RESURGENCE

By:

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I believe objects have a lifespan. They have the capabilities to experience decay and metamorphose into something new. In my work, attention to detail and craftsmanship is important. The ideas surrounding my work focus on venerating traditional techniques like filigree and granulation, which have been practically unchanged by history. Along with these traditional ways of working precious metal I use excavated Victorian era dolls (and their parts) and mixed media to create contemporary jewelry objects that connect to a long-lasting tradition. Creating a strong individual body of work enables me to address my own concerns within the field of jewelry. Resurgence is an exploration of these ideas within the contemporary jewelry field.

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In Partial Fulfillment of the Requirements for the Degree Masters of Arts in Art

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DEDICATION

To my mother, Kimberly Staigvil, who always encouraged me to be creative and instilled a love of making and exploration from a young age.

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INTRODUCTION

My formal education in jewelry and metalsmithing was highly based on traditional working methods. I found great satisfaction in working towards perfecting some of these techniques. I was drawn to the extensive history and community of makers within the field. As my horizons and opportunities expanded, I dedicated my academic career to it. My own pursuits of jewelry design have revolved around beauty and wearability. Beauty is important because it allows for deliberation and can be life-affirming. Technique and craftsmanship are also major concerns within my making. The attention to these details is a reaction to today's current consumer markets, which favor products that are inexpensive and immediate.

Material choices are also a reflection of this ideology. Silver and gold are the sole metals used within this body of work. The significance of these materials signifies a connection to the centuries of jewelry when they were highly commoditized, whereas they have fallen out of favor for many other contemporary jewelers. I feel that the use of traditional techniques connects my work to the history of jewelry but it also contributes to modern ideas through the addition of alternative materials.

The porcelain doll fragments in my work serve as a central focal point. I am especially attracted to the broken forms or parts, which allow for a transitory area to invite further material exploration. The wounded dolls are repaired with precious materials such as pearls and fine metal granules. Additionally, glass frit and salt have been used as filler, both of which have been highly prized commodities in history along with porcelain.

CHAPTER 1: HISTORICAL SIGNIFICANCE

Jewelry is described as objects of personal adornment. This tradition of adorning the body is thought to have originated 75,000 years ago, aided with archeological findings. Shells and bone were the primary materials with metal being introduced only 7,000 years ago.

In Mesopotamia there was a significant amount of gold and silver jewelry being produced. Dig sites have recovered extensive amounts of jewelry contained in burial vaults. A multitude of objects include various bodily adornments like crowns, collar necklaces, pins, amulets, ankle bracelets, and rings with carved seals that were used for trade. (Eichhorn) Some of the most ancient objects with granular decoration were found in the Royal Tombs of Ur in Mesopotamia. The process of fusing tiny metal spheres of silver or gold to a metal surface of the same purity or karat is called granulation. From this site, especially after the destruction of the city, granulation spread to Anatolia, Syria, and Troy. The technique eventually spread west over four centuries through trade and Greek colonies, with the best surviving examples coming from Etruria.



Figure i: Pair of Disk Earrings

The Etruscans were especially skilled in metallurgy and often are unrivaled even to this day. It is thought that Phoenician goldsmiths introduced techniques in Etruria including granulation and filigree. Granulation work was made famous by this civilization, mostly due to the mysteries involved in the making of such complicated geometric forms with the use of minute gold or fine silver spheres. Granulation was an already ancient technique with almost 2000 years of history behind it by the time the Etruscans had adopted and perfected it.

Contemporary interest in granulation began in the 19th century. The recovery of lost procedures was of interest to goldsmiths at the time due to the popularity of museum collections. Alessandro Castellani, an antiquarian, collector, researcher, and goldsmith is credited with taking on the challenge of solving the mysteries of the granulation technique. Changes in technology were contributing factors to why reproducing the technique was challenging. Eventually, with the rediscovery of colloidal soldering (which requires the reduced oxygen atmosphere of charcoal), goldsmiths in the 1920's began experiments in using the "secret" soldering technique. Much later in the 1980's the use of radiography, infrared and microscopy were used to better understand the working methods and tools of ancient goldsmiths. (Nestler)

