PRECIOUS RED CORAL: MARKETS AND MEANINGS

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Beads and other ornamental items made of precious red coral have been utilized by various cultures worldwide for thousands of years. Depending on its properties and market context, this highly valued material has meant different things to different peoples through time. The current industry—based in Torre del Greco in southern Italy—reflects past traditions but also incorporates new ideas into the production of beads and jewelry for the three principal world markets: fashion, ethnic, and tourist. These reflect the historic trade and use of red coral beads in several West African, European, and American cultural settings. This article describes the Torrese coral industry, revealing how the different beads are manufactured and marketed, and also delves into the cultural significance of precious coral over time.

INTRODUCTION

Precious red coral (Corallium rubrum) has been made into beads and used by diverse cultures around the world for millennia. In this article,1 coral beads are discussed as items of dress and as a commodity in a long-term, extensive, cross-cultural trade originating in the Mediterranean country of Italy. Historically, red coral as an organic material has carried different meanings based on its physical properties, such as its ancient use as an amulet against the evil eye or in early Christian religious symbolism. Coral also had a high economic value as a luxury product on the silk and spice routes. The value and trade of coral beads and jewelry in our contemporary era have been influenced by these historical meanings and traditions, and there are three primary yet very different commercial markets for coral beads that reflect their historic trade and use in several cultural settings.² These markets are categorized as Fashion, Ethnic, and Tourist. Coral beads have high value because they are worn in specific and special ways. These three market categories are based on the production of different beads that result from different physical properties of red coral, and each has diverse needs based on different interpretations of coral's historical meanings. This analysis is based on the production of red coral beads within a contemporary perspective of coral as a precious and highly valued organic material.

TORRE DEL GRECO

Since the 17th century, most of the Mediterranean coral has been fashioned into beads by an Italian industry centered in Torre del Greco which today is one of the three most important locations in the world for the production of coral beads (Liverino 1989a, 1989b).3 Torre del Greco is known as "the world's capital of coral." Geographically, it is in the province of Campania in southern Italy, on the southwestern coast of the Gulf of Naples, approximately 20 minutes south of the city of Naples. It is also Italy's leading exporter of coral beads and coral products such as jewelry. In the late 1990s, Italy accounted for 90% of red coral commerce and the production of coral objects worldwide (Cattaneo-Vietti and Cicogna 1993:8). Eighty percent of coral objects and beads made in Torre del Greco are exported throughout the world from over 320 active businesses and workshops (Torntore 2002). The coral sector in Torre del Greco is characterized by a strong commercial orientation to the outside world. It is an industrial wholesale sector that exports its coral products primarily to other parts of Italy, Europe, and the United States (Stampacchia and de Chiara 2000). The coral exporting business is conducted in Italian or English, except business with Germany which has to be conducted in German. For this reason, the large workshops employ at least one person who can speak, write, and read English and German, or they set up partnerships with branches of the family that have migrated to Germany (Torntore 2002). The Japanese who do business with Torre del Greco speak Italian. Torre del Greco's title as "world's capital of coral" is very real but not very visible to an outsider. Being a production and wholesale center, it is very difficult to purchase coral beads or jewelry as a retail customer. Retail jewelers do not feature coral in street-side window displays and sell coral primarily on a wholesale basis, if at all.

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The precious corals harvested to make beads and jewelry are of the genus *Corallium*, and the geographical

distribution of Corallium corals is limited predominantly to the Mediterranean and to Japanese waters in the Pacific (Campbell 1976; Silverberg 1965). At least 27 species of Corallium have been identified, and eight of these are worked into beads and other products (Liverino 1989a, 1989b, 1998). Of these eight, the two most prevalent Corallium species are pertinent for this discussion. Mediterranean and Pacific varieties of coral have very different physical characteristics that play a role in limiting or pre-determining the final products. The oldest and best known species is Corallium rubrum, and the Mediterranean Sea has been a major source of this prized red coral for millennia. Called sardegna in Torre del Greco, this coral is uniformly red through the diameter and length of branches, and various shades of red are found in different geographic locations in the Mediterranean, such as off Morocco, Tunisia, and Sardinia.

More-recently utilized Corallium species from the Pacific Ocean come in a wide spectrum of colors ranging from pure white through shades of pink, salmon, and orange to a very dark ox-blood red.⁴ In comparison to Corallium rubrum, Japanese or Pacific corals are larger in size and dimension, more compact in structure, and thus easier to handle. They can be more highly polished and more perfectly shaped, but they do not have uniform coloration throughout either surface or interior. One of the most utilized Pacific corals in the Italian industry is Corallium elatius, called cerasuolo in Torre del Greco. Pacific corals are important in the Italian coral sector because Mediterranean coral is scarce and expensive (B. Liverino 2000: pers. comm.). By the end of the 19th century, enormous quantities of raw Pacific coral from Japan began to be exported into Italy (Balletta and Ascione 1992). This crisis led to changes in the structure of the coral industry. As Mediterranean coral fishing declined, Torrese coral businessmen went to India to sell their manufactured coral goods, and to Japan to buy raw coral for working in Torre del Greco (Balletta and Ascione 1992; Liverino 1989a, 1989b, 1998). This direct, international, commercial trade in coral kept the industry alive, and is a way of doing business that still characterizes the Torrese coral industry today. Scuba diving has tremendously increased the expenses and price of the raw coral pulled from the Mediterranean. International regulations related to the harvesting and trade of endangered species also restrict the supplies of raw coral from the Mediterranean (Liverino 1989a, 1989b, 1998). So the bulk of the raw coral in Torre del Greco is now imported from Pacific waters via Japan and Taiwan, and many beads, bead blanks, and other pieces of worked coral for jewelry are imported from Taiwan (Torntore 2002). Taiwan also now supplies large quantities of coral beads, much quicker and cheaper, for international markets formerly supplied by Torre del Greco manufacturers. Torre del Greco, however, is known for the high quality of its coral products.

