

**ARCHITECTURAL TERRA COTTA:
INSPIRATIONS ON CAMPUS**



Since 1888, architects, homeowners, universities, commercial and government clients have turned to Ludowici for uniquely beautiful architectural terra cotta products that stand the test of time.

Our clay tiles are the highest quality available, which is why they adorn thousands of historic and newly built structures around the world. Meticulously crafted in New Lexington, Ohio from locally sourced raw materials, our products are infinitely customizable and carry a 75-year warranty.

This book has been curated to provide an inspirational sampling of Ludowici's extensive product line, featuring a wide variety of architectural styles and buildings, old and new.

To see more projects and get more information about Ludowici's roof tile collections, quarry tile flooring, or wall cladding and solar shade offerings, please visit www.ludowici.com.



Terreal North America, a subsidiary of Ludowici, designs and manufactures terra cotta cladding and solar shade systems. Throughout this publication, Terreal North America's cladding and solar shade products and projects are illustrated as a subsidiary and exclusive partner of Ludowici. For additional information please visit www.terrealna.com



LUDOWICI COLLEGIATE ARCHITECTURAL TERRA COTTA

inspiration & resources

THE OHIO STATE UNIVERSITY
Columbus, OH

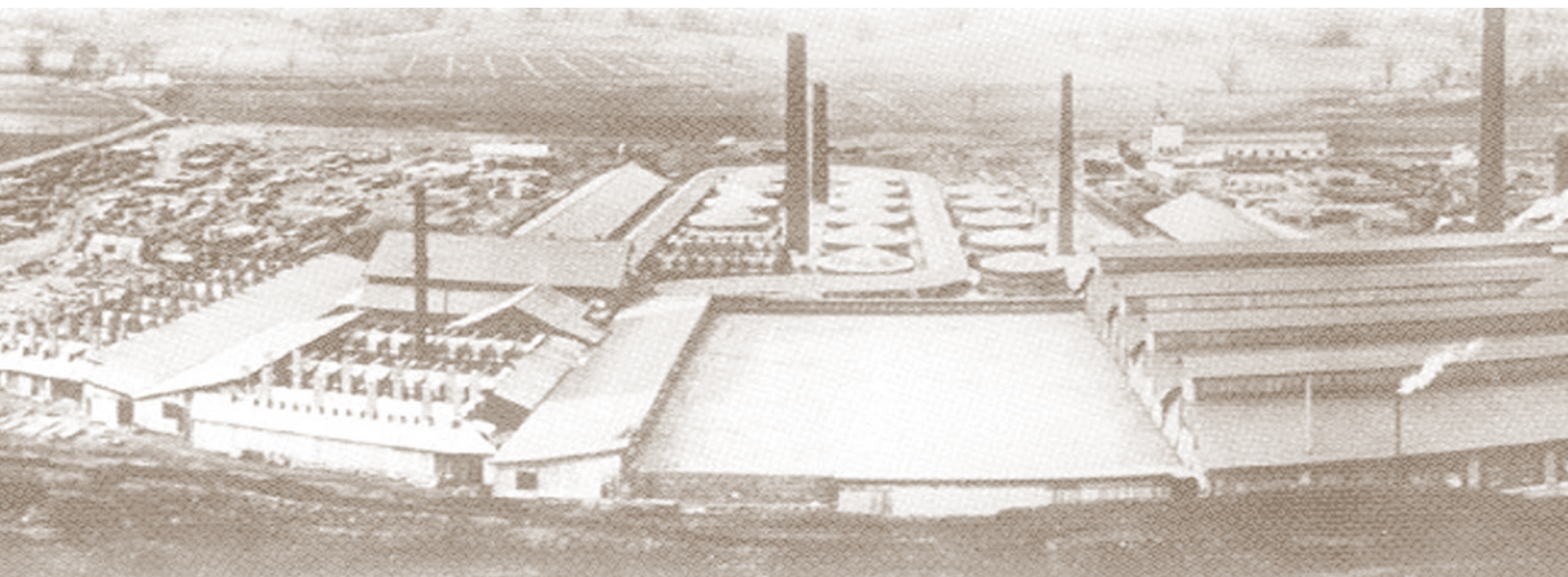
Matt Simmons Photography

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The History of LUDOWICI

Ludowici's legacy of terra cotta craftsmanship began nearly 400 years ago in Rome when the Ludovisi family became known for their expertly crafted roof tile. As demand grew for their tile, the family moved to Germany and began producing tile under the Germanized name Ludowici. In the late 1800s, Carl Ludowici, looking to expand his family's business into the new world, moved to Chicago, Illinois and an American tradition was born.



Rebuilding after the Great Fire of 1871, Chicago quickly grew into a technological hub for new building and manufacturing techniques. The skyscraper, elevator and modernized manufacturing facilities were all born of the rebuilding boom.

Carl Ludowici saw the opportunity that the upcoming World's Columbian Exposition in Chicago afforded and quickly formed the Ludowici Roofing Tile Company in 1893 with Henry W. King and Cyrus I. McCormick. The first Ludowici manufacturing facility was built in Chicago Heights, Illinois. The plant produced tile for the exposition and continued to grow and prosper into the new century. Frank Lloyd Wright and H. H. Richardson soon became frequent customers, commissioning roof tile and massive decorative roof elements for their projects.

The manufacturing boom of the late 1800s also saw the creation of the Celadon Roofing Tile Company in Alfred, New York, in 1888. In 1889, under the leadership of George Babcock,

Celadon evolved their product line from decorative terra cotta and chimney pots to innovative terra cotta roof tile. During his short tenure with the company, Babcock held 28 patents, including the Conosera roof tile profile, a revolutionary interlocking tile which is considered to be one of the finest roof tile profiles ever created and is still manufactured by Ludowici to this day.

After the turn of the century, Celadon expanded its manufacturing capabilities by purchasing the Imperial Brick Plant in New Lexington, Ohio. Taking advantage of its rich clay deposits, Celadon converted the plant into the largest clay roof tile manufacturing facility in the country.

In 1906, Ludowici Roofing Tile Company purchased the Celadon Roofing Tile Company and Western Roofing Tile Company, becoming the largest terra cotta roofing tile company in the United States. The new unified company was called Ludowici-Celadon and operated five plants across the country.





The early 20th century was fraught with challenges. Plant fires, a stagnating economy and the resulting Great Depression forced Ludowici-Celadon to adapt through plant consolidations and product diversification.

By World War II, Ludowici-Celadon had just two operational facilities on line, including the New Lexington, Ohio plant, now the country's largest clay tile manufacturing facility. As the war escalated and nearly all construction ceased, the factory shifted gears. Employing about 200 women, the factory converted to a decorative pottery plant producing hand decorated cookie jars, pottery and other tableware for the duration of the war. Roof tiles produced during this time were mostly for military installations, like Hickam Field in Hawaii.

Construction rallied again after the war; however, the focus shifted away from durability to affordability and terra cotta roofing suffered. After decades of low-quality construction, the industry returned to high-quality construction for commercial, institutional and residential projects in the 1970s. By this time, Ludowici-Celadon had consolidated all manufacturing in New Lexington.

In 1976, Ludowici-Celadon was purchased by CSC who repaired the plant buildings, renovated the dryers and further improved the tunnel kiln, a project which began prior to the acquisition. CSC sold Ludowici-Celadon

to CertainTeed in 1989 and Ludowici-Celadon's name was simplified to Ludowici Roof Tile. CertainTeed updated Ludowici's production with a new state-of-the-art kiln and reconfigured the factory layouts for greater efficiency.

Ludowici merged with Terreal, Europe's largest manufacturer of clay construction products, in 2003. Ludowici refocused operations to produce new products, expand color capabilities and offer varied textures and surfaces in response to evolving market desires. Ludowici now offers the most extensive profile, color and texture offerings in the marketplace today, including extensive customization capabilities to make an architect's unique vision a reality. To showcase these capabilities, Ludowici built the Factory of Ideas in 2007. This unique hands-on facility allows visitors to work one-on-one with Ludowici experts to design their new roof.

Ludowici also entered the terra cotta cladding market in 2010 with its subsidiary Terreal North America. Terreal North America offers unique terra cotta cladding solutions, as well as solar shades, acoustical panels and paver systems manufactured by Terreal and Ludowici. The durability, design and customization offered by Terreal North America products made them highly appealing for unique structures designed by architects such as Renzo Piano and Michael Graves.

For over a century, through wars and peace, booms and busts, thousands of architects have chosen Ludowici terra cotta tile for their projects' roofs, walls and floors. From residential homes to Ivy League universities to medical facilities to government buildings to the White House, Ludowici has been the choice for architectural terra cotta. It is trusted.

Ludowici tile is uniquely beautiful. With gorgeous colors that never fade, it has adorned buildings of all architectural styles for over 100 years. It never goes out of style. In both its design and structure, it is timeless.

From the good earth of Southeast Ohio, Ludowici creates handcrafted tiles which are then fired at high temperatures, infusing the glaze into the tile to make gorgeous architectural terra cotta.




Trusted. Timeless. Terra Cotta.