I first learned this technique in 2011 in combination with cloisonné enameling. There are several ways to approach making granules. The process I use in creating them starts with a solid charcoal block. This block is drilled numerous times with a round bur to create a half dome indentation. Fine silver or high karat gold fragments, generally wire ones, are placed within the recesses. Heat is applied with an acetylene torch to the charcoal to create a reduced atmosphere in which the metal fragments melt. The hemispherical depression allows for the metal to form a perfect sphere in cooperation with the melting properties of fine metal. Once all fragments have

reached their granule stage, the charcoal block is submerged in water; this collects the spheres and works to cool the block to preserve it for future uses. Due to a reduced oxygen atmosphere created from the clean burning flame and charcoal, there is no need to clean the metal and it can be used immediately. Hide or skin-based natural glue is used to secure the granules into a pattern on the surface; this allows for a clean burn so that carbon residue does not interfere with the process of fusing the metal. A diluted mixture of cupric nitrate is placed carefully along the granule and sheet surfaces. The addition of copper in this mixture aids in fusing the granules by creating an alloy on the surface that reduces the melting temperature. Metal with the same purity or karat is favored for this technique because bonding will occur at the molecular level. The incorporation of fine silver granules in my jewelry acts as additional adornment, with a mix of traditional and non-traditional usage. The spheres are used as a place to rest the eye within the filigree patterns on the silver forms used as back plates.

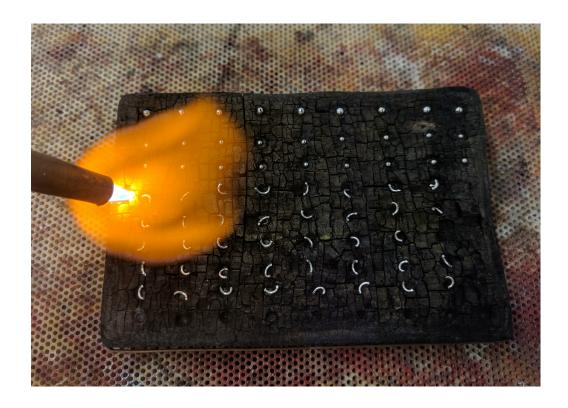


Figure ii: Granule Making Process

In addition to making my own granules I also produce my own filigree wire. The process of filigree is defined as delicate ornamental work of fine silver, gold, or other metal wires, especially lace-like work of scrolls and arabesques. This technique was once a part of the repertoire of any jeweler, but has now become a niche field of study. The conservation of this technique, along with granulation, is important to me as an artist because I want to venerate jewelry techniques that are virtually unchanged by history.

In my work, 26-gauge fine silver round wire is used to start a basic, single twist form. Numerous variations exist from this starting point. For example, the gauge of wire may be changed or the additional length of wire could be used and even the reversal of the twist back onto itself is possible. Combinations are essentially limitless. My introduction to and only formal study of filigree came from a workshop, where the basics of Russian-style filigree were taught using a recipe of Soviet Era solder. Over about 6 years of practice and refinement, along with the help of books and various handouts, I have solidified my own style of filigree jewelry.



Figure iii: Various Filigree Twists

CHAPTER 2: 19th AND 20th CENTURY INFLUENCES

During the late 19th and early 20th centuries the emergence of art jewelry from the Art Nouveau and the Arts and Craft movements gave way to jewelry that celebrated artistic expression. Art Nouveau was style of fine and applied art, characterized chiefly by curvilinear motifs often derived from natural forms. Eccentric and often lavish designs were celebrated, with precious metals and gemstones being the focal points. While highly labor intensive, these works were neither monumental nor mass-produced. Along with precious materials, artists of the Art Nouveau period started to question and abolish the system of perceived value in gold, silver and gemstones. Materials that were without worth, such as carved horn or cast glass, were included in designs. What truly mattered was the artist's hand and how mundane materials transcended into works of art. (Eichhorn)



Figure iv: René-Jules Lalique Necklace

After World War I, goldsmithing and traditional ideas of jewelry began to fall out of fashion.

