

Beili Residence "Hluleka"



Type of Construction: Stick frame

Date of Completion: Oct 2005

Building Size: 1450 sq ft

Major Funding: Bank financed

Certification: HealthyBuilt Home
Gold-Level Certified

Builder: The EcoBuilders, Inc.
www.theecobuilders.com

Designer: Studio Dionisi Incorporated
www.ashevillemodern.com

Renewable Energy: Thermacraft
Energy Services LLC
www.thermacraft.net

Site Plan: Studio Dionisi Incorporated

Location: Asheville, NC (Montford)

Locale: Urban

The **Beili Residence** was designed by Stephen Beili of Studio Dionisi Incorporated and built by The EcoBuilders, Inc. 'Hluleka' is located within easy walking distance of downtown and holds a working studio space, shower and guest bed in the basement with a loft bedroom above the main living space.



Beili Residence

Site & Water Conservation

- Composting toilet port-a-potty used during construction
- Cherry/Oak forest in backyard preserved
- Native trees planted (Dogwoods especially)
- Cardboard layers under mulch as biodegradable weed prevention
- Energy Star® dishwasher
- Low-flow plumbing fixtures (toilets at 1.6gpm and kitchen sink at 2.0gpm)



Upper Level Bathroom



View of the Cherry/Oak Forest From Back Porch



Beili Residence



Kitchen

"I love the natural lighting and interior colors in my house, the forest in my backyard, and the infill development aspects of walking downtown. I'll go days without getting in my car. I love the glamour of my house; I call the work that I do "**Ecoglam**"." - Stephen Beili, Studio Dionisi Incorporated and Homeowner

Sustainable Materials

- Exposed concrete floor on the bottom level of home (reducing need for any additional material on top)
- White Pine for staircase provided by a local sawmill
- Salvaged 1950's gas range used for stove
- Birch veneer plywood used as some of the flooring
- Max Floor zero-formaldehyde sub-floor
- Pre-coated Maibec cedar shakes with full drainage plane backing to prevent rot
- Local recycled steel used for stair brackets and cabinets in kitchen
- Superior Walls
- Locally-made coffee table, slide shade on window and ginkgo-leaf resin frosted window for shower



Beili Residence



Living Room/Main Floor

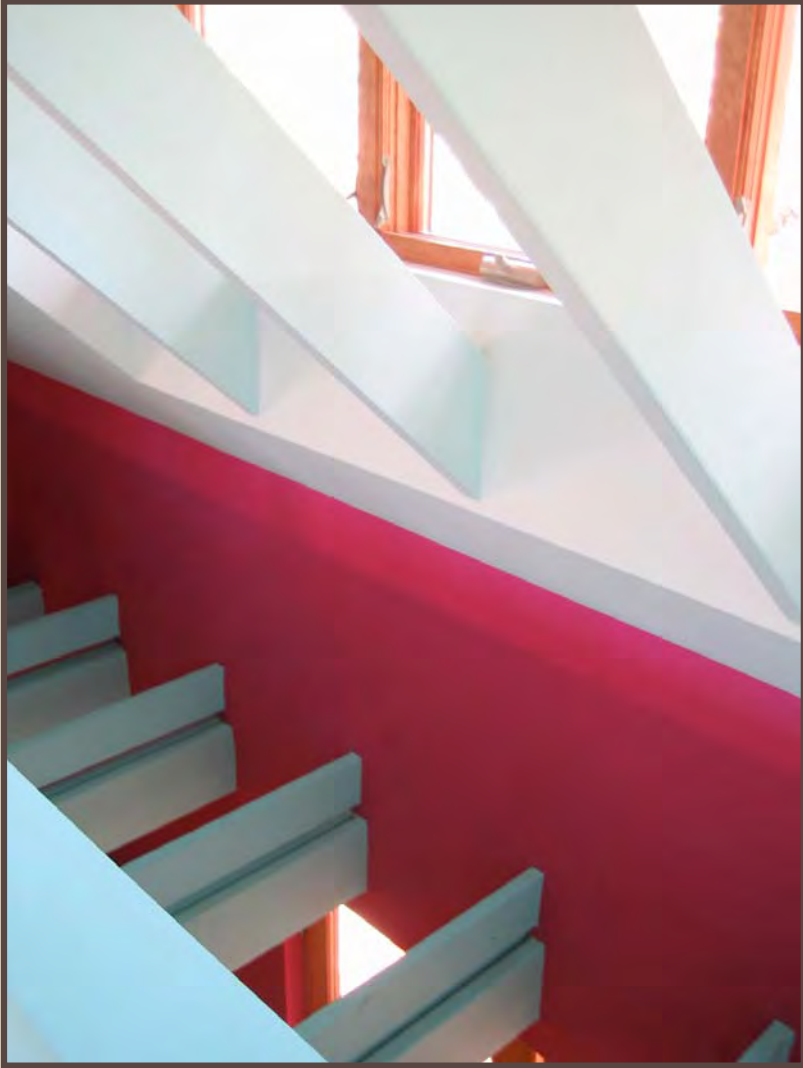
“Where I lived before, green building was focused on natural materials. Watching the documentary film, *Kilowatt Ours*, helped me understand why we're focused on **energy efficiency** and now I give copies to all of my clients.” - Stephen Beili, Studio Dionisi Incorporated and Homeowner

Energy

- Advanced framing techniques implemented
- Superior walls (pre-cast concrete basement walls that are more efficient and use less concrete)
- Icynene insulation
- Radiant floor heating / ductless air conditioning positioned to work properly for the entire house
- Radiant floor heating and domestic hot water run off the same efficient tankless hot water heater
- Extensive air sealing of house envelope to prevent air infiltration
- Energy Star® dishwasher and refrigerator
- Many compact fluorescent light fixtures and bulbs installed
- Natural daylighting throughout, especially in areas that are below grade and would normally require electric lighting during the day



Beili Residence



Daylighting and Exposed Beams with Low and Non VOC Finishes

Ginkgo-Leaf Resin Frosted Window for Shower



Indoor Air Quality & Health

- Natural daylighting throughout
- Shower fans on timers
- Continuous running exhaust fan
- Low and non VOC finishes on interiors



Beili Residence

The hardest part of building this green home was “figuring out the mechanical systems since **I didn’t want any ductwork**. We eventually decided on **radiant heat**, a Panasonic mini split for air conditioning and a passive air inlet for fresh air.” - Stephen Beili, Studio Dionisi Incorporated and Homeowner

“Hold on to the green stuff but when the budget gets tight **put off other expensive things like cabinets and landscaping until later**. Hire the professionals: engineer, builder, and designer. Find out about solar and historic tax incentives because a home in my neighborhood had one third of its renovations paid for through a state tax credit.” - Stephen Beili, Studio Dionisi Incorporated and Homeowner



Opposite View of Kitchen