ARCHITECTURAL IDENTITY

There is nothing quite like a college campus. The buildings where so many of us spend our formative years fill us with a sense of pride and community. As custodians of the iconic image of your campus, facility managers and campus planners are in a truly unique position to safeguard the tradition and to develop the future of their institution. The architectural identity of the most astonishing campuses, such as Yale University, University of Texas, University of Colorado, Duke University, Louisiana State University and Emory University all begin with the continuity of sustainable materials, like Ludowici terra cotta.

Let Ludowici help create your institution's architectural identity today.



ollins



PEACE OF MIND FOR A LIFETIME

Ludowici roof tiles and floor tiles manufactured in New Lexington, Ohio, are backed by a 75-year material warranty — unmatched in the industry — delivering peace of mind to even the most demanding jobs. Our world-class warranty is included in the cost of your terra cotta tiles and includes color fastness, guaranteeing your roof will remain just as beautiful as the day it was installed.

OUR GREEN PROMISE

Terra cotta is an energy-efficient, sustainable choice for your building project. At Ludowici, we are committed to manufacturing architectural terra cotta products that honor their heritage from the earth. There are many qualifications that we strive to meet each and every day, to help us live up to this promise.

UNMATCHED DURABILITY

Unlike other roofing materials; Ludowici terra cotta tiles have a life expectancy of over 100 years. Our tiles also do not require maintenance, saving the environment from harsh chemical cleaners and landfills from filling up with roofing products that need to be replaced every 10 years. This means Ludowici tiles offer the lowest life cycle costs in the industry.

REDUCE. REUSE. RECYCLE.

Ludowici tiles are made of locally-sourced, natural materials (clay and water) through a unique process which creates no waste. We go to great efforts to be good stewards of the land we harvest. Our tiles are chemically inert, making them forever safe. Moreover, all Ludowici products are 100% recyclable. They may be reused to create a beautiful vintage roof. At the end of their lifespan they can be recycled and used as filler and filter components for future construction.

REDUCING ENERGY CONSUMPTION

Energy savings exceeding 20% are common with a Ludowici roof. With a number of standard colors that meet a Solar Reflective Index (SRI) of greater than 39, Ludowici offers proven energy-efficiency without limiting color choices. Explore Ludowici's rain screen system to discover more ways to save energy throughout the building envelope.



Ludo 360 is a special clay body blend made of clay scrap, shale and waste material that produces a clay tile with 40% post-industrial content. Ludowici can make any of our standard profiles, trim pieces and accessories with our Ludo 360 clay body. Add that to one of our LEED, CRRC and Energy Star color glazes, and you have a truly environmentally friendly roof option.



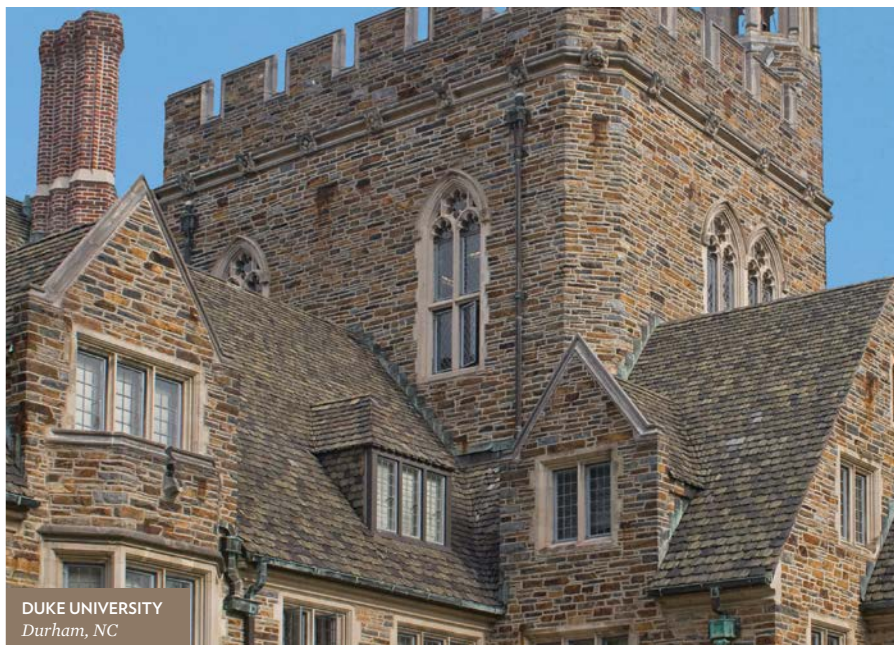
Ludowici products also earn some or all of the many certifications from the four main organizations setting the standards for sustainability: Cool Roof Rating Council, Cradle to Cradle, Energy Star and U.S. Green Building Council's LEED program.



CSUMB
Seaside, CA



PRINCETON UNIVERSITY
Princeton, NJ



DUKE UNIVERSITY
Durham, NC

TRADITION & TERRA COTTA

Since 1888, Ludowici has been the premier choice for colleges and universities seeking uniquely beautiful architectural terra cotta for their campuses. We have a proud history of partnering with some of the most beautiful and prestigious colleges and universities across the country. Harvard's Sever Hall showcased its original 1893 Ludowici tile roof until 2007, when it was replaced with a new Ludowici roof.



1893



2007

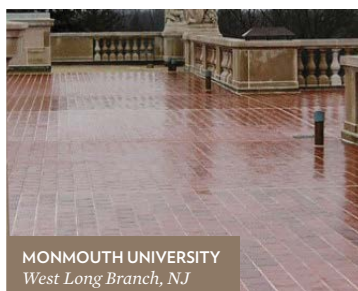
Sever Hall, Harvard University

From traditional roof tile profiles for classic collegiate style, to quarry tile for promenades and flat roofs, to uniquely beautiful, modern terra cotta wall cladding solutions and solar shades, Ludowici offers a robust range of terra cotta products to fit the wide variety of architectural styles found on today's college campuses.

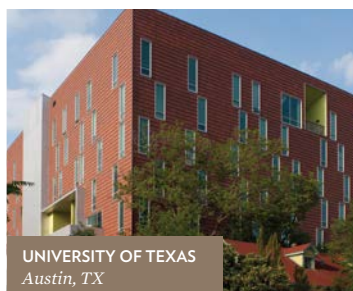
Ludowici products are infinitely customizable, including profile, surface and color, to match your design needs. Whether you need to match an existing historic structure or are building new, Ludowici can help you create a beautiful addition to your campus.



UNIVERSITY OF COLORADO
Boulder, CO



MONMOUTH UNIVERSITY
West Long Branch, NJ



UNIVERSITY OF TEXAS
Austin, TX



IUPUI PARKING STRUCTURE
Ft. Wayne, IN

HISTORICAL SUCCESS

Alfred University	St. Pauls College
Agnes Scott College	Texas A & M University
Arcadia College	Texas Christian University
Aurora University	Texas Tech University
Clemson University	Trinity College
Cornell University	Tulane University
Duke University	UNITY College of Christianity
East Carolina University	University of Chicago
Emory University	University of Colorado
Flagler College	University of Florida
Harvard University	University of Nebraska
Indiana Purdue University	University of North Carolina
Iowa State University	University of Puerto Rico
James Madison University	University of Puget Sound
Louisiana State University	University of Southern Mississippi
Miami University	University of Tennessee
Monmouth University	University of Texas
Muskingum College	University of Wisconsin
Northwestern University	Valdosta State University
Oberlin College	Vanderbilt University
Ohio State University	Wake Forest University
Ohio University	Wittenberg University
Princeton University	Yale University
Salem College	And more...
St. Bonaventure University	

PEACE OF MIND FOR A LIFETIME

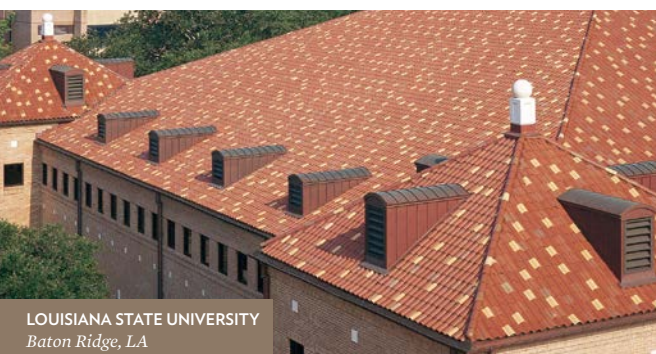
When you choose Ludowici, you are choosing the highest-quality sustainable terra cotta available. Ludowici is the most meticulous, proven manufacturer in the terra cotta tile industry – one that stands behind its products for a lifetime.

- 75-Year limited material warranty on all tiles manufactured at our New Lexington, Ohio plant, including color
- 10- or 20-Year Shield weather tightness warranty available through our certified Crown Roofer Program
- LEED credits available depending on project location, color and post-industrial recyclable content of product selected
- ASTM Grade 1 terra cotta tile that can withstand even the harshest environments
- Miami Dade and Florida Building Code approvals
- Class A Fire rated products
- Ludo360: terra cotta products from made fully recycled materials

DEDICATED COLLEGE & UNIVERSITY RESOURCE

After more than a century working with colleges and universities, Ludowici understands the unique needs and desires of the higher education community. We are committed to providing your institution with the best customer service possible. Our dedicated colleges and universities national accounts manager is ready to help you with:

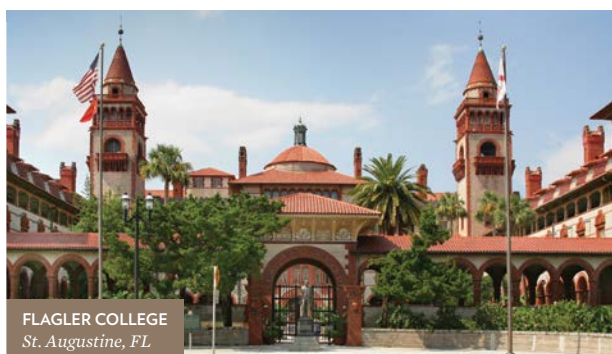
- Product development — including color, surface texture and profile;
- Project specific design and detailing consultation;
- Sample presentation;
- Pricing and budgeting;
- Installation details.



