



## the exterior

Michael and Christine Coates designed their new home based on time-honored principles and contemporary techniques. The windows allow for plenty of natural light, and a 'light chimney' lets in moonlight at night.

PHOTOS PROVIDED BY MICHAEL COATES

*The Home of the Month series is a collaborative effort with the N.C. State University College of Design through its Home Environments Design Initiative. Featured homes, selected by an expert panel, highlight the benefits of good home design and represent the diversity of homes and home renovations designed by North Carolina architects. The articles, written by faculty, graduate students and alumni of the School of Architecture, bring to light the exemplary attributes of each home. Our goal is to offer inspiration and knowledge that can be applied to your living space.*

# Traditional, in a new light

By DAVID HILL  
CORRESPONDENT

**M**odern or traditional? When speaking of houses, this is usually a simple question of taste or style. For Michael and Christine Coates, who see substance and virtue in old and new, the answer is clearly both. The couple designed their new home in the Orange County town of Rougemont based on time-honored principles and contemporary techniques.

Though the house is unmistakably modern, its lineage can be traced to old farm structures around Rougemont. Michael admired the modest, functional structures that not only stood the test of time, but also displayed the passing of time in their rusting metal roofs and graying wood clapboards. The barns and sheds that stand proud on the rolling farmlands inspired the Coateses to think of their home in a similar way.

Their house would never be confused with a barn, but like the indigenous farm buildings, it rests comfortably on the gently sloping landscape. Architect Michael Coates positioned the house on the site so that it is "first

## the project

### Modern Foursquare

#### Architect

Michael Coates

#### Design

Christine Coates

#### Design team

Little Diversified Architectural Consulting, 410 Blackwell St., Suite 10, Durham

#### Project location

Rougemont

#### Square feet

2,500 (heated),  
900 (unheated)

#### Budget

N/A

#### Key attributes

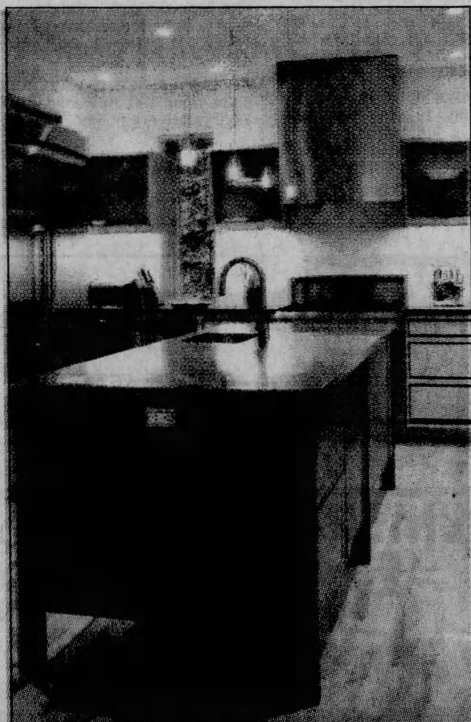
Modern design based on traditional patterns, finely crafted cabinetry, daylight and views

#### Contributors

Riley & Walker Construction (Contractor), Cabe Ford Road, Durham

Daniel Wray, PE (engineer), 5815 Westpark Drive, Charlotte

Michael Coates, Brian Watson, Gang Wang (photographs), 410 Blackwell St., Suite 10, Durham



The house includes stainless steel appliances, elegant maple cabinets and hardwood floors.

SEE **TRADITIONAL**, PAGE 4D

## TRADITIONAL

CONTINUED FROM PAGE 1D

viewed through an existing clearing that rises 40 feet" from the approaching drive. The effect is dramatic, unexpected and beautiful.

## Foursquare revisited

Some architects' designs are known for inventive forms and new ideas. The Coates House, however, may be best described as a re-invention, because it is based on a traditional foursquare pattern. The foursquare plan was popular in the United States throughout the early part of the 20th century. Sears Roebuck and Co. sold more than 100,000 kit houses, many based on the foursquare layout. The pattern is characterized by its square plan with four main public rooms (living, dining, kitchen, and



Architect  
Michael  
Coates

study) on the first floor, and four bedrooms on the second floor. The houses had compact footprints and were intended primarily for small-lot, urban neighborhoods.

Michael Coates, who had worked on several traditional houses early in his career, thought of developing a pattern book that would catalog the foursquare and other conventional plans. His fascination with traditional patterns is evident, but his house is not stuck in the past.

The Coateses have made clever updates to the foursquare pattern. They removed the walls that typically would have divided the kitchen and dining room from the living room, and the resulting open floor plan makes the house feel much larger than 2,500 square feet. They remained true to the foursquare diagram by placing a stairway close to the main entry. The steel and wood stair ascends to a wide landing that doubles as li-



The lapped cedar boards add detail and texture to the exterior walls of the 2,500-square-foot home.

brary and reading area overlooking the living room.

Another major difference between the Coateses' version of the foursquare and its Sears predecessor is the amount of natural light that floods the interior. The couple's house has expanses of windows — many operable — that are positioned and sized to illuminate the interior evenly and provide views of the site's many hardwood trees.