The testing and pushing of boundaries defines contemporary jewelry. Material value was often insignificant and the artistic statement behind the work it is what defined it. Traditional artisanship may be a limited inspiration for some. I believe this idea to be untrue, and my work is pushing back against the notion that ancient techniques are not relevant in contemporary work. I do this through personal study and by incorporating them into my work

CHAPTER 3: GERMAN PORCELAIN

Originally created in China, porcelain is a ceramic material made chiefly of kaolin clay, alabaster (gypsum), and various silicates that are heated together to form a strong, sometimes pure, optical white material. The Portuguese first introduced Chinese porcelain to Europe which eventually lead to it becoming a highly prized commodity. A second formula for creating porcelain is often credited to the German alchemist Johann Friedrich Böttger. (Burton)

Germany's success in making porcelain led to numerous factories being opened. Some of the better-known producers included Meissan (in Dresden), Nymphenburg, Limbach, Dressel Kister and Hertwig & Co. Dolls produced by these companies became popular children's toys and in response women began to demand figures that suited adult tastes. Elegant dolls were exclusively produced for boutiques and others that would make specialty items for Victorian women. Some were often completed by the buyer and were made into various boudoir items like small brooms, pincushions, and box lids. The popularity of these figures stayed in style for nearly 50 years. Factories continued to produce china dolls up until World War I, after which the industry began to decline. (King)

The Limbach Porcelain factory in Thuringia, Germany was a major producer of china dolls and other porcelain wares. It was the second manufactory that arose in the region and the ample forests in the area made for an abundance of fuel. Gotthelf Greiner, who was originally a glassmaker, founded the Limbach factory. Prior to establishing the Limbach Factory, Greiner was partnered with another glassblower by the name of Johan Wolfgang Hammann. Greiner eventually converted his glass shop into a porcelain-manufacturing site under the supervision of Duke Anthony Ulrich, who promised to provide the necessary supply of wood. The demands for

Greiner's porcelain were so vast that he had to extend his manufacturing. Due to the limitations at the Limbach factory, Greiner purchased additional factories. Under his control, Grosbreitenbach in Rudolstadt and Kloster Veilsdorf (an ancient convent) began production of china. Greiner passed away in 1797 leaving the works to his five sons who carried on with producing porcelain. (Marryat)

For the most part the Limbach factory and its partners were minor producers compared to the other factories that were in operation at the time. At least 8 major factories and around 20 minor factories are recorded. It is estimated that at least 200 factories were established and in operation during the 19th and early 20th centuries. Collectors tend to value the more artistically created wares made by the major producers. Most factories achieved their notable works between the first 30 and 50 years of production. Following these years, quality declined as demand increased. It is also important to note that each individual factory had its own maker's stamp and sometimes even multiple ones. The Limbach factory is often accused of imitating the Meissan mark, which consists of two crossed swords. It may be that this was done to sell imitations of a higher quality work; eventually Limbach began stamping their works with a trefoil or three-leaf clover stamp. Often, only the word "GERMANY" was stamped on the back, with various numbers. Its model #10,000 was registered in 1913, so any lower number would have been produced before that year. It is estimated that Limbach's output of products numbered in the 16,000's and were produced up until its closure in 1937. (Foulke)

Dolls often reflected current fashion, though many dolls were retrospective modeling reminiscent of Medieval style dress. High quality dolls representing the latter often exhibited similar characteristics of high foreheads, pompadour style wigs (decorated with beads and flowers), and naturalistic hands that even include well-defined fingernails. The half figure dolls

made by Dressel Kister are said to have the most innovative heads, including ones with elaborate hairdos, ribbons, flowers and even rare examples of short-cropped hair. The complexity of their designs required skilled workers, as feathers, bonnets, and long flowing hair were modeled. The popularity for decorating powder bowls, creating sewing companions, and nightstand cases became commonplace among middle and upper class women. (King)

The doll fragments I use within my work are currently being excavated by hobbyists who sell online through sites like eBay and Etsy. Most of the porcelain pieces used are excavated from the old Limbach Factory sites in what is now a forested area near Sonneberg, Germany. The legality of such excavation is questionable because the factory sites are still privately owned but I have not come across any issues in buying the excavated parts. There is surprisingly a large collector's market for these dolls, with auctions of higher quality or more rare dolls reaching into the \$200-400 range.



