



Innovative Tile and Stone  
Installation Systems

# Nature Research Center Wing North Carolina Museum of Natural Sciences Project Spotlight: July 2012



**LOCATION:**  
Raleigh, NC

**ARCHITECT:**  
O'Brien/Atkins Associates, PA  
Research Triangle Park, NC

**TILE INSTALLER:**  
David Allen Co.  
Raleigh, NC

**LATICRETE DISTRIBUTOR:**  
DalTile  
Hamlet, NC



## Tile Projects, Museum Display

by Ron Treister

Why do people like museums? Even if someone isn't an art, history or science enthusiast, at the museum there almost always is something to pique curiosity or impart thought-provoking minutia which wasn't known beforehand. Today, most have "hands-on" exhibits, and it's quite obvious that adults enjoy hands-on opportunities as much as youngsters do. These interactive displays offer various exercises that really get museum visitors involved.



The North Carolina Museum of Natural Sciences' new Nature Research Center wing, a state-of-the-art 80,000 square foot building with its cornerstone three-story globe of the earth, "The Daily Planet," opened in late April of this year (2012). Its declared mission was to bring research scientists into the public eye, demystify what can be an intimidating field of study, and better prepare educators and students, to ultimately inspire a new generation of young scientists. According to the museum's Communications Director, Jon Pishney, "Traditionally, museums show us more about what we know. Our new Nature Research Center gets visitors so involved, they leave after learning via hands-on processes how we know."

The new wing offers highly visible research laboratories where qualified scientists conduct unique research projects while visitors are right next to them, observing and learning. Additional investigative labs offer visitors a chance to perform their own small-scale experiments and try their hand at using tools of the trade. "This way, we're able to get visitors more directly involved in the scientific process," added Pishney. "It's very possible at the Nature Research Center for a museum guest to be using a high-powered microscope, looking at plant or animal cells hundreds of times bigger than life."

Visitors to the museum (currently averaging 120,000 per month) can not only see incredibly well-executed tile installations throughout the new wing, one of the facility's tile projects offers them the opportunity to get interactively involved with the earth's timeline. The Nature Research Center is connected to the existing museum via a two-level pedestrian bridge. On the upper story of it, there is a progression of handmade tiles positioned along handrails, created by artist Barbara Page, which represents the passage of geologic time. In a nutshell, one can start at one end of the bridge and see tiles with "life forms" dating back 542 million years. By the time he or she gets to the other end of the bridge, the tiles impart images of living creatures which have evolved from back then until right now.

"These exterior hand-made tiles were installed in a stainless steel pan," stated Jason W. Banks, Project Manager LEED AP, BD+C at David Allen Company, an NTCA 5-Star Contractor, CTEF Certified Installer with headquarters in Raleigh and branch offices in Washington, DC, Miami, FL, Birmingham, AL and Columbia, SC. "We knew from the start that working with the museum would involve a number of very unique tile projects. That's why we trusted the LATICRETE System for all installation materials. For example," Banks continued, "we used LATAPOXY® 300 Adhesive for the handmade 'time tiles' due to its bonding strength. And, we caulked the entire perimeter and joints of these with LATICRETE® Latasil™ high-performance silicone sealant. Glass tile at the Café was installed with LATICRETE 254 Platinum. Before bathrooms were tiled, we protected all substrates by waterproofing them all with LATICRETE Hydro Ban®. Each time, the outcome was perfect."



The team from David Allen worked throughout specific areas within the new wing, primarily using Daltille products in the main bathrooms, kitchen and café. Horizontal granite was specified for the main lobby entrance and as stair treads on the monumental "floating" staircase. "There were other trades working at the same time we were," added Banks. "Great coordination work was done by the General Contractor, Clancy & Theys Construction Company of Raleigh, to get the main lobby and kitchen areas completed on time. The glass barrier around the edge of the floating stairs, for example, could not be put in place until the granite treads and landings were installed."

During the installation work on the granite staircase, it was necessary to use fall protection equipment, which was insisted upon and carefully planned for by Kirk Stephens, David Allen's safety director.

When asked if this was a "green" project, Jon Pishney responded, "This will ultimately be certified as a LEED Gold project."

Jason Banks added, "When it comes to the selection of products, our hands are tied here a bit, as the architect dictates what tile materials they intend and specify as a basis of design. The architectural firm which designed the Nature Research Center, O'Brien/Atkins Associates, PA, did an outstanding job choosing products that were both beautiful and functional, while at the same time qualified for LEED points.

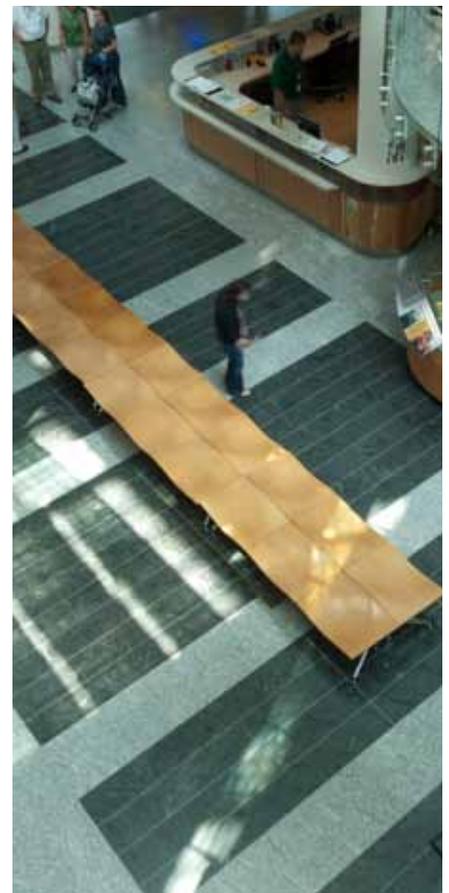
"With my knowledge as a LEED AP BD&C, I understand the LEED scorecard and thus, can properly fill out the paperwork for the GC. This helps streamline the process a bit for them. It also helps when looking to collect LEED points within the materials selected. While the specification may indicate only a regional requirement for the product, I can research the product and perhaps add to the recycling content LEED point.

"One area where I do have some leeway is with the setting materials used," said Banks. "The LATICRETE System was a great choice for this project, not only due to optimal performance, but also because the firm has a Hamlet, NC location which allowed most of the installation products used to contribute to the regional materials LEED certification."

Greene County Granite and Virginia Mist Granite were both fabricated by North Carolina Granite Corporation in Mt. Airy, NC. Again, because these materials were shipped from their source location which was less than 500 miles from Raleigh, points were duly added to the project's LEED scorecard.

For the museum's 24-hour grand opening on April 20th, more than 1,000 people stood in a crowded line, waiting 45 minutes for a chance to stand inside the three-story globe that gradually took shape over the past year. A great percentage of them were interested in the center's philosophy of getting visitors interactively involved with highly ranked scientists. "We're taking scientists out of their lab coats and isolated labs and putting them into the spotlight," said Meg Lowman, Director of the Nature Research Center. "They are the new rock stars."

The North Carolina Museum of Natural Sciences' Nature Research Center has taken its tile and stone installation into a veritable spotlight position, as well. "Believe it or not," concluded Jason Banks, "there is a great deal of scientific know-how involved in these various tile projects. Maybe someday, a technical services guru from LATICRETE will be on-hand in this building, offering cutting edge information to a young, interested generation of potential tile installation professionals... about the correct ways in which to install tile and stone!"



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