

Innovations in Residential Design and Construction

30 Case Studies

JAMES GRAYSON TRULOVE and IL KIM

Nomentana Residence 1997 SCOGIN ELAM AND BRAY ARCHITECTS, INC.

Owner: Margaret Nomentana

Architect: Scogin Elam and Bray Architects, Inc.,

Atlanta, Georgia

Design Team: Merrill Elam, Mack Scogin, Lloyd Bray (principals), Denise Dumais, Martha Henderson Bennett, Jeff Atwood, Tim Harrison, Ned Frazer, Elizabeth Pidcock, Kathy Wright, Dustin Lindblad, Juan Du, Penn Ruderman (design team)

Engineer: Uzun and Case Engineers (structural)

Consultants: Michael Van Valkenburgh Associates, Inc. (landscape architects), Ramon Luminance Design (lighting)
General Contractor: Mark Conforte, Conforte Builders

Photography: Timothy Hursley

Location: Lovell, Maine

Program: Drawing studio, dog room and runs, living, dining and sitting rooms, library, kitchen, master suite, guest suite, two-car garage, detached painting studio, porches

Square Footage: 4450

Structural System: Wood and steel frame on concrete

Mechanical System: Worsbo Radiant and natural ventilation, Burnham Gas Boiler

Major Exterior Materials: Cementitious fiber board and pre-weathered zinc cladding, wood and aluminum window and glazing systems

Major Interior Materials: Concrete floors, painted drywall Furnishings and Storage: Custom stainless steel cabinets in kirchen

Doors and Hardware: Omnia Windows: Granite State Glass

Fixtures: Kohler

Appliances and Equipment: Viking (range)

Cost: Withheld at owner's request



The site is located in Oxford County, Maine, in the southwest corner of the state, approximately 30 miles from the New Hampshire border. A modest 2.8-acre site yields an intimate but expansive view across Horseshoe Pond to Lord's Hill, the easternmost boundary of the White Mountains National Forest. Approximately two-thirds of the site slopes downward to the pond. Tree cover is a combination of hardwoods and evergreens. In the winter months snow accumulates in depths of 4 or 5 feet and high winds off Mount Washington can persist for hours or even days. The closest grocery store/gas station is 15 miles away from the site via narrow country roads, some unpaved.

Design

The house represents both a return to the forest and a return to the studio for an artist/client too long removed from each. The client, who was relocating from Venice Beach, California, purchased the property in the dead of winter, while the earth was beneath 5 feet of snow. Site visits required that snowshoes be worn.







The house is perched at the brink of the downward slope to the pond. It sits on "constructed earth," a built datum that extends westward to the pond. Embracing its surroundings, the house transfigures the site through a series of externally expressed internal spatial events that frame, focus, enclose, open up, extend, compress, and celebrate. The house loosely refers to and reinterprets the Maine tradition of "big house, little house, back house barn." Its design is a result of form added on to form, spaces closely clustering, resisting the long, harsh Maine winters and giving the impression of small "house-towns." The rooms of the house are never alone. They are always in visual and spatial communication with each other. Because of this, and even though the house is rural and remote, it never feels isolated.

The distribution of the rooms, each with its own orientation and unique relationship to the site, works to make each feel much larger than it actually is and its architectural personality is directly related to its position