LOUISIANA STATE UNIVERSITY
Baton Ridge, LA



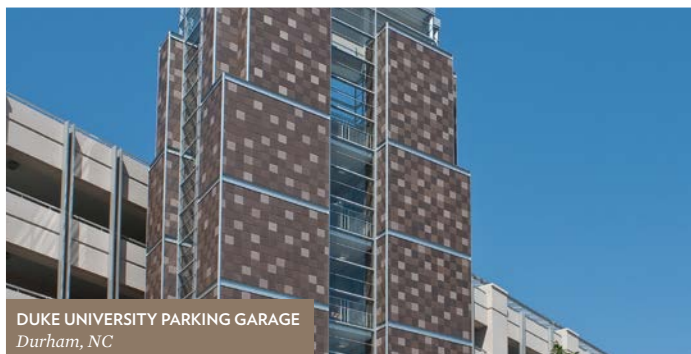
B1G CORPORATE HEADQUARTERS
Rosemont, IL



FLAGLER COLLEGE
St. Augustine, FL



UNIVERSITY OF CHICAGO
Chicago, IL



DUKE UNIVERSITY PARKING GARAGE
Durham, NC



PROJECT

Lakeside Graduate Student Housing –
Princeton University

PRODUCTS

LudoSlate and NeXclad 16" LudoSlate

COLORS

Custom Impressionist SL2/SL3/018-09M SM with Custom 130-11M SM accent tiles

AREA

250,000 sq. ft. of roof & wall tile covering 50% of wall area and 100% of roof area

ARCHITECT

Studio MA, Princeton, NJ
and Phoenix, AZ

ROOFING/WALL CONTRACTOR

Baker Roofing, Raleigh, NC

AWARDS/CERTIFICATIONS

LEED Silver Certification

A STUDY IN SUCCESS:

PRINCETON TURNS TO LUDOWICI FOR UNIQUE, SUSTAINABLE GRADUATE HOUSING

In 2005, Princeton University set out to develop a 10-year plan to revitalize student housing on their campus. The Lakeside project also had a goal to improve the condition and sustainability of their buildings while limiting the impact on the surrounding woodlands.

Completed in 2015, Princeton University's newest graduate student community, Lakeside Apartments and Townhomes, provides housing for over 715 graduate students and their families in a collection of townhomes and mid-rise apartments on 14 acres located on the main campus. The community is highlighted by an extensive student common area featuring a multi-purpose event space, staff offices, community living room, full kitchen, outdoor deck and barbecue, computer facilities, exercise room, and wrapped 550 car parking structure. Winding through the complex are pathways and vistas carefully located to connect Princeton's campus to adjacent Lake Carnegie.



CHALLENGES

This large-scale project on such a prestigious campus faced a number of challenges throughout the design and construction phases. The design team conducted thorough testing of two existing 1960's era concrete structures on the site and found that building new structures, with better orientation and an improved thermal envelope, would reduce carbon greenhouse gas emissions by 42% over a 10-year period, all while adding an additional 300 beds.

Once the direction was set to replace the existing structures, the design team was tasked with creating a complex that would look and feel like a community, all while maintaining the richness and scale of the existing university buildings. As part of Princeton's sustainability efforts, the complex would also need to blend with the surrounding woodlands and meet LEED Silver Certification.

Original concepts featured fiber cement panels and synthetic slate for the walls and the roofs. A mock-up was created for the project with these materials, but did not yield the aesthetic results the team wanted. And to meet LEED standards, the synthetic products would need to be Class A fire rated, which made them cost-prohibitive for the project.

Another challenge facing the project was the sheer scale of the development. Qualified contractors would be needed to meet the deadlines and budgets to make this project a reality. Princeton needed a single, qualified installer to complete the entire project.

RESULTS

The resulting complex is a gorgeous addition to the Princeton University campus. The team achieved their goal of minimizing the impact on the surrounding old-growth forest and creating a sustainable, vibrant and active graduate community for their students while honoring the heritage of the University. Ludowici is proud to have been a part of the team that brought this 384,000 square foot project to life.

APPROACH

Ludowici was contacted by the project architect in January 2011 after a web search turned up LudoSlate, Ludowici's terra cotta lightweight slate alternative roof tile. Upon review, the team found that LudoSlate met the LEED criteria and was the more affordable and attractive solution for the community. With Ludowici terra cotta roof tiles chosen, the design team was introduced to Ludowici's subsidiary, Terreal North America and NeXclad. NeXclad utilizes Ludowici terra cotta tiles to create a unique and economical wall cladding solution. Skeptical about using terra cotta roof tiles on a vertical surface, the team soon realized that the NeXclad wall cladding tiles in the LudoSlate profile provided a superior aesthetic to the cement panels first specified for the project. The 75-year material warranty on both products, including color, as well as Ludowici's history as a U.S.-based company in continuous operation since 1888, solidified the decision.

The next hurdle facing the project was finding a contractor who could handle the entire installation. Ludowici recommended Baker Roofing (Raleigh, North Carolina), who was ultimately chosen for the job due to several factors – the ability to man multiple buildings at once and have a large installation team on site; the ability to design, fabricate and install zinc metal flashing details which were integral to the wall system application; knowledge and experience and their ability to meet the budget.

Ludowici's and Terreal North America's technical departments worked hard with local code officials on the testing and approval for the roof and cladding portions of the project. Ludowici was able to show conformance with the New Jersey 100 mph wind resistance requirement for this project. Farabaugh Engineering and Testing completed ASTM E330 testing on the NeXclad wall tiles in November of 2011 for use over plywood and a nailable cement board, Armoroc.

Once the installation and code hurdles were cleared, Ludowici worked with the architect and team on the final details. After an extensive color development and selection process that included many rounds of review with Ludowici's expert ceramics team and creation of on-site blend mock-ups, the result was a beautiful, subtle, custom color blend for the project.



FOR MORE INFORMATION:

NEXCLAD: <http://www.terreal.us/products/nexclad/> | LUDOSLATE: <http://www.ludowici.com/products/roof-tile/slate-tile/ludoslate/>

UNIQUE

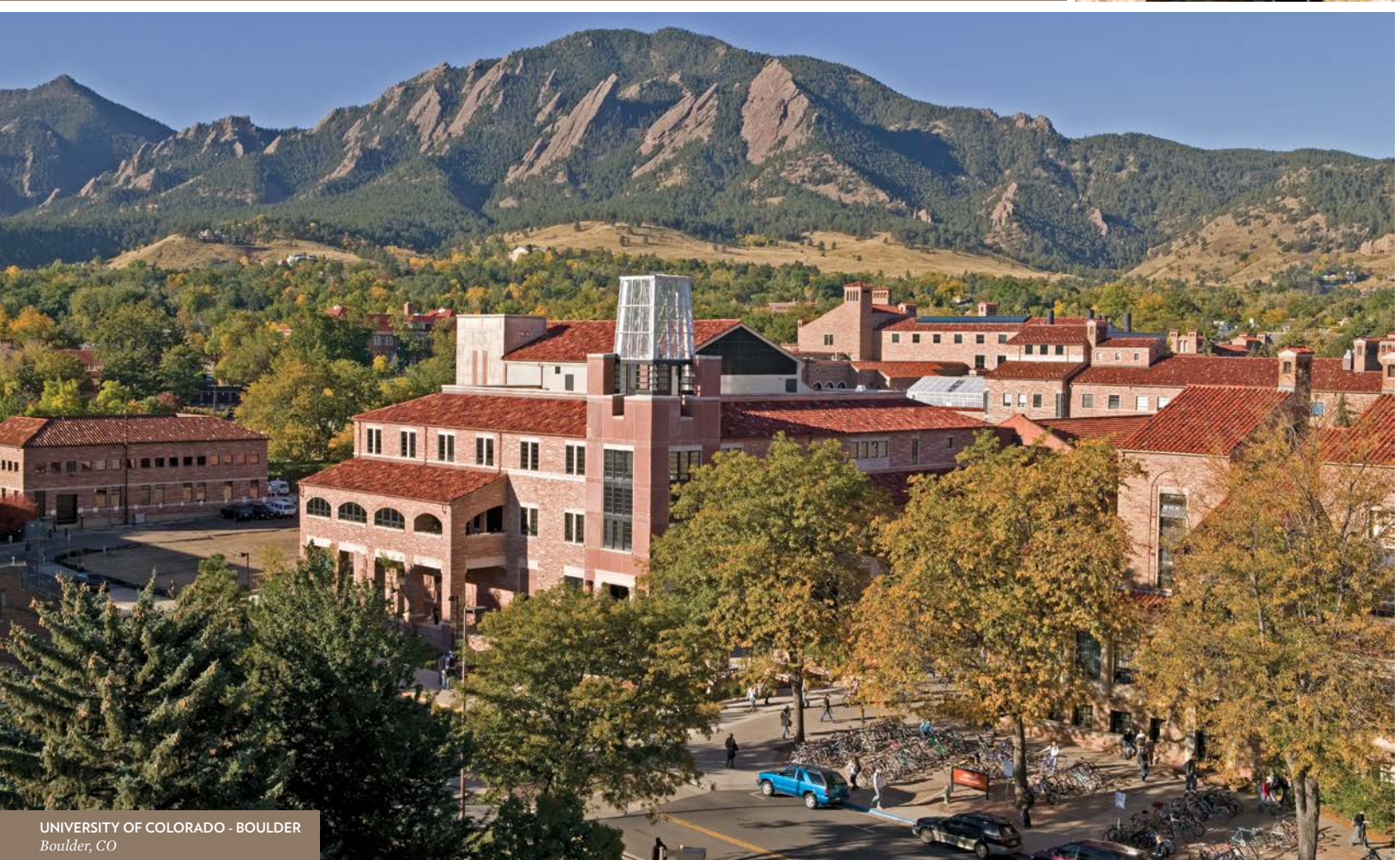
The inherent natural beauty of terra cotta wall claddings, sunscreens and roof tiles brings warmth, texture and durability to a building. And the ability to customize these products allows you to create unique, inviting campus spaces.





