

# THE RESTORATION PROJECT THAT BROKE THE MOLD

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Special Contributor

**P**AMELA MONROE IS THE SALES AND PROJECT MANAGER FOR HILGARTNER NATURAL STONE COMPANY, INC. IN BALTIMORE, MARYLAND. THEY ARE CELEBRATING THEIR 150TH ANNIVERSARY THIS YEAR, AND ONE PARTICULAR PROJECT HAS STOOD OUT TO MONROE AS REPRESENTATIVE OF THE COMPANY'S LONGEVITY.

For over a century, Hilgartner has been adapting to changes in the stone industry, the consumer market and developments in equipment and technology. Although primarily a supplier in marble and stone, the company's services include fabrication, installation, drafting, restoration, stone supply, carving, stone repair and stone care. Over the past five years, Monroe and her team have been taking on more restoration projects. This recent project has prompted some innovative restructuring in the company as well.

So what broke the mold?

The Wyman Towers is a 90-year-old property building across the street from Johns Hopkins University in Baltimore, MD. The property manager was planning to refinance the building last fall. When the home inspector came to visit, it appeared many of the balconies were suffering cracks from weight or old age.

The property manager had seen a Hilgartner Natural Stone truck in the neighborhood several times and gave them a call. The original scope of the project was to address repairs at cracks and spalls in the balusters, including all of the third floor balconies (12 total) and two balconies on the 8th floor at the rear courtyard, says Monroe. This restoration project quickly evolved from an preliminary budget of \$50,000 to upwards of \$150,000 plus the cost of permits.

Once Monroe and her team took a closer look at the ornate detail in the balconies, three things became clear.

First, they were not dealing with stone here. The balconies and façade design were made of glazed terra cotta.

With the many devastating fires that took lives and buildings in the early 1900s, there was a surge of fire-resistant construction that followed. Terra cotta was a sensible building material because, as a ceramic, it is flame-proof. Therefore it was mass-produced at a low cost in the 1920s and is common in urban architecture.

The second thing that Monroe noticed was how stunning the terra cotta sculptures were up-close.

"The intricate designs on the molds are beautiful," Monroe says, "When you are always looking up at it you don't really see the details, but the residents can see it."

Last but most importantly, the repairs originally thought to be patchable, in fact, needed to be replaced. The problems were more in



Top: Balcony "H" restored to its former glory. Reconstructing new terra cotta molds would have been extremely expensive by today's standards, so it was more cost-effective to patch and repair the material around the steel beams.

Left: Balcony "H" in progress, with one floor tile removed. The tiles weighed in at 171 pounds apiece. Also visible here is the exposed, weakened steel support

number and at a deeper structural level than initially expected.

Almost all of the balconies and balusters had internal fractures caused by wear and tear or intrusive vine growth, which over time had weakened the whole support system from the inside. Monroe later found out that a chunk of railing had fallen on a parked car in the alley behind the building. So even though the project kept growing, and thus the cost was increasing, it was clear that the severity of the damage was real.

Hilgartner's marble masons are experienced in patching and troweling, to say the least. The types of joint repair and repointing on the Wyman Towers project were familiar to our

journeymen. Additionally, the anchoring and hanging work this project required is similar to that in marble installation.

"It seemed a natural extension for our masons to do terra cotta restoration, but we had a lot of outside support on this project," Monroe says.

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There were no historical or antiquated standards in place for this project. However, one of the apartment owners agreed to sacrifice two balconies for replacement parts. This helped keep the integrity of the style, which is always

important in restoration work. Each balcony or balconette yielded a different prescription for repair. This area has undergone several blueprint revisions, which are crucial because so many different people and companies were involved.

"After getting assessments, we recommended and the client approved working with RMF Engineering because it was important for the property manager to be aware of what our plans were," says Monroe.

One reason that this project has taken almost a year to complete is that the terra cotta is highly sensitive to weather. The patching material cannot be worked on in heat above 90°, and it will freeze in temperatures below 40°.

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Top: Hilgartner workers on the scaffolding sport mandatory safety gear, including hard hats and harnesses. Hilgartner training for restoration includes working on multi-story buildings. Bottom photos and Inset, top: Full view of an upper floor balcony restoration, and a close-up of a terra cotta pilaster—preserving a jewel of architectural ornamentation.

There are still two balconies on the 8th floor that will be repaired in the near future. The owners are pleased with the work, and the new collaborative working conditions seem a welcome change of pace for all involved. From Monroe's perspective, this adventure has widened the horizons for the company.

"Our employees used to be either in the field or in the shop," Monroe says, "and during the Wyman Towers restoration, we needed the combined skills of a journeyman from the shop and a marble mason in the field to make everything work."

Since then, Hilgartner's projects have taken a path not traveled before now. Monroe is seeing an increased demand for restoration work, which requires preemptive assessment visits to the sites before work can begin. The

personnel and management changes from the terra cotta project have continued to benefit the company's production and effectiveness. The additional task of safety training was also a necessity for this job, as well as the many others calling for repair on multi-story buildings. Monroe says her team has undergone (and will continue certification in) multiple safety trainings, from using a harness to operating the machinery needed for elevated work.

"You have to adapt to the market," Monroe says, "And this is how we adapt."

You cannot argue with that innovative attitude. Hilgartner Natural Stone, here's to another 150 years!

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