CORAL BEAD PRODUCTION

Coral beads may go through as many as 12 stages of highly labor-intensive production before they are finished. Making coral beads in Torre del Greco is, in general, still a process of working by hand, with hand tools replaced by mechanization in some steps (Torntore 2002). Essentially, however, coral bead production methods today are the same as those used in the past. The nature of a piece of raw coral strongly determines the choice of the finished product and, consequently, the finished product determines how the coral is processed and the beads produced (Torntore 2002). After harvesting, raw coral branches (Pl. IA) are separated from the trunk at their intersections and cut into manageable sizes. This first cutting is called spalliatura and the pieces are then sorted for size, color, quality, and form before being cut again. As they arrive at this stage, the pieces are cylindrical (Pl. IB). In the step called tagliatura, the branches are cut crosswise into smaller uniform pieces on an electric saw (Pl. IC), and these bead blanks are again sorted into more refined groups by color and diameter based on final end use. Once sorted by diameter, the coral pieces go through the first step of rough shaping called aggarbatura. Beads are shaped by hand using a grinding wheel, with the bead blank securely held in large wooden pliers (Pl. ID). This step simply rounds off the rough edges and removes the remainders of the soft crust called coensarc to expose the hard core we recognize as coral. Subsequent grinding stages shape the bead into the final form. In some cases, like branch coral beads (called frange) or the rougher cylindrical beads called fabbrica (translated as "factory stuff"), this might be the only stage of shaping, although the beads may be further refined and polished. Smaller spherical beads called pallini are shaped by a machine called a rociatrice (Pl. IIA). This process utilizes a rotating round bronze disk that has a pattern of numerous small holes cut into it. Coral pieces are pushed into the holes and ground down between two large, horizontal, carborundum grindstones. The pieces revolve in the holes and gradually become rounded.

After these preparatory stages, rough blanks and pieces of coral are directed towards three separate categories based on use and each category is then finished appropriately. Today, the Italian coral industry uses the terms *liscio* and *inciso* for the two major categories of production and finished products made from coral (Torntore 2002). *Liscio* ("smooth") refers to coral made into smooth and polished products: *tondo* or cabochons, and *rotondo* or beads. *Inciso* ("incised") refers to coral that is carved or engraved, such

as cameos, small amulets and good luck charms, sculptures and other art objects, or even a category of carved beads.

Once the beads are shaped, holes are drilled in them, a process called foratura (a mezzo buco) or bucatura (Pl. IIB). In many workshops, especially those dedicated to high cost and quality, beads are drilled one at a time, halfway through from each side (a mezzo buco translates as "a small hole halfway through"), to make a straighter hole and prevent breakage. When they arrive at this stage, the coral pieces have a milky or cloudy film covering the surface, which a polishing process removes. Beads are submersed and soaked, and sometimes tumbled, in a solution of water and hydrogen peroxide in plastic basins or buckets. After polishing, the stringing (infilatura) process is the final step of production and one of the most time-consuming (Pl. IIC). It is completely accomplished by hand by women working in a factory workshop or at home. The beads go through a final sorting process for color, size, and quality as they are threaded onto strings. Finished strands are braided or knotted together into a large bundle called a mazzetta, and these bundles are packaged for general wholesale distribution as beads, or made into various styles of necklaces or other items for different markets.

Coral beadmaking is a time-consuming process. For example, it takes between 10.5 and 14.5 days to produce one kilogram of the small round beads called *pallini* (Stampacchia and de Chiara 2000:91). The flow charts in Tables 1 and 2 outline the entire process of coral bead production at Torre del Greco. One of the most important points to note in this discussion is the wide range of value-added production activities that each type of coral and bead undergoes in preparation for one or more of the three specific markets.

Coral beads are named and sold according to their shape and size. In some cases, they are also referred to by a specific finish or characteristic, such as the term *fabbrica* for the roughly finished, imperfect beads of different shapes. Table 3 identifies the major characteristics and shapes of the most common coral beads produced in Torrese workshops, sold in Italian retail shops, or as observed in use. Every piece and scrap of coral is utilized in some form, and the smallest scraps are drilled and made into the beads called *spezzati*, for instance, to satisfy a specific market demand or custom. *Pallini* comprise the bulk of the production and export, and are primarily produced by mechanized means. *Frange* and *spezzati* are second in production amounts (Liverino 1998:197; Stampacchia and de Chiara 2000; Torntore 2002).

