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Lastly, but most importantly, I want to thank God the Father, without whom I would be lost.

Non Nobis

Abstract

My thesis consists of research from an art historical perspective concerning a number of changes in the design, style, and fabrication of jewelry from the Middle Ages to the Renaissance and the influences that brought about those changes. I have found that social, political, geographical, technological, and philosophical shifts in the Renaissance all wielded significant impact on the changes in design and style of jewelry. I have approached the subject by studying jewelry as an art form equal to other art forms such as painting and sculpting, rather than as a decorative art or craft. By focusing on one prominent goldsmith from each period, Theophilus Presbyter (1070–1125) from the medieval age and Benvenuto Cellini (1500–1571) from the Renaissance, I compare and contrast the workshops, materials, techniques, and tools used in the two different periods. I gathered data and information from numerous secondary sources as well as several primary sources, including the treatises of Theophilus and Cellini. Other primary sources include surviving jewelry pieces, paintings, and engravings that depict such metalwork. Through examining these sources as well as secondary literature, I found that the changes in design and style of jewelry from the Middle Ages to the Renaissance were not due to a simple shift in taste or “fashion.” Rather, these changes were the result of broader cultural movements that were much deeper in importance. For example, the influx of wealth among courtly patrons sparked the growing desire for ostentatious objects including jewelry. The technological advancements in machinery resulted in widespread reproduction of designs and faster means of jewelry production. The discovery of new geographical locations provided new sources of raw materials. Philosophical curiosity of

classical antiquity embodied the humanistic themes of the Renaissance and was reflected in jewelry designs. Also, artistic innovations such as perspective transformed the subjects depicted in jewelry. All of these features instigated the gradual process of the technical and stylistic changes in jewelry from the time of Theophilus to the time of Cellini.

List of Figures

Figure 1	Salt Cellar of Francis I.....	4
Figure 2	A Paternoster-maker.....	21
Figure 3	The Alfred Jewel.....	28
Figure 4	Theophilus, Plate V: goldsmithing.....	32
Figure 5	Detail of ship pendant on Lady Cobham in the portrait of <i>William Brooke, 10th Lord Cobham and His Family</i>	42
Figure 6	Commesso in hat jewel depicting Leda and the Swan, with Cupid.....	44
Figure 7	Zibellino Head.....	46
Figure 8	A Goldsmith in His Shop (Possibly St. Eligius).....	59
Figure 9	Portrait of King Henry VIII of England.....	65
Figure 10	Portrait of <i>Borso d'Este</i>	67

Table of Contents

Dedication.....	iii
Acknowledgements.....	iv
Abstract.....	v
List of Figures.....	vii
Chapter 1: Introduction	1
Chapter 2: Medieval Jewelry	7
Categories/Types of Jewelry	7
<i>Brooches</i>	8
<i>Pendants</i>	12
<i>Chains and Collars</i>	16
<i>Other Types of Jewelry</i>	19
Materials	21
<i>Stones</i>	22
<i>Metals</i>	24
<i>Other Materials</i>	25
Techniques	26
Goldsmith and His Workshop.....	30
Chapter 3: Renaissance Jewelry at the Time of Cellini.....	34
Categories/Types of Jewelry	34
<i>Head Ornaments</i>	35
<i>Jewelry for the Body/Costume</i>	37
<i>Pendants</i>	39
<i>Rings</i>	47
Materials	48
Techniques	52
The Goldsmith and His Workshop	54
<i>Division of Labor</i>	54
<i>Functions of Goldsmiths' Workshops</i>	58
<i>Social Status</i>	60
<i>Hierarchy of Goldsmiths</i>	62
Chapter 4: The Transformation of Jewelry Design from the Time of Theophilus to the Time of Cellini.....	64
Rising Affluence of Upper Class	64
Technological Advances Creating Expansive Opportunities.....	70
Transforming Ideas and Innovations in Art World.....	73
<i>Renewed Interest in Classical Antiquity</i>	73
<i>Discovery and Application of Perspective</i>	76
Chapter 5: Conclusion.....	78
List of References	83

Chapter 1: Introduction

Modern culture considers jewelry design a craft, or at most a decorative art. Most people view the design and creation of jewelry as a form of fashion. In order to learn the techniques involved in the design and fabrication of jewelry, most aspiring jewelers attend a fashion institute, not a school of art. In fact, most art departments at major universities do not offer any type of small metals classes. This omission stems from the modern view of jewelry as simply a decorative art or skilled craft rather than an art form. However, this has not always been the case. In ancient cultures, goldsmithing and jewelry production were viewed as an art form on par with painting, sculpture, and architecture. I believe this transition from art form to craft took place gradually as industrialization and mechanization became more widespread. The prestige of the goldsmith's art peaked during the Middle Ages and the Renaissance. Throughout these two consecutive eras goldsmithing was considered an exquisite art form, which many attempted but few mastered. The art of goldsmithing was learned in the same type of studios and workshops in which painting and sculpture were taught. The goldsmith's art was just as important as that of the painter and sculptor during these eras. I believe that if medieval and Renaissance people revered jewelry as an art form, then modern society should as well.

The modern world should at least admire jewelry that was once created as an art form as such. In this thesis I will compare and contrast the art of goldsmithing from the Middle Ages to the Renaissance relying heavily on the information and ideas of each period provided by the primary texts of Theophilus and Cellini. Both men, although from different eras, write about the goldsmith and his work in a way that echoes the high respect bestowed on goldsmiths during that time. Evidence demonstrates that goldsmithing was a fine art and a complicated one at that. Several different types of primary sources are available that provide such information such as inventories, wills, paintings depicting workshops and pieces, and actual pieces that have survived. However, the most reliable and detailed descriptions of the proceedings of goldsmithing derive from the two important artistic figures: Theophilus and Cellini.

Theophilus Presbyter, c. 1070-1125, was a medieval German who wrote a treatise, *On Divers Arts* (1100-1120), in which he described several art forms in detail including painting, glassmaking, and metalwork. Although Theophilus is usually the credited author, no factual evidence exists to confirm this association. Two manuscripts survive as the earliest copies of this treatise, both made by Germans (Hawthorne, Smith 1979, xv). Some claim that Theophilus was actually a man named Roger of Helmarshausen—a metalworker who lived around 1100 and whose goldsmithing skills are shown on a jeweled book cover in Nuremberg (Hawthorne and Smith xv). Whether or not Theophilus' name was truly Roger, it is clear that the author knew his subject from first-hand experience. Book III of the Treatise concerns the work of the goldsmith, and Theophilus expounds on the subject with great detail. In this book he describes the layout of the medieval workshop, the tools that were used, the manner in which those tools were made,

and the types of materials used. Theophilus' treatise also represents the overall sentiment of medieval goldsmiths concerning their work. At the beginning of his book on metalworking, Theophilus writes about David, the Biblical prophet, and his love for the beauty of God's house (Theophilus 77–80). He goes on to explain how material embellishments reflect the beauty of creation because God instructed Solomon to utilize the finest materials in the construction of the tabernacle. Theophilus believed that the creation of beauty was inspired by the Holy Spirit and, therefore, that the creation of every magnificent, work of art was enabled by God. These ideas reflect the attitude of most medieval men and women concerning art. Theophilus provided the fundamental knowledge of the medieval goldsmith and his workshop. His information has aided researchers and scholars not only in understanding particular aspects of goldsmithing from the Middle Ages, but also in recognizing certain medieval characteristics in future work. In a sense, Theophilus' treatise lays the foundation of our knowledge of medieval jewelry. Later another artist, Cellini, mirrored Theophilus' goal of providing information and instruction of goldsmithing during the Renaissance.

Benvenuto Cellini was a Renaissance artist (1500-1571) whose career flourished because of his skills as a goldsmith. Like Theophilus, Cellini also wrote a treatise aimed at teaching the methods and practices of particular forms of art. *The Treatises of Benvenuto Cellini on Goldsmithing and Sculpture* discusses at length the two art forms in a manner that simultaneously resembles that of Theophilus' work and forges a path of its own. From his writings, I believe that Cellini was a proud man and not afraid to display his haughtiness. While Theophilus' treatise has a rather humble feel to it, Cellini's exhibits an arrogant and overconfident tone. An example of his pride presents itself in the

first paragraph of his introduction to the *Treatises*, “I did what no one had done before, viz., undertook to write about those loveliest secrets and wondrous methods of the great art of goldsmithing” (Cellini 1). Although Theophilus clearly wrote his *Treatise* on the very same subject centuries before Cellini, it is conceivable that Cellini could have been unaware of this fact. Regardless of his attitude, Cellini offers a great deal of significant information that has aided scholars and researchers in understanding the workings of a Renaissance goldsmith and his workshop. Modern scholars regard Cellini as the most famous and perhaps greatest goldsmith of the Renaissance. In virtually every Renaissance art history textbook in which goldsmiths are mentioned, it is Cellini’s name which is cited. Few other names are even mentioned in most of these books. Surprisingly, that, according to C. R. Ashbee, not a single piece of jewelry survives that can be definitely attributed to Cellini (Cellini, 1898, xii). Only a single piece of the goldsmith’s work, a salt cellar belonging to Francis I, survives that has been attributed to Cellini (Cellini 59). It is clear that this piece was a creation of Cellini because he describes it in his *Treatises* (Cellini 59). Cellini also describes the work of many other Renaissance goldsmiths. In his introduction, Cellini lists the names of several Florentine goldsmiths and artists that were educated in a goldsmith’s workshop. While Theophilus wrote mainly on the tools within the workshop, Cellini wrote more about the specific techniques utilized in the fabrication of jewelry. Cellini provided details about materials used in Renaissance jewelry and about the individual specialties within the art of goldsmithing. If Theophilus laid the foundation for our understanding of the design and fabrication of medieval jewelry, Cellini did the same for jewelry of the Renaissance.

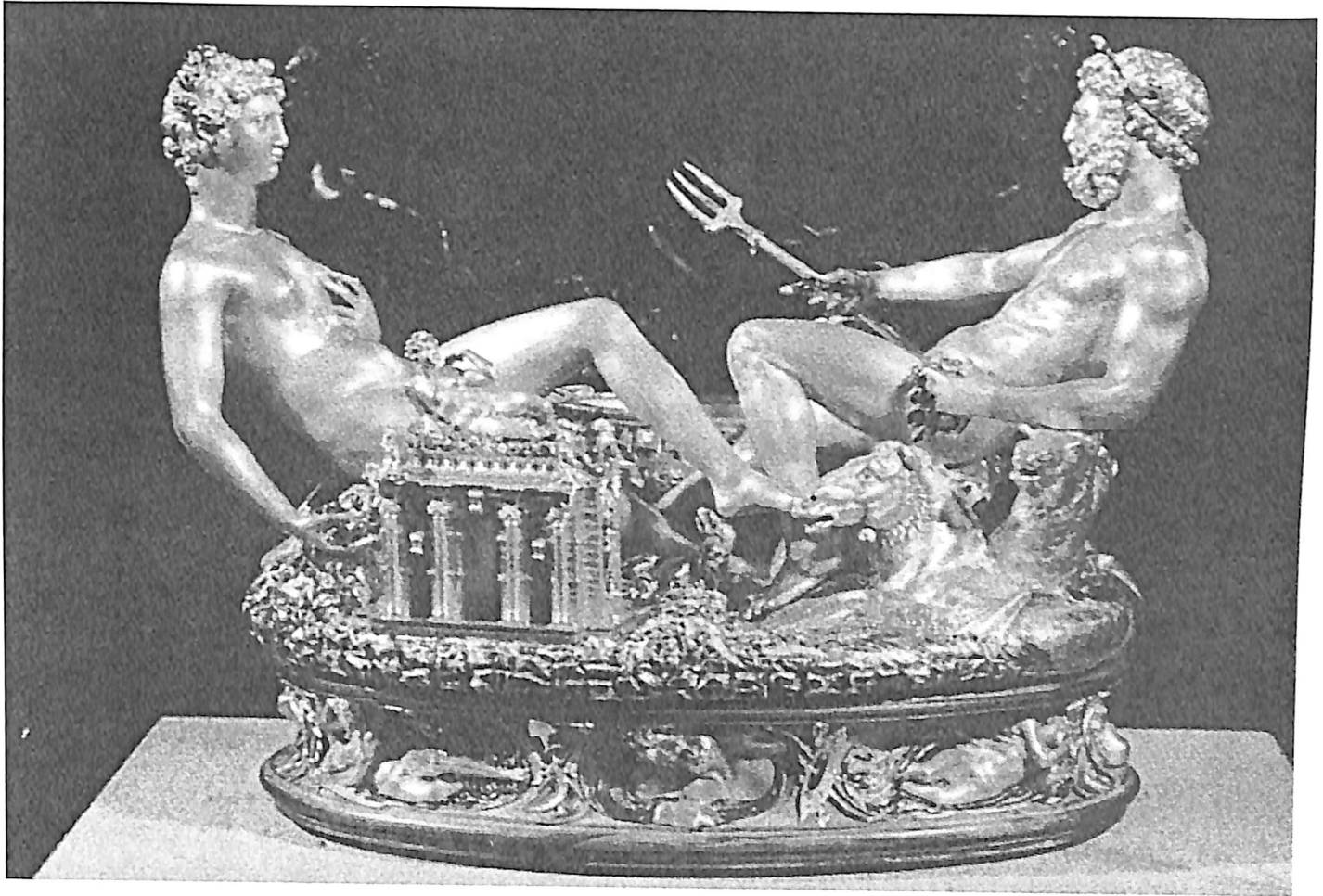


Figure 1: Salt Cellar of Francis I. Cellini. 16th Century. Vienna Kunsthistorisches Museum. The only surviving piece authenticated as Cellini's. (From The University of Mississippi Digital Image Database (UMDID). Serial No. 4063.)

Perhaps more than anything, Theophilus and Cellini represent the mindsets and worldviews of medieval and Renaissance goldsmiths, respectively. They made it known in their treatises that goldsmithing was an art form, and a very respectable one at that. They both deemed this fact important enough to write about in order to share their knowledge and expertise with contemporary artists as well as future generations. The explicit details that both provide while describing particular attributes clearly indicate that they were determined to relay the information to others. While there is no concrete evidence of their success as goldsmiths, their words indicate that the art was important

and successful. This truth reveals why the study of jewelry as an art form is important even today in modern society. Just because technology and industrialization have provided machines to produce jewelry does not mean that the ability of humans to create no longer exists. In C.R. Ashbee's introduction to his translation of Cellini's *Treatises*, he considers the loss of wonder regarding the art of jewelry but notes that there still remain a few "seeking to lift the art of the goldsmith out of the slough of industrial despond" and in doing so contribute to the beautifying of life (Cellini x). I believe the notion of this idea is best illustrated in medieval and Renaissance jewelry. Not only is the simple study of jewelry important, but also the study of particular eras of jewelry becomes even more pertinent. In order to understand the evolution of jewelry, every period of its history must be considered individually and then in the context of adjacent periods. I think that the beauty of medieval and Renaissance jewelry surpasses that of all other periods. Not only should the observation of differences in design and style from the medieval period to the Renaissance be of interest, but the influences responsible for those changes should be explored as well. A variety of social, political, technological, geographical, and philosophical changes and advances resulted in the gradual but progressive transformation of jewelry style and design from the time of Theophilus to the time of Cellini.