NATURAL COLOR VARIATION

Ludowici terra cotta products have aesthetically pleasing natural variations in tones created by differences in the clay, pigment and grit composition, temperature variations within the 2,100 degree kiln, tile position within the kiln and glaze spray patterns and coverage weight. There is always a range of tones within a given color emphasizing its beautiful, natural characteristics.



UNIVERSITY OF COLORADO - BOULDER
Boulder, CO





UNIVERSITY OF COLORADO - BOULDER
Boulder, CO

Christy Radecic Photography





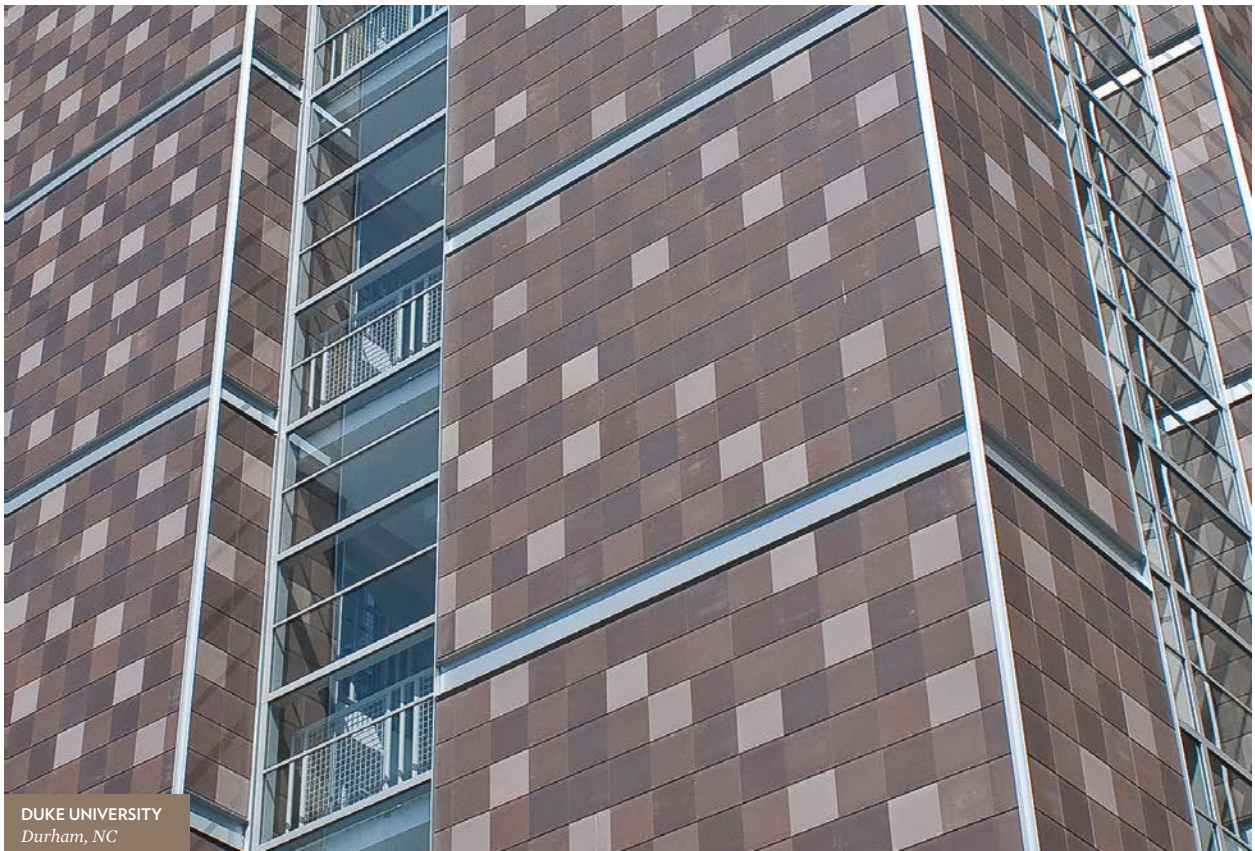
DUKE UNIVERSITY
Durham, NC



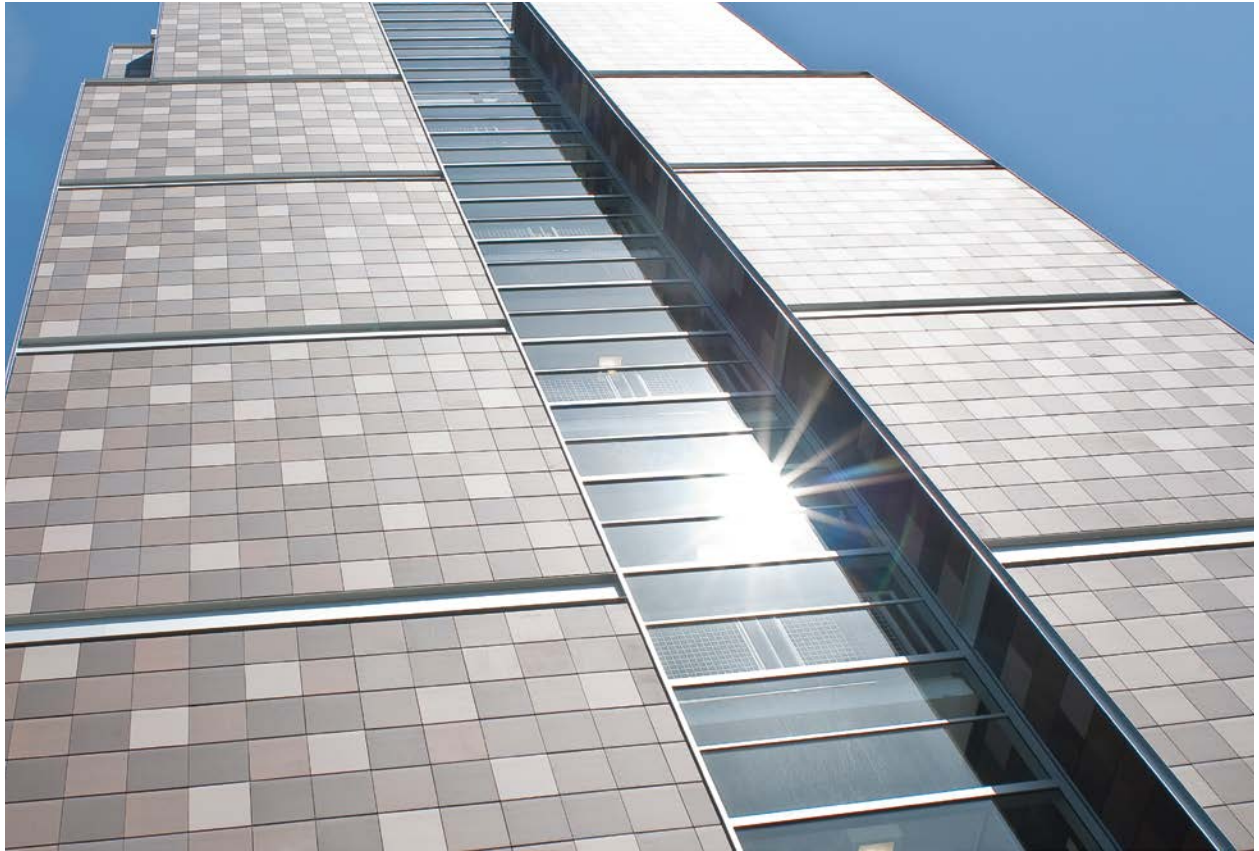
COLOR BLENDS

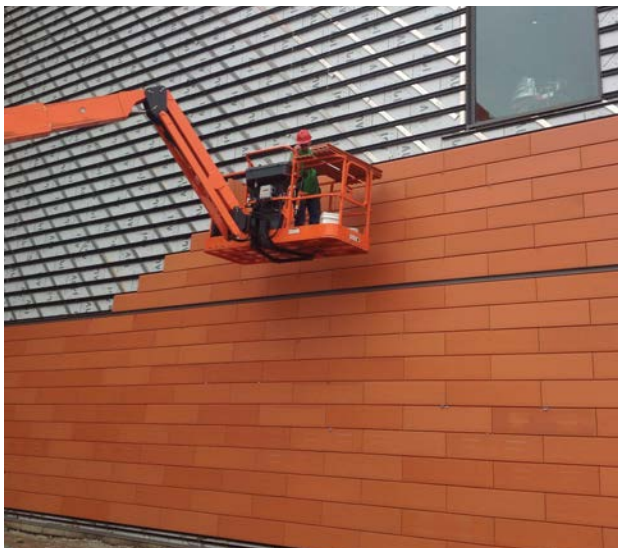
The natural variation produced in our color blends imparts richness and character, adding to the beauty and desirability of Ludowici terra cotta tiles. Not surprisingly, Ludowici is one of the only manufacturers to stand behind the beauty of its tiles by including color in our 75-year material warranty for roof tiles.