Coral bead production and export in Torre del Greco comprise a multi-billion-dollar industry (Stampacchia and

de Chiara 2000). The prevalent business structure in the industry follows the Italian model of small family businesses in which the work has been mandated and inherited from one generation to the next (Torntore 2002). In this setting, family members are drawn into the business when very young, and learn the ropes from their parents and grandparents. Although non-related persons may be employed to complete production processes, the family does the decision-making. Many of today's larger coral businesses have been in Torrese families since the mid-19th century, and are operated by fourth-, fifth-, and sixth-generation descendants of the founders (Torntore 2002). Additionally, these businesses are primarily conducted in a domestic setting, from the ancestral home or, in the case of larger businesses, in laboratories and workrooms constructed adjacent to the family home or within a family compound. For example, Apa, one of the oldest (since 1848) and largest coral manufacturers in Torre del Greco operates out of one of its historic family villas, which includes space for offices, manufacturing workshops, and a large showroom on the first floor. Located adjacent to an exit of the major north-south freeway, this was the most visible retail outlet for coral jewelry in Torre del Greco in 2000 (pers. obs.). The showroom is open 365 days a year and, in 2000, had 500,000 people come through it (G. Bartoli 2000: pers. comm.). This central and easily accessible location allows the firm to work with the operators of large tour companies and tour bus operators, offering sales or kickback incentives to have buses stop at its premises (G. Bartoli 2000: pers. comm.). Tourists from Germany, Japan, Great Britain, and America all buy coral here. In addition, they have a large internet presence for wholesale trade.

CORAL BEAD MARKETS

Different beads are made for different markets. Three very particular destinations and target markets were identified by coral producers in Torre del Greco for specific types of coral beads and bead products (Torntore 2002). These are categorized here under the larger headings of fashion, ethnic, and tourist markets, based not only on the terms used by manufacturers, jewelers, exporters, and retailers to refer to specific beads, but also to the differing characteristics of the beads and jewelry (Torntore 2002). More importantly, these categories outline three diverse values and meanings of coral and coral beads.

The Fashion Market

The fashion market category is based on current, constantly changing fashions and styles. In this market

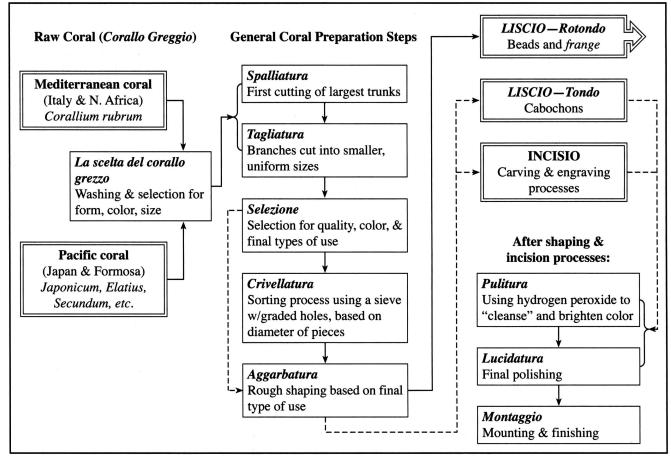


Table 1. General Categories of Coral Production.

This flow chart (Torntore 2002) is based on Stampacchia and de Chiara (2000).

category, coral beads are strung in carefully graduated sets, based on the historic idea of a matching set, or combined with carved or incised coral pieces or gold and platinum beads. This market prefers highly refined beads that require a great deal of handwork to shape, polish, and match them. Imperfections are not tolerated, unless the "ethnic look" is fashionable, and then slight variations may add character to a piece. Mediterranean coral is the preferred color and type within this market, although pink and red Pacific corals are also acceptable if they don't show imperfections in coloration. This category is reflected in the ready availability of two classic types of necklaces in Italian jewelry shops. One is the single-strand necklace of graduated coral beads, similar to a strand of pearls (Fig. 1). The other is the multiple-strand necklace called a torsade or torchon, the most popular style of necklace for the fashion market (Pl. IID). This style consists of several strands of small spherical pallini twisted together into a choker or collarbone-length necklace, with a decorative clasp. The more expensive corals for this market are made into high-quality beads that are then mounted and combined with other expensive, high-quality materials like 18-24 karat gold, platinum, pearls, diamonds, and other precious stones. Beads in this category are only purchased by consumers as finished jewelry, from jewelry retailers in Europe and the United States.

In Italian and European fashion markets, these two seemingly unchanging styles of coral necklaces are considered classics and designed and purchased in the same way that pearl necklaces are designed and purchased—small details like the size of the beads, the length or number of strands, or the style and material of the clasp may change each season or every couple of years. They are easily read as a cliché in the Italian fashion market, as something that is expensive and classy, and worn by a certain level of society, like gold and diamonds and expensive pearls are worn and understood in the United States. In Torre del Greco, coral beads in this market category hold the highest value overall for bead producers. *Pallini* are used to make numerous other styles of jewelry for the fashion market, such as collar-type

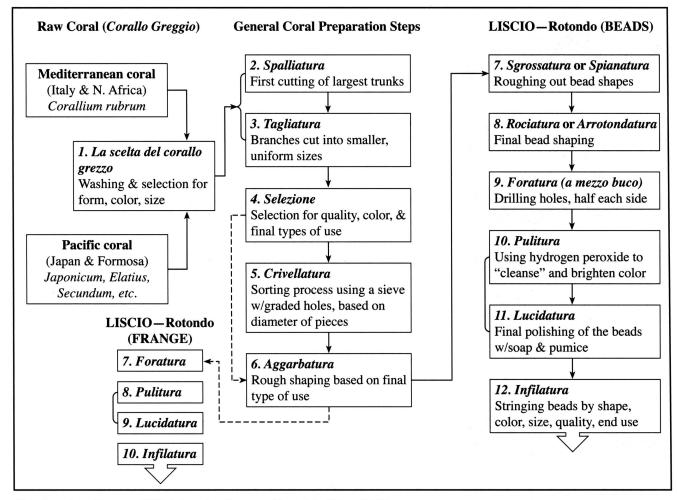


Table 2. The Full Production Process for Coral Beads Based on Final Category and Use as Beads (*Liscio-Rotondo*).