Chapter 2: Medieval Jewelry

During the Middle Ages, people viewed the work of the goldsmith as something of great value. Men and women wore jewelry in all ranks. Many factors went into the design and creation of jewelry. People from all classes wore certain types of jewelry, while other types were restricted to those more fortunate. Regardless of status, those who laid eyes on it appreciated the art of jewelry.

Categories/Types of Jewelry

Men and women wore many different types of jewelry during the Middle Ages. Pieces of jewelry were handmade and manufactured by goldsmiths, silversmiths, and jewelers.

Claire Phillips claims that medieval styles of jewelry can be divided into three chronological phases. The first phase begins with the early Middle Ages, from the early ninth through the thirteenth century, when the Byzantine court primarily influenced jewelry styles. In the second phase, beginning at the end of the thirteenth century, the Gothic style was reflected in jewelry. This style remained common throughout the rest of the Middle Ages. The third phase began around 1375, and according to Phillips the style of this phase contained “a refining and softening of the forms and an increased emphasis on natural ornament are evident” (Phillips 1996, 53). Though medieval jewelry was

usually created for the purpose of wearing, there were some occasions when jewelry was intended for other purposes. For instance, Hugh Tait (1986, 140) offers the example of jewelry that was exchanged between lovers. This type of jewelry was usually given as a representation of a promise or message that one lover sought to offer the other. Such pieces often included some sort of inscription such as, “*Vous avez mon coeur* (you have my heart), *Sans de partier* (without any division), or *A ma vie de coeur entier* (you have my whole heart for my life),” on jewelry found in the Fishpool Hoard in Nottinghamshire, England (Tait 140). The jewelry from this hoard contains black letter inscriptions, also known as Gothic lettering, engraved flowers and foliage, and blue and white enameling (Tait 143). Jewelry was also used for devotional purposes. Devotional jewelry contained some kind of religious connotation and was worn as a reminder to the wearer. Devotional jewels included those with images depicting scenes from the Bible, or of saints, or with ecclesiastical symbols. In addition, Diana Scarisbrick mentions that particular types of jewelry, such as signet rings, were often used as seals for business and legal purposes (Scarisbrick 1994, 60). Regardless of the type of jewelry, the design of the jewelry was exquisite.

Brooches

Men and women wore several types of jewelry in the Middle Ages, but perhaps the most common category was that of the brooch. Scarisbrick explains that brooches were used as fasteners for clothing and also for decoration on hats and garments. However, Ronald Lightbown insists that brooches were not worn on hats or head-dresses until the late Middle Ages (Lightbown 136). Scarisbrick and Tait agree that the ring brooch was the most popular type of brooch. The ring brooch “consisted of a pin attached to an open

circle, left plain or decorated with figures, inscriptions, punched or nielloed ornament and gem-stones” (Scarisbrick 36). According to Scarisbrick, the earliest known example of the ring brooch dates to the twelfth century. She also points out that these brooches were made in all different shapes: round, oval, square or polygonal and that they were made of different metals: gold, silver, and bronze (Scarisbrick 3637). However, Tait argues that only in the fourteenth century did the shape of the ring brooch begin to vary, when he claims that shapes such as hearts and lozenges were favored (Tait 139). Sometimes ring brooches were also made in the shapes of letters (Scarisbrick 41). Lightbown adds that the quatrefoil shape was another Gothic design for brooches (Lightbown 144). He later notes that no Gothic-influenced shape ever took favor over the pure circle form (149). Ring brooches were the standard form of brooch used for both decorative and utilitarian purposes. Therefore, men and women of all ranks probably owned some type of ring brooch. In its simplest form, the ring brooch often contained no extra decoration except an inscription of some kind. On the other hand, people of the nobility wore rather large ring brooches ornately decorated as a means to exploit their wealth. The richly embellished ring brooches often had foliage and filigree weaving in between the stones, which were set in collets (Lightbown 149). Many motifs were added onto ring brooches throughout the Middle Ages. Lightbown suggests that the motif of “maidenheads” was popular in Germany and Scandinavia; this motif probably represented the wearer’s love for a certain woman (150). Another popular motif included that of clasped hands, which usually symbolized a pledged troth either between lovers or of allegiance to someone or some country (Lightbown 183). In the later Middle Ages, the ring of the ring brooch began to lose attention and favor. Lightbown discusses how ring brooches gradually

covered more and more of the ring with decorative devices in order to disguise the actual ring. This progressive trend spurred the wheel brooch—a fourteenth-century variety of the ring brooch—which was purely a decorative pattern. Lightbown describes a wheel brooch as “circular or lobed, and bars radiate to it from a centre set with a large stone or other decorative motif”. The ring of a wheel brooch was completely hidden behind one of the crossing bars (Lightbown 152-155). Although the ring brooch was perhaps the most common brooch type during the Middle Ages, many other forms of brooches existed as well.

Other types of brooches included disk brooches, iconographic brooches, and heraldic emblems. Scarisbrick describes the disk brooch as “a circular plate of metal, engraved, filled with gem-stones or otherwise ornamented” (Scarisbrick 42). Usually disk brooches were decorated with gemstones and pearls that were situated around a large central stone (Scarisbrick 42). Men and women wore heavily jeweled brooches in order to advertise their rank. Scholars usually apply the term “cluster brooch” to these types of brooches composed of precious stones. Lightbown argues that these cluster brooches represent the greatest works of thirteenth-century jeweler’s art. He references the Aosta brooch as an example and describes its splendor: “The brooch is oval, and consists of a Roman agate cameo in a gold setting of a triple border of filigree, set in the outermost border with pearls on prongs, with smaller cabochon stones set between them and in the inner borders” (Lightbown 140). The Aosta brooch not only represents the emphasis on precious stones during the Middle Ages, but it also illustrates the popular technique of filigree decoration so often applied to medieval jewelry. Hermann Schadt suggests that foliate filigree was prominent in medieval jewelry and describes the example of a

thirteenth-century brooch found in Florence almost entirely composed of filigree (Schadt 1996, 79). Many similar brooches did not contain a cameo; instead a pattern of stones created the jewel's composition. Lightbown notes that a common pattern of this kind includes an arrangement of eight stones or pearls around a central stone (Lightbown 142). The star brooch, from the mid-fourteenth century, exemplifies a brooch composed of only precious stones and pearls. Six large points make up the body of the star with six smaller points placed in between each larger one. The stones are all set in close proximity with each other and the colors red, white, and green notably stand out (Schadt 88).

Brooches of other types were also prevalent during the Middle Ages. For example, brooches of pilgrimage—which were signs of particular towns—were typically made of base metals including lead or pewter; however, some were made of precious metal. These pilgrimage brooches were worn on necklaces, as well as attached to hats. English signs are usually identifiable by their pierced openwork, and they often represented people of local English importance (Scarbrick 43). Iconographic brooches were simply brooches that represent an important figure, either secular or religious, but the number of religious representations outweighed the secular. However, Lightbown claims that there are few references to religious subjects before the late fourteenth century (Lightbown 146). Often the figure of a particular saint would be engraved on a brooch (Scarbrick 43). Heraldic brooches were frequently created with images of eagles, lions, fleurs-de-lis and crowns, and such brooches would also bear engravings of the banners, shields, or crests of important families and elites (Scarbrick 44-45). Schadt offers an example of a late fourteenth-century heraldic brooch from Germany with a stylized eagle, containing several stones, on a diamond-shaped, metal background with an open quatrefoil

surrounding it. The pattern of the stone arrangement is organized and symmetrical, reflecting the taste of Gothic art (Schadt 88). Lightbown discusses how the technique called *émail en ronde bosse* began decorating jewelry during the mid-fourteenth century (Lightbown 161). Goldsmiths applied this technique to brooches when illustrating motifs such as that of animals, birds, flowers, and humans, and these figural compositions were integrated along with stones as well as enamel (163). Jewelers began to incorporate themes of the International Gothic Age, such as naturalism and romantic realism, into pieces of jewelry (168). These themes were carried over into Renaissance jewelry and elaborated. Another trend rose during the mid-fourteenth century when medieval men and women, particularly those of the upper classes, began to wear hats. With the appearance of hats came the trend of brooches attached to the hats (Lightbown 170). This style of wearing a brooch on the hat foreshadowed the wide usage of the hat badge, or enseigne, during the Renaissance. Medieval brooch designs influenced other types of jewelry, particularly pendant designs.

Pendants

Pendants were created to hang from a loop on a chain either around the neck or at the girdle. Lightbown describes pendants as private jewels as opposed to jewels for display (Lightbown 202). Like brooches, medieval pendants varied in design including both secular and religious illustrations and symbols (Scarbrick 28). Lightbown argues that the relationship between the pendant and the brooch was one in which the pendant relied heavily on the brooch by borrowing motifs and designs. He claims that this particular relationship lasted until the end of the Middle Ages (Lightbown 213). Also similar to brooches, pendants were made in all different shapes and sizes. However, Lightbown

claims that most pendants in the Middle Ages were simple and small. Goldsmiths created pendants with varying functions, and Lightbown explains the multi-faceted functions of pendants:

they were often prophylactic in design or materials, warding off harm from the wearer either by their symbolic significance, as in the case of the cross, or by the mysterious properties attached to them, as in the case of precious stones, or by their holy power, as in the case of relics (Lightbown 202).

One type of pendant worn in medieval England was the jeweled pendant (Scarbrick 28). Lightbown explains that jeweled pendants were often associated with magical or prophylactic properties, which were the main reasons people wore them. He also notes that these stones were usually unmounted and simply pierced in order to be strung onto a chain or strand for wearing due to certain powers of protection or luck that these stones were said to contain (Lightbown 206). However, not only did people of the Middle Ages attach superstition to precious stones, they also associated magical powers with coral. Lightbown offers a rare account of a medieval Italian, Cardinal Goffredo d'Alatri, who left "a certain instrument of coral which is worn round the neck" after his death in Rome (Lightbown 207). Pendants were also used for holding relics. In particular, cruciform reliquaries usually contained tiny pieces of wood that were said to be from the True Cross, and the pendant itself could be opened, creating a place for the relic (Scarbrick 30). Reliquary pendants, also called phylacteries, were normally engraved on at least one side and often on both sides. These phylacteries were actually portable reliquaries that were often worn as pendants. Lightbown claims that the earliest known medieval phylactery is the Talisman of Charlemagne that dates to the ninth century. To the naked eye, this phylactery resembles a typical pendant with a gem composition. However, a small piece

of the True Cross is supposed to be inside. The phylactery, richly decorated with stones all around, is supposed to have been worn around Charlemagne's neck (Lightbown 221-222). Claire Phillips notes that this particular pendant represents one of the most exquisite pieces of Carolingian goldsmith's work to have survived (Phillips 54).

Medieval pendants were worn for other reasons as well. The form of the cross was also a common type of pendant in the Middle Ages. Such crosses were usually strung on a light, simple chain and worn for personal appreciation (Lightbown 202). These simple cross pendants were usually worn inside the clothing instead of over the garments, which demonstrates that medieval men and women wore these pendants for sentimental value, not for display or adornment. Like brooches, some pendants also displayed heraldic symbols. Lightbown offers the example of Queen Isabella of France (1292–1358), married to Edward II of England, who left such a heraldic pendant at her death. Lightbown describes the pendant as, “‘a silver arm with a hanging shield’ which was probably the pendant recorded in 1400 among the jewels of the English kings as a silver arm holding a shield with the arms of England” (Lightbown 210). Such armorial pendants were probably worn with the intent to honor one's country. For the plainer jewelry of the middle class, pendants were cast in metals such as pewter or lead. Such pendants usually contained religious motifs and were sold at festivals as pilgrim's badges (Schadt 101).

Although many popular types of pendants existed during the Middle Ages, no concrete evidence exists to suggest that the same types of pendants were universally worn throughout medieval Europe. For instance, medallion pendants were certainly worn by people in Scandinavia and in Germany during the twelfth and thirteenth centuries. There is also some evidence that these medallion pendants were worn in Venice as well;

however, little support exists for their use in other areas of Europe (Lightbown 210). Medallion pendants were designed in several ways—some contained important stones, some were merely made of gold or silver, and some were decorated with enamel. While some types of pendants contained only imagery, either ecclesiastical or secular, others contained inscriptions or lettering. Lightbown argues that medallion pendants lost favor in Northern Europe during the late thirteenth century and that they returned in the early fourteenth century. He also notes that throughout the fifteenth century they were one of the most popular types of jewelry worn (Lightbown 210,212).

During the fourteenth century, diptych pendants became a popular form. Lightbown describes such pendants as having “both sides shaped as deep cases in which were figured little scenes in relief, sometimes plain, but often enamelled wholly or in part” (Lightbown 214). These pendants could open, but they were not necessarily supposed to hold anything as reliquary pendants did. During the latter part of the fourteenth century, French and English inventories referred to these diptych pendants as “tablets” (Lightbown 214). These tablets became the first forms of jewelry on which miniature sculpture was added. Goldsmiths utilized the *émail en ronde bosse* technique in which they fully enameled the high-relief piece. For these particular pieces the standard enamel colors of a typical International Gothic miniature were white, blue, gold, and red (Lightbown 215). These types of pendants, as well as others, often had dangling pearls added to them in order to lighten the appearance. Particularly in the mid-fourteenth century, towards the end of the Middle Ages, pendants composed mainly of precious stones had dangling pearls added to them (Lightbown 219). This style carried over to the beginning of the Renaissance, when it was elaborated. Lightbown offers an example of

such a pendant dated to 1452–3, from Queen Margaret of Anjou, wife of Henry VI of England, “a gold ‘hanger’—hanger was the name given in fifteenth-century Britain to pendants—set with a large diamond, a large oriental ruby, and two large dangling pearls” (Lightbown 219). The date of this piece brings me to consider the issue of whether to regard it as medieval or Renaissance. Lightbown suggests that it is in fact medieval, or, more specifically, late Gothic. Perhaps he claims this because the jewel’s origin is England, where the Renaissance had not quite reached in the mid-fifteenth century. However, I would argue that this piece should be considered characteristic of the Renaissance particularly because the use of the diamond does not appear until the mid-fifteenth century in most cases. Regardless, this piece illustrates the carryover of certain designs, such as the dangling pearls, from the Middle Ages to the Renaissance.