DUKE UNIVERSITY
Durham, NC







TAILORED VISION

Unlike other materials, terra cotta claddings from Terreal can be manufactured in a wide range of heights and widths to create uniform patterns and clean lines on the building's façade. Unique accessory and trim pieces can be tailored to add the perfect finishing touch.



MAINTENANCE FREE

Low-moisture absorption rates, an extremely dense clay body, high breaking strengths and kiln-fired permanent colors all come together to create Ludowici's practically maintenance-free products that will last for centuries.



UNIVERSITY OF SOUTHERN CALIFORNIA
Los Angeles, CA

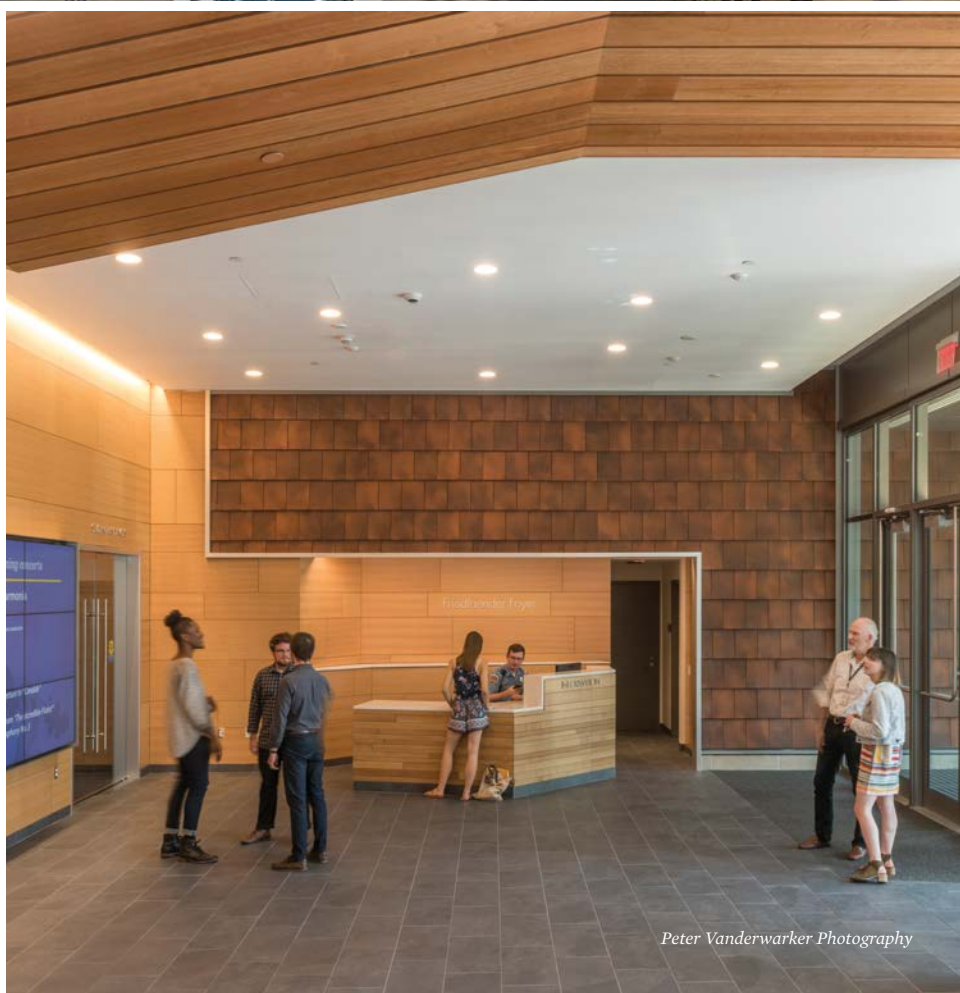
Ema Peter Photography, Steve Lerum Photography



NEW ENGLAND CONSERVATORY OF MUSIC
Boston, MA

CUSTOM COLOR CREATION

The architects of the New England Conservatory of Music Student Life and Performance Center wanted a strong identity, longevity and above all to avoid the typical repetitive façade and window designs that populate the streets of Boston. Working with color experts at Terreal North America, they were able to create a custom color pattern that increasingly lightens as it reaches the top of the building. The shadow-lines of the NeXclad 16 façade modules and the custom color create a dazzling, unique effect.





OKLAHOMA STATE UNIVERSITY
Stillwater, OK



GLAZE DURABILITY

By selecting a Ludowici terra cotta color, you get piece of mind for color performance and color stability for over 100 years. Ludowici has glazed terra cotta tiles still installed from the late 1800's and early 1900's where the colors are still performing beautifully, even in severe weather climates.





QUALITY

Ludowici uses the highest quality, locally sourced raw materials available. Combining these materials with Ludowici's strict manufacturing specifications results in products that exceed ASTM C 1167 grade 1 standards. Ludowici products are impervious to the elements due to their low moisture absorption rates and very high breaking strengths.



KING KAMEHAMEHA SCHOOL
Honolulu, HI

GREEN



Terra cotta products are naturally green, free from synthetic and toxic materials and can provide energy savings benefits. Rejected or broken terra cotta pieces can be crushed and re-used. At the end of their usable life, terra cotta tiles can be used as drainage fill or landscaping through the existing brick recycling stream.

DURABLE

Properly manufactured and fired terra cotta roof tiles are formed into a dense glass-like material with a water absorption rate of <2%. This very low water absorption rate keeps moisture out and allows the tiles to last centuries – even in areas of heavy rainfall and significant freeze thaw cycles.



EMORY UNIVERSITY
Atlanta, GA





EMORY UNIVERSITY
Atlanta, GA







COMPANY LONGEVITY

Our history speaks for
itself – building owners and
architects have been trusting
Ludowici since 1888.





SUSTAINABLE

Terra cotta products are very long-lasting and reusable, making them one of the lowest life-cycle cost roofing products available. When manufactured to proper specifications, terra cotta tiles will adequately perform for over 100 years.

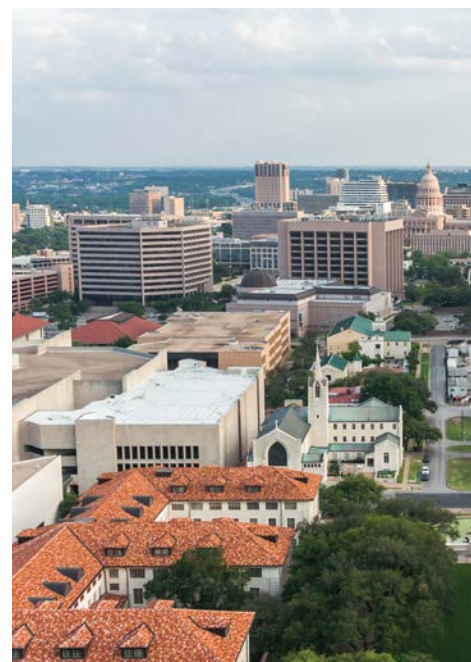


COLOR PERMANENT

Ludowici products are produced with the finest clays in the world and can be treated with historically proven glaze technology resulting in permanent colors that will last for more than a century.



UNIVERSITY OF TEXAS
Austin, TX







VANDERBILT UNIVERSITY
Nashville, TN







COLOR MATCHING

When an architect like Michael Graves has a color vision, Ludowici and Terreal North America take that vision seriously. Ludowici's team of color experts work with architects and designers to create custom color blends, including matte, gloss, and multi-spray glazes for both roof tiles and wall tiles.



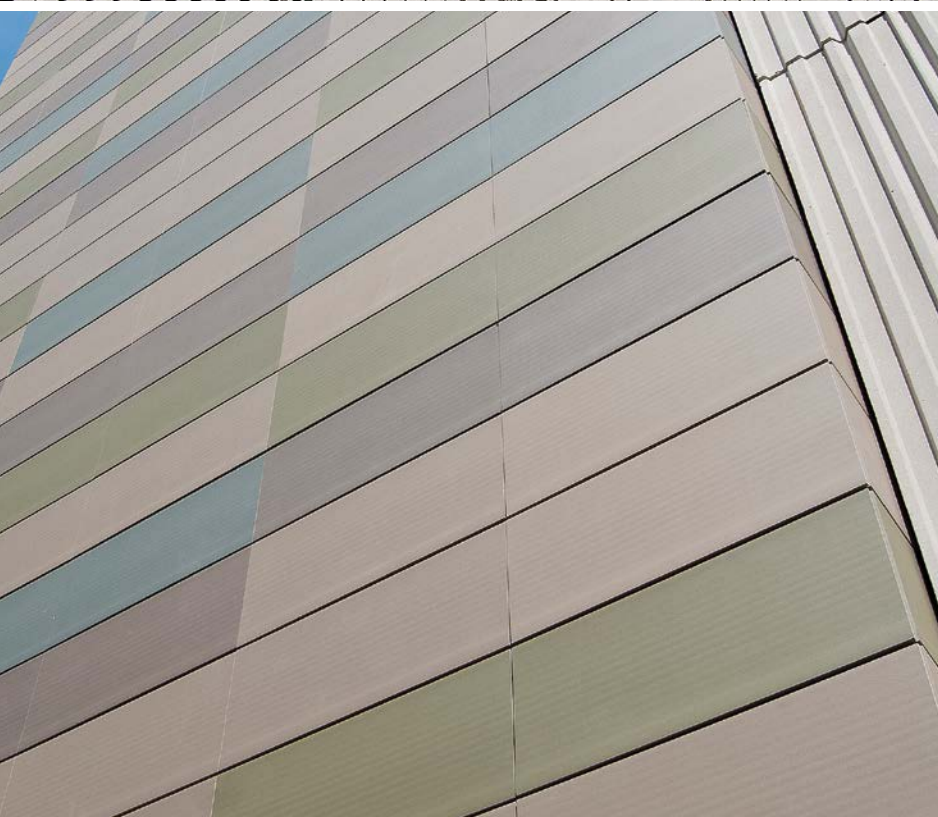
INDIANA UNIVERSITY-PURDUE UNIVERSITY INDIANAPOLIS
Indianapolis, IN



A MODERN USE OF THE MOST TRADITIONAL BUILDING MATERIAL

The integration of terra cotta planks for wall cladding and linear baguettes for solar shading allows designers and building owners the opportunity to create clean, modern architectural styles utilizing the most traditional building material, clay.







DUKE UNIVERSITY
Durham, NC

Robert Benson Photography

PROVEN TECHNOLOGY & PERFORMANCE

Terra cotta products, including clay roof tiles, have been protecting cities and villages in Europe and Asia for thousands of years. Benefit from selecting a building product with over 8,000 years of proven performance and 100-year plus life expectancy.



NORTH CAROLINA SCHOOL OF SCIENCE & MATH
Durham, NC



COLLEGE OF WILLIAM AND MARY
Williamsburg, VA



TEXAS CHRISTIAN UNIVERSITY
Fort Worth, TX





PRINCETON UNIVERSITY
Princeton, NJ

COST EFFECTIVE

With one of the lowest life-cycle costs of any roofing material, and considering roofing can be less than 5% of the complete construction costs, Ludowici roof tiles are a cost effective choice.





FLORIDA STATE UNIVERSITY
Tallahassee, FL



NON-FADING

Due to time-tested kiln firing processes that are longer and hotter than typical manufacturers, Ludowici's products will not chalk or fade over time even in the most severe UV exposure environments.

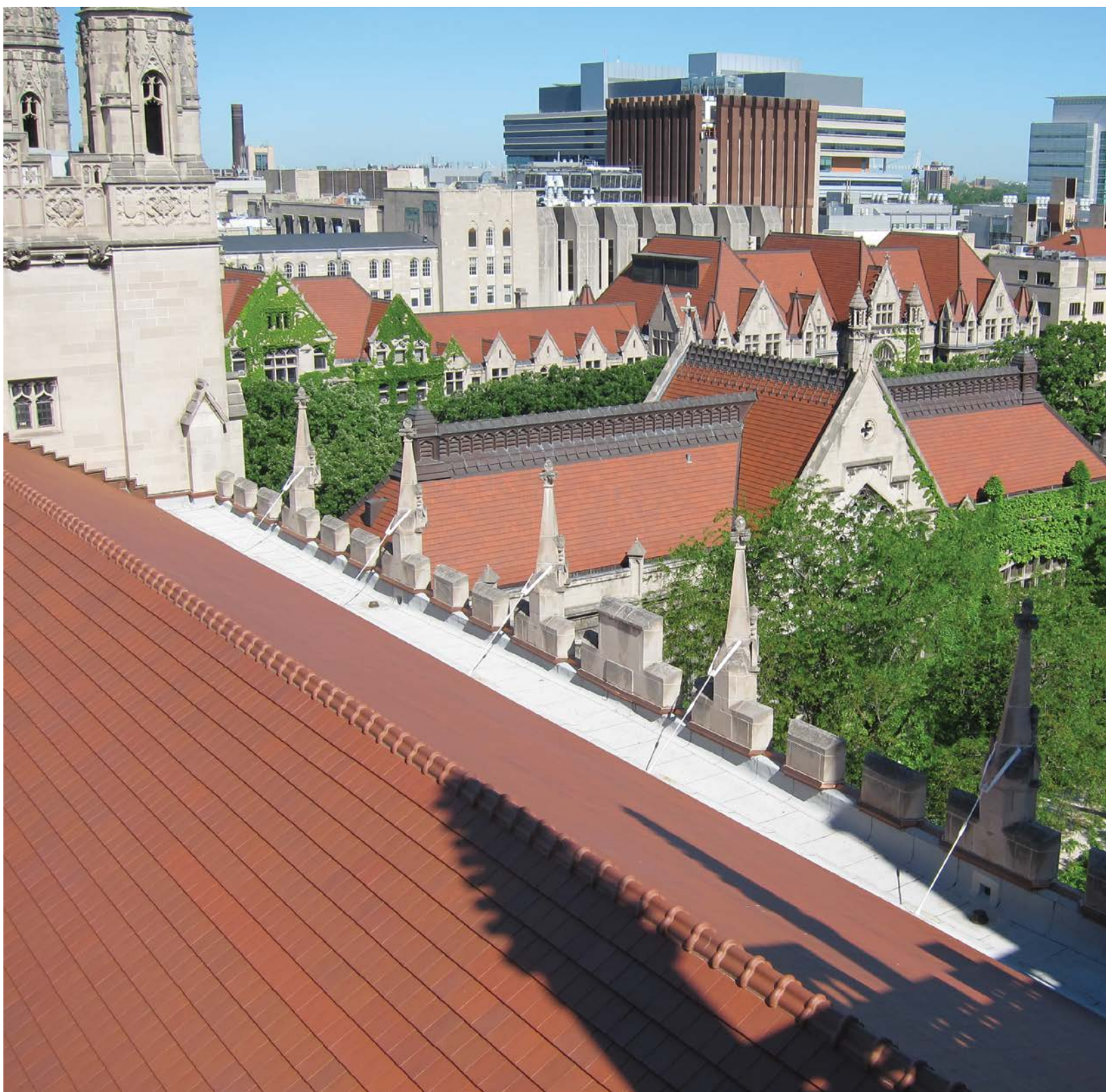




UNIVERSITY OF CHICAGO
Chicago, IL

ULTIMATE BREAKING STRENGTH

Ludowici roofing products exceed the ASTM C 1167 requirements for breaking strength, assuring that your building's roof will withstand typical walkability and last for centuries.





UNIVERSITY OF TENNESSEE
Knoxville, TN

LEED CREDIT

By using Ludowici terra cotta roof tiles, LEED credits are possible based on the color selected, recycled content and material health. 1-2 LEED credits can be earned for LEED approved colors that meet an initial Solar Reflective Index (SRI) >39 or a 3-year aged SRI >32. Additional LEED MR credit is possible based on the recycled content of the raw materials. MR credit based on material ingredients can also be earned including Cradle to Cradle certified for material health, material reutilization, renewable energy and carbon management, water stewardship and social fairness.





LOUISIANA STATE UNIVERSITY
Baton Rouge, LA



UNLIMITED COLORS

The color and texture of a roof help tell the story of a structure, so it's important to get it right – especially when historical accuracy must be maintained. Ludowici is widely accepted as the industry expert in glazed terra cotta tile. With over 50 designer colors and the ability to custom-match nearly any hue, the color possibilities are endless. Ludowici creates its colors by various ceramic glaze spray applications in either matte or gloss sheens. Plus, our color glazes are kiln-fired at extreme temperatures during production, fusing the color into the tile and ensuring that the original tones and hues are retained for generations.





The **NATURAL CHOICE**

Terra cotta is a natural building material that is easy to find and abundant to harvest. With the addition of water it is simple to shape and fire into a long lasting, effective building product.



EDUCARE WINNEBAGO
Winnebago, NE

Tom Kessler Photography



UNIVERSITY OF TEXAS SOUTHWESTERN
Fort Worth, TX



OREGON STATE UNIVERSITY
Corvallis, OR



MONMOUTH UNIVERSITY
West Long Branch, NJ



Steve Wanke Photography





LIGHTWEIGHT OPTIONS

Ludowici offers several terra cotta roofing products that are considered lightweight at 600 lbs per square. This is slightly heavier than saturated, designer asphalt shingles yet much lighter than concrete tiles and medium thickness natural slates.



Matthew Kirschner Photography



COPPIN STATE UNIVERSITY
Baltimore, MD



RUSTIC



FORMAL

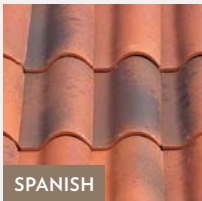


SHINGLE TILES

Ludowici's shingle tiles can be divided into two broad categories based on the aesthetic they exude: Rustic and Formal. With small exposures and unique surface textures, our shingles can be infinitely customized to meet your specific roofing needs.



MISSION



SPANISH

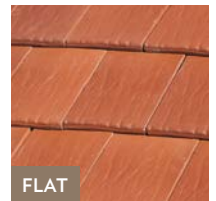


BARREL TILES

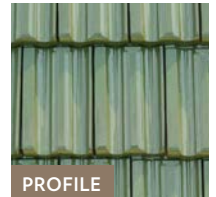
Ludowici offers a wide range of barrel tiles, so called because of their convex barrel-like shape. The tiles are divided into two varieties based on their design origin, Mission and Spanish, and they are fully customizable.

INTERLOCKING TILES

With graceful proportions and classic aesthetics, Ludowici's interlocking tiles combine an elegant appearance with installation efficiencies. Each tile features different surface textures and interlocking sides, and you can choose from a range of flat and dimensional profiles.



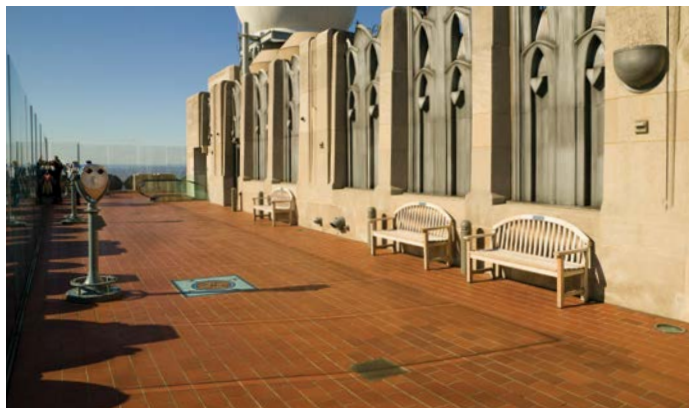
FLAT



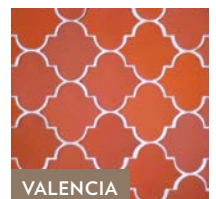
PROFILE

QUARRY TILE FLOORING

Ludowici quarry tile can be found at institutions across the country, including the White House and Rockefeller Center. This high-traffic commercial-grade flooring option is made from the same clay and firing techniques as our roof tiles. Available in standard and custom matte colors and smooth or non-skid surfaces, it's suitable for any climate or application and comes with a 75-year material warranty.



PROMENADE



VALENCIA

WALL CLADDING

Through our sister company, Terreal North America, Ludowici offers a wide variety of highly innovative terra cotta wall cladding products. Beautiful, durable ventilated facades, acoustic claddings and terra cotta panels — combined with unsurpassed customization capabilities — offer limitless architectural possibilities for projects in any climate.



SOLAR SHADES

Terra cotta solar shades provide a uniquely beautiful way to absorb and diffuse sunlight from building exteriors, creating an effective barrier against summer heat. Ludowici offers Terreal solar shades that come in a wide range of lengths, cross-sections and colors. Tap into our engineers for help designing a shade system that meets the specific functional and decorative needs of your project.



LUDOSHAKE



CENTURY SHAKE



SHAKE

Crafted from sustainable high-quality clay, LudoShake, LudoShake Premier and Century Shake® are the most natural-looking, longest-lasting and affordable wood shake alternatives on the market. With options starting at just 600 lbs. per square, this lightweight alternative is perfect for even the most sensitive installation.



LUDOSLATE



LEXINGTON SLATE



SLATE

Compared to natural slate, Ludowici's elegant LudoSlate, LudoSlate Premier and Lexington Slate® tiles are extremely lightweight, starting at just 600 lbs. per square, and more affordable. At the same time, they're much more durable than synthetic slate. Fewer pieces per square mean this slate alternative is also installation cost-friendly.

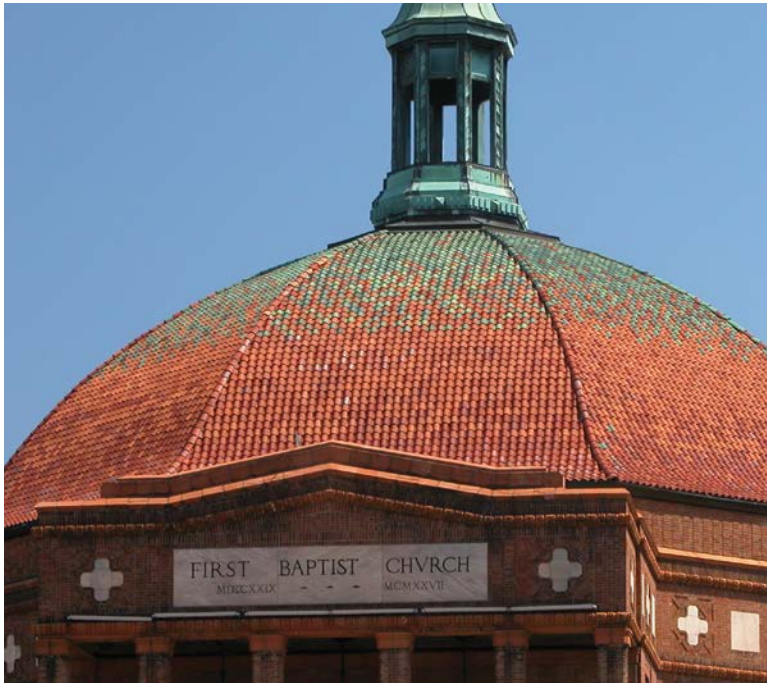
THE COLORS & TEXTURES *of Ludowici*

Terra cotta by its very nature is warm, earthy and inviting. Enhancing the natural qualities of terra cotta by adding a glaze mixture prior to firing can create spectacular colors that cannot be replicated on other materials like asphalt, synthetics, wood or concrete.

Creating the color of a terra cotta roof tile is part science and part art. A range of tones always exist within any given color — it is impossible to produce a monochromatic terra cotta roof tile. The range of tones that arise from the manufacturing process is a normal and very desirable feature of natural clay tile, imparting richness, character and a more dimensional appearance to the roof.

Ludowici's high temperature firing process produces vibrant colors that do not fade, spall, effloresce, or significantly change over time. This is why we are one of the only manufacturers to include color in our industry leading 75-year material warranty.

At Ludowici, we pride ourselves on our long history of color mastery. Our expert ceramic engineers have developed an impressive array of standard design colors and hundreds of custom colors over the years to meet the needs of design professionals all over the world. They work hand in hand with architects, designers and building owners to not only create beautiful custom colors, but also color blends, mixing multiple colors to create a subtle, or a dramatic one-of-a-kind roof statement.



COLORS OF LUDOWICI

With over 50 designer colors and the ability to custom match nearly any hue, the color possibilities are endless. Plus, our color glazes are kiln fired at extreme temperatures during production, fusing the color into the tile and ensuring that the original tones and hues are retained for generations.

STANDARD COLOR BLENDS



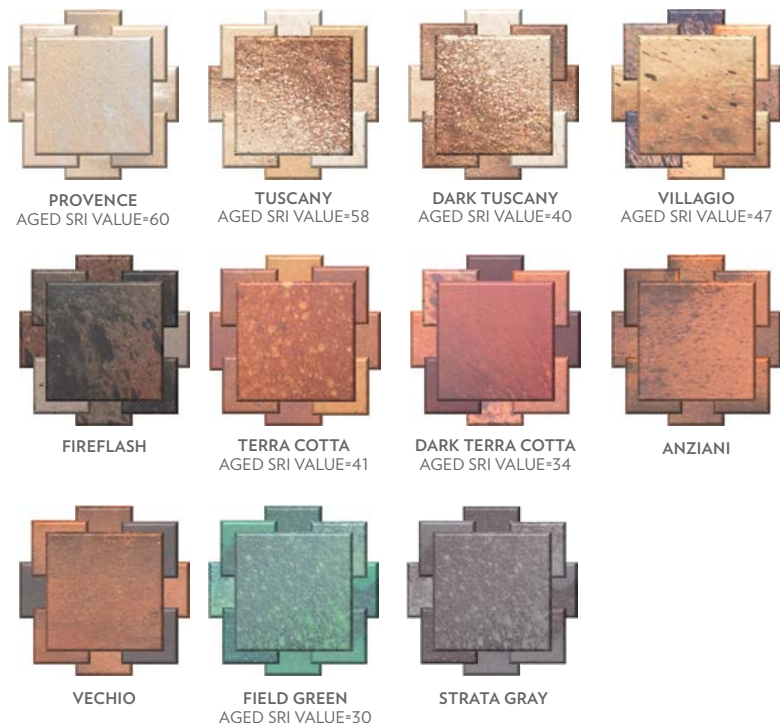
*Gloss glazes

IMPRESSIONIST SERIES BLENDS

The Impressionist Series utilizes two or three complementary shades applied randomly over a base color to create the patina of a century old roof.