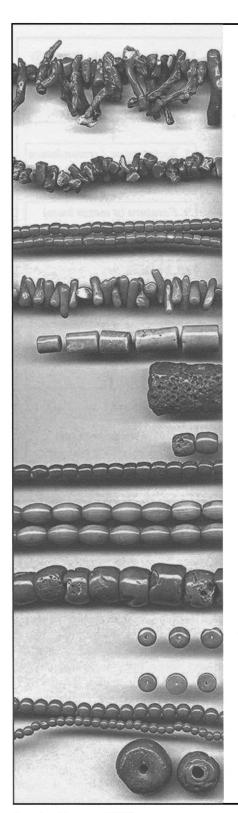
This flow chart (Torntore 2002) is based on Stampacchia and de Chiara (2000).

necklaces or beaded cuff bracelets with gold, platinum, and diamond clasps, contemporary cross pendants, or cuff bracelets in a vintage sewn-style with gold and coral cabochon clasps. Basilio Liverino, the most prestigious firm in Torre del Greco, has for generations made coral beads and cabochons for high-end jewelers such as Bulgari and Tiffany (A. Civale 2000: pers. comm.). They have a reputation for producing the highest-quality coral work, and they also produce their own high end lines of jewelry based on current trends, such as the ethnic look in jewelry which is currently so popular, or the classic *torsades* and graduated sets of coral bead necklaces.

Today, in the Italian and European fashion market, coral beads are synonymous with classic style. As one Italian art historian explains it: A century ago the Torre del Greco artists determined the style of coral jewelry. Their pieces [were] inspired by mythological and neo-classical models and created by skillful workers. Tradition though, may have its barriers. Today's coral jewelry production appears to still be deeply bound to these antique stylistic elements. Classic and sober lines are constantly repeating themselves, to meet a market demand, which seems to passively appreciate a cliché that consider coral as an expression of popular ornament (del Mare 2001).

Mauro Ascione (2000: pers. comm.), the head of another large, historic, and very prestigious coral family business in Torre del Greco, discussed with me at length a new promotional strategy he is working on to counteract this attitude. He wants to add value to the product itself,

Table 3. The Names and Shapes of Coral Beads in the Italian Coral Sector.



- 1. frange: twig or branch tips, hole at one end (5-50 mm long)
- 2. spezzati: small chips or fragments of coral with holes
- 3. barocchetti: small, short, irregular, barrel-shaped pieces of coral, holes lengthwise (two strands shown)
- 4. cupolini: small, thick, rounded twigs, holes in the middle
- 5. cannettine: straight, cylindrical, canister-shaped, holes lengthwise, smaller diameter and length
- 6. cannette: larger, straight, cylindrical, canister-shaped
- 7. barilotti: slightly rounded barrel-shaped, holes lengthwise, variable diameter and length (two sizes shown)
- 8. *olivetti:* olive-shaped, various sizes, holes lengthwise, always described as "old-fashioned" (two strands shown)
- 9. fabbrica: "factory coral," any shape, rough-polished with imperfections and worm holes
- 10. lenticchie: small, flat, rounded disk-shaped like lentils, holes in center
- 11. rondele: small, short, flat shape, central hole
- 12. pallini: smallest round beads (2-10 mm; two sizes shown)
- 13. tondo: larger spherical/round beads (two sizes shown)

Based on Torntore (2002).



Figure 1. Fashion-market bead styles. The older single strand is composed of graduated, spherical, orange, Mediterranean *Corallium rubrum* beads called *tondo*. The *mazzetta* or twisted bundle is comprised of graduated, pink, *Corallium secundum* beads called *pallini* (photo by author).

to the handwork, and to the idea that created it as an innovative style or piece of beautifully designed jewelry with personality. Young Torrese designers and goldsmiths, or manufacturers and exporters who are also involved in the design, marketing, and sale of their own lines and collections of jewelry, all see this direction as one of the major ways to save the Italian coral industry right now. Most recently, the supply of quality raw coral in Pacific waters has diminished so drastically that harvesting has come to a virtual standstill, further raising its price, but reducing the price of lower qualities and flooding the market with this inferior material (Torntore 2002).