Chains and Collars

Pendants were usually worn on a chain of some kind, which hung around the wearer’s neck. During the Middle Ages, ornaments worn around the neck were called collars, not necklaces (Lightbown 235). The chains holding the pendants could also be worn on their own as necklaces. Chains varied in design according to the size, shape, and form of the links. Scarisbrick claims that chain links could be broad, double, single, flat, twisted, oval, round, or rectangular (Scarisbrick 20). Simple chains were worn by men of all ranks until sumptuary laws—laws established in order to restrain luxury and consumption—were passed forbidding the wearing of chains for men below a certain rank (Scarisbrick 19). Lightbown describes that the wives of merchants usually wore slender chains of small or medium size and that kings gave gold chains as gifts to joust winners, knights of service, and to members of their household (Lightbown 242). Lightbown explains that these

simple chains often served a practical purpose for the wearer in which some object of daily use was suspended from the chain. The chains and objects suspended from them were usually made of at least silver for members of the elite. Common objects that hung from medieval chains include toothpicks, earpicks, and small flasks, with toothpicks and earpicks sometimes made of silver or gold so that they could be worn as pendants and still be considered decorative (Lightbown 236). Perhaps medieval men and women believed that the precious metal of the toothpick would cover up the crude function of it. For British women during the fifteenth century, simple chains gradually became more complexly designed necklaces, adding courses of silk or velvet and stones to the chain (Scarisbrick 20). The increased ornament on chains contributes to the hazy distinction between collars and necklaces or chains. Lightbown describes the main difference: “the collar tended to be short and broad and worn round the neck or over the shoulders, whereas the chain was generally long and always composed of links” (Lightbown 242). Collars were worn around the neck, but they were not always made of metal, with many medieval collars were composed of textile materials such as silk and lace. Heavily decorated collars came into fashion towards the end of the fourteenth century (Lightbown 237). Most collars of this type were made of embroidered fabric with pearls sewn onto them. In Spain and Italy, collars made of stones, gold ornaments, and pearls strung together were common; however, evidence does not exist to prove that collars of this type were worn elsewhere in Europe (Lightbown 239). This type of collar would have essentially been strands of precious stones and pearls strung around the wearer’s neck (240).

Several particular types of collars adorned medieval men and women; one of the most distinguishable collar types of the Middle Ages is the livery collar. Lightbown defines a livery collar as “a collar bearing the device of a prince or great lord and, when worn by others, blazoning either family relationship or household retainership or else a looser form of feudal loyalty” (Lightbown 245). Livery collars were widely used in England, where they originated, but other European countries did not adopt the trend (245). Another interesting type of collar worn was the chivalric collar, which was for members of a chivalric order, or fraternity of knights. Chivalric orders would meet for chapter gatherings and other ceremonies, and every member would have a chivalric collar in order to represent his association with the fraternity (Lightbown 265). Pendants in the form of the device of an order, which was a particular symbol, coat of arms, or motif that a certain order adopted as its signature, were usually suspended from these chivalric collars (264). As the Middle Ages progressed, other forms of societies such as guilds and companies adopted the idea behind livery collars, and particular groups would have a special designed badge or collar that represented their association (275). Lightbown concludes that essentially five kind of collars remained prominent throughout Europe in the fifteenth century: “plain collars, collars set with jewels, collars decorated with fanciful motifs, collars decorated with devices and collars decorated with a mixture of some or all of these four fashions” (Lightbown 284). The importance of collars overpowered other jewelry types, such as earrings and bracelets, and as a result the style of wearing those types diminished.

Other Types of Jewelry

Although earrings were always a popular ornament in previous cultures, they scarcely appear to have adorned Northern European men and women during most of the Middle Ages. Lightbown claims that earrings were worn in the thirteenth century only in Hungary, South Italy, Sicily, and Spain. He argues that the reason for their continual popularity in those regions was simply due to lingering Byzantine and Moorish influences (Lightbown 293). Another type of jewelry not fully represented in the Middle Ages was the bracelet. Lightbown notes that gold bracelets continued to be worn in Germany during the late twelfth and early thirteenth century; however, their existence remained scarce in regions west of the Rhine. Again, Spain and South Italy remained two of the few regions where bracelets continued to adorn the arms of medieval men and women, probably due to the same Byzantine and Moorish influences that kept the style of earrings prominent there. Bracelets made of metal disappeared from use during the later thirteenth and late fourteenth century. Beginning in the end of the fourteenth century bracelets slowly return, but it seems only men and women of the elite classes wore bracelets at the turn of the century. In the early fifteenth century, some bracelets—following the trend of other types of jewelry—began to be richly ornamented with valuable pearls and precious stones (Lightbown 294-296). This trend of bracelets decorated with excessive amounts of precious materials marks the transition into the Renaissance, when it is further developed.

One interesting type of ecclesiastical jewelry used during the Middle Ages was that of the *paternoster*. Paternosters were composed of long strands of beads strung on a thread and occasionally ornamented with a small pendant or other ornament. Lightbown

defines the purpose of paternoster beads: “Their ultimate origin lay in the ancient practice of repeating prayers a given number of times, especially as a penance or as a suffrage to the deceased, and they became an especial aid to the devout laity and to the lay brethren of monasteries in keeping a count of such prayers” (Lightbown 342). Each bead on the strand represented a prayer, and the beads were organized along the strand according the number of prayers to be said. The beads were usually divided into small groups by large marker beads. Paternosters were usually worn for strictly devotional purposes, rather than decorative purposes. Men and women both used paternoster beads; however, Lightbown claims that elderly women, particularly in thirteenth-century France, were known to carry them due to their old age and close proximity to heaven. Paternosters were made of many different materials, some precious and some humble, with the more modest materials wood, bone and mother-of-pearl. More richly embellished paternosters included materials such as gold, precious stones, and pearls. The smaller beads of paternosters were often composed of jet, amber, and coral (Lightbown 343-345). Goldsmiths were not the only makers of paternosters; in fact, goldsmiths only created those composed of precious materials. Other craftsmen—as illustrated in the *Hausbuch der Mendelschen Zwolfbruderstiftung*—created paternosters made of other materials (346). The wide variety of materials used in paternosters allowed men and women of all classes to own and wear them. Paternosters were worn in many different ways: hanging around the neck or around the girdle, wrapped around the wrist or the arm, or attached to a garment by a brooch (342). For the devout, it was important that these paternosters never left their body. The various types of jewelry from the Middle Ages included many different kinds of materials, including some—for instance, metals—that were applied in all forms of

jewelry, while others were not used for all types. Goldsmiths integrated many diverse materials into jewelry, and this use of diverse media allowed them to create distinct designs.

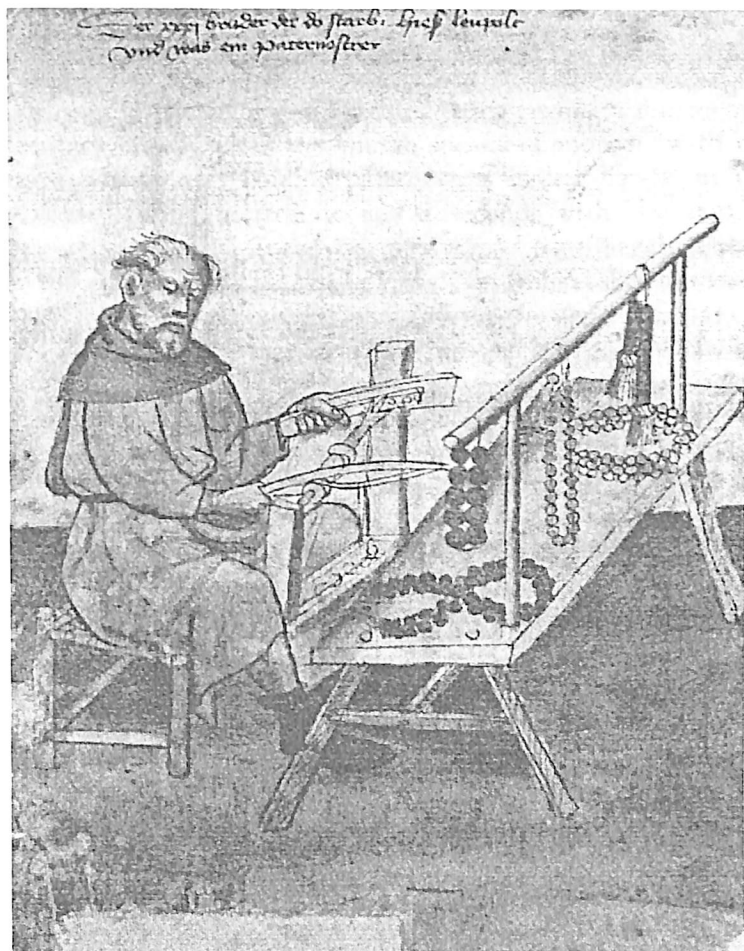


Figure 2: A Patenoster-maker. From the *Hausbuch der Mendelschen Zwölfbruderstiftung*. Nuremberg, c. 1425. Staatsbibliothek, Nuremberg. (From *Mediaeval European Jewellery* by R. W. Lightbown. Figure 196.)

Materials

Many materials were included in the essential inventory for medieval goldsmiths.

Typically, every piece of jewelry was composed of more than one material. Metals,

stones, and other materials were often mixed together in various ways. Medieval goldsmiths cherished the materials they used in their work.

Stones

Among the supplies, precious stones were perhaps valued the most. Lightbown suggests that medieval men and women cherished four stones above all: the sapphire, the ruby, the emerald, and the diamond. He does note that diamonds were not common during most of the Middle Ages (Lightbown 11). Phillips argues that sapphires, emeralds, rubies, and red spinels—also known as balas rubies—were among the most cherished stones; she does not include diamonds in the list of treasured and used stones during the Middle Ages (Phillips 56). Lightbown, writing about England, considers the fifteenth century the latter end of the Middle Ages and places the beginning of the Renaissance era after that. Since England was one of the last European countries to enter the Renaissance, Lightbown's statement makes sense; however, I believe the prominent use of diamonds to be a Renaissance trend. Nevertheless, precious stones were the primary components of most medieval jewelry. Lightbown claims that these stones were not only worn for their beauty but also for mystical functions associated with them and as tokens of significance such as love, loyalty, or rank. He further notes that during the Middle Ages science and superstition shared a close association, resulting in the wearing of certain stones that were believed to aid the body medically (Lightbown 11). Gemstones were usually imported from the East (Phillips 58). Venice and Genoa controlled the gemstone trade, which dealt in gems from places such as Ceylon (Sri Lanka), India, and Egypt, as a monopoly. Men carried supplies of gems to the markets in Constantinople and Syria, and from there the Italian merchants purchased and sold them throughout Europe. The Persian Gulf supplied

the finest of pearls, but Scottish rivers supplied freshwater pearls (pearls of lesser value) (58).

Stones used for jewelry in the Middle Ages were usually polished and sometimes cut. Phillips explains that gems were polished into irregular cabochons, giving the stones deep pools of color (Phillips 56). Though the technology of stone-cutting advanced with time, Lightbown argues that the trend of cutting stones into facets began in the early fourteenth century. He explains that the stone cutting was a common practice in the Islamic regions and that there is a high probability that cut stones used in medieval jewelry were actually stones imported from Islamic lapidaries (Lightbown 12). Western medieval goldsmiths probably learned certain stone-cutting skills from Islamic craftsmen and their work. Lightbown suggests that medieval goldsmiths must have had at least some knowledge and practice at stone-cutting, at least with diamonds in form of what is called table-cutting, by the thirteenth century, and that they continued to master this skill into the fourteenth century (Lightbown 13). Table-cut stones have a flat square or rectangle table at their tops and a similar yet smaller parallel table at their bottoms (Newman 299). Though this style of cutting may have been created as early as the thirteenth century, it was not perfected and used often until the Renaissance.

Evidence exists to prove that stones such as the emerald and sapphire were cut and used during the Middle Ages. Lightbown claims that diamonds too were cut during the Middle Ages, or at least by the beginning in the fourteenth century (Lightbown 15). This claim contradicts many who believe that diamonds are the stone of the Renaissance. However, Lightbown acknowledges that the exact date when diamond cutting began remains unknown (Lightbown 15). He offers a few examples of medieval pieces

containing diamonds from the mid-fourteenth century; however, most examples he provides date around the mid-fifteenth century. As I have already noted, the turning point from the Middle Ages to the Renaissance remains a controversial debate among scholars and historians. I regard the mid-fifteenth century as the Renaissance in Italy and therefore consider such examples of “medieval” jewelry from the mid-fifteenth century as early Renaissance. From the mid-fifteenth century and forward the Renaissance style began to spread North of the Alps reaching Germany, France, Spain, and finally England.

Metals

Medieval goldsmiths utilized many different metals in their work. Phillips claims that gold remained the most favored and valuable metal of them all. Gold was traded at the markets, but another source of gold was coinage. Goldsmiths could melt down coinage and reuse it to make jewelry. One of the main problems with the recycling of coinage was the varying purities of the metals (Ogden 1991, 158). Goldsmiths would have to deal with the problems of differing purities by mixing and adding other elements to the metal blend. Theophilus (118–120) discusses many aspects of gold and he describes several sources for varying kinds of gold in his treatise. The first type of gold he mentions came from the land of Havilah. He ranked this gold the most outstanding of all because it is mentioned in the book of Genesis. Theophilus then describes Arabian gold as a precious metal retaining a brilliant red color. He explains that many men attempt to fabricate this type of gold by adding red copper to it; however, if the false piece is placed in fire it will lose its lustre while the pure gold will not. Spanish gold is the next type of gold Theophilus mentions. He offers an elaborate and fantastic explanation of how this gold is made from a combination of red copper, basilisk powder, blood from a red-headed human, and

vinegar. Hawthorne and Smith, the translators, note that this obscure elaboration is atypical of Theophilus for nowhere else in the treatise does he mention the mining of any metals. The fourth and last type of gold Theophilus describes is called sand gold, which he claims is found in the sand on the banks of the Rhine. He may have categorized these types of gold according to hearsay accounts or according to their origin in the trade. Nonetheless, it is noteworthy that he mentions different types of gold. Obviously goldsmiths were accustomed to working with different alloys and purities, and it is important to extract from Theophilus' description that medieval goldsmiths were aware of varying types of gold and able to handle many different mixtures. Metals and gemstones were not the only materials that were used in jewelry in the Middle Ages.

Other Materials

Other materials included strange and unusual things. Phillips notes that men and women wore the horn of a dolphin-like narwhal—believed to be from a unicorn—because they believed it could detect poisons. Toad-stones, which were the teeth of fossilized fish, were also worn in jewelry because they were said to have the ability to cure dropsy and spleen. Phillips (59) adds that pieces containing such materials were often worn in open-backed pieces so that the material could directly touch the wearer's skin, increasing the material's power. False stones were also frequently used in jewelry throughout the Middle Ages. Though regional laws and statutes of goldsmiths' guilds restricted the creation and use of such false stones, they inevitably found their way into production (Lightbown 17). Often colored glass imitated gemstones. Phillips offers an Italian example of a surviving recipe for faking gems: "alabaster is to be ground up, mixed with oil, distilled and coloured using either ultramarine azure to give sapphire or verdigris for

emerald; the mixture is then thickened over a fire, cut to the required shape, boiled in oil and put out in the hot sun to harden” (Phillips 59-60). Foils were also set behind colored glass or crystal in order to enhance the color so that they would better imitate precious stones. Engraved gems decorated many pieces of medieval jewelry. Scarisbrick claims that no evidence survives, at least in England, that gem engravers existed in the Middle Ages; therefore, the cameos and intaglios set in jewels from this time must have been from Romano-British sites or from abroad (Scarisbrick 8). She does, however, note that in 1268 a gem-engravers’ guild was recorded in Paris and that Henry III’s collection, in 1267, of seventy-three cameos and intaglios were composed of mostly onyxes and sardonyxes, with some crystal, sapphire, and mother-of pearl ones as well (Scarisbrick 8–9). As described, various materials were incorporated into jewelry during the Middle Ages. Goldsmiths used a plethora of techniques in order to perfect and integrate the materials. Some techniques were applicable to only one material, while others were used on multiple materials.

