JCK INTERNATIONAL PUBLISHING GROUP

## NEW YORK DIALONDS

MARCH 2010

VOLUME 117

A. S. S. Car

.



## reating the magic of granulation

BY ETTAGALE BLAUER

oldsmiths are modern-day magicians, performing acts of lightness of hand before our very eyes. Working with a metal that is intrinsically magical, they transform it into works of intricate, breathtaking beauty. On its own, gold can be made to flow, to be pounded into sheets as thin as foil, to be crimped and folded and pierced. Goldsmiths use this most malleable of metals to express their artistic visions as well as their technical wizardry. Such is the world of Jack and Elizabeth Gualtieri, the husband and wife team known as Zaffiro. The Gualtieris have embraced the

ancient, mysterious and demanding technique of granulation to express their ideas.

Their high karat gold jewels are sinuous, elegant shapes, richly ornamented with granulation. Tiny balls of gold seem to spill out of crevices and along curves, filling in channels, winding around sculpted shapes, varying in size from tiny to even tinier. They choose to perform their particular brand of magic on rounded surfaces, the most difficult and demanding way to practice their craft. And yet they do it with a joyful touch, one that suggests that the work is easy. The work is most definitely not easy, but it fulfills the Gualtieris' desire to create jewelry that is precise and casual, ancient and modern, fresh and classic, all at once. The Gualtieris are classic goldsmiths: they alloy their own 22K rose and white gold, then mill it to form sheet and wire. From the wire, they make their own granules, the ultimate way to control the quality of their work. "We use a steel cutter on a spring," Jack Gualtieri explains, "cutting up little pieces of wire. Then we ball it up on a charcoal block. It's very Zen, very therapeutic." Since the granules form in slightly different sizes, they use sifting screens to sort them out. "When you really love doing a certain thing, you are willing to do whatever it takes," he adds.

Granulation is the technique of placing tiny gold balls onto a gold surface and affixing them, without any apparent support. While goldsmiths throughout history and around the world have worked gold in myriad techniques, granulation is the tour de force of the trade. Not only does it require the utmost precision in placing the granules, to form the bond between the granules and the surfaces requires a degree of control over a very pesky, imprecise tool: a torch.

After all the granules have been positioned, and held there by the very tiniest bit of glue, the goldsmith passes a torch over the surface of the metal for just the right length of time. And like Goldilocks seeking out just the right porridge, if there is too little heat, the granules will not be permanently attached; but if there is too much heat, the granules will simply begin to melt or puddle. This is not for the faint of heart or the shaky hand.





Granulation began at least 4,000 years ago in the Mediterranean region, on the island of Crete and in the lands of the Levant. Here, where food was plentiful and a moneyed leisure class existed, goldsmiths could be employed to create extravagant, beautiful objects to be worn and treasured. By 1,700 BC, Minoans living on Crete had mastered the technique of granulation. Even in regions where gold was not being mined, it could be acquired through trading.

The Phoenicians were among the most successful of the trading nations. Although their greatest contribution is usually cited as the invention of the alphabet, those of us in the jewelry world would beg to differ. The evidence of their goldsmithing, carried out from about 1,500 BC to 300 BC reveals the influences of the cultures and influences of the many regions they traveled through.

The tradition of granulation extended throughout the Levant, the extraordinary cradle of civilizations and cultures embracing the eastern shore of the Mediterranean as well as throughout the Fertile Crescent, the land between the Tigris and Euphrates, in the Middle East. Leaping through the centuries, the Etruscans, living in the region of Italy we now know as Tuscany, employed their extraordinary talents to create jewelry forms that are as wearable today as the day they were made, as far back as the 4th century BC. The Etruscan work enchanted Elizabeth Gualtieri who spent her junior year abroad in Italy. "I fell in love with the Etruscan pieces I saw in museums in Florence," she says.

The Gualtieris are part of this ancient, yet contemporary fascination with granulation. Yet, in spite of the widespread success many civilizations had with granulation, including goldsmiths of the Tang dynasty of 7th century China and 12th century Syria, by the 19th century, the technique had been "lost."

There did not appear to be anyone who knew how to create jewelry using this mysterious technique yet in the mid-19th century, the Castellani brothers found a way to create jewelry ornamented with granulation that emulated the look of the classic pieces. Their work is known today as "revivalist" jewels. It is believed that the Castellanis didn't actually figure out the technique themselves but rather, took advantage of the goldsmiths of Naples who were known for their forgeries of classical pieces.

Perhaps the technique had never been lost; it had



lizabeth and Jack met while both were students at the University of Kansas and also working part time at a custom goldsmithing store in Lawrence, Kansas. Elizabeth was already pursuing a degree in metalsmithing. Jack's major was industrial design but by his senior year he had shifted to jewelry manufacturing. A year after graduation, they married, becoming both personal and professional partners. When Elizabeth

received a job offer in Santa Fe, New Mexico, they moved there. Jack quickly joined the same goldsmith's shop and together the couple became adept at making high karat gold, ornamented with granulation. After two years, they were confident they had the skills as well as the business knowledge to strike out on their own and they set about to find a beautiful place to live where people made crafts for a living but also lived a life filled with beauty. They moved to Portland,

simply gone underground. These Neapolitan pieces would be "unearthed" and sold to the unsuspecting as authentic works of antiquity. In a way, that is exactly what they were – they were just being made a few hundred years –or a thousand years – later. But after the Castellanis and their sometime partner, Giuliano, died, it seemed that the secret once again died with them. It remained so for nearly another century. Oregon, and never looked back.

The Gualtieris are part of a revival of the art in the 20th century which brought the technique back to life. Goldsmiths and metallurgists were determined to unearth the secrets of granulation. Bits and pieces of knowledge were passed along, until a critical mass of knowledge was in place. One of the last bits was supplied by goldsmith Cornelia Roethel who provided the secret to working in the round, a crucial element in contemporary jewelry. With that piece of information, artist Bob Kulicke perfected a method of teaching granulation at his school in New York City. Generations of goldsmiths emerged from the school, adept, at the least, in this demanding art. Some became masters of it, bringing originality of design to the technique.

**S**oon, schools of goldsmithing across the United States began to teach the technique. No longer was it secret; now it was everywhere. But much of the work that emerged from these masses of goldsmiths was very like the examples they copied in class. Placing gold balls on a surface in geometric patterns, while tremendously difficult to do technically, is relatively easy to do, visually.

The challenge of creating something unique is evident when one looks at more mundane work. The technical wizardry may be mastered, but the work often has no personality, nothing to set it apart. Such is definitely not the case with the Gualtieris who are clearly never going to run out of original ideas. One season their designs curve and swirl, the next they're more architectural. The granules may circle bezel-set diamonds or wrap around a triangular shaped gemstone. A unique piece of coral is turned into a veritable creature with granules spilling out and around the gold elements that tie it together.

They work with small diamonds and different palettes of colored gemstones. Because they alloy their own gold, they can match the gold to the stones, making every piece an harmonious original. Given the amount of hand work involved, their production is quite small, no more than 100-120 pieces on average, in a year. In ancient times, goldsmiths such as Zaffiro would have patrons to support them. In the modern age, they have collectors, women who understand and appreciate the effort, as well as the artistry that goes into each piece of jewelry. They are worthy successors to the ancient goldsmiths who preceded them throughout the millennia.  $\blacklozenge$ 