The coral businessmen in Torre del Greco are struggling today to keep pace with these developments, but manage to maintain their position as world capital of coral despite the stiff competition and fluctuating costs. The raw coral is expensive and scarce, and it is becoming very expensive to continue production by hand in the face of mounting Asian competition. On one hand, it means commercializing the product even more, raising the retail sales price to reflect the real costs of production and design, and, as in the fashion industry, positioning a quality product by creating a name for it. The high-end coral bead producers want the pieces from their workshops to be immediately recognized and purchased just like a Versace or Armani is recognized (M. Ascione 2000: pers. comm.). On the other hand, Assocoral (the Association of Coral Producers in Torre del Greco)

launched the "Made in Torre del Greco" label at the 2003 *Vicenza Oro* trade fair (del Mare 2003). Mauro Ascione, then-president of Assocoral, sees this as an important move to recognize Torrese coral products as such: "This collective brand was created to protect the area's craft firms and to provide greater visibility on national and international markets. It will also highlight the quality of the 'Made in Torre del Greco' label and defend the product from Asian competition" (del Mare 2001).

coral industry, middleman In the the intermediazionecommerciale plays an important and fundamental role in the sale of coral beads as the direct link between the market and the producer (Torntore 2002). The middleman attends the trade fairs, such as Vicenza Oro, where the majority of the coral products are ordered and sold on an annual basis. These large, international jewelry trade fairs are critical in the wholesale trade of coral. They are used for planning production and are a laboratory for ideas, styles, and trends that influence international fashion markets and production needs. The trade fairs are also an important venue for many young designers and older firms who are involved in designing new lines and forms of coral jewelry. Some of these fashion styles have been very popular and copied in many different forms. Producing more creative, trendy designs in coral will attract new, wider audiences, and increasing the production range in one location like Torre del Greco will allow the coral sector to grow in different directions. Other, newer methods of marketing coral and coral beads are also being tried, like e-commerce. These coral internet sites, however, are more informational than commercial in the sense that price lists are not included; one must contact the company directly because the price of coral beads is not fixed and fluctuates widely based on market and supply (A. Mennella 2000: pers. comm.).

Coral and coral beads have high investment value in different circles, an important aspect of their overall value, especially in Italy and Europe where there is an understanding and appreciation of coral as a luxury commodity. In certain circles, coral beads and jewelry are purchased solely for their market value—for the number of grams of coral and gold, not for their fashionableness or style or for the creative expression or handwork that they represent. The value of the coral and gold will only increase over time, so in this sense they are an investment, not strictly a piece of jewelry to be cherished and shown off every time it is worn. When worn as status symbols, coral jewelry has the power to communicate a person's economic status and display prestige in many diverse cultural and social contexts.

The Ethnic Market

The ethnic market relates to all the uses of coral beads and jewelry outside the fashion market, excluding the tourist market. It includes all the world markets where coral beads are used for non-fashion functions. Beads directed at ethnic markets are very different from those of the fashion market in shape, size, and texture—they are larger in many cases and less refined in shape and texture. The *fabbrica* or rough-surfaced type of bead in different sizes and shapes, such as the *barilotti* and *cannettine* beads, are the most popular (Pl. IIIA top). The strand of *fabbrica barilotti* on the left side of the image was described as popular in the Mexican market in 2000 (G. Mazza 2000: pers. comm.). The branch-coral beads called *frange*, more properly placed within the tourist market, are also sometimes sold in the ethnic market due to their roughness and variability of shape.

The ethnic market category encompasses diverse cultural settings around the world. Beads made for Italian and European ethnic markets include those used for specific traditional or folk purposes, such as the wedding necklaces worn by Polish women with their folk costume. The ethnic market also includes the American Southwest, where coral has been combined with turquoise and silver for many decades. In many cases, because the beads are so diverse for this market, customers travel to the producers in Torre del Greco or other locations in Italy, such as Milan, Florence, or Rome, to purchase their beads, or maintain a standing order at a Torrese factory (B. Liverino 2000: pers. comm.).

The West African, and particularly the Nigerian, market prefers larger cannette and barilotti shapes in some of the lighter shades of pink and orange Pacific corals, in a wide range of sizes (Torntore 2002). Darker sardegna red coral is also prevalent in the Nigerian market. Beads directed to specific ethnic markets in Nigeria, for instance, include both Pacific and Mediterranean corals worn by the Kalabari Ijo ethnic group of the Niger Delta area (Pl. IIIA bottom). In the ethnic market, as in many cultures, coral beads are worn as personal adornment, but they are not simply a matter of individual taste. According to Joanne Eicher (1998), coral beads have become an important vehicle by which the Kalabari Ijo store, exchange, display, and transmit wealth, status, and prestige. They are a symbol of Kalabari identity and cultural survival. Purchases in the ethnic market are often handled in a very different way than in the fashion market. For example, when coral beads are needed, Kalabari family members have traveled from Nigeria to Torre del Greco to hand pick and purchase large quantities of beads, which they then take back with them (B. Liverino 2000: pers. comm.). They have long lists of sizes, colors, and amounts in order to make the regalia needed for ceremonies. Kalabari family members in London will also often purchase beads in person from Torre del Greco and then distribute them as needed among family members in Great Britain, Nigeria, and the United States (B. Liverino 2000: pers. comm.). The large Nigerian canister- and barrel-shaped coral beads (Pl. IIIB top) also represent a major secondary resale market in the United States (Torntore 2002). Coral beads are purchased from Nigerian family collections by itinerant West African dealers and then sold to American dealers who may reshape them for other sectors of the ethnic market such as refugee Tibetan Buddhist monks or folk jewelry collectors in the United States (T. Leung 2000: pers. comm.; P. Nilson 2000: pers. comm.; E. Salter 2000: pers. comm.).