Techniques

Many of the techniques goldsmiths applied to medieval jewelry extended from techniques used in earlier cultures. Jewelry techniques were used in the creation of the form of a piece and also in its decoration. Perhaps the most important and fundamental technique in medieval jewelry involved the metals used for the foundation of every piece of jewelry. Ogden explains that goldwork derived from the hammering of sheet gold and sometimes from casting. He supports his argument that hammering was one of the most important of medieval jewelry techniques by noting that most surviving illustrations of

medieval goldsmiths demonstrate the goldsmith at work hammering (Ogden 161). After gold was hammered out, it was cut using either shears or scissors. Files were also used in order to remove metal when necessary (Ogden 163). Ogden describes a wiredrawing technique introduced in the Middle Ages:

In wiredrawing, a rod or metal strip is pulled through consecutively smaller holes in an iron or steel drawplate; thus, it is literally drawn out in longer and thinner wires. Simple hand drawing, with strong forceps or tongs and a drawplate mounted on a sturdy piece of wood, is seldom practical for wires over about 2mm in diameter. More complex drawing machines—termed *draw benches*—provided greater leverage and strength and allowed long lengths of wire to be made in a great variety of diameters (Ogden 164).

Ogden argues that goldsmiths began to use wiredrawing instead of the earlier technique of strip twisting by the ninth century. It was certainly applied by the twelfth century because in his treatise Theophilus describes the fabrication of the iron plates from which the wire was drawn (Lightbown 164–165).

Decorative metal work was applied to the framework of medieval jewelry through a number of techniques. Ogden claims that one of the major progressions in decorative wirework included the gradual shift from beaded wires to twisted wire ropes. Twisted wire ropes were simply two thin wires twisted together tightly. Beaded wire was “originally made by rolling a round section wire under a single or double edge, which would leave one or two grooves around the wire. By rolling the wire and moving the tool sequentially along its length, a series of grooves could be made that would produce a beaded effect” (Ogden 166). All of these wires—the beaded wire and the twisted wire ropes—were used in filigree work in medieval jewelry. Usually the wires were flattened before use as filigree (169). Another important decorative metal technique is granulation.

Granulation—typically applied to gold—is a surface decoration created by placing minute grains of gold in a pattern to a metal base (Newman 1987, 143). Ogden offers the example of the Alfred Jewel as a medieval piece finely incorporating granulation.



Figure 3: The Alfred Jewel. This jewel displays the decorative technique of granulation used on medieval jewelry. Late ninth century. Ashmolean Museum, Oxford. (From the University of Mississippi Digital Image Database (UMDID). Serial No. 16383.)

Often goldsmiths intertwined filigree work with granulation in order to enhance the overall effect of the piece.

Other decorative jewelry techniques involve adding alternative materials to the metal framework of the piece. Enamel, used in several ways, was the most prominent material added to decorate metalwork. One important technique was *champlevé* enamel in which the goldsmith, using a chisel, cut or carved out cells into the metal, sometimes leaving standing metal strips. The enamel—usually opaque colors—then filled the cells

and was fired so that it would melt and fuse with the metal (Schadt 72). Champlevé enamel resembles another medieval technique, cloisonné enamel. In cloisonné enamel thin metal strips are soldered to a base forming individual cells in which the enamel is placed (Ogden 176). Another technique is enamel *en ronde boss* which became popular in the late Middle Ages. This technique involves coating a three-dimensional form with enamel, usually white enamel (177). Schadt notes that *en ronde boss* enamel allowed a sort of painterly impression to be applied to the piece (Schadt 101). Ogden suggests that these three types of enamel are the only notable enamel techniques of medieval times (Ogden 176). However, Schadt argues that *basse taille* enamel—another enamel technique—possessed equal importance during the Middle Ages. He describes how in this technique “a multi-level relief was first made on the base metal so that the translucent enamel had varying degrees of thickness, which produced gradations of color” (Schadt 89). Another decorative technique involving a different material is niello. Ogden describes niello as “a black sulphide of silver or a mixed sulphide including silver and lead” which was put over engravings on gold or silver surfaces and then polished (Ogden 178). After the piece is fired, the niello appears as black inscriptions or designs on the metal surface. Though goldsmiths worked with niello on both silver and gold, the latter was much more common.

Medieval goldsmiths did most of their work inside their workshops. These workshops were fully equipped with the necessary tools and resources needed for jewelry design and production.

Goldsmith and His Workshop

During the Middle Ages goldsmiths commonly worked at monasteries or at princely courts, for both acted as centers for the production of art. The monk named Theophilus Presbyter provided the most reliable information pertaining to medieval goldsmiths around 1100. Theophilus was a goldsmith himself, which enabled him to describe precisely and with significant detail what the work and workshop of a goldsmith should possess (Schadt 72).

In his treatise *On Diverse Arts*, Theophilus discusses the makings and proceedings of a medieval goldsmith's workshop. The bulk of the treatise deals with the creation and function of necessary tools applied in the workshop. He offers explicit instructions on the construction of the physical workshop:

Build a high, spacious building whose length extends to the east. In the south wall put as many windows as you wish and are able to, provided that there is a space of five feet between any two windows. Then, with a wall rising to the top, divide off half the building for casting operations and for working copper, tin, and lead. With another wall divide the remaining half into two parts, one for working gold, the other for silver. The windows should not be more than a foot above ground level and they should be three feet high and two feet wide. (Theophilus 81)

Theophilus continues to provide equally specific instructions on how the seats for the workmen were to be built, but he does not mention anything about a space within the workshop devoted to keeping a stock of items available for customers to walk in and purchase. However, Schadt argues that by the twelfth century the goldsmith's workshop began to keep a small stock of popular items for an anonymous market, rather than working solely on commission (Schadt 72). Perhaps Theophilus, being a monk, was writing about the typical workshop prevalent in monasteries, which did not contain a space for extra inventory, and Schadt refers to workshops separate from monasteries in

the later Middle Ages. Jack Ogden notes that representations of goldsmiths and jewelers at work exist in the form of paintings and manuscripts; however, illustrations of the workshop and shops of goldsmiths/jewelers are far less common (Ogden 154). As the demand for jewelry production increased, trading centers for goldsmiths' work—also previously located at monasteries—became a city system (Schadt 72).

One of the most vital elements within a medieval goldsmith's workshop was the supply of tools. Apart from the pieces of jewelry that medieval goldsmiths created, they cherished their tools above all. For the most part each goldsmith made his tools. Theophilus lists various tools that were used in goldsmithing and he also provides instructions on how to make many of the tools he mentions (Theophilus 5–7). An engraving by Étienne Delaune illustrates the type of goldsmith's workshop that Theophilus describes. Goldsmiths utilized their tools every time they worked and inevitably grew attached to them. This sentimental notion is proven by surviving evidence that goldsmiths often willed their tools to a son, friend, or fellow goldsmith (Ogden 155). Ogden describes the will of John Colan, a fifteenth-century goldsmith from York, as extensively listing tools including “several varieties of hammers, stamps, swages, stakes, files, tongs, wiredrawing implements, a gold balance, and more” (Ogden 155).



Figure 4: Theophilus, Plate V: goldsmithing. Engraving by Étienne Delaune. 1576. The engraving depicts a goldsmith's workshop similar to Theophilus' ideal workshop including a substantial supply of tools and equipment. (From The University of Mississippi Digital Image Database (UMDID).)

In his treatise, Theophilus describes a plethora of tools including: bellows, anvils, stakes, hammers, tongs, pliers, iron plates (through which wires are drawn), files, engraving tools, scrapers, burnishers, punches, chisels, and crucibles (Theophilus 5). Not only does he describe how to make certain tools, but he instructs how to harden them and perfect them. For example, in chapter 17 he explains how to make files in a range of sizes. In chapters 18 and 19, he describes how to harden the files in two different ways (Theophilus 93–94). Theophilus devotes several chapters strictly to proper tool production.

The status of the medieval goldsmith proved to be of great importance. Goldsmiths were considered artists and their craft was viewed as equally laborious and valuable as other art forms such as painting, sculpture, and glassmaking. Medieval goldsmiths appreciated their work and cherished their workshops and tools. As I discussed earlier (page 31), goldsmiths commonly passed their tools down to their sons, friends, or fellow goldsmiths (Ogden 155). Ogden also notes that Goldsmiths particularly treasured their tools because more often than not they had built the tools with their own hands. Medieval goldsmiths worked in shops with a few other apprentices, and division of labor, or specialization, was not a common practice throughout most of the Middle Ages. Ogden notes that there is some mention of “gold beaters in thirteenth-century Paris and enamellers, seal cutters, and burnishers in fourteenth-century London” (Ogden 155). Aside from occasional references to men working in a particular technique, not much evidence exists to prove that specialization of labor was practiced in medieval Europe. Though the trade of goldsmithing is commonly misconceived as a type of labor restricted to men only, women certainly practiced the art as well at times. The burnishers that Ogden mentions from fourteenth-century London included women (155).

Chapter 3: Renaissance Jewelry at the Time of Cellini

As during the Middle Ages, jewelry remained equally important during the Renaissance among people of all classes. As techniques evolved and materials flourished, the designs of the Renaissance jewelry extended from medieval designs, but eventually a specific Renaissance style emerged. Subtle appearances and disappearances of particular types of jewelry occurred during the Renaissance, and the art of the goldsmith flourished like never before.

Categories/Types of Jewelry

The categories of Renaissance jewelry largely reflect those of the medieval period. Many types of jewelry were carried over from the Middle Ages and evolved during the Renaissance. Most changes in style or design began in the South, usually in Italy, and gradually spread to the North. Changes in jewelry did not occur throughout all of Europe immediately; it took almost a century before certain Renaissance styles were ubiquitous in Europe. Lightbown claims that even in Italy the 1460s was the first decade in which the Renaissance style had become widely dominant and it was not until the 1490s that it replaced the Gothic style completely (Lightbown 385). However, there are some particular shifts in style of jewelry design and jewelry types that should be noted. Some

types of jewelry faded away while new types were created and adopted into the Renaissance fashions. Certain gemstones were no longer used, while other gemstones were used for the first time. New motifs and designs were inspired and repeated while certain designs from the medieval period fell out of practice. Yvonne Hackenbroch notes that the primary sources for the acknowledgement of specific types of Renaissance jewelry included inventories, especially those from royal courts, and contemporary portraiture (Hackenbroch 1979, 5). Many factors contributed to these changes.

Head Ornaments

During the Renaissance the nobility became obsessed with the expense of their wealth. They sought to display their riches in every way, and the wearing of luxuriously ornate jewelry provided them with the perfect opportunity to do so. The Middle Ages had seen the spark of the nobility's interest in elaborate jewels; however, during the Renaissance this interest grew into obsession. The growing royal desire for lavish jewels brought about an emphasis on crowns and coronets. Scarisbrick explains that jewelry for the head held extreme importance during the Middle Ages, and that trend continued throughout the Renaissance with splendid additions in detail (Scarisbrick 113). She describes how crowns and coronets were often decorated with pearls, emeralds, and even pendants (Scarisbrick 114). Other forms of jewelry, though smaller in scale, were also worn on the head.

Italy influenced all kinds of artistic trends especially during the Renaissance, and Italian jewelry fashions spread throughout the rest of Europe. One such fashion mentioned by Claire Phillips is the "*ferronnière* (a narrow cord encircling the head)" (Phillips 76). During the Middle Ages, bulky head-dresses adorned the heads of many

noblewomen. However, during the Renaissance, and beginning in Italy, women replaced these heavy head-dresses with much thinner and lighter ornaments such as the *ferronnière* and simple jewels attached directly to the hair (Phillips 76).

One of the most important types of jewelry during the Renaissance was the badge or *enseigne*. The Renaissance badge closely resembles the pendant in that they were worn in similar ways; however, the pendant was a more versatile type of jewelry than the badge. The badge/pendant essentially replaced the medieval brooch in importance. Badges and pendants usually adorned the hat of a European Renaissance man. Hackenbroch defines *enseignes* as “hat jewels” and claims that they “take first place among the various types of pictorial Renaissance ornaments” (Hackenbroch xi). Badges and *enseignes* are used synonymously for the most part. The trend of *enseignes* began in Northern Italy around 1450 and eventually spread throughout Europe (Hackenbroch xi). Scarisbrick explains that during the second half of the sixteenth century badges were designed as a composition of gem-stones (Scarisbrick 114). However, goldsmiths applied other designs to badges as well. Previously medallions of gold with hints of enamel were popular, especially in England. Diamonds were often used in these later badges composed of gemstones (Scarisbrick 116). This new idea of a totally jeweled badge was probably influenced by the supply of gemstones available during the Renaissance.

Although earrings were not popular during the Middle Ages, they became a specific trend in Renaissance fashion. Phillips claims that the changing fashions of headdresses and hairstyles during the Renaissance had some impact on the return of earrings (Phillips 89). Both men and women wore earrings and they attached them to their ears in one of two ways: by fixing them in pierced ears or by tying them to the ear

with a ribbon (89). Pearls, in particular, were a common material in earrings—other gemstones were also added but not as often as pearls (Scarisbrick 119-121). Designs of earrings varied from simple to elaborate. Simple designs often featured a simple pearl or jeweled drop, while elaborate designs included letters or images such as dolphins or mermaids. Phillips claims that towards the seventeenth century designs tended to be geometric rather than figurative (Phillips 90).

Jewelry for the Body/Costume

Another type of jewelry that was revived during the Renaissance is the bracelet, usually made of chain links similar to those of necklaces. Enamel was often applied to the bracelet, especially to the clasp (Phillips 92). While some types such as the bracelet and earrings gained status, other types of jewelry decreased in popularity. For example, during the Renaissance the brooch slowly fell in importance among jewelry types. Perhaps this was due to waning need of brooches as functioning clasps that connected garments. Another possibility is that as necklines began to lower during the Renaissance the neck and upper chest became more exposed leaving only half of the torso for the brooch. Nevertheless, the brooch did not completely disappear; it influenced another way of wearing smaller jewels. During the sixteenth century court dress was richly ornamented with many small jewels. These ornaments sometimes covered the entire outfit of a noble man or woman including the gowns, doublets, and hats. These small jewels were usually designed as either gold trinkets or clusters of stones attached to the bodice and sleeves of a dress at regular intervals (Phillips 86).

During the Renaissance, several different types of jewelry were worn around the neck, such as collars, chains, and necklaces (also called carcanets). Ranging in size and

length, each of these types of jewelry shared similar designs, techniques, and materials. Layering multiple types of neck jewels was common for Renaissance jewelry-wearers. Perhaps the thickest and most eye-catching type of neck jewel was the collar (Scarisbrick 121-127). Renaissance collars consisted of multiple designs; however, all were intricately detailed and ornamented, and collars were usually jeweled all the way around. Scarisbrick claims that many collars in Renaissance Britain contained Latin or Greek letters making up short mottos such as “GRACIA DEI SUM QUOD SUM,” meaning “By the Grace of God I am what I am” (Scarisbrick 121). Some collars contained figurative elements while others consisted of strictly geometric designs (Scarisbrick 122). Pearls continued to be a main ingredient in the production of collars, as they were in other types of neck jewels.

Pearls decorated necklaces and carcanets as well. Women usually wore these closer to the neck. In late fifteenth century portrait by Alessandro Arnaldi, a Florentine noblewoman, Barbara Pallavicino, wears a strand of circular pearls close to her neck with a large pendant composed of stones suspending from it (Phillips 76). Longer strands of pearls were also worn. In a portrait from c. 1550 of Eleonora of Toledo, the Duchess of Tuscany, a long strand of pearls decorates her neck as well as a shorter strand (Hackenbroch 27). The short strand of pearls also has a pendant composed of stones suspending from it. This repeated style in portraits seems to have been a trend during the Renaissance.