Figure v: Dressel Kister Half Dolls

CHAPTER 4: OBJECTS AND BEAUTY

In *On Beauty and Being Just*, Elaine Scarry discusses the errors of beauty. The first error of beauty deals with the vanishing of beauty and the object carrying it being left behind (possibly in time). Later she states:

"What more could be needed to suffuse the world with the deepest meaning of beauty? The attention is fixed upon a well-defined object, and all the effects it produces in the mind are easily regarded as powers or qualities of that object. But these effects are here powerful and profound. The soul is stirred to its depths. Its hidden treasures are brought to the surface of consciousness."

My own pursuits of perpetuating beauty seek to address these errors. For me, beauty's qualities include an aura of fragility, the ability to be life affirming, and to cause deliberation. In noticing beauty, it increases the possibility that the object will be carefully handled. The aliveness of beauty makes abrasive handling seem unthinkable as if, through careless approach and mishandling, the object will cease to be and the feeling of life lost will be felt. The moment of noticing beauty allows for the transference of the gift of life, simply by the act of being adjacent to one's self. Beauty often brings copies of itself into being; by suspending all thought, the mind searches for precedents or parallels to move forward into new acts of creation. When speaking about beauty, attention can fall on the beautiful object itself and at other times on the perceiver's cognitive act and, further still, the creative act that is prompted by being in the presence of what is beautiful. I find that these parallels are present in my making. The jewelry I make is carefully and meticulously cared for and ultimately seeks to be beautiful. I find that when others handle my work, the previous statements hold to be true.

My goal is to further enhance the fragments of beauty that have been lost to time by repairing the broken porcelain doll bodies with precious materials. Beauty tends to intensify the need or pressure to repair existing injuries. In addressing these errors during the act of creating, I find that I switch between the making intuitively and planning designs.

CHAPTER 5: FURTHER INFLUENCES

Loose interpretations of Greek mythological themes have been present in my own figural work for some time. Initially, the interpretations began as drawings and illustrations and have since evolved into jewelry. For me this subject inspires a wealth of possibilities since the stories have survived centuries mostly unchanged. Though popularized by male authors, women had an important role in the divine storyline. Often enough, Goddesses and semi-Divine women were subject to their own will and were revered and sometimes feared for their power and abilities. The reconstruction of myth is important to me because I take a central female storyline and create a wearable piece of art, mostly with the intention that the jewelry is for women (though not strictly for them). Using myth as a physical representation in the form of jewelry allows for the fluidity of interpretation of the wearer. The cycle of going and returning, death to resurrection, fundamental change and growth are key themes in myth. I find that this cyclical pattern is present in all aspects of my work. My own views of mythology revolve around the eternal. In turn, the porcelain dolls parts are eternal as well because they have existed infinitely beyond my lifetime. Through using mythological archetypes, the eternal transformation pattern creates a whole, allowing a connection to deal with our own mortality. My work is essentially the next reincarnation of an old, forgotten object. Through the acts of repairing and reclamation, I am continuing their life cycle in combination with historical metalsmithing techniques. By doing so, I am creating something will last beyond my lifetime and connects to a universal ether.

The Japanese art form of Kintsugi further illustrates these ideas. Kintsugi uses precious metals combined with resin or lacquer to repair broken objects. It is translated as "golden

joinery" or "golden repair." The philosophy of Kintsugi revolves around the history of an object and was used to highlight the repairs and cracks as part of the life of an object. This process allows the object to have a continued life. I think this idea of preservation and illumination of imperfections is a viable philosophical and aesthetic aspect in my work. It is important to me to preserve the broken doll forms in my jewelry by giving new life as different objects. My forms are highlighted using silver or gold foil to mimic the effects of Kintsugi, since I only have parts of a whole and cannot always repair something completely. It also serves as a purely aesthetic look; as the organic broken cracks are largely contrasted against the matte, smooth porcelain. I feel that highlighting the broken edge allows me to make a cohesive transition between the inside and the outside of the dolls.