The Tourist Market

The tourist market caters to producing and selling less-expensive souvenir items. The coral items most described in Torre del Greco as being part of the American tourist market are inexpensive costume jewelry necklaces of branch-coral beads (*frange*), and simple, relatively inexpensive necklaces made from waste coral pieces (*spezzati*) (Torntore 2002). Although these types of beads are all produced from coral pieces that would otherwise be thrown out as unworkable, they represent a significant amount of time to cut, polish, drill, and string them. The pale pink colors of Pacific coral made into costume jewelry resemble the more exclusive *pelle d'angelo* or angel-skin coral. These simple, relatively inexpensive three- or four-strand *torsade* necklaces (Pl. IIIB

bottom) were also commonly described as popular with American tourists (A. Bartoli 2000: pers. comm.). Italian or European tourists may buy something in this market category that looks more fashionable, like a multi-strand torsade necklace, instead of a more inexpensive single-strand souvenir-type necklace like many Americans purchase. Their purpose, however, is to purchase it as a sentimental souvenir of their vacation or trip rather than purchase the coral as an investment or classic fashion accessory.

Market Cross-Overs

It should be noted that there is cross-over between the three market categories, especially when the "ethnic look" is fashionable. A current ethnic-look trend in jewelry includes many of the forms from both the ethnic and tourist market categories-rough fabbrica beads in larger cannette and barilotti shapes, and the use of bright red-dyed bamboo corals instead of the more subtle Mediterranean or Pacific Corallium colors (Fig. 2). This current ethnic look also includes high fashion necklaces with multiple rows of frange mixed with amber, turquoise, silver, and coins that imitate specific ethnic adornments such as Moroccan or Berber jewelry. Many of these pieces are very expensive and slated for a high-fashion market, while other examples are targeted at the middle price range in the United States. A wide variety of coral beads is seen today on the fashion runway, in fashion-related magazines, and in jewelry ads. One feature in the InStyle magazine even spells out coral's historic appeal for their young readers and gives advice on how to wear it:

People in warmer climates have understood the fiery appeal of coral for aeons. The ancient Egyptians, for example, used it in their intricate jewelry. Flash forward a few thousand years and designers are pursuing a more natural look, shining up the colorful stalks and stringing them together into spindly, jagged necklaces and earrings. Like creatures of the sea, these pieces have a disconcerting beauty. To wear them well, hold the ruffles and go easy on the prints. Coral looks best with simplicity (Fasel and Proddow 2003).

HISTORICAL SYMBOLISM AND MEANING OF CORAL

The Roman writer Ovid described coral as being "like soft grass growing not in land, but in the sea, whose saltiness causes the little plant to rot, and so the leaves detach themselves and the foam of the sea brings the plant ashore.

The air hardens it and whoever touches it would say that what long ago was grass was now stone" (Metamorphoses Book IV as translated in Liverino 1989a:11). Coral does come from the sea, but today we know it is an animal life form, a colony of polyps, not a plant. As coral is a material from the sea, it therefore carries many associations and meanings related to water as well as blood, and has a long history in this respect. One of the earliest associations of coral and blood comes from the myth of Medusa in Greek and Roman mythology. According to the myth, anyone who gazed into the eyes of the snake-haired Gorgon Medusa turned to stone. According to Ovid, the hero Perseus killed the Medusa and laid her severed head on some twigs or seaweed, which instantly hardened when her blood touched them. These twigs were scattered into the ocean by sea nymphs, and there transformed into coral (Metamorphoses Book IV as translated in Liverino 1989a:11).

The metaphor of blood in the ocean also fits into the Greek and Roman imagery of coral as "the finest fruit of the sea" (*Metamorphoses* Book IV as translated in Liverino 1989a:11), as the "tree of life," a metaphor which was eventually translated into the Christian symbolism that became so important in medieval Italy and is still used today in the tradition and liturgy of the Roman Catholic church. Many paintings from the Renaissance and Baroque periods show coral in association with the sea, mythological personages, and in classical mythological scenes, such as the fresco in Venice by Tiepolo⁶ in which Neptune presents the treasures of the sea to Venice, characterized in the painting as a classic goddess.

The significance of the color red as an amulet is of interest to many scholars. Speculations include whether or not it represents the color of blood as life force and vitality, the blood of sacrifice (in biblical reference to the blood placed on the doorpost to ward off the destroying angel in the tenth plague), or even the color of fire as purifying agent. The significance of the color red in association with the Roman and Greek myth of Medusa directly links the color red and coral itself to the evil eye belief complex around the Mediterranean (Torntore 1999). Red stones, such as the ruby, carnelian, and bloodstone, have also been widely and historically associated with blood and amuletic power in Europe, Central and Western Asia, and Africa (Jay 1996). One particularly magnificent and large coral amulet with a heavy gold cap hangs above the Christ child's head in Mantegna's famous late-15th-century painting of the "Madonna of Victory" which hangs in the Louvre in Paris.