Other necklaces consisted mostly of gold chains containing embellishments such as enamel and stones. Phillips claims that during the Renaissance there was a wide variety of patterned chains; however, few exist today because of their fragility (Phillips

92). These chains were probably worn alongside other adornments. Scarisbrick claims that some necklaces could be divided and worn as bracelets (Scarisbrick 122). Carcanets tended to be more elaborate necklaces. They often had ciphers and inscriptions on them, such as Henry VIII's collection containing the letters E, H, and K (Scarisbrick 124). Men and women wore chains with links of all different sizes and shapes including: round, oval, rectangular, and lozenge (125). They were often worn by themselves; however, perhaps even more often they were worn with a pendant suspended from them.

Pendants

Most authors claim that the most prominent and diverse type of jewelry worn throughout the Renaissance was the pendant. Although pendants were popular during the Middle Ages, they took the back seat to brooches, and designs and motifs used on medieval pendants usually were inspired or borrowed from those intended for brooches. During the Renaissance, on the other hand, the brooch begins to be replaced by the badge or *enseigne*, while the pendant steps up to the forefront of important jewels. Hackenbroch remains one of the only jewelry historians to believe that enseignes hold first place; however, he ranks pendants second (Hackenbroch xi). Pendants were created in all shapes, sizes, and designs, with each holding a specific meaning and worn for a particular purpose. Pendants were also quite versatile. Phillips explains that a pendant usually hung from a long gold chain around the neck. Many pendants could also be removed from the chain and attached directly to the bodice or to a hat or badge. Phillips notes that jewelers designed pendants with the intention of making the back as interesting as the front (Phillips 81). The jeweler's intent in doing so paralleled the artistic theme of the

Renaissance of extreme attention to detail and beauty. Renaissance artists believed in creating art that represented beauty wholly with incredible craftsmanship.

Though pendants continued to vary throughout the Renaissance, designs grew in complexity as time passed and the range of motifs certainly expanded. Devotional jewels—jewels containing some kind of religious connotation—continued from the medieval fashion, as did secular jewels; however, the number of secular designs increased during the Renaissance. The renewed interest in classical antiquity inspired many motifs found on Renaissance pendants. Mythological themes were often represented on pendants through different designs. Perhaps the most significant pendant types reflecting themes of classical antiquity were cameos and intaglios that goldsmiths and jewelers incorporated. Though cameos and intaglios were prominent during the Middle Ages, they gained even greater significance during the Renaissance. Hackenbroch describes Milan as one of the leading cities for cameo jewels. Milanese goldsmiths recycled ancient Roman cameos and added Renaissance frames to them. These jewels were then exported to distant places such as Madrid, London, Vienna, and Prague (Hackenbroch 40). Hackenbroch explains that several pendants have been attributed to a Milanese workshop including a pendant with a cameo of Jupiter and another with a sardonyx cameo head of Augustus (41). Both of the pendants retain ancient cameos while their frame is of sixteenth-century Milanese design. However, not all cameo pendants were composed of ancient cameos. During the Renaissance, the art of gem engraving flourished and many artists became skilled in reproducing cameos similar to the ancient Roman ones they so admired. An example of the Renaissance cameo pendant is a Milanese pendant with the head of Medusa carved in chalcedony dating 1550–1570

(Hackenbroch 40). During the Renaissance these cameo pendants inspired the creation of portrait medallions for heraldic purposes. Most of the time such medallion pendants retained some aspect of classical influence; for example, an oval pendant with the portrait of Charles V illustrates him as Roman Emperor complete with the crown of laurel leaves. The inscription, CAROLVS. V. IMP. AVG. AFRICANVS, surrounds the portrait of Charles V heralding his title of victor of imperial and humanist triumphs (37).

Hackenbroch describes a pendant with a sardonyx cameo portrait of Bona Sforza, Queen of Poland, as another example of a cameo pendant incorporating heroic elements. One side of the piece includes her portrait while the other side includes a design bearing the coat of arms of Poland impaling those of Sforza underneath a crown. The date 1554 appears above the coats of arms explicitly placing the pendant at this time (Hackenbroch 39). Another theme reflecting classical inspiration was that of battle, and Hackenbroch (60–62) states that some pendants contained enameled illustrations of battle scenes that derive from Roman sarcophagi. Yet another way of depicting classical themes was the incorporation of mythological images, such as a sixteenth-century French pendant showing Hercules carrying the columns of Hades that is described by Hackenbroch. Phillips adds that alongside the classical interest came a particular concentration on maritime images such as “ships, sea-monsters, mermaids, and mermen,” reflecting the marine exploration occurring at this time within Europe (Phillips 82). These maritime themes were represented as miniature sculptures, which were usually cast in gold and enameled with great detail (Phillips 81). Hackenbroch describes the tendency of Netherlandish goldsmiths to favor creatures of the sea as designs they incorporated into jewelry (Hackenbroch 35). Italian jewelers adapted the motifs of sea creatures, adding in

their signature sculptural qualities to the work. Hackenbroch describes a pendant—exemplifying the merging of styles—that is formed in the shape of a hippocamp and composed of a large baroque pearl, emeralds, and enamel décor (34). Another maritime image used in pendant design was miniature sculptural pendants in the shape of ships or *nefs*. Sixteenth-century Venetian goldsmiths created such pendants and rendered them with precious stones, pearls, and enamel. Hackenbroch claims that these particular pendants were not considered personal ornaments for Italians because no portraits exist to prove that they were worn at this time. He suggests that rather than using these pendants for adornment, Renaissance men and women used them for *ex voto* offerings to patron saints they believed had protected them at sea (Hackenbroch 50-51). However, in a 1567 family portrait of Lady Cobham and her three daughters, Lady Cobham wears a heavy necklace with a large ship pendant suspended from it. Judging from this portrait, it seems that these pendants were worn in at least some instances. Even if these particular pendants were not typically worn as personal accessories, their creators and owners gave them special attention. These ship pendants are prime examples of the overwhelming detail Renaissance artists, jewelers, and goldsmiths applied to their work.



Figure 5: Detail of ship pendant on Lady Cobham in the portrait of *William Brooke, 10th Lord Cobham and His Family* by Master of the Countess of Warwick, 1567. Collection of the Marquess of Bath, Longleat. (From Emerson, Kathy L. "A Who's Who of Tudor Women (Brooke-Bu)." *Kateemersonhistoricals.com*. Web. 01 Apr. 2012. <<http://www.kateemersonhistoricals.com/TudorWomenBrooke-Bu.htm>>.)

Renaissance jewelry includes many other types of pendants with varying motifs. Some scenes also included devotional references, such as the Virgin and Child or the figure of a pelican symbolizing Christ (Phillips 81). Another popular pendant design was a compilation of gemstones arranged geometrically. Such designs heightened the intense glitter and reflection that precious gemstones provided. Phillips also describes some pendants that offered functionality to the wearer, such as toothpicks and earpicks that were worn (Phillip 81). Another popular design of pendants included personal initials decorated with stones and enamel. Phillips explains that married couples took advantage of this design by having their initials combined on a pendant (Phillips 82).

One of the most recognizable pendant designs of the Renaissance was a design of arched or tabernacle-shaped jewels. This design was derived from the drawings of Erasmus Hornick, a sixteenth-century engraver from Liège (Phillips 83). These designs reflected Renaissance architecture since they contained an architectural frame, usually gold, around a central subject, which typically included figurative illustrations of either devotional or secular scenes (Phillips 83). Hackenbroch points out that it was Erasmus' intent to leave the subject matter of the middle part of the piece up to the discretion and preference of the customer. Erasmus also considered the "commercial possibilities of his inventions," meaning that he designed the pieces so that the framework of the piece, that is, the architectural settings, could be mass-produced. In this way, a jeweler could keep a stock of the pendants, having only to add the central figures (Hackenbroch xiv).

Another type of Renaissance jewelry akin to the pendant and *enseigne* was the *commesso*, which originated in Renaissance France. At first glance a *commesso* looks simply like a pendant composed of a cameo (ancient or new) with a gold Renaissance-style frame. Hackenbroch describes *commessi* as "figural designs formed of several carved, semi-precious stones combined with enamelled gold" (Hackenbroch 87). An example that has been attributed to Cellini is called *Leda and the Swan, with Cupid*. These designs are sometimes composed of only one or two stones while other times several different stones make up the composition. Most scholars associate the original design of the *commesso* with French jewelry; however, Phillips argues that although it was popular at the French court, it is not necessarily known that the French created it (Phillips 86). Nevertheless, the *commesso* became very popular in several countries during the Renaissance; Hackenbroch names the *commesso* "one of the most perfect and

civilized expressions of court jewellery” (Hackenbroch xii). Hackenbroch (87) notes that the technique of creating the *commesso* derived from the techniques of restoring ancient cameos. Phillips adds that the purpose of the design of the *commesso* was to integrate carved hardstone and enameled gold (Phillips, 86). Many motifs decorated these works, but the allegory of Prudence was a favorite (Scarisbrick 84). The *commesso* was worn in several ways: as a hat badge, pendant, or brooch.



Figure 6: *Commesso* in hat jewel depicting Leda and the Swan, with Cupid. Attributed to Cellini. 1550–1560. Kunsthistorisches Museum, Vienna. Leda is carved from chalcedony and integrated with enameled gold. (From *Jewelry: From Antiquity to the Present* by Clare Phillips. Figure 68.)

The *commesso* remains the most famous type of jewelry born in the Renaissance, but another ornament—the *zibellino*—also originated during the Renaissance and called for special attention from goldsmiths. The *zibellino*, or a sable fur, is not necessarily a piece of jewelry but a combination of jewel and dress accessory. Hackenbroch explains that “these little furs were worn as a protection against chills and draughts, but they were soon developed into favourite costume accessories, particularly when enhanced by heads and claws of gold and enamel” (Hackenbroch 29).

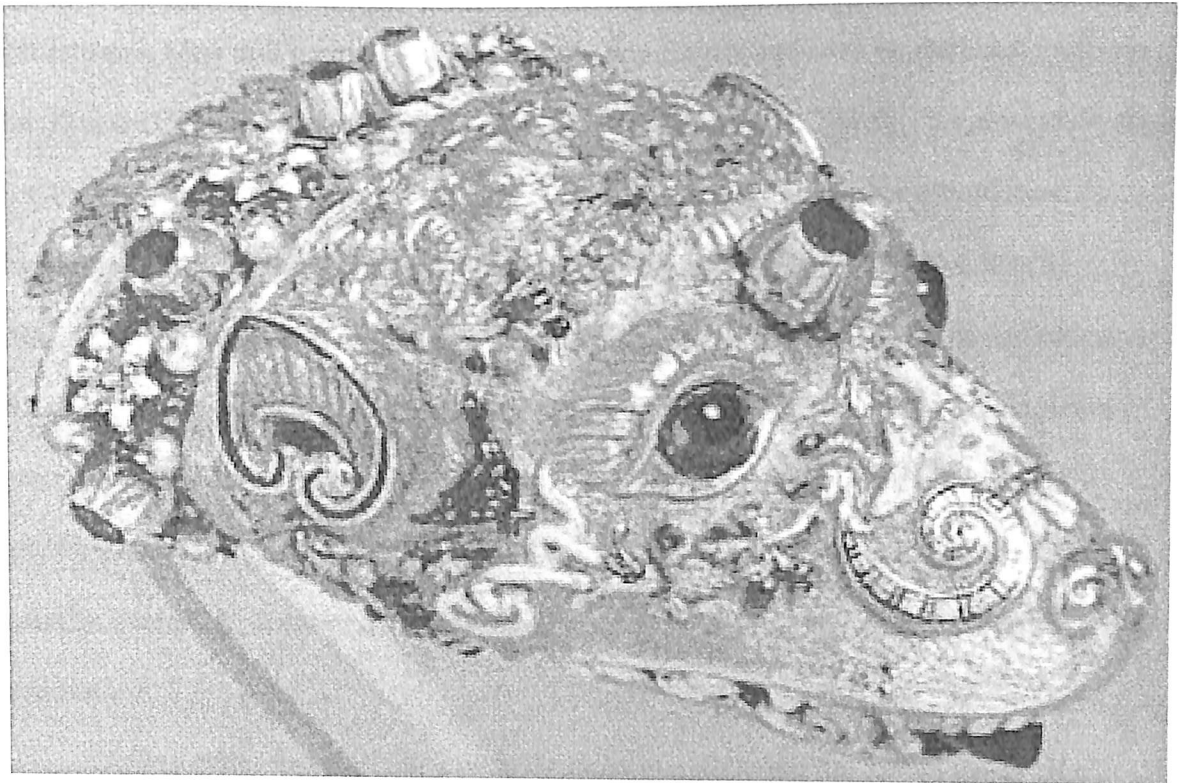


Figure 7: Zibellino Head. *Zibellini* were often embellished with precious stones, pearls, and enamel. Northern Italy. c. 1550. Long strands of stones and pearls were attached to the heads and strung around belts. The Walters Art Gallery, Baltimore, Md. (From blog: “It’s About Time.”)

The part of the *zibellino* the goldsmith worked on was the gold head decorated with stones and enamel. Stones were usually put in the place of the eyes on the animal’s head.

Sometimes crystal was cut for the shape of the head instead of gold. Such ornaments are depicted in several mid-sixteenth century portraits (Hackenbroch 30).

Rings

Rings remained important throughout the Renaissance. In fact, the variety of designs of rings probably tops that of all types of Renaissance jewelry. Phillips claims that during the Renaissance rings were more richly decorated than ever before. Many techniques were used in ring designs including sculpted gold, enamel, and the arranging of gemstones. Men and women wore rings on many fingers and even on different joints on the finger (Phillips 87). Similar to other forms of Renaissance jewelry, rings were created for varying purposes. Some rings were purely ornamental while other served specific functions. Phillips notes that because of the widespread interest in recent scientific discoveries during the Renaissance, many rings were created to function as compasses or sundials. Such gadgets were embedded into the rings' bezels. Due to the development of watch-making during the sixteenth century, another gadget that became a popular addition to ring design was a miniature timepiece (87). These particular rings were usually profusely decorated employing techniques such as sculpting, engraving, and enameling.

Many other types of rings were frequently used during the Renaissance. One important type of ring that gained significance during the Renaissance is the *memento mori* type. These rings were designed to be a reminder to the wearer of their fleeting life and mortality. Phillips explains that these rings would often contain a tiny enameled gold skeleton hidden inside the bezel (Phillips 89). Another particularly sentimental ring design is that of *gimmel* rings. *Gimmel* rings were two interlocking bands often used as

weddings bands. The physical bond of these bands symbolized the union of a married couple (89).

Renaissance jewelry was unified not only in style and design, but also in materials. Various types of adornment required different components; however, many had at least one common material within their compositions, metal. Almost every type of jewelry required the use of some metal, although additional materials varied depending on the piece and the commission requirements.

