

21st Century Gold Beating

A guided tour of the new Giusto Manetti factory

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The day after we arrived in Florence, we made our way from Piazza del Duomo to Piazza Santa Novella and the train station to grab the 8:47 to Calenzano, about 30 minutes northwest of Florence. We had come to Florence and Tuscany for vacation, celebration and a painting workshop given by Mary Whyte. Smith Coleman, his wife, Mary Whyte, Mary's agent, Tracy Culbertson and my wife Shelley and I were invited by Bonaccorso Manetti and Edward Marten to tour the new factory while we were in Florence.

Immediately upon disembarking from the train in Calenzano, we were greeted on the platform by Edward and a Manetti co-worker, Donato Maggio, who then whisked the 5 of us off to the new Giusto Manetti Gold Leaf Factory. The ride was a quick 20 minutes weaving in and out of traffic in Italian style during the morning rush. We pulled into the driveway through the gates into the parking area of this modern industrial building. Somehow, even though the building is not that unusual from the outside as compared to other modern facilities around Florence, the sense was that there was a great deal of thought that went into the design of the building and the structure itself.

Edward explained to us that the building was built to be efficient in its use of energy and productivity. The other aspect of the design had to do with the welfare and environment of the Manetti employees in order to provide a great work environment.

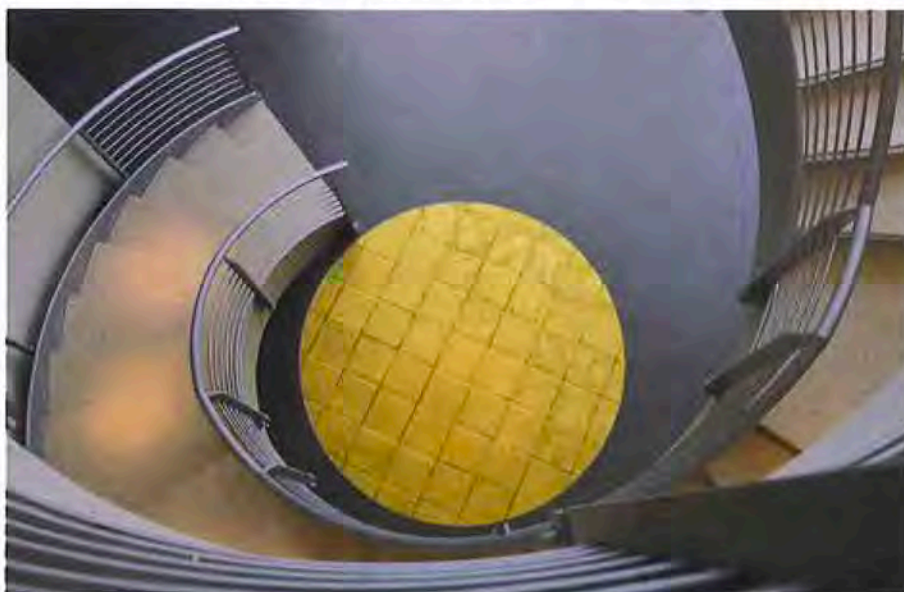
At the far corner of the building is the entrance. The marvel starts as you walk in the door. The foyer is a two plus story circular entry with a gilded terra cotta tile installation greeting the guest. To the right, one may ascend the hi-tech circular stairway to the 2nd floor main lobby, or opt to take the architecturally stunning elevator. The entire lobby is open, airy, bright and very comfortable with

finely upholstered leather chairs, plenty of books about gilding and fine art. Every room that we were in during our tour was filled with light and energy except, of course, for the vault. Each Manetti employee that we met was certainly appreciative of the great work conditions that the work spaces and the new factory offered.

The modern facility with its many design considerations serves as an interesting comparison to the age old craft of making gold leaf and the progressive use of modern technology being used today by one of the most important gold beating families in the 21st century. Even with the advancement of machinery and technology in the manufacturing of gold leaf, our tour made it very clear that the process still requires skilled and well trained hands of human beings. Machinery alone could not produce the consistent and highest quality of

leaf that Manetti has always been known to manufacture. There are still several steps which can only be done by hand and are accomplished with the same hand tools and methods as were done generations ago. These include reclaiming the skewings and gold waste, creating the exact alloys, cutting and packing.

Upon our arrival, we met in Bonaccorso's beautiful new office which is decorated with amazing photos of wild animals, other pieces of art and artifact from travel



Gilded terra cotta tile floor installation in entry as seen from 2nd floor reception area.



Edward Marten leading the Guisto Manetti Factory tour

abroad as well as samples of gold leaf, gilded surface and new product ideas and lines which are constantly being developed, like the gilded terra cotta tiles in the entry. We joined Bonaccorso and Edward in enjoying fresh hot espresso, cappuccino and conversation. Bonaccorso provided us with some background on the family business and new products that are being developed. There are currently 6 Manetti family members running the business which employs about 100 people.

As we started the tour from Bonaccorso's office, led by Edward, our first stop was to see the place where pure gold is measured, weighed and then mixed with other precious metals to create the numerous karat weights of gold. These calculations and measurements are closely controlled and guarded as each gold leaf manufacturer has specifications unique to their products. The creation of the alloy is only done by one of the Manetti family members to insure the continuity and consistency over time.

In the foundry area we witnessed the gold, with the addition of the silver and copper to make the required alloy (this day it was 22kt), being melted down at more than 1000° Celsius and poured into a mold to make an ingot. The ingot undergoes a series of processes (such as reheating and acid-washing) to remove impurities, before being rolled into ribbon.



