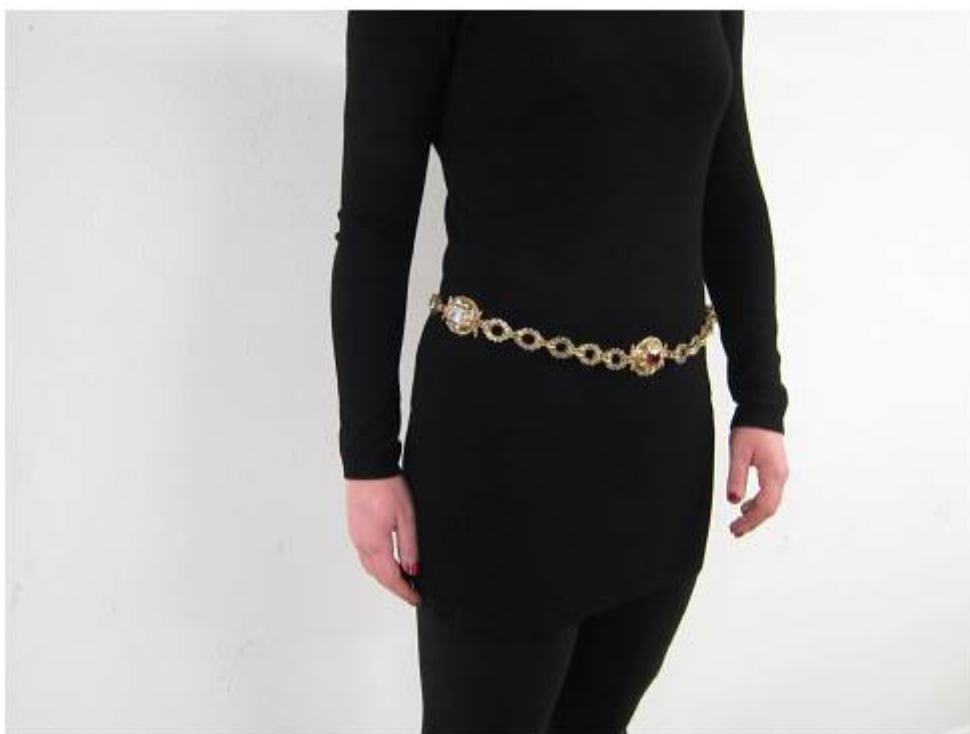


Sleeve Pins



Girdle/Belt





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Summary of Capstone Project

In 1545, Eleonora di Toledo, the wife of Cosimo de' Medici Duke of Florence, sat for her state portrait by Agnolo Bronzino. Bronzino depicted Eleonora in formal attire adorned with many jewels. This portrait inspired my capstone thesis that is separated into three distinct chapters. The thesis examines both the iconographic significance of her jewelry and the methods of jewelry construction.

My approach and methodology for researching Eleonora's jewelry involved a variety of resources. In addition to a great amount of secondary source information from scholarly articles, books, and catalogues, I used many primary sources, such as Benvenuto Cellini's (court jeweler) treatises on goldsmithing and Medici jewelry inventories. I also quoted information gathered from personal interviews with scholars and jewelers in Florence, such as Dottoressa Maria Sframeli, Director of the Museo degli Argenti and her colleague Dottore Riccardo Gennaioli. Interviews with Florentine jewelers Carlo Cecchi and Piero Cosci were helpful in demonstrating Renaissance jewelry techniques. To test my research, I used my background in metalsmithing and reproduced Eleonora's jewelry, attempting to use the same methods as Cellini. I worked with Syracuse University's Professor of Metalsmithing, Barbara Walter, to recreate the jewelry as historically accurate as possible. I recorded my findings in my capstone thesis. Chapters 1 and 2 illuminated the symbolic and iconographic significance of

Eleonora's adornments while Chapter 3 focused on the reproduction of the jewelry.