Materials

With the discoveries of the New World and faster routes to India, the gem trade flourished throughout the Renaissance. New gem trade centers popped up all over Europe. After the Cape of Good Hope was explored, Lisbon replaced Venice as one of the most important centers (Phillips 78). However, gems were not the only materials in circulation for jewelry design—gold and silver were also important items traded for the work of the goldsmith.

Perhaps the single most important element of Renaissance jewelry was gold. Gold served as the “bone structure” of most pieces of jewelry. Though gold was equally as popular throughout the Middle Ages, it became more easily available to people during the Renaissance (Phillips 77). The European “discovery” of the New World led to access to new gold mines. Hackenbroch states that “Spain became Europe’s richest supplier of gold.... During Charles V’s reign (1519–1556), Spain’s annual imports were estimated at between 6000 and 7000 pounds” (Hackenbroch xi). Gold was considered the most precious metal, which explains why Henry VIII refused to allow those not of noble birth to wear it (Scarisbrick 64).

Gems came from several different locations. However, many of the gems traded in Europe were of Asian origin. Cellini explained in his *Treatise* that the only stones worthy of value and consideration were emeralds, sapphires, rubies, and diamonds. He professed that all other stones were trivial and idle impersonators (Cellini 22-23). Hackenbroch furthers Cellini's claim by stating that rubies were "the most valuable of all stones, in preference to diamonds, which have no colour and are hard to cut" (Hackenbroch xiv). Burma was one of the main suppliers of rubies and spinels while Ceylon mined sapphires (Scarisbrick 80). Of the stones Cellini dismissed, garnets came from Sri Lanka and Bohemia, opals from Czerwenitza (in modern day Slovakia), and chalcedony, chrysochase, onyx, bloodstone, and moss agate from elsewhere in Europe (Scarisbrick 80). New world resources included supplies of gems such as emeralds. Phillips claims that India was the sole producer of diamonds and—contrary to Hackenbroch's belief—that diamonds were the most precious stone of the Renaissance (Phillips 78).

Perhaps the most significant shift in gem usage from the Middle Ages to the Renaissance is the appearance of the diamond. In his *Treatise on Goldsmithing and Sculpture*, Cellini spends much more time writing about diamonds than any other gemstone (Cellini). Diamonds were most often used in their cut form. Goldsmiths first began to experiment with diamond cutting during the fifteenth century (Fuga 304); however, as previously mentioned, Lightbown claims some practice of cutting began as early as the thirteenth century. The rose cut of the diamond—a style of cut with a flat base and usually two horizontal rows of twenty-four triangular facets rising to a point (Newman 261)—was established in 1520 and perfected about a century later (Fuga 304). Petrus Marchant, a Frenchman, used this new rose cut alongside table-cut diamonds

(Phillips 78). This rose cut became popular as did the table-cut diamond, and they were often used in pendants and brooches. According to Phillips, table-cut diamonds “were sunk into closed-back settings and their dark glitter—in paintings table-cut diamonds appear black—is a very distinctive feature of the jewelry from this period” (Phillips 78). Diamonds, like other stones, come in many different natural tints. During the Renaissance, goldsmiths used a technique involving foils in order to enhance these tints (Cellini 28-30). For example, if a diamond had a slight rosy tint to it, the goldsmith might place a pink-tinted foil behind the diamond in the setting. The addition of color behind the diamond allowed light to reflect but also enriched the overall color of the diamond (Fuga 307). This technique was applied to other gems as well, especially to emeralds, rubies, and sapphires. Renaissance goldsmiths often combined these three stones and diamonds with pearls.

During the Renaissance, pearls encircled the necks of nearly every royal man and woman. Portraits of the elite from all European countries provide evidence that neck jewelry, often containing pearls, was worn on men, women, and even children. Yet pearls were worn in many ways: in addition to being strung consecutively into long strands as necklaces, they were also set in small pieces such as pendants. The oysters of the Persian Gulf created the majority of pearls traded and used during the Renaissance (Scarbrick 80). The most common shapes of pearls installed in jewelry were round, pear, and irregular—also known as baroque. By simply viewing surviving pieces of jewelry and Renaissance portraits it is easy to assume that all of these pearl shapes were used throughout Europe. However, Hackenbroch claims that baroque pearls were not liked by most Italian wearers or used by Italian jewelers because “their curious shapes are out of

harmony with the classical tendencies inherent in Italian Renaissance art” (Hackenbroch 65). Northern Europeans fancied these pearls because they thought they were rare and unique (65). Nonetheless, pearls certainly remained favored by artists and patrons all over Renaissance Europe.

False stones unfortunately found their way into Renaissance jewelry, as they did in medieval times. Though laws were in place forbidding the usage of counterfeit stones, some goldsmiths refused to comply and continued to add them to their pieces. Scarisbrick notes that colored stones and foiled glass were among the false materials used for imitation (Scarisbrick 81).

Other exquisite materials used in Renaissance jewelry include cameos and intaglios, which I previously discussed on page 38. With the renewed interest in classical antiquity, the collection of ancient cameos became a popular hobby for the elites. Hackenbroch notes that humanists such as Lorenzo de’ Medici were among such collectors (Hackenbroch xi). The art of cameo carving regained attention from the classical period in many cities, especially in Milan (Hackenbroch 39–41). New cameos were created and used, as well as old Roman cameos, in many forms of jewelry including pendants, rings, and hat jewels (Phillips 78). Unfortunately ancient cameos and intaglios were rare even during the Renaissance. Thus men began pursuing the art of gem-cutting in order to replicate the ancient pieces of art. Hackenbroch mentions that the first Valois king, Francois I (1515–1547), drew many Italian artists to France to perform such tasks and that the *commesso*—a type of jewelry inspired by cameo and intaglio jewelry—originated there (Hackenbroch 55–56). Cameos created during the Renaissance, whether intended for a *commesso* or not, ranged in motifs. Scarisbrick notes that in England, the

two most popular themes for cameos were the royal portrait and St. George (Scarlsbrick 82).

Techniques

The techniques that goldsmiths applied to jewelry during the Renaissance were continued from the Middle Ages for the most part. However, some techniques that were ubiquitous during the Middle Ages seem to disappear during the Renaissance. For example, although decorative wire remained a significant ornament on Renaissance jewelry, the technique of creating such wire shifted. Ogden claims that almost all of the decorative wire used in Renaissance jewelry is made of gold ropes instead of beaded wires (Ogden 166). In fact, the use of beaded wire nearly disappears during the Renaissance (167). Another technique, that of granulation—a widely used medieval technique—fades in use during the Renaissance. Though some granulation still appears in some pieces, it is not one of the main techniques applied as decorative work (175). A third technique, niello, seemed to have waned in use as well. Cellini claims that by the beginning of the Renaissance the art of niello had fallen into disuse but that he and a few others began paying attention to it soon afterwards (Cellini 6).

Though many techniques for jewelry creation remained the same as those in the Middle Ages, there was some innovation in techniques during the Renaissance. One particular technique—called *émail en résille sur verre*—that developed at the beginning of the seventeenth century involved enameling on glass. Although the date of this development occurs after the apex of the Renaissance, it is important to understand how the progression of techniques carried over from the Renaissance. This process was very difficult and too tedious to become a popular technique all over Europe (Phillips 92).

Phillips describes the process of this technique, “The coloured glass body was first engraved with the design and the areas of pattern hollowed out. These were lined with gold foil and filled with powdered enamel of different colours, then the piece was fired” (92). Another significant development in technique involved a new way to create sheet gold. The invention of the rolling mill allowed goldsmiths to roll the metal between two iron or steel rollers (Ogden 162). Ogden claims that most scholars credit Leonardo da Vinci for the invention because of a surviving sketch he drew of a rolling mill. However, he further notes that the earliest surviving documentary reference to gold from a rolling mill dates to the seventeenth century (162). Another technique widely used in the Renaissance—*intaglio rilevato*—deals with gem engraving for creating cameos and intaglios. In *intaglio rilevato* “the relief carving does not rise above the border of the stone and with the image repeated on the back in incuse” (Scarisbrick 82). Goldsmiths incorporated this technique often when creating *commessi*. During the Renaissance many jewelers focused on gem engraving because it was so difficult a task, especially when combining several different stones into one scene as in the case of the *commessi*.

Other techniques that were present during medieval times were elaborated on during the Renaissance and used much more frequently. For example the enameling technique of *en ronde boss*—the enameling of a three-dimensional object—was popular during the second half of the fourteenth century; however, it was used ubiquitously during the Renaissance (Ogden 177). Another technique rarely used in medieval times but prominent in the Renaissance is filigree enamel. In this technique the filigree wires act as the boundaries of the enamel (177). In addition, the techniques for stone cutting and faceting developed significantly throughout the Renaissance as well. The style for the

setting of gems gradually shifted from the medieval method. Scarisbrick describes that “Massive chased collets were replaced by narrow fillets of metal grouped together much more unobtrusively to form a skeleton to secure the gems” (Scarisbrick 90). This shift in setting came about as wearers began to place more importance on the stones themselves rather than the delicate décor on the frame and setting.

In the introduction to his treatise, Cellini names several Italian goldsmiths and lists the techniques in which they specialized including hammering, enameling, niello, and filigree (Cellini 2-3). Cellini spends an entire chapter describing the technique of adding foils to stones in order to enhance their color (Cellini 28–30).

The Goldsmith and His Workshop

The Renaissance goldsmith and his workshop greatly resembled that of the medieval goldsmith. Many of the procedures of a medieval workshop continued inside the Renaissance workshop. Goldsmiths’ status remained high and perhaps even rose to some degree during the Renaissance. Slight advances in technology caused some shift in particular techniques. However, the greatest change concerned the increase in demand for goldsmiths and the effect it had on the labor process.

Division of Labor

The influx of wealth during the Renaissance led to a growing economy and it provided new job opportunities, especially for tradesmen such as goldsmiths. The elite’s increasing taste for ostentatious display resulted in expansion of the royal goldsmith and jeweler’s workshops. Because of the high demand for lavish jewels, goldsmiths needed help to

complete all of the tasks. This necessity led to the division of labor and specialization in the goldsmith's workshop.

During the medieval period there was some application of this concept of division of labor. However, it was not until the peak of the Renaissance that this system was perfected and put into place all over Europe. In his *Treatise on Goldsmithing*, Cellini describes the different skills of various goldsmiths in Italy. He explained that a fine goldsmith would have knowledge of and be able to crudely perform every aspect of jewelry making, but it was nearly impossible to find one man who was a jack-of-all-trades. He insists:

Perhaps never before, or at least so rarely that is has never been recorded, has a man been found who was a specialist in more than one or at most two of the eight different branches of this goodly art, but where he is, he knows, as you may imagine, how to make a good thing of them (Cellini 1).

Cellini further explains that one particular goldsmith may have executed the technique of enamel with finesse while another goldsmith specialized in gem setting. It was obviously quite common for one piece of jewelry to be handled by several different artists over the course of its production. Cellini offers several examples of various goldsmiths and their specialties. For example, he claims that Lorenzo Ghiberti was a "master in the art of casting" of smaller work, Maso Finiguerra "pursued only the art of engraving niello," Amerigo "wrought the art of enamel," while Michelangelo worked "especially in the setting of gems"(Cellini 2). Cellini lists several more artists/goldsmiths and explains that all of them would have had some training and work experience in all areas of goldsmithing (Cellini 1). As cameos grew in importance during the Renaissance, the need

for gem-engravers also grew. Hugh Tait names Valerio Belli and Domenico Compagni from Rome as two such specialists (Tait 219).

Not only did the individual goldsmiths have a particular specialization, but also certain cities in Europe were known for particular specialties in jewelry production. In particular, Phillips mentions that “For most of the 16th century the principal European centres for cutting and polishing diamonds were Antwerp (which replaced Bruges where the harbour had silted up) and Paris” (Phillips 78). However, Hackenbroch claims that Venetian jewelers remained famous for their skills in cutting, polishing, and engraving of gemstones, which they usually enhanced by mounting them with “Oriental” style overtones (Hackenbroch 49–50). Scarisbrick notes that goldsmiths, jewelers, lapidaries, stone-cutters, and stone-setters travelled all over Europe to offer their services at different courts (Scarisbrick 89). While some cities were known for certain specialties of techniques, others were known for the creation of particular types of jewels. Hackenbroch offers an example of Milan’s specialty: “Charles V’s appointment of Leone Leoni as his master of the Imperial Mint was indirectly responsible for ensuring that Milan became famous for its portrait pendants” (Hackenbroch 3). Leone Leoni was a goldsmith primarily based in Milan, who designed and created many portrait pendants for rulers and other elites. Another example would be Venice and the concept of the ship-shaped jewel (4). Though workshops in other European cities created similar pendants, they are recognized as inspired by Venetian pendants. Another Renaissance jeweler and artist known for a specific type of jewel was Nicholas Hilliard from England. Raised in a family of goldsmiths, Hilliard possessed the knowledge and skills of any goldsmith; however, his strength was in miniature portraits. Hackenbroch describes Hilliard’s talent

by describing how he “harmonized the sister arts of the medalist, the miniature painter, and the jeweler. He lifted the portrait miniature out of its traditional turned boxwood or ivory box to enclose it in a gold locket or pendant” (Hackenbroch 298). A particular type of adornment that Hilliard created included a locket, set with a cameo, enclosing a miniature portrait. The height of workmanship and skill required to execute a pendant of this kind was a rare gift.

Travelling cross-country was sometimes a necessity for goldsmiths during the Renaissance due to inconveniences such as foreign invasions and the loss of patrons. When a city was sacked, patrons often fled to other areas and artists were forced to move as well in order to find new commissions. Hackenbroch offers the example of Caradosso—Cellini’s rival goldsmith—travelling aimlessly after his patron was put in prison in France. Caradosso stopped wandering and stayed in Rome when he was introduced to Pope Julius II, via Cardinal Ascanio Sforza (Hackenbroch 19). Italian Renaissance goldsmiths repeatedly struggled from the demands of travelling for work, largely due to the constant threat of foreign invasions. Because Italy was divided into so many regions and controlled by several different families, it lacked the strong force of military protection from outsiders. Thus, the families of the Italian provincial states were often overtaken and their treasuries of jewels stolen. These families were the fundamental patrons of local Italian artists and goldsmiths, so when the families were gone the commissions stopped, and the artists and goldsmiths were forced to find work elsewhere (Hackenbroch 19). One Italian city that remained stable longer than all of the others was Rome. The goldsmith industry in Rome was so prosperous that, “On 12 June, 1509, Julius II granted the goldsmiths of Rome the right to form a guild, the noble *Collegium*

Aurificum et Argentariorum urbis, and to build their own church, St. Eligio”

(Hackenbroch 19). At the beginning there were forty-two members, including Caradosso, the goldsmith who constantly competed with Cellini for important commissions (Hackenbroch 19). The art of goldsmithing was now a form of organized labor in which many men took part.