Coral was an important product in the wide-ranging and centuries-long Mediterranean luxury trade between Europe, India, and the Middle East. In the form of beads, it was a

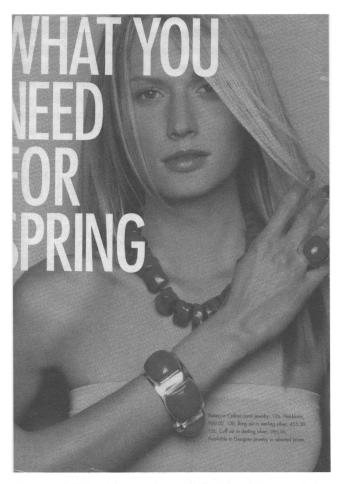


Figure 2. "What you need for spring." Neiman Marcus catalog ad for fashion coral jewelry in an ethnic style (March 2000:12). Designed by Rebecca Collins, the necklace is made of dyed bamboo coral on a knotted cord, and advertised for \$980.00 (photo by permission of Anthony Cotsifas).

major Roman export to India through the 6th century, where it was traded for pearls, gems, spices, and pepper (Torntore 2002; Warmington 1974). The medieval Mediterranean spice trade was of great importance as a luxury trade, and coral, categorized as a spice, held a prominent place in the commercial life of the time (Francis 1989; Lopez and Raymond 1990; Pegolotti 1936; Torntore 2002; Warmington 1974). In the Middle Ages, coral beads were in great demand for rosaries, favored because of coral's magical and protective properties and red color, which connected coral to the rose and rose garden as the spiritual identity of the Virgin Mary (Torntore 1999). In medieval Christian iconography it also symbolized the blood of Christ. After the early 16th century, coral placed first in exports to the East, and was an essential commodity in all trade with India, where it was traded for diamonds (Warmington 1974; Yogev 1978). Coral beads were a primary export commodity from Italy that was transformed into a powerful currency for trade with West Africa in the period of European expansion and was used in the European-West African slave trade (Ryder 1969).

From the time of classical Rome, Italy has been the center of Mediterranean trade, as well as the center of coral harvesting, adornment manufacture, and the trade in coral. In medieval and renaissance Europe, coral beads had high decorative and cultural value as items of dress and adornment (Torntore 1999). Coral was greatly favored in Italy for jewelry because it was so plentiful, and is seen in numerous paintings from the 14th through 16th centuries, worn as necklaces, brooches, bracelets, as hair ornaments, and mixed with gems and jewels such as pearls (Torntore 1999). At this time, coral was also favored and widely worn in India, Persia, and China. Marco Polo mentions his surprise at the great amount of coral used in Tibet (Latham 1958). In North Africa, especially in Morocco, and in Arabia, coral was worn in large quantities by women in their jewelry (Liverino 1989a).

CONTEMPORARY SYMBOLISM AND MEANING

In the three contemporary markets for Italian coral beads, the history of coral's significance comes into play, and geography and place are even more related to the meanings associated with coral in several respects. Although the economy of Torre del Greco depends almost exclusively on the transformation and trade of coral, the local market for coral, in terms of its purchase for use in Italy, is strictly based on season and gender (Torntore 2002). Coral was described to me time and again as "the summer jewel," something only worn in the warm months of summer. And coral is primarily worn by women. I use this as an example to introduce some of the long-term meanings of coral as an organic material, meanings that figure prominently in all three of the markets. As one Italian coral jeweler explained: "Coral is caldo, hot, a red color like blood, warm like life, it is the color of life. When you wear coral, it warms to your body; sometimes it changes color when you wear it, reacting differently to each person wearing it" (S. Russo 2000: pers. comm.).

The Italian word *caldo* translates literally as "hot" or "warm" and is a term used for referring to cooking and weather. *Caldo* is also used figuratively to mean "passionate" or "impassioned," and this also says much about how many producers and users in Torre del Greco relate to coral. I heard many times about coral's link to blood and life because of its color and how it warms when touching the skin—it takes on one's life and so works well symbolically. Summer is a very



Figure 3. A window display of the jewelry shop U. Gherardi on the Ponte Vecchio in Florence, Italy (photo by author).

warm and humid time of the year, and many Italians who can afford it go to the beach. Coral comes from the sea and is a natural product related to familiar marine environments like that of Mediterranean, so therefore easily related to memories of a seaside vacation. In addition to creating high fashion pieces, many jewelry designers capitalize on the idyllic Italian vacation element to sell their work, reflecting on Italy's past and travel in advertising. Italian tourists purchase the coral beads not because they are Italian per se, but because they have specific meanings related to an Italian concept of seasonal jewelry in addition to the sentimental value they have when purchased on vacation at the seashore.

Further, coral beads in Italy are advertised as being made of Italian or Mediterranean coral whether they are or not. The color of Mediterranean coral has been beloved and most prevalent for several centuries and Mediterranean Corallium rubrum is the most familiar coral in terms of color and recognition. Thus, it is the coral that is used as the "gold standard" for all other corals in terms of color, name, and quality, both historically and today, and in all three markets (Torntore 2002). As an international center for fashion and jewelry, Florence is one of the largest coral wholesale markets in Italy outside of Torre del Greco (B. Liverino 2000: pers. comm.), and provides a glimpse into how coral is valued and how meanings are created within these market settings. Florence is also an important retail

market for both the Italian fashion and tourist markets, for wider European fashion and tourist markets, and especially for the international tourist market. Unmounted and mounted beads are sold in many high-end shops along the Ponte Vecchio, such as U. Gherardi (Fig. 3). Many of these shops are run by Torrese family relatives (B. Liverino 2000: pers. comm.). Lower-end coral bead jewelry is also sold in numerous smaller tourist shops and by street vendors in Florence. I found that in many of these tourist-oriented shops, all coral is touted as Italian even though in most cases I could readily identify it as Japanese or Pacific corals (based on such details as variations in coloration). It was also my experience that strands of branch coral I purchased from a wholesale factory in Torre del Greco were assuredly guaranteed to be Italian Mediterranean coral; sales personnel knew what I was looking for as an American. But one who knows how to identify different varieties of coral could immediately observe the white flaws and other variations in coloration that denote Japanese or Pacific coral.