CHAPTER 6: BROOCHES



Figure vi: Salacia
Excavated Porcelain, Sterling Silver, Fine Silver, Freshwater Pearls,
Himalayan Salt, Almandine Garnet, Resin
7.50"x2.50"x1.25"
2015

Salacia was made directly after three weeks abroad in Prague and Germany. The influence of Alphonse Mucha is very present in this piece. I was fortunate enough to view numerous works of his and was astounded by their beauty. Other works that contributed in terms of inspiration included Gustav Klimt, Egon Scheile, and René Lalique, all of which gave way to a post-travel creative drive. For Salacia, I wanted to take advantage of this fresh inspiration. She is named for a Greek Goddess of the Sea. In terms of composition, I view her double form as a reflection. In Roman mythology, Salacia is the goddess of saltwater and is the personification of clear, sunlit waters. The root word *sal* is Latin for salt. The name Salacia suggests a wide, open sea and sometimes can be translated to mean sensational. She is adorned with pink Himalayan salt, freshwater pearls and silver granules. This piece is one of the largest brooches I have made, measuring approximately 7 inches long by 3 inches wide. In previous work, I had difficulty in problem solving and incorporating fabricated forms. Salacia was a breakthrough in overcoming these obstacles as I learned to work more with the found porcelain to truly blend mixed media with traditional methods of metal fabrication.



Figure vii: Selene
Excavated Porcelain, Sterling Silver, Fine Silver, Freshwater
Pearls, Glass Frit, Simulated Blue Zircon, Moonstone, Resin
3.25"x2.75"x1.25
2015

Selene was the second completed piece working with the found porcelain dolls. She is unique due to her hairstyle and pose which suggest a more contemporary styling. For this brooch, I wanted to address some issues that were still lingering from the previously completed Salacia. I felt that the silver filigree wasn't strong in comparison to the porcelain dolls. I wanted both features to be highlighted and to culminate into a cohesive piece. In designing the filigree halo, I combined both sheet and wire to bring more traditional metalsmithing knowledge into use. I feel that this allowed for a more dynamic design. The addition of tube-set gemstones elevates this piece, making it reminiscent of the Art Nouveau jewelry that inspires me. In tube settings, gemstones are placed and set within the cut recess of precious metal tubing. The sense of repetition is strong in Selene because of the scalloped edges. Multiple gemstones and repeating filigree shapes contributed to creating a cohesive patterned back plate. I further addressed some technical issues I was experiencing by the incorporation of glass frit. These small particles created an easier transition between pearls and enhanced their color by creating an interior that has the appearance of jewels.

Selene is named for the lunar Greek goddess, who is the personification of the moon. She is often depicted with a crescent moon, accompanied by stars as well as a lunar disc or nimbus (halo). The porcelain form used in this piece exhibits a dream-like pose, with her ever-reaching arm creating an asymmetric composition in contrast to the controlled halo form used for the back plate.



Figure vii: *Dea Tacita*Excavated Porcelain, Sterling Silver, Fine Silver, Freshwater
Pearls, Glass Frit, Resin
3.50"x2.25"x1.25
2015

In mythology, Dea Tacita is known as the "silent goddess" and is often associated with death. The serenity of this porcelain doll reminded me of a figure in mourning. Her poise is stoic, yet graceful with the additional imagery of her holding a bouquet of flowers. This piece is one of the most cohesive pieces I've finished. The halos in previous pieces appeared to be flat, so I decided to create one with more dimension, which added to the strength to this piece that did not exist in previous works. Through developing this background I again incorporated many forms of repetition by working the metal and using the duplication of design motifs.



Figure ix: *Sito*Excavated Porcelain, Sterling Silver, Fine Silver, Freshwater Pearls, Glass Frit, 23K Gold Leaf, Fire Citrine, Resin 3.50"x2.75"x1.75
2016

Sito is the cult alternative name for Demeter. She is the goddess of agriculture, fertility, and the harvest. In addition to these she presided over Sacred Law and the cycle of life and death. She is mother to Persephone and her festival of Thesmorphia was a celebration strictly for women. In this piece, I wanted to explore alternative forms other than filigree. The initial back plate design was inspired by a circular arrangement around a central point. The domed silver spheres, gemstones, and granules further reinforce the circular pattern that represents an eternal cycle. The rice-shaped pearls spilling from her interior reflect the abundance of grain and growth. *Sito* is also made unique by the incorporation of 23K gold leaf, which I had been reluctant to use because of the cost and fragility. I feel that this piece was successful because I could utilize a completely minimal design and could execute it in a way that left it dimensional.