Traditional foursquare homes tend to be dark in the middle, because the rooms are deep. Coates designed a "light chimney" — a type of vertical skylight — that "aids in the notion of a lighter, open interior and connectivity to the surrounding environment." By night, the windows and light chimney allow the family to enjoy views of the sky and the way the "interior glows with moonlight," says Michael Coates. The foursquare inspired the house's form and plan, but for Michael, the real beauty lies in the finely crafted details evident throughout the house. Though they hired contractors for some of the major tasks, such as forming foundation walls and framing the wood structure, the Coateses spent countless hours building portions on their own. The couple has collaborated to design and build elegant maple cabinetry that accents each room and matches the hardwood floor and living room ceiling.

Coates' humble demeanor belies his sophisticated approach to home design. He is more apt to talk about the wildlife that he has encountered on the site than the stacks of sketches and numerous three-dimensional computer models that helped him "see" the house before it was built. And rather than pointing out the intricate detailing of the maple cabinetry and the mahogany entry door — which he handcrafted — Coates speaks about the way the house's compact, open form gives his family a greater sense of togetherness.

## Material matters

The main materials are both durable and beautiful. Most of the house is clad in Corten steel panels and cedar siding. The siding is common among houses of many styles in North Carolina because it is easy to install and provides good protection from the weather. The lapped cedar boards also add detail and texture to the exterior walls.

The dark gray Corten panels were delivered to the site and quickly developed a thin coating of orange-brown rust on the surfaces. For most metals, rust is a sign of degradation, but the oxidation on the surface of Corten panels forms a protective coating that inhibits internal corrosion. This may sound like an exotic material, but several buildings in North Carolina are constructed with metals that change color. The State Capitol and many campus buildings at N.C. State and UNC-Chapel Hill, for instance, are clad with bronze and copper that develop a soft green patina as they age.

The whole structure rests on cast concrete foundation walls, some of which extend into the site like tree roots. The concrete walls define walkways and a terrace that "engages the landscape to create a cohesive connection between building and site."

## Beauty and efficiency

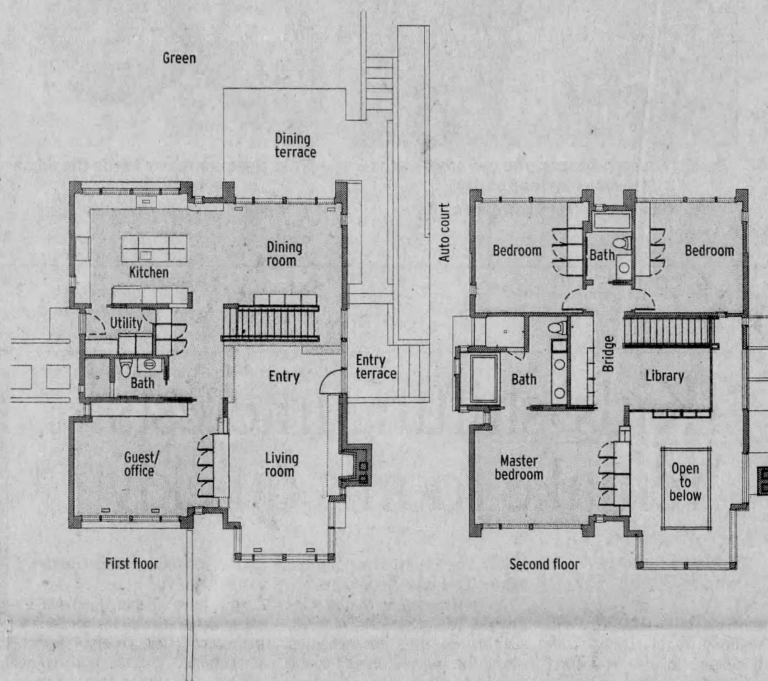
Efficiency and sustainable design principles are inherent to the foursquare scheme. Its cubic shape defines spacious interiors with minimal exterior surface area. This reduces the amount of material needed to clad the house and minimizes the house's exposure to weather. There is no wasted space in the Coates house because the foursquare plan does not require hallways to connect rooms.

Similarly, the Coateses carefully planned their house based on a 4-foot module so that there would be very little wasted material. Many building materials such as drywall and plywood are manufactured in standard 4- by 8-foot



The steel and wood stair ascends to a wide landing, creating a bright, open reading area that overlooks the living room as well as the trees outside.

PHOTO PROVIDED BY MICHAEL COATES



sheets, so the couple rarely had to throw away material trimmings. Michael Coates points out that they "didn't need a single Dumpster for the whole project" — a remarkable accomplishment for a three-bedroom, three-bath house. Coates designed the exterior wall with 2- by 6-inch framing rather than 2- by

4-inch studs. The extra 2 inches of wall depth results in a higher upfront cost, but allows for greater insulation thickness and therefore lower energy bills.

Many architects spend their time designing for other clients and will admit that their most difficult design project is their own home. Christine and Mi-

chael have made it all look easy. Their house proves that efficiency and beauty can coexist by building traditional and modern ideas on common ground.

David Hill is assistant professor and director of graduate programs at the School of Architecture at N.C. State University's College of Design.

# Fall Sale

October  
10/25-10/31

Lamps, Lamp Shades, and Accessories

20-50% regular retail

Please bring your lamp in for proper shade fitting!

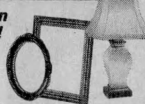
The Shade Tree

859-1923

\*Sale does not apply to proms

Mon.-Sat. 10-5 5517 Western Blvd. (next to Fred's Bobs)

LAMP REPAIR & RESTORATION • CUSTOM ASSEMBLY OF NEW LAMPS • BEAUTIFUL ACCESSORIES



Decorate Now For The Holidays!