Functions of Goldsmiths' Workshops

The Renaissance goldsmith's workshop usually functioned mainly as a working space. Similar to medieval workshops, Renaissance workshops were the place where jewelry and plate were created from scratch. There seems to have been a steady increase in the size of workshops and in the number of goldsmiths working within them. Most workshops probably contained the appropriate tools and equipment for all parts of jewelry fabrication. However, there was an increase in specialization, which probably led to the creation of workshops intended for certain specializations. Nevertheless, we can assume that within the workshop there was usually one master goldsmith over other workmen and apprentices, for goldsmiths are usually mentioned by themselves with no indication of partners. The increasing demand for jewelry during the Renaissance certainly resulted in the growth in number of working goldsmiths. It also influenced the function of the space of the workshop. Throughout the Renaissance it became more and more common for a goldsmith to keep a small but steady stock of materials and particular finished items for customers to walk in and purchase. Lightbown claims that inventories from goldsmiths' shops survive allowing information about their inventory to be learned, and he describes the inventory of goldsmith Elzéar d'Ecclesia of Draguignan:

In stock were also a set of fifty-five paternoster beads of gold, rings of silver and gold, pendant crosses of silver and gold, Agnuses mounted in silver and gold, rings, crosses, and hearts and Agnuses of enamelled gold, eighteen gold rings, set in all with two sapphires (one white), three rubies, a diamond, a diamond point, three *citrius* (citrines), three counterfeit emeralds, a counterfeit sapphire, and two doublets. Two pendant crosses were also set with stones, one with five spinel rubies and four pearls, the other with four garnets, a counterfeit sapphire, four pearls, a good small sapphire and a cameo (Lightbown 384).

Renaissance goldsmiths' work continued to be primarily commissioned by patrons; certainly commissioned work paid better. However, these small stocks were probably intended for customers of the middle and lower classes (Lightbown 383). Interestingly enough, most of the items listed in Elzéar's inventory reflect the types of jewelry worn by the middle class for most of the stones were semi-precious instead of precious. The pendant crosses set with stones were probably for those who could spend more money, and only two were recorded. Nevertheless, it is notable that workshops more commonly doubled as small shops throughout the Renaissance.



Figure 8: A Goldsmith in His Shop (Possibly St. Eligius) by Petrus Christus. 1449. Metropolitan Museum of Art, New York. This painting illustrates the stock of jewelry in Renaissance goldsmiths' shops. (From The University of Mississippi Digital Image Database (UMDID).)

Social Status

During the Renaissance, the craft of the goldsmith was one of the most celebrated. At that time there was no differentiation between the fine arts and the decorative arts (Desmoni n.p.). Jewelry was viewed as an art form equal to any other, and people held the design,

craft, and decoration of jewelry in high esteem. It took a well-trained and highly skilled person to become a fine goldsmith.

Many famous artists of the Renaissance had trained in a goldsmith's workshop at some point in their lives. According to Phillips, Botticelli and Donatello are two such examples of great artists who committed time to the trade of goldsmithing (Phillips 79). In his treatise, Cellini offers several examples of famous Renaissance painters and sculptors who also practiced goldsmithing, including Lorenzo Ghiberti, Michelangelo, and Andrea del Verocchio (Cellini 3).

Renaissance goldsmiths, similar to medieval goldsmiths, had great pride in their work and workshops. Most goldsmiths spent their youth studying and learning as apprentices in order to pursue their career. Like the goldsmiths of the Middle Ages, they valued the time and work they gave to their jobs. As a result, they also placed great pride in the structure and components of their workshops, such as their tools and machinery.

Goldsmiths were regarded with high respect not only by the common folk but also by the wealthy patrons and noblemen. People of all social classes looked up to goldsmiths as artists with creative ideas and notable skill. Goldsmiths constantly competed with one another to earn commissions from the most important and powerful patrons. Cellini admits to his lifelong competition with Caradosso several times throughout his treatise (Cellini 20). Hackenbroch quotes Cellini as he describes his triumph over Caradosso in regard to a particular medal:

Because Caradosso worked so slowly—I began to be employed by certain noblemen, for whom, among other things, I made a medal in competition with that great artist, and it had four figures, upon which I had expended an infinity of labour. These men of quality, when they compared my piece with that of the

famous Caradosso, declared that mine was far better executed and more beautiful.... (Hackenbroch 20).

Although Cellini sometimes coveted the work of his fellow artist, he also gratefully acknowledged the excellent work that Caradosso produced.

Hierarchy of Goldsmiths

Evidence of a strict hierarchy of goldsmiths does not necessarily exist. However, there is cause to believe that some goldsmiths, like other artists, prospered while others did not. During the Renaissance the term “crown jewels” was coined for the first time (Phillips 78). Through primary sources such as inventories and court records, there is evidence that most royal families had at one time or another designated a “court jeweler.” That jeweler was most often a goldsmith who designed and created jewelry for the nobility. Obviously, those few fortunate court jewelers were not the only men practicing goldsmithing during the time. Thus, there is some evidence of a hierarchy in this trade.

The names of several goldsmiths were documented during the Renaissance, many more than during the Middle Ages. Most of the names of goldsmiths from the Renaissance are provided from inventories and records from the papal offices or from the noble courts. Clearly, the most influential patrons were of noble birth or the papacy. Goldsmiths strove to make their names known to these elite patrons in hopes of gaining their recognition as well as their commissions. Hackenbroch notes that the names of many master artists and goldsmiths who worked for the papacy were recorded in the papal account books, which are called the *Speserie Segrete e Pubbliche*. Two of the goldsmiths recorded in the *Speserie* were Giovanni Pietro Crivelli (1463-1548) and Gasparre Galli (n.d.) (Hackenbroch 22). If a goldsmith’s work pleased the Pope, the

goldsmith might remain in his patronage for an extended period of time, but not all Renaissance goldsmiths had the luxury of constant commissions.

Although the word goldsmith generally describes those who made jewelry, it is clear that several other names refer to a person contributing to the production of jewelry. For example, Cellini refers to engravers, enamellers, setters, and cutters (Cellini 2–6). All of these terms refer to a particular specialty within the goldsmithing trade, which makes sense because a certain degree of division of labor is known to have existed during the Renaissance. Another name—jeweler—is mentioned in existing inventories of royal families. This leads to the argument that there were specific goldsmiths who worked mainly, or only, in the craft of jewelry (as opposed to plate). Lightbown claims that the general demand for jewelry greatly increased throughout the second half of the fifteenth century and large numbers of goldsmiths were working chiefly in jewelry production (Lightbown 383). In his *Treatise on Goldsmithing* Cellini writes mostly about the art of jewelry and refers to plate much less than jewelry when discussing techniques or particular pieces.

Chapter 4: The Transformation of Jewelry Design from the Time of Theophilus to the Time of Cellini

During the gradual transition from the Gothic period to the Renaissance, certain social, political, technological, geographical, and philosophical changes and advances in European culture caused a transformation of jewelry style and design. Although many aspects of jewelry remained similar to those from the Middle Ages, many subtle and not-so-subtle changes occurred. However, a simple shift in taste or a new trend did not immediately spark these transformations. Instead, much of the change in jewelry resulted from interesting cultural innovations and movements that occurred during the Renaissance.

Rising Affluence of Upper Class

The Renaissance brought a rising affluence that was not found during the Middle Ages. The royal courts of nearly every country became obsessed with ostentatious display of fine jewels to show off their wealth, power, and status. The emphasis on luxurious wealth brought about meticulous attention to detail, which in turn led to the production of lavishly embellished pieces of jewelry. The height of craftsmanship and the intricacy of design in jewelry during the Renaissance surpassed that of jewelry from the Middle Ages. Those who commissioned jewelry, mainly wealthy patrons, began to wear layers of adornments as we can see from their portraits (Scarbrick 125). In other words, they would wear multiple pieces at once in order to multiply the embellishments. Many

Renaissance-era portraits depict men and women with jewels covering nearly their entire body. One example is a portrait of King Henry VIII of England.



Figure 9: Portrait of King Henry VIII of England by Hans Holbein the Younger. 16th Century. Thyssen-Bornemisza Collection, Madrid, Spain. (From The University of Mississippi Digital Image Database (UMDID). Serial No. 6139.)

Fine stones were often sewn onto garments to add more sparkle, such as Henry VIII's garments in the portrait. The growing demand for such elaborate jewelry resulted in the

expansion of the trade of the goldsmith. This desire for such opulence blossomed from the small provincial states of Italy, the birthplace of the Renaissance (Phillips 75).

During the second half of the fifteenth century, the Italian city-states became extremely wealthy. Several families across Italy contributed to the popularity of ostentatious display. These families were all important and powerful patrons of the arts in Italy and helped spur the art movement of the Renaissance. Such families included “in Florence, the Medici, in Milan, the Sforza, in Ferrara, the Este” (Hackenbroch 3). Florence, the center of Renaissance art, had patrons who often supported expensive projects in the city, which created jobs for artists and tradesmen. Naturally this environment benefitted goldsmiths (Phillips 75). The inter-dynastic marriages of these Italian families with other aristocratic families influenced the spread of Renaissance jewelry design from Italy to other countries. For example, in 1494 Bianca Maria Sforza, from Milan, married Emperor Maximilian I of Germany. When she moved to Germany, she brought with her many tokens of the Italian Renaissance, including jewelry (Phillips 77). Not long after, the most prosperous cities of Germany, such as Munich, Nuremburg, and Augsburg, began to adopt the Renaissance style (Phillips 77). Hackenbroch argues that courtly splendor and elegance in Northern Italy peaked during the rule of Bianca Maria’s son, Ludovico, who married a woman from Ferrara named Beatrice, the younger sister of Isabella d’Este. As a wedding present to his wife he gave her a lavish piece of jewelry described as, “A beautiful necklace of large pearls strung together with small flowers of gold, and a beautiful pendant to attach to that chain which was set with a most beautiful emerald of large dimensions and a ruby and a pearl in the shape of a pear” (Hackenbroch 10). Duke Ludovico was said to have owned such expensive and fantastic

jewels that some of them were given names of their own, such as “*The Mirror*” and “*The Wolf*” (*il Lupo*) (Hackenbroch 10). Ludovico’s in-laws, the Este family, lived in Ferrara where they also contributed to the artistic endeavors of the time. Hackenbroch points out that Borso d’Este, Duke of Ferrara, owned “one of the earliest recorded cut, pointed diamonds, which he listed in his own handwriting on March 4, 1454: ‘Also a diamond with three facets mounted in a jewel bought from Francesco Viniero of Venice’” (Hackenbroch 12). There is evidence of this jewel in a portrait of Borso dated to 1460.



Figure 10: Portrait of *Borso d'Este* by Baldassare d'Este. c. 1460. Broso d'Este wears a pendant composed of one of the earliest recorded cut, pointed diamonds. Museo d'Arte Antica, Milan. (From *Wikipedia*. Web. 1 Apr. 2012. <http://en.wikipedia.org/wiki/Borso_d%27Este>.)

Throughout the end of the fifteenth century and beginning of the sixteenth century, this desire for highly detailed and embellished jewelry spread to all of Europe. The royal

courts of most countries began expanding the work of the royal goldsmiths and therefore hiring more men in this trade. The demand for projects for goldsmiths became so great that more men were needed inside the workshops in order to finish all commissions.

Some aristocrats became so obsessed with accumulating wealth and power that royalty enforced laws that regulated what type of jewelry was to be worn on every rank of man and woman (Scarisbrick 64). The haughty pride of Renaissance aristocracy provoked royalty to establish such laws so that they stood out in society. They wanted the hierarchy of society to be firmly in place and for every person to know his or her place within the society. In order for this hierarchical system to remain intact, sumptuary laws were created. For example in Venice in the mid-sixteenth century several laws were enforced on the Venetian people, in particular on women, restricting the use of extravagant jewelry.

Hackenbroch claims that:

In 1505, for instance, ladies were forbidden to wear jeweled hairbands (*conciere*) and belts studded with pearls, and could wear no more than one row of pearls of a value not to exceed 200 ducats. The same restrictions were renewed in 1541 and 1548. Finally, in 1582, a new law was issued that forbade Venetian ladies to wear pearls until they had been married ten years. (Hackenbroch 25)

Obviously, pearls were considered quite valuable in Venice. Hackenbroch also notes that these laws were issued to all Venetian ladies with the exception of the Dogressa and the women of her family, as well as the wives of ambassadors living in Venice (Hackenbroch 25). The elite made sure to exclude themselves from the laws restricting ostentatious display. In some countries, it became illegal for commoners to wear even a simple gold chain. Scarisbrick offers an example of Henry VIII enacting a sumptuary law concerning this:

Noman undre the degre of a Knight were any cheyne of gold or gilte or colour (i.e., collar) of Gold or any gold aboute his neke or enbracelettes of gold...and that no man undre the degre of a Gentilman were any silk poynted or were any poyntes with aglettes of Gold or silver or silver gilte or any button or broches of Gold or silver or gilte or any goldsmyth werke (Scarisbrick 64).

Only men in the court were allowed to wear rich attire, and even they had restrictions on what they could wear. If only the men in court wore such jewels, then they would inevitably and immediately stand out in town and it would be known that they were part of the privileged upper class. Phillips offers an example of a similar law within the Act of Supremacy, launched in England in 1534: by declaring himself head of the church Henry VIII gave himself power over the riches of church treasuries which he used to fund his artistic commissions including many lavish pieces of jewelry (Phillips 76). Some rulers, like Henry, cruelly used their power to fill their greed for excess riches. In this case, Henry not only wanted to stand out as the greatest and wealthiest man, but he also wanted to take away from others including the church in order to pacify his greed. However, things seem to have taken a turn during the second half of the sixteenth century, at least in Italy.

The French occupation in Italy in 1484, after Piero de' Medici's expulsion, caused several struggles for Italian city-states. Noble families were diminished, run out of town, or fled. During this period the rate of artistic production fell. Once the French occupation was over, Cosimo I de' Medici became Duke of Tuscany (Hackenbroch 26). He and his wife, Eleonora of Toledo, were cautious about the economy and, as a result, issued certain sumptuary laws restricting the amount of luxury jewelry, in particular pearl necklaces, to be worn by Florentine ladies. Cosimo excluded his wife from the restrictions as well as a few married women of the nobility. Other than those exceptions,

he strictly enforced these laws on everyone, even when certain noblemen wrote to him asking for exemptions (Hackenbroch 26). The elite of Italy appear to have taken the economic concerns of their extravagant spending more seriously than those of other countries. The most likely reason for this stems from the amount of loss from the plunder and looting inflicted upon them by the French (Hackenbroch 26).

The overflow of wealth in Renaissance Europe affected jewelry design and production not only by directly inspiring the commission of lavish pieces, but also indirectly through improvements in other fields. Money was necessary for the many technological advances and innovations in the Renaissance that also contributed to changes in jewelry design. Wealthy patrons who funded other fields of research and discovery may not have been aware that their efforts would also expand opportunities for jewelry design; however, in hind sight it is clear that such was the outcome.

Technological Advances Creating Expansive Opportunities

During the Renaissance nearly every scholarly field of study experienced advancements in learning and creativity. While the art world was being transformed due to innovative ideas including linear perspective, the technological world was expanding with improvements such as enhanced sea transportation. Sailors and navigators boarded their powerful vessels and explored what was once thought to be the ends of the earth.

Advances in sea transportation led to many changes within the gem and jewelry industry. Navigators found quicker routes to other parts of the world such as India, the source of many gems, and they also made one of the most significant discoveries in history—the New World.