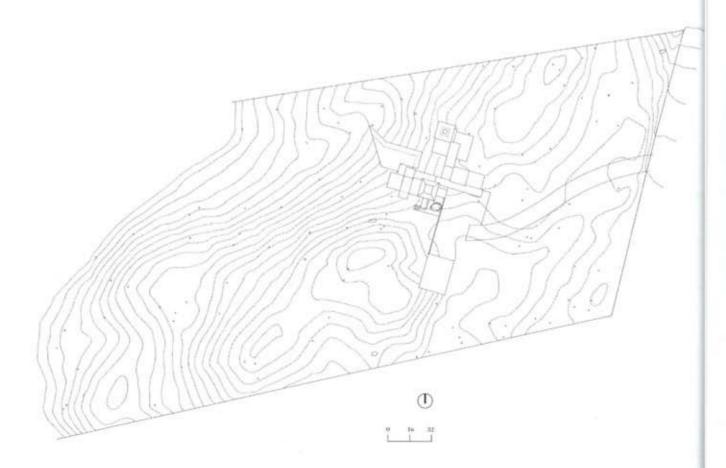
In the end however, the house is all about the client. According to the architect, it could not have been built for anyone else. Many aspects of the house are highly emblematic of the client and her interests. The entry spaces, a vertical library with a glass impluvium at its center, speaks at once to the client's love of the outdoors and her voracious appetite for books and reading. Both the client's drawing and painting studios are important architectural elements in the three-dimensional configuration of the house. A mysterious little room, too small for human occupation, belongs to her dogs, who come and go and occupy enclosed and protected open space at their will and pleasure.

Construction

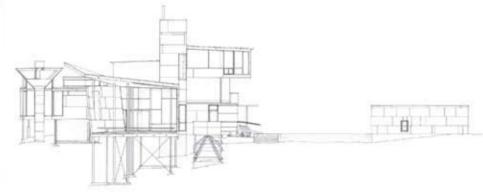
Construction of the house was phased so that the concrete foundations could be completed before freezing temperatures arrived. Once the foundations were in place, work on the steel superstructure and wood framing and sheathing progressed throughout the winter months. The client's initial impulse was for a cast-inplace concrete house. However, the logistics of building a concrete house in the remote Maine woods proved to be prohibitively complicated and expensive. As a result, the house is sheathed in cementitious fiberboard. The physical characteristics of the board, such as its joint patterns and tendency to move and crack in certain ways and along certain lines, mimic cast concrete. Exterior cladding of the painting studio and front door assembly is preweathered zinc. Windows are double panes in painted Spanish cedar frames. Operable windows and exterior sliding doors are clear insulating glazing in painted aluminum frames. Interior finishes include drywall, concrete floors, and ceramic tile on selected bathroom walls. The kitchen cabinets are custom-made of stainless steel. The house is naturally ventilated in the summer and heated in the winter by an in-floor radiant system.



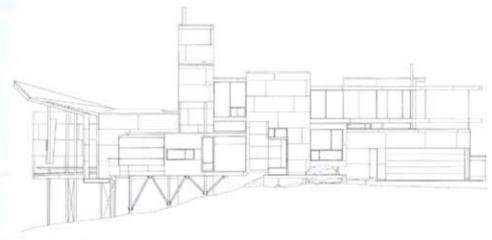
Site plan ABOVE: West porch



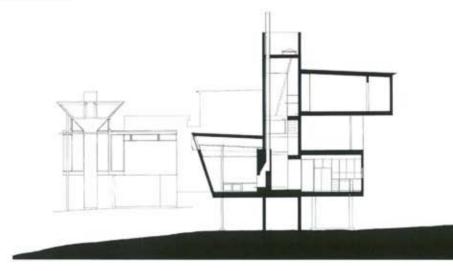
West elevation



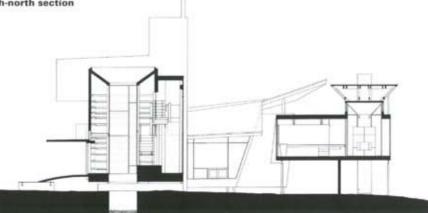
South elevation

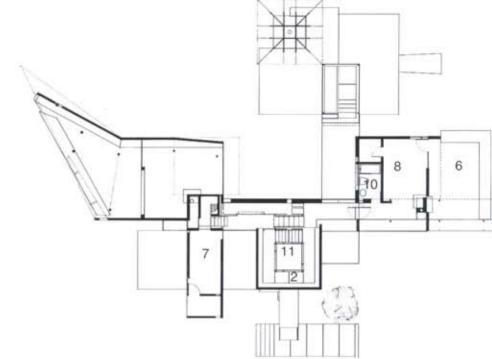


North-south section



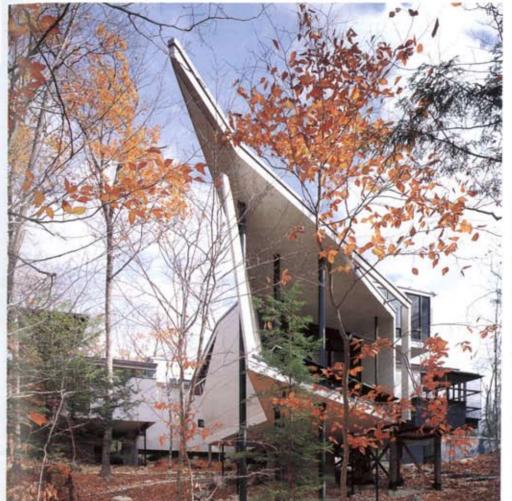
South-north section





















LEFT: Living room looking west BOTTOM: Living room looking east





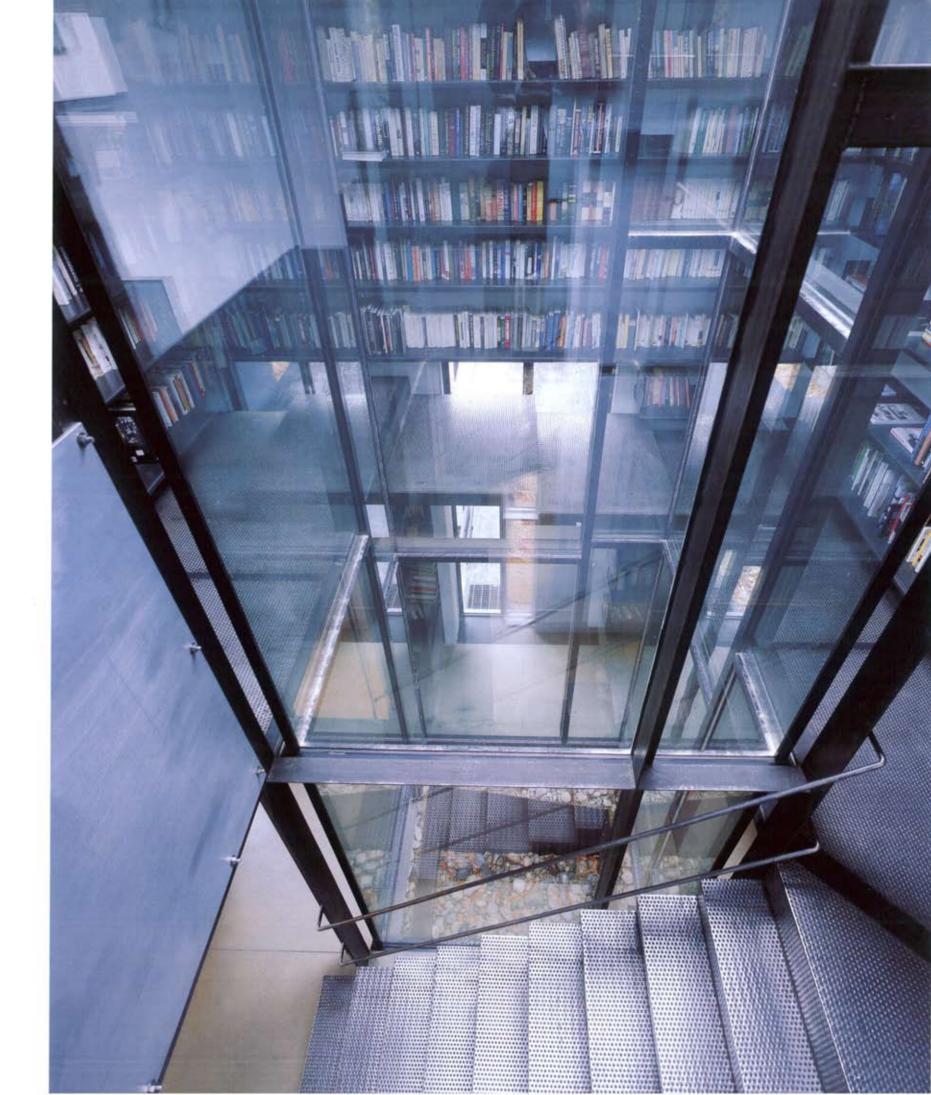








LEFT: Library, upper floor BOTTOM: Library, lower floor FACING PAGE: Library looking into impluvium



64 Wakefield 1999 SCOGIN ELAM AND BRAY ARCHITECTS, INC.

Owners: Mack Scogin and Merrill Elam Architect: Scogin Elam and Bray Architects, Inc., Atlanta, Georgia

Design Team: Merrill Elam, Mack Scogin Engineer: Chris DeBlois, PE, Palmer Engineering (structural) Consultants: Edward L. Daugherty (landscape architect), Raymon Noya, Ramon Luminance Design (lighting) General Contractor: Wes Stone, John Wesley Hammer

Construction Company
Photography: Timothy Hursley

Location: Atlanta, Georgia

Program: Reconstruction after hurricane damage of living rooms, dining room, master suite, and kitchen; repair of studio and guest house, addition of lap pool, library bridge, and connecting "tunnel"

Square Footage: 3600

Structural System: Wood frame and poured-in-place

Mechanical System: Forced air heating and cooling Major Exterior Materials: Stucco, glass, concrete, steel Major Interior Materials: Painted drywall, cementitious

fiberboard flooring, marble, steel, concrete

Furnishings and Storage: Dowlyn Lloyd of Custom

Woodwork, Inc.

Doors and Hardware: Amarlite Windows: Dixie Glasshoppers, Inc.

Appliances and Equipment: Dacor (oven, cooking top), Asko (dishwasher), GE (refrigerator), Aqua Blue Pools, Inc. (pool

Cost: Withheld at owners' request

The house is located in midtown Atlanta. With automobile access to and from Peachtree Street only, the entire neighborhood is located on a cul-de-sac with no through traffic, a characteristic that has been attractive to families with children since the neighborhood's inception as a planned subdivision in the 1920s. The site at 64 Wakefield is small, 70 x 130 feet, with a shared driveway on the west property line. The long dimension is on the north-south axis. The limited area of the site is enhanced by "borrowed views" of an adjacent park and a nature preserve. Zoning codes require a 28-foot setback from the sidewalk and preclude building in the center portion of the site. Eave lines are restricted to 20 feet in height.

The project was one of renovation and new construction. In the fall of 1995, Opal, a dislocated Florida hurricane, ripped through Atlanta, leveling trees and wreaking havoc. A 6-foot-caliper water oak crushed the main house, leaving intact only foundations and a few walls on the north and west edges.

BELOW: Street façade BOTTOM: View of guest pavilion FACING PAGE: Street façade







Although covering the entire site south to north, the toppled tree did not badly damage the independent structures of the studio and the guest room located along the north edge of the property. Only minor repairs were necessary, but the construction process of rebuilding the main portion of the house prompted a program shift. The guest room and studio were joined to form a guest suite and a bridge/library was added connecting the guest suite to the main house.

Although the main house was all but destroyed, the foundations were found to be sound. Describing the legal limits of construction on the site, the foundations were used a a template. The architectural puzzle was the question of where to locate a lap pool. Dreams of exercise and relaxation; recollections of the design of the Josephine Baker house by Adolf Loos; visions of the Italian rationalists' health clinics-all fueled the desire for the pool. Logic and legal restrictions sent the pool to the second floor. The 50-foot width of the site offered the adequate length necessary for the pool. Spanning the spaces of the first floor, the pool gathers in the south light. Sheltered from the street by translucent glass panels but open to the sky and air, the roof deck and pool challenge the notion of public/private spaces.

Aside from the necessity of a kitchen and bathrooms, the lap pool is the only definitive programmatic element. All other spaces assