The 2016 Pinnacle Awards

Award of Excellence: Renovation/Restoration

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"The Rotunda Renovation" replaced the 16 marble capitals of the University of Virginia's Academic Village Rotunda, a UNESCO World Heritage Site designed by Thomas Jefferson, the Third President of the United States.

An 1895 fire destroyed the original capitals carved by the Ricci family of Carrara, which were then replaced with columns from an alternate source.

In 2013, with the replacement columns crumbling, the University contracted with Rugo Stone, LLC to restore the capitals.

Lacking a complete capital, detailed photographs, or original drawings, Rugo Stone and its stone carver, Mario Pedrini of Carrara, used a 3-D scanning technique to recreate the original capital design.

MIA + BSI
THE NATURAL STONE INSTITUTE

MIA+BSI Member Company

Rugo Stone, LLC
Lorton, Virginia
Stone Supplier and Installer

Other Project Team Members

University of Virginia
Client

John G. Waite Associates, Architects PLLC
Architect

The Whiting Turner Contracting Company
General Contractor

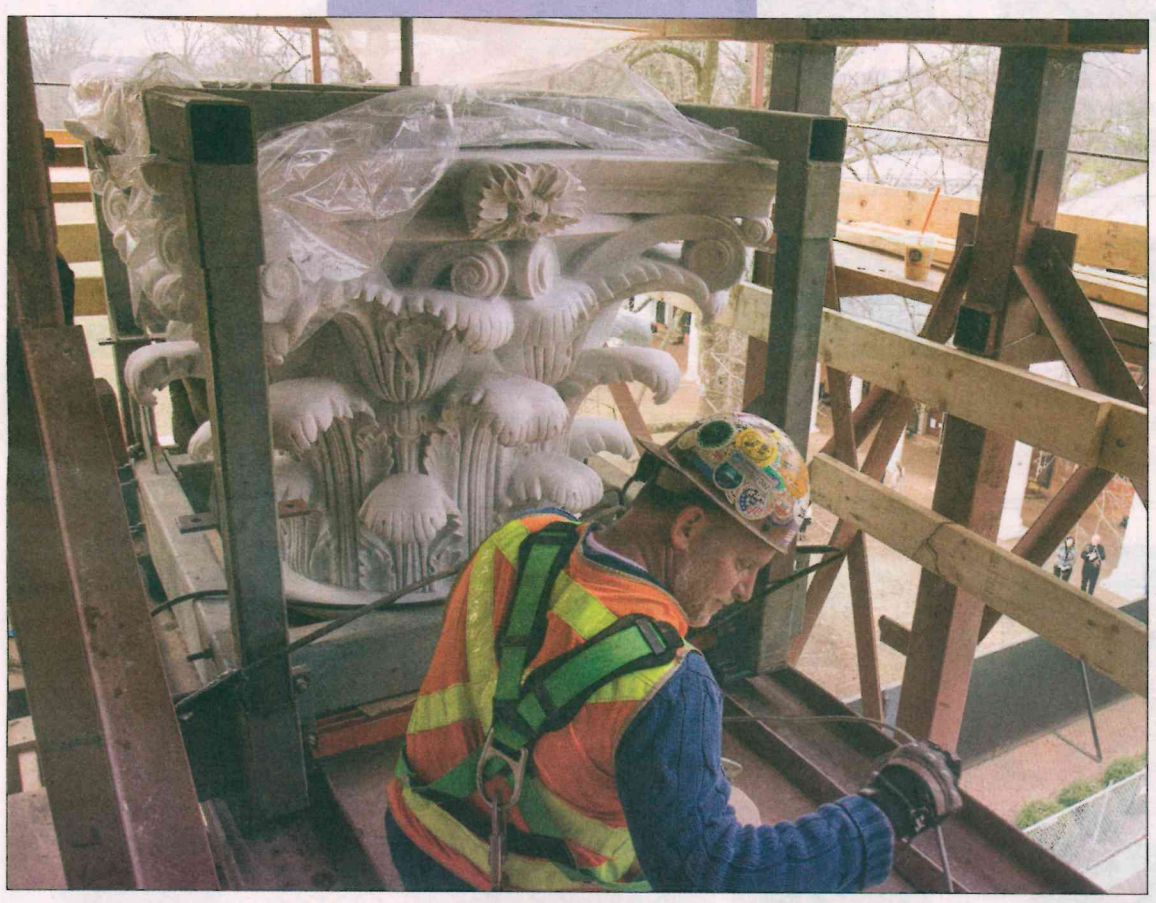
Mario Pedrini Srl
Stone Fabricator

Stone
Carrara C Marble

"Meticulous craftsmanship and a great example of what's possible in the restoration world."

"The implementation was enormous and required great technological and artistic collaboration. The result is an incredibly effective restoration of important national architectural stone heritage."

The UVA Rotunda Renovation
Charlottesville, Virginia



Having only the remaining fragments of single lower capital base, a full 1/4 section capital model was created.

First starting with a drawing, then a clay model of the upper part of the capital placed on top of the lower part reconstructed in marble. The model was then scanned again, and a digital design of the whole capital was created and passed to fabrication.

Within 10 months, 6-axis robotic machines shaped 80 percent of each capital, which were then completed by skilled carvers.

To preserve the Rotunda's integrity and proximal historical structures, Rugo Stone designed an innovative lateral conveyance system that allowed for lifting and lowering those heavy and fragile capitals onto a 30-45 foot high scaffolding and further moving and installing through a system of rails feeding each column. The entire procedure was completed with four to five workers, over the course of a few weeks, and without any incident.

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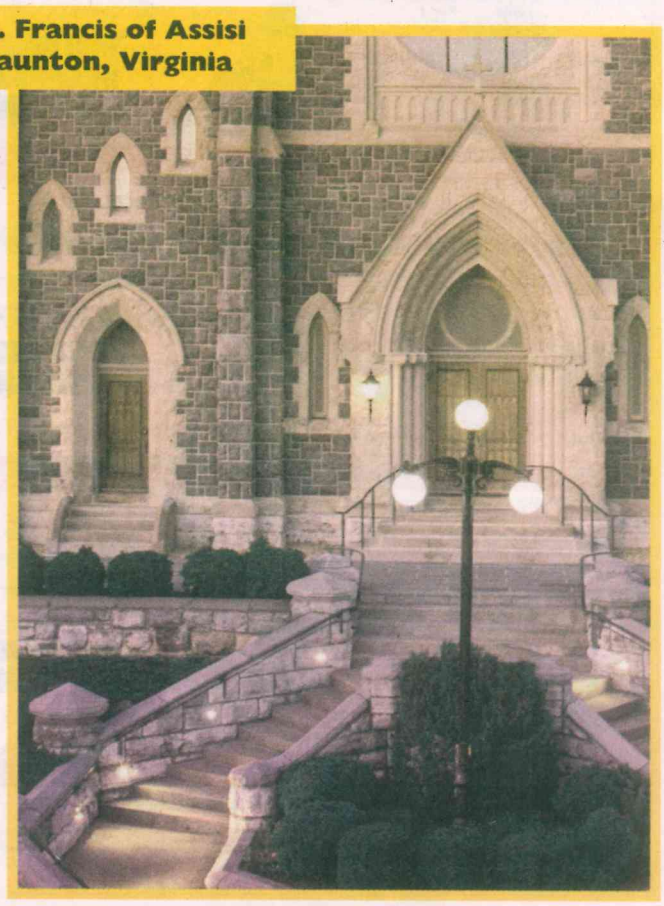
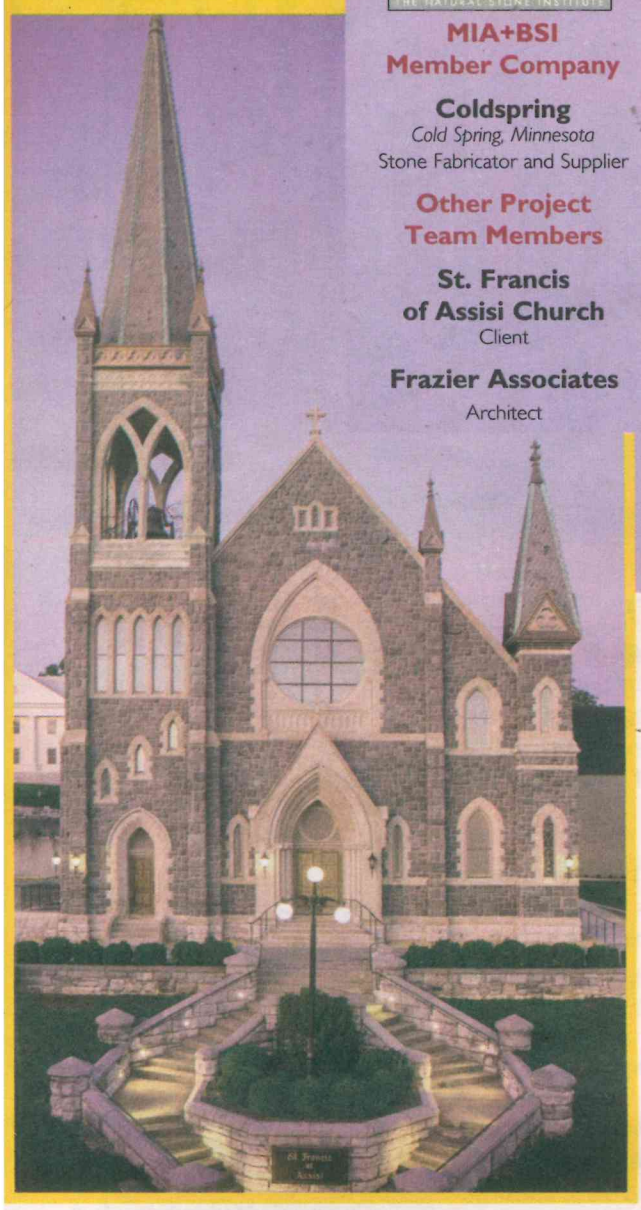
St. Francis of Assisi
Staunton, Virginia



The 2016 Pinnacle Awards

Award of Merit: Renovation/Restoration

St. Francis of Assisi
Staunton, Virginia



MIA + BSI
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MIA+BSI Member Company

Coldspring
Cold Spring, Minnesota
Stone Fabricator and Supplier

Other Project Team Members

St. Francis of Assisi Church
Client

Frazier Associates
Architect

WDPA & Associates
Architect

Lance Construction Company
General Contractor

Rugo Stone, LLC (MIA+BSI Member Company)
Stone Installer

Stone
Mountain Green® Granite

"Remarkably thorough analysis, exquisite results."

"Incredible attention to preserving the historical image and personality of this church."

Continued from page 38

Renovation projects where existing materials and designs must be matched can bring a host of challenges. The St. Francis of Assisi Catholic Church renovation in Staunton, Virginia proved no exception.

The church needed to replace the existing serpentine material that was failing, while keeping the existing limestone material in place. Ultimately, granite fabricated with exact precision provided the ideal solution to preserve St. Francis of Assisi's legacy.

More than 100 years after original construction, the existing serpentine had deteriorated to such an extent that safety had become an issue. The church initiated fundraising efforts and began making plans for upcoming renovations.

After an extensive search for a close match to the existing serpentine, the church found Mountain Green® granite to be an ideal material. The church's exterior renovation began in the spring of 2015. Originally built by hand, many of the serpentine pieces were very irregular in size. Matching the existing pattern presented a true challenge.

To match the serpentine pattern of the 120-year-old stones, the granite fabricator used 3D scanning technology. A complete scan of the church produced a 3D model, which was then converted into 2D documents. Next, the granite fabricator used the 2D drawings to create a 3D Revit model to ensure the new façade would replicate the existing with complete accuracy. In total, 6,706 4-inch cubic granite pieces in Mountain Green with a split finish were produced and installed. The church restoration was completed in May of 2016.

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