The discovery of the New World by the Spanish and Portuguese marked another triumphant success of the Renaissance era. New land meant new resources, which included new materials that could be worked into jewelry. These supplies, including emeralds, gold, and silver, came from Colombia in modern-day South America (Phillips 77). At the outset, Spain controlled the new additions to the gem trade and made its trading center for gems in Barcelona. The Portuguese found their riches via the Cape of Good Hope in 1498 with navigator Vasco da Gama leading the way. They found that this route led directly to India, the greatest source of diamonds during the Renaissance, allowing for a significantly faster journey than the overland way that merchants and traders had used previously (Phillips 78). The new boats that carried these voyages were probably faster than before, allowing them to travel swiftly from one trade center to the next. Thus materials were delivered and distributed faster throughout Europe. The theme of speed applied to other areas of technology during this time as well.

Before the Renaissance, all documents and papers were handwritten. If several copies of one document were needed, a scribe or other person had to write and rewrite until all of the copies were finished. Obviously, hand-writing and hand-copying took a great deal of time. However, that all changed when Johannes Gutenberg (1398–1468) invented the printing press c. 1440. Gradually, machines began producing copy after copy, replacing the age-old process of writing documents by hand. Gutenberg's printing press allowed for mass reproduction of written material, and it created easy access to chronicles, books, and papers for those interested. The main influence it had on jewelry was the international circulation of designs and sketches made by leading goldsmiths (Hughes 78). A piece designed by an Italian goldsmith could be replicated in a French

workshop merely by looking at a sketch reproduction. The scattering and sharing of designs internationally increased the speed of style changes and trends in jewelry. It also led to a rise in competition between neighboring countries to employ the finest goldsmiths to create the finest jewelry collections. Many goldsmiths probably drew sketches of designs, if not for the benefit of others, then at least for their personal use. However, during the Renaissance some goldsmiths began to draw out designs for jewelry particularly for the intent of reproducing them for other workshops. For example, Erasmus Hornick, a goldsmith from Antwerp, devoted himself primarily to publishing in Nuremburg where his pattern-books of 1562 and 1565 were printed (Hackenbroch 157). Many other artists are known to have published designs for jewelry as well. Hans Holbein the Younger (1497–1543), an influential artist in England, also published jewelry designs, and one of his original sketchbooks still survives (Hackenbroch 271). One of the most beneficial aspects of widespread reproduction was the opportunity for an artist or designer to create a signature style and have the privilege of ownership of those designs. Not only was it beneficial for Renaissance jewelers, but it continues to benefit art historians today. The surviving sketchbooks, prints, woodcuts, and engravings allow more knowledge of the origin and journey of certain jewelry designs and styles. The invention of the printing press provided exponentially more information about the jewels being created and distributed than before.

Other technological advances during the Renaissance involved the enhancement of particular techniques used in jewelry production. One example includes the progressive improvements in gem cutting. During the Middle Ages gem cutting was new to goldsmiths and skills were not yet perfected. It was not until the Renaissance that the

technique of gem cutting became an art of jewelry design and a specialty for many men. As previously mentioned the table-cut was a popular style of diamond in the Renaissance. Also, the rose cut—invented in 1520—became increasingly significant in Renaissance jewelry. The number of cut stones far outweighs the number of uncut stones used in Renaissance pieces. Another example of advanced techniques, previously mentioned on page 51 was the invention of the rolling mill, which facilitated a much less complicated and more rapid way to create sheet gold. The rolling mill process reduced the time enormously from that of hammering gold by hand.

Transforming Ideas and Innovations in Art World

Throughout the Renaissance, the artistic world experienced many important changes. New ideas and innovations were created and incorporated into all forms of art. Not only were new subjects and themes instilled into the work, but also new techniques that enhanced the reality of artistic illustrations. The renewed interest in classical antiquity paired with the innovative technique of perspective became the two most vital elements influencing all forms of Renaissance art.

Renewed Interest in Classical Antiquity

The renewed interest in classical antiquity remains one of the most common and accepted traits of Renaissance art. Ancient civilization certainly influenced many cultural aspects and movements of the Renaissance. Beginning in Italy, people started studying the political, social, philosophical, and artistic ideas of the ancient world. The study and worldview of classical antiquity embodied the elements of humanism in which the focus was on the beauty of the human intellect and man himself. In other words the power of

man (and truly “man” rather than “humankind”) himself was venerated and cherished. These ideas found their way into nearly every part of Italian Renaissance culture, culminating in the new movement that defines the Renaissance era. Renaissance philosophers concerned themselves with becoming the greatest writers and speakers while Renaissance artists strove not only to depict these humanistic ideals in their art but also to create art that transformed and reflected the truth of the power and importance of man. The prominent Italian patrons, who financed the beginning of the Renaissance art movement, were consumed with these humanistic, secular ideas of man (Hackenbroch 3). Although the focus on man increased greatly, Christian ideals and the importance of God remained present throughout the Renaissance. Classical elements influenced the design and creation of all Renaissance art forms including that of jewelry, which reflected hints of classicism in many different ways.

Nearly every jewelry historian introduces his or her excerpt on Renaissance jewelry by making a reference to the influence of classical antiquity on jewelry design and style. On the other hand, Tait claims that during the Renaissance there was “little accurate knowledge of Greek and Roman jewellery and so in no sense could the new Renaissance jewellery be described as a rebirth of the Classical tradition, except in cameo carving” (Tait 151). He seems to argue that the actual design of jewelry styles were not replications of classical jewelry designs. For example a Renaissance necklace was not necessarily intended to imitate a particular classical necklace design. However, if Tait is in fact arguing that classicism had no other influence on jewelry design other than the use of cameos, I believe he is wrong. Many aspects of classical culture influenced the designs, motifs, and materials used in Renaissance jewelry. I believe that the style of jewelry—the

types of jewelry—created during the Renaissance were continued from medieval times and not intended to be imitators of classical jewelry types. However, I believe that one of the most prominent differences in design between medieval jewelry and Renaissance jewelry stems from the influence of classical elements in Renaissance jewelry.

Several different aspects of Renaissance jewelry highlight the influence of the particular interest in classical antiquity. Mythological motifs and allegories were depicted in Renaissance jewelry reflecting the ideals of classicism. Figures such as Hercules, Leda, and Zeus adorned pieces, as did allegories of Virtue and Prudence. For example, in an enameled French medallion, Phaeton rides in the chariot of Helios, who is his father and the sun god. Many other French pendants contained the motif of VIRTUS, which, meant courage in the ancient Roman mind. The usual depiction of this allegory included a knight riding a horse without reins, symbolizing the rider's immense self-control when faced with sin and passion (Hackenbroch 67). Engraved gems often contained portraits of royal figures portrayed as Roman emperors wearing laurel wreaths. For example, Leone Leoni—sixteenth century Milanese master of the Imperial Mint—designed a coin containing the portrait of Charles V wearing a laurel wreath and portrayed as a classical emperor (Hackenbroch 37). The theme of battle, motifs derived from the scenes on Roman sarcophagi, became popular for pendants and *commessi* reflecting the classical ideals of man's strength (Hackenbroch 62). Acanthus leaves became a common decoration in filigree work and other types of decoration. Sometimes jewels even depicted particular events in classical history. For example, a French pendant suspended by tiny chains and decorated with pearls illustrates the founding of Rome. The scene includes Romulus—Rome's first king—supervising the construction on the spot where he

killed his brother Remus. Stone-masons are seen under a classical architectural setting hammering on rubies incorporated into the surface as if they are cutting them (Hackenbroch 74-75).

Materials from classical antiquity also influenced the Renaissance materials. The most important material used was the cameo or intaglio. Renaissance humanists began the trend of collecting ancient cameos, although more often than not the collected items were placed in modern settings for jewelry and sometimes for plate. Jewels containing ancient cameos were considered of higher value than those containing modern cameos. However, the popularity of cameos became so vast that the craft of gem engraving became an art itself during the Renaissance. Although Renaissance men and women may not have been knowledgeable about how cameos functioned during classical times, they placed great importance on such artifacts and they became a fundamental part of Renaissance jewelry.

Discovery and Application of Perspective

One of the most important technical innovations of the artistic Renaissance was perspective. First applied to architectural drawings by the Florentine Brunelleschi, this idea quickly spread to all other art forms, including jewelry design. The application of perspective brought the artistic renditions of classical architecture to life. Perspective illuminated art and transformed illustrations into realistic scenes drawing the viewer into the action.

The use of perspective influenced jewelry primarily when used in illustrations of scenes with multiple figures and especially when applied to architecture. Renaissance goldsmiths applied perspective in different ways to various types of jewelry. One way of

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incorporating perspective was in a badge or pendant containing an engraved gem with a depiction of a scene with figures and part of landscape. The Renaissance goldsmith typically sculpted and enameled the elements of the illustration with the use of perspective. Another way in which goldsmiths used perspective in jewelry design was with sculpted architectural forms. Erasmus Hornick—the goldsmith from Antwerp who focused on publishing his designs for widespread use—applied perspective in this way with his architectural settings for figural pendants. Hackenbroch describes typical settings of Hornick’s jewelry in which an “elaborate framework surrounds a small niche or tabernacle with a platform to receive a figure or group” (Hackenbroch 160). The niche that was built into the design incorporates elements of perspective, with the figures placed inside and the architecture surrounding them containing lines of depth (orthogonals) receding to one vanishing point. The detail of the sculpted architecture renders perspective for the entire form of the pendant and directs the viewer’s eyes to the subject in the central niche. The structure and craftsmanship of these pendants are brilliant examples of centralized form and perspective application; Hackenbroch notes that with these pendants “the density of form has now reached its absolute climax” (Hackenbroch 161). Hornick incorporated perspective in other designs as well. In some of his sketches he drew designs for pendants and medallions that include one-point perspective within the architecture of the scene.

Chapter 5: Conclusion

The study of jewelry as an art form remains little studied by scholars and art historians, whereas much observation, research, and consideration goes into the discovery and learning of other art forms such as painting, sculpture, and architecture. Even other minor categories in art history such as manuscripts, pottery, and printmaking are given more attention than the craft of goldsmithing and jewelry. Jewelry of some particular periods has been studied more heavily than other periods. The reason for this probably stems from several factors including the availability of artifacts and sources of a particular period, a scholar's personal area of interest, and the general popularity of a particular period. The bulk of literature on jewelry is in the form of general overviews and encyclopedias covering jewelry "throughout history" or "through the decades." In such books, jewelry is typically discussed, somewhat shallowly, according to its particular time period and geographical area. Such books are the main literature in which scholars compare and contrast jewelry from different eras and regions; however, they fail to provide adequate information for full understanding of not only what the changes and differences from one era to the next are, but also what influences caused them and why. Most scholarly literature that does provide adequate information and specific details is in French, German, and Italian, and thus inaccessible to most American readers.

During the Middle Ages and the Renaissance changes in style popularity did occur, although without ease. Like everything else, it took time for fashions to reach throughout Europe because of the lack of advanced transportation of information. The Renaissance style did not extend to every European country until about fifty years after its Italian birth. As I discussed in Chapter 4, social, political, technological, geographical, and philosophical alterations and improvements during the Renaissance were all responsible for influencing design transformations in jewelry. Many of these influences are not immediately recognizable, but after extensive observation it is clear that each influence made a significant impact on jewelry design. It is important to understand the “who, what, when, and where” factors associated with modifications in jewelry design from one period to the next. These questions must be answered in order to fully understand the essence of jewelry from an art historical perspective. Considering all of the factors enables the attainment of further knowledge about the past and provides insight for the future. Merely looking at differences in design and style of jewelry from the Middle Ages to the Renaissance does not allow full depth of understanding. However, after studying the many aspects of culture change, I have found that the factors of change all contribute in some way to the progressive transformation in jewelry design. With the rising affluence of the upper class came the incessant lust for luxurious and material things, which inevitably affected the demand for jewelry. The power of wealth also aided technology, which indirectly allowed expansive opportunities for the fabrication of jewelry such as the geographical discoveries revealing new sources of materials, the ability to distribute designs and drawings via the printing press, and improved technical

processes accelerating jewelry production. Also, the infatuation with classical antiquity of the Renaissance shaped designs in jewelry that were not present during the Middle Ages.

The transformation of style and design in jewelry from the Middle Ages to the Renaissance was progressive. Beginning in Italy, the Renaissance style gradually made its way throughout the rest of Europe. Many aspects of Renaissance style and design in jewelry remain the same or similar from that of the medieval period. Nearly all of the same categories and types of jewelry such as necklaces, collars, brooches, pendants, and rings continued to be worn throughout the Renaissance. However, some types such as earrings, which were not often worn during the Middle Ages, reappeared in the Renaissance. Two other new types of jewelry that rose during the Renaissance were the *commesso* and the *zibellino*. Another significant change concerning the categories was the shift in emphasis from the brooch to the pendant. During the medieval period, the brooch held the most attention and was favored; however, the pendant replaced the brooch in popularity during the Renaissance. Most of the changes in jewelry concerned the design and structure of the pieces.

As I have mentioned, many varying movements caused the gradual transformation of jewelry design. The greatest social influence was the rising affluence of the upper class that began in the Italian provincial states. One or two powerful families controlled each Italian city-state. During this time the obsession with wealth consumed these families and enabled them to spend great amounts on luxurious commissions. The lust for extravagant things was present in nearly all European aristocracies, not just in Italy. With the elites competing for the grandest objects, space for working goldsmiths enlarged, which allowed more men to pursue the trade of goldsmithing. The rising

number of inter-dynastic marriages also affected the spread of Renaissance style to all of Europe. The wealthy upper class financed advancements in technology, which indirectly influenced the design of jewelry in the Renaissance. Technological improvements such as increased efficiency in sea transportation and the invention of the printing press provided expansive opportunities for jewelry. The discovery of the New World brought about new resources for jewelry design and creation such as emeralds, gold, and silver. The printing press enabled vast reproduction of design books, which were then spread throughout Europe and therefore caused widespread reproduction of similar designs creating a somewhat consistent Renaissance style for jewelry. Enhancements in tools and techniques allowed goldsmiths to perfect the skill of gem cutting, which resulted in jewelry composed of complex faceted gems instead of simple, uncut cabochon gems. Not only were technological innovations significant, but also philosophical and artistic innovations were vital to the shift in jewelry from the Middle Ages to the Renaissance. The renewed interest in classical antiquity and beauty of the human intellect, and in particular man himself, caused subtle changes in jewelry design such as using mythological subjects for the scenes in individual pieces. This influence can also be seen in the details within Renaissance pieces like the laurel wreaths adorning the heads of rulers in portrait pieces. The discovery of perspective was applied to jewelry in similar ways. For instance, depictions of subjects with architecture were placed into perspective. Also, late Renaissance figural pendants with architecture surrounding the central subject incorporated the use of perspective. All of these changes create a style that certainly extends from the medieval style but also definitely evolves with its own unique approach to jewelry design.

Several different types of primary sources are available that provide such information such as inventories, wills, paintings depicting workshops and pieces, and actual pieces that have survived. However, the most reliable and detailed descriptions of the proceedings of goldsmithing derive from two important artistic figures: Theophilus and Cellini. The writings of Theophilus and Cellini are crucial for learning about goldsmithing not only in each period, but also for understanding the transitions in goldsmithing from one period to the next. Though other primary sources exist, only the writings of Theophilus and Cellini reveal the essential information and character of medieval and Renaissance jewelry necessary to unveil the mysterious relationship between the two eras. The transformation of jewelry from the time of Theophilus to the time of Cellini gradually led to very ornate and opulent designs that reflect medieval qualities while radiating a new nature becoming what is termed as the Renaissance style.

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