Coral is perceived as coming from Italy and all things Italian are popular today, especially in the United States. So coral is imbued with a certain sense of quality and style. In these associated meanings, Japanese raw coral forming Italian coral beads can be seen to be simultaneously global and local, playing on the connotation of "Italian" with high style and exquisite craftsmanship in the production of luxury items, and the connotation of coral as Italian because

the beads are produced in and exported from Italy (Torntore 2002). We have seen the increasing "commodification of Italy" and coral joins ranks with other products like olive oil, pasta, parmesan and pecorino cheese, and Venetian hand-blown glass as symbols of Italian aesthetic taste and style (Reich 2000:210). They are part of an international consumer market hungry for all things Italian. In this way, the notion "Made in Italy" or "Italian" also increases the market value of low-quality or "waste-coral" beads, such as frange, in the popular tourist items purchased by Americans. With the idea of coral as Italian, coral becomes an Italian icon—a cultural commodity in a global marketplace.

CONCLUSION

If we look at all the factors, we can understand why coral beads come with a high value in terms of their preciousness as an organic material. As they move through time and space and through various cultural settings, coral beads exemplify complex networks and relationships, and illustrate varied players or actors. Coral, as a natural material, holds value through intrinsic physical or aesthetic qualities such as color, hardness, size, shape, and the amount of skill required to work it, as well as its relative or comparative rarity as a natural material. This rarity is a source of value in and of itself, and this value is compounded by the degree of difficulty to obtain the material or the objects made from it, and the distance they must travel as well as the sense of how exotic they are. In different settings, wearing coral beads and jewelry of a certain value and design can indicate power and status in terms of wealth, but coral used to display power and status is also based on the type of coral, on how it has been worked, and on perceptions of taste in each setting.

Certainly the availability of coral and coral beads is intertwined with price and value, and scarcity and supply. We can see how the cost of coral beads relates to labor, production processes, and a specific Italian model of business and production. The value of this global product is determined not only by supply and demand, but also by perceptions of rarity and ideas of locale and provenience, and is steered by manufacturers, merchants, and consumers. Economic value is added at each step in the production process, and the greatest increase comes when the beads are mounted and prepared as a piece of jewelry in a retail outlet or export sale for three primary markets. The value of coral is not necessarily dependent on supply and demand, and the meanings related to coral are not necessarily contingent on the superficial sources of its price.

I heard many times that the Torrese coral sector could not work in America, could not be transplanted to the United States, and I agree with this. The coral sector in Torre del Greco is particularly Italian. There are no models to which we could compare it to in Europe, and certainly not in the United States. The coral industry is a diversified field with a wide organizational flexibility that allows many firms to decrease or increase production according to market demand. Much of the value and preciousness of coral comes from its history and the meanings associated with it as an organic material.

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ENDNOTES

- 1. This paper was initially presented as an invited lecture at the International Bead Expo Symposium held March 17-21, 2004, in Santa Fe, New Mexico.
- 2. This is part of an ongoing research project on coral and coral beads, and is primarily based on fieldwork and archival research conducted in Torre del Greco, Italy, documenting the Italian coral bead industry for a doctoral dissertation. From February through mid-June 2000, the author conducted in-depth and informal interviews with participants in all of the different levels of involvement in the coral industry (manufacturing, exporting, retail sales, schools

and training, artistic production, consumers, collecting historic objects in public and private settings, research and scholarship, business promotion, and marketing).

- 3. Taiwan and Mumbai, India, are the other two production centers for coral beads. Taiwan is thought to be the largest production center today, superseding Torre del Greco in coral bead exports (B. Liverino 2000: pers. comm.), and a comparative study in Taiwan is planned as a future phase of my research.
- 4. Other Japanese or Pacific corals include *Corallium elatius*, *Corallium japonicum*, *Corallium konojoi*, and *Corallium secundum*. In addition, three species from the Midway Islands, discovered within the last two or three decades, are not yet classified or named but are beginning to be worked (Liverino 1989a, 1989b, 1998).
- 5. In this paper, I am not including the details of non-bead coral products. The different types of *liscio tondo*, however, do include the large category of cabochons, which are completely flat on one side and meant to be set into a bezel. Manufacturers in Torre del Greco identified several types of cabochons or *liscio* products: *bottoni* or *spole*, oval or round cabochons called "buttons" or "bobbins" that are slightly rounded on their bottom side; and *mandorle* and *gocce*, almond-shaped pieces used to create pendants and drop earrings, for instance, by being drilled or capped at the pointed end. Many other irregularly or custom-shaped *lisciotondo* pieces are made for the creation of jewelry.
- 6. "Neptune Offering Venice the Riches of the Sea" by Giovanni Battista Tiepolo (1696-1770); Palazzo Ducale, Venice, Italy.

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