In the first chapter, I discuss Medici *imprese* (familial emblems) integrated into the jewelry that Eleonora di Toledo wears and the messages that these devices conveyed. I argue that the inclusion of established family symbols in Eleonora's official portrait jewelry identifies her as a Medici woman while communicating messages of Medici power and permanence. The presence of the matrimonial pearls underlines Eleonora's virtue and her union with Duke Cosimo. The *imprese* of the laurel and *broncone*, or cut branches, evident in the pendant and belt symbolize the re-growth of the Medici line and their ability to return to the ducal throne with power. The diamond pendant and rosette sleeve pins with a sharp point signify the Medici *impresa* of the point-cut diamond and reference the immortality of the family. I associate the colors of the three gems on the girdle to the *impresa* of the three Medici plumes. I also discuss how the gemological symbolism of each stone reinforces Eleonora's connection to the Medici.

The second chapter is a study of alterations to Eleonora's original jewelry of 1545 as depicted in three later portrait reproductions: *Eleonora with son Francesco* of 1549, the posthumous *Eleonora di Toledo* of 1562, and her 1575 portrait in the Studiolo of Francesco. The goal of this study was to understand if these alterations reflected real jewelry pieces Eleonora owned or fabricated imitations of jewelry that Bronzino imagined in painting, and to speculate as to

how the alterations changed the meaning of the original jewelry. For the former two portraits, I looked to stipulations from the original commission agreement that demanded a quickly finished painting from Bronzino who had no model jewelry to paint from. I also compared the jewelry in the two portraits to renderings of imagined jewelry in allegorical paintings by Bronzino. I discovered similarities in the style, leading me to believe that it represented Bronzino's conventional way of painting jewelry. Both pieces of evidence confirmed that Bronzino painted a fabricated imitation of Eleonora's jewelry in the portraits. My analysis of the latter painting in the Studiolo revealed that the changes to her adornments mimic popular Renaissance wedding jewelry due to the addition of the ruby in the pendant and the possible wedding brooch adorning her chest. These additions served to emphasize Eleonora's long and happy marriage to Cosimo as opposed to the original messages of Medici power and permanence.

The third chapter examines the art of the Renaissance goldsmith. I discuss the workings of a jeweler's workshop and the importance of the goldsmith's craft in Renaissance art production. By using illuminations and insights from Cellini's treatises I describe the various tools, processes, and materials involved in the goldsmith's art. With that information, I deconstructed Eleonora's portrait jewels into separated pieces to identify each by material and technique. I then tested my research by making replicas of the jewelry over a period of five months. In addition to comparing and contrasting my methods against Cellini's, I document

my experience and elaborate on the effort required of a contemporary jeweler to recreate Renaissance pieces historically made by a team of artisans.

There is a considerable amount of scholarly literature regarding the two subjects of the official portrait of Eleonora and Medici *imprese*, however, most literature does not recognize the jewelry in this portrait as a device to display Medici *imprese*. This capstone thesis is significant and contributes to the field of art history because I reveal how Renaissance jewelry within the Medici family was used as a tool to display dynastic pretensions and Cosimo's ambitious plans for the family's restoration. My research with Eleonora di Toledo's portrait helps support the study of jewelry history as an important field of inquiry.

This capstone thesis also contributes to the field of art history because, as a jewelry maker, I brought valuable insight into the production of historic jewelry that art historians usually cannot provide. I combined my knowledge of art history with metalsmithing and uniquely utilized art making as a source of research and historical investigation. My findings help art historians appreciate the adornments from a technical standpoint and help contemporary jewelers reproduce Renaissance techniques today. This thesis allows historians to recognize Eleonora's adornments, not only for their iconography, but also for the quality of workmanship and creativeness in materials.

As a beginning scholar in the field, this capstone thesis is crucial for my future in jewelry history as I plan to pursue a masters and Ph.D. in art history. Jewelry history is a rare subject of study and this thesis represents my contribution to a field that is often given less attention. In the future, I hope to expand on this research.