Standard blends can be selected or custom blends can be created using different percentages of the Impressionist Series colors.

The Impressionist Series colors are available on all barrel, interlocking and shingle tiles, excluding French.



TERRA COTTA TEXTURES

At Ludowici, our skilled craftsman can recreate a number of finishes that authentically replicate the surface of age-old tiles. Custom textures can be applied to match historic applications or to meet your specific design aesthetic. Textures reduce glare reflecting off the tile and allow the true color to show through. Many tile textures are applied by hand which allows each tile to have a unique, handmade look.



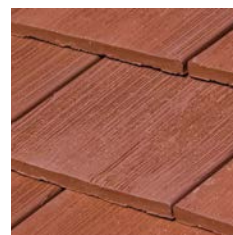
SMOOTH



FINE MACHINE SCORE



MEDIUM MACHINE SCORE



HAND ROUGHED



PINHOLE



WEATHERED



HAND SLUSHED



BATTERED & BRUSHED BUTT



BATTERED BUTT



WARPED

Not every texture is available on every tile profile. Please see your sales representative for more details.



FACTORY OF IDEAS

Ludowici's Factory of Ideas design center is a unique hands-on facility where visitors work one-on-one with our experts to design their new roof. Housed in a renovated 130-year-old factory building, visitors can browse our entire product line including decorative and historic tiles and trim, select clay tiles for their project, experiment with colors and blends and build mock-ups at the correct pitch and proper orientation for their project.

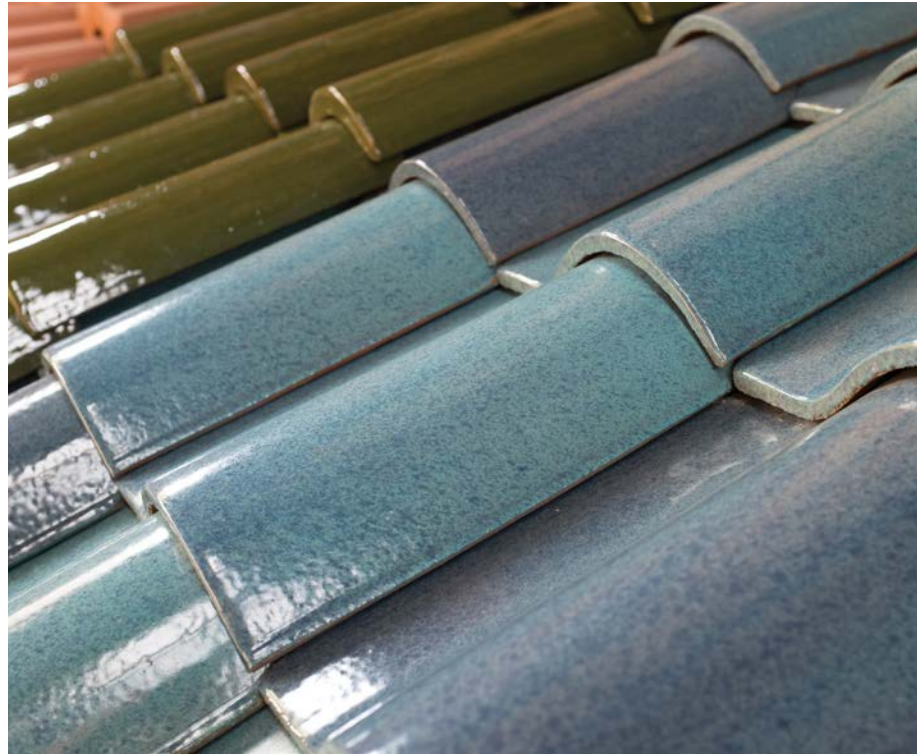
Visitors can study transitions, explore different trim styles and solve unique construction challenges with Ludowici experts, all with full-size tile and trim pieces. Once approved by the client, the mock-up serves as the template for the project.

And be sure to leave time in your schedule for a tour of our manufacturing facility. See firsthand how we create your tile and visit with Ludowici artisans at work.

HANDS ON EXPERIENCE

Our unique cart system allows you to take your mock-up outside and view it at the proper pitch and sun exposure.





LUDOWICI CROWN ROOFERS

Ludowici created the Crown Roofer program to ensure our roof tile is installed in a professional and accurate manner according to the highest standards possible. To qualify for the Crown Roofer program, firms are fully vetted by our staff to ensure they are a top notch roofing contractor dedicated to quality and craftsmanship.

LUDOWICI CROWN ROOFER REQUIREMENTS

- ♦ Be a current Ludowici contractor
- ♦ Be nominated by a member of the Ludowici sales team
- ♦ Pass an in-depth credit inquiry
- ♦ Participate in budgetary work on Ludowici projects as needed
- ♦ Market and promote Ludowici roof tile
- ♦ Support training program with skilled craftsmen
- ♦ Maintain two Ludowici factory-trained employees on staff



Ludowici Crown Roofers are the only roofing contractors able to offer the Ludowici Shield Warranty. To find a Crown Roofer near you, visit <http://www.ludowici.com/crown-roofer>



LUDOWICI SHIELD WARRANTY



At Ludowici we know the roof is the most critical component of the waterproofing envelope. In addition to our 75-year limited material warranty, Ludowici is proud to offer our Premium Service Program Limited Warranty, known as the Ludowici Shield Warranty. The Ludowici Shield Warranty offers commercial and institutional building owners the opportunity to purchase a 10- or 20-year weather tightness warranty that includes labor and material.

At the heart of the Ludowici Shield Warranty Program are Ludowici Crown Roofers — roofing contractors employing factory trained and certified craftsmen. Crown Roofers have been trained in the installation of Ludowici roof tiles and work closely with our technical team to design and install your new weather tight roof.

LUDOWICI SHIELD WARRANTY PROGRAM

DESIGN/DRAWING DEVELOPMENT

- ◆ Project architect specifies either a 10- or 20-year Ludowici Shield warranty and required underlayment, fasteners and critical and termination details
- ◆ Ludowici technical service department reviews plans and critical roof installation details prior to bidding
- ◆ Ludowici Crown Roofers are involved in budgeting if required

BIDDING

- ◆ Warranty pricing is determined prior to bidding
- ◆ Ludowici required underlayment and fasteners included in roof tile bid package

CONSTRUCTION

- ◆ Crown Roofer submits shop drawings illustrating all installation details to Ludowici for review and approval after order placement
- ◆ Underlayment is drop shipped to the job site
- ◆ Crown Roofer provides progress photographs during the installation of the underlayment and specific details identified by Ludowici

PROJECT COMPLETION

- ◆ Warranty is issued after all invoices are paid and all details and documents are completed

10 YEAR SHIELD
WARRANTY

20 YEAR SHIELD
WARRANTY

This program is limited to commercial and institutional projects in the United States. Fees will vary based on tile type and building conditions. Visit Ludowici.com for a copy of the Ludowici Shield warranty and all applicable terms and conditions.





AIA CONTINUING EDUCATION

Ludowici values education and makes it a priority to provide this as a service for architects and building designers. This includes learning presentations and factory tours available for CEU credits for AIA members.

Ludowici offers three distinct courses that qualify for Health, Safety and Welfare (HSW) credits:

THE FUNDAMENTALS OF CLAY ROOF TILE (LRT-104)

1.5 Learning Units

This hour and a half program explores the benefits of using terra cotta roof tiles, including its green properties and differentiating qualities from other roofing materials. It also explores the types of terra cotta roof tiles, installation methods, accessories and other terra cotta tile applications.

LUDOWICI FACTORY TOUR (LRT-105)

2.0 Learning Units

When you visit the Ludowici manufacturing facility, you will get an up-close, in-depth look into the manufacturing of terra cotta tile, from the raw material grinding process to extrusion, glazing, firing and finally packaging and shipping. You'll also observe hand molding and customization techniques proprietary to Ludowici.

ARCHITECTURE & TERRA COTTA CLADDING (TNA-102)

1.5 Learning Units

Ludowici's cladding division Terreal North America offers a one and a half hour program detailing the science and sustainability of terra cotta rainscreen systems and terra cotta solar shades.



Ludowici Roof Tile (#J669) is an approved provider with the American Institute of Architects Continuing Education System (AIA CES).

All of these courses are available to you for free!

Visit ludowici.com/ceu to schedule your lunch and learn today!

The names of the colleges, universities and learning institutions associated with Ludowici products and project photography throughout this publication are by no means and should not be construed as an endorsement of Ludowici products by the associated institution but merely an illustration of the use of Ludowici products on learning institutions around the country.



David Wakely Photography

LUDOWICI®

4757 Tile Plant Road
P.O. Box 69
New Lexington, Ohio 43764

800-945-TILE (8453)
www.ludowici.com | www.terrealna.com

Ludowici and Terreal North America are your premier source for architectural terra cotta roof tiles, quarry tile flooring, wall cladding and solar shades.

For more information please visit www.ludowici.com and www.terrealna.com.

Get Social with Ludowici:
www.ludowici.com/social



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