CHAPTER 7: NECKPIECES



Figure x: *Persephone*Excavated Porcelain, Sterling Silver, Fine Silver, Freshwater Pearls, Glass Frit, Simulated Blue Zircon, Resin 12.25"x5"x1.25

Persephone is consort to Hades and daughter of Demeter. In Greek myth, Persephone is a vegetation goddess and her abduction and consequential marriage to Hades represented the change in seasons. In the myth, she consumes pomegranate seeds that force her to stay in the underworld for a third of the year and plant life sequentially dies without her presence. In the neckpiece *Persephone*, I wanted to challenge myself technically in design and execution. Before this necklace, I had been solely creating small brooch or pendant forms. This piece took approximately 4 months to finish. Persephone features over 200 filigree bud forms, all of which were made individually through numerous forming and soldering steps. In addition to the buds, there are about 180 pearls that coalesce by her bound wrists. The box style clasp was another technical challenge as I had never made one before. The clasp works by tension and requires precise measurements as well as delicate handwork to make it operate properly. In addition to the main clasp, there is fine filigree work and a tube-set gemstone that is a part of the clasp's lever.



Figure xi: *The Horae*Excavated Porcelain, Sterling Silver, Fine Silver, Freshwater Pearls, Himalayan Salt, Mother of Pearl, Resin 9.00"x9.50"x1.25

The Horae was another technical challenge. For this neckpiece, I wanted to explore a variety of different halo forms for the porcelain doll heads. The halos are a combination of sheet, wire, and a complex filigree twist. The floral motifs for this piece were inspired by classical Russian filigree. The mother of pearl cabochon link design is a derivative of Art Nouveau. (see Fig. 4) and further incorporate filigree shapes into the entire piece to make a cohesive pattern. I was fortunate enough to find five dolls that were alike; this allowed for a repetition of form that I was unable to achieve before, since most of the dolls I import are individuals because of unique damage.

In mythology, the Horae are associated with the seasons of the year and are closely related to Persephone. The original triad of the Horae include Thallo "One who brings blossoms", Auxo "Increaser of growth" and Carpo "One who brings food." In addition to these three, the Horae are also accompanied by Chione and Orithyia. Both were associated with the God Boreas who controlled the Northern wind.

CONCLUSION

In George Santayana's book *The Sense of Beauty: Being the Outline of Aesthetic Theory*, he writes:

"What more could be needed to suffuse the world with the deepest meaning of beauty? The attention is fixed upon a well-defined object, and all the effects it produces in the mind are easily regarded as powers or qualities of that object. But these effects are here powerful and profound. The soul is stirred to its depths. Its hidden treasures are brought to the surface of consciousness."

In my own pursuits of perpetuating beauty, I find this statement to be a definition of what I hope to achieve in my own making. The ability to instill and further enhance the beauty of a discarded object allows for the transference of power as something new. My intent is that viewers take pleasure in observing beauty in my work and in doing so, give further life to the pieces.

REFERENCES

Burton, William. A Brief History of Porcelain. London: Cassell & Company, Limited, 1921. Print.

Eichhorn, Maren, Adelheid Rasche, Astrid Bähr, and Svenia Schneider. 25,000 years of Jewelry: From the Collections of the Staatliche Museen Zu Berlin, 2013. Print.

Foulke, Jan. "Antique Q&A: Uncovering Antique Doll Facts." Doll Reader 31.4 (2003): 74. MasterFILE Complete. Web.

King, Constance. "Art In Porcelain." Doll Reader 28.3 (2000): 72. MasterFILE Complete. Web.

Marryat, Joseph, 1757-1824. A History of Pottery and Porcelain, Mediæval and Modern. 3d ed., rev, and augm., London: J. Murray, 1868. Web.

McCreight, Tim. The Syntax of Objects. Portland, Maine: Brynmorgen Press, 2005. Print.

Nestler, Gerhard and Edilberto Formigli. Etruscan Granulation: An Ancient Art of Goldsmithing. Brunswick, Maine: Brynmorgen Press, 2010. Print.

Santayana, George. The Sense of Beauty, Being the Outlines of Aesthetic Theory. New York: Modern Library, 1955. Print.

Scarry, Elaine. On Beauty and Being Just. Princeton, New Jersey: Princeton University Press, 1999. Print.