Gold leaf and catches on traditional goldbeating granite block



Working in the foundry. Pouring molten gold into a mold





Eight lbs of solid gold!

The foundry is also the place where skewings and trimmings from the whole manufacturing process are collected, melted down, and prepared for purification back to 24 karat gold. The final refining back to pure gold is done at a specialized refinery outside of the factory. Obviously with a raw material such as gold there cannot be any wastage!

After seeing and learning about the melting and refining stages, we each took turns holding an 8 pound bar of 22kt solid gold. Ok, so that is only 128 ounces of gold! Smitty and I were like kids in a candy shop. It was truly a special moment in the life of a gilder.

The rolling process creates thin, continu-

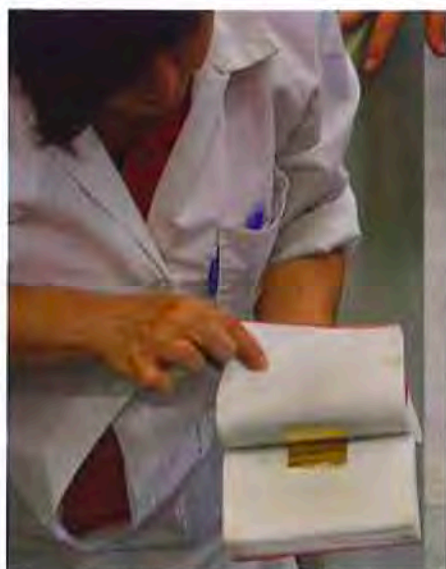
ous ribbons of gold from the ingot, which are then cut to the proper dimensions ready for beating. The stacks of cut gold pieces are expertly placed between sheets of mylar to build theutch. Theutch is prepared and placed into the beating machine which starts the process of pounding the gold rhythmically and precisely to its eventual finished thickness. The beating machines are each housed in separate booths within the overall room. The machines can be accessed by the gold beater through glass doors for positioning and adjusting theutches or through full doors for maintenance. The room enclosures suppress the noise of the gold beating machines

to a barely audible level. The beating process includes two rounds in the gold beating machines with the gold being cut again and repacked in theutches each time. The gold is inspected and checked for defects or problems at each interval. In the gold beating room stands a singular gold beating station, not only as a monument to the methods and tools of the past and ancient origins of the manufacturing of gold leaf, but also still used for a final hand beating of eachutch to smooth out any residual wrinkles in the leaf.

We then visited the rooms where the gold leaf is sampled and inspected for weight, quality and consistency, where the rouge papers are made and the books for the gold are produced and of course where the gold cutters work, meticulously cutting and packing each leaf into the rouge paper books. This is always fascinating to watch as it remains one of the jobs that can only be done by hand. Each gold cutter exhibits fluidity, patience and certainty in their craft that is developed in time through expert training and years of experience. The cutting of the leaf and the movement from cushion to book is a marvel to witness.

And that is still not the end: each leaf is then checked individually by yet more patient hands and eyes. Imperfect leaves are replaced with good ones, before the books are packed and dispatched all over the world.

One more treat along the way was watching edible gold being processed from leaf to flake and packed all in a clean, sterile environment ensuring that the standards imposed on all products intended for human consumption are met.



Inspecting the leaf between beating steps.




Inspecting the leaf after one of the beating steps.



Peter Miller, Shelley Miller, Tracy Culbertson, Mary Whyte and Smith Coleman at the Giusto Manetti factory entrance.

As we worked our way through the production facility, we wrapped up the tour visiting the conference rooms, lecture rooms and meeting Bonaccorso's brother Niccolo and his cousin Lorenzo, all active partners in the Manetti tradition. Lorenzo gifted each of us with a copy of an etching of a gold beating machine invented and developed by Leonardo De Vinci.

Of course, what gold beating tour would be complete without sharing food and wine with great friends old and new. The Manettis' took us to one of their favorite restaurants near the factory. The food was plentiful and delicious. The service was attentive and very much in tune with the desires of Bonaccorso to provide us with a great experience. The company was wonderful. We had to let these folks get back to work, so we offered our thanks and gratitude for a fantastic day and caught the next train back to Florence with our appetites satisfied and our minds inspired by the all that we saw. 

- by Peter Miller

Special thanks to Edward Marten, Bonaccorso Manetti and family for their hospitality and accurate information for this article.



Long Time
Coming:

GILDING the ROOF & LANTERN of the NY Life Building

In 1928 the NY Life Headquarters in midtown Manhattan was completed. Designed by Cass Gilbert, it was the last of the monumental insurance company headquarters to be built in New York City. Rising 35 floors above Park Avenue, the limestone edifice was capped by a masonry roof on top of which was a gilded bronze lantern, over 65 feet in height. All in all, the tip of the lantern was over 600 feet above the street, making NY Life the 3rd tallest building in New York City at that time.

The roof was plagued with leaks from the beginning. Finally, in 1967 there was a major re-design of the roof with the masonry replaced by the pyramidal gold structure we are now all familiar with as a corporate symbol of "The Company You Keep". The new roof consisted of over 22,000 gold-fired roof tiles (much like the fired gold highlights on fine china), still surmounted by the magnificent gilded bronze lantern. In the mid 1990s, after almost 30 years, the gold on the tiles was wearing away and they were all replaced with new gold-fired tiles in 1997. At that time the lantern was also re-gilded.

Unfortunately, within a few years, the new gold tiles started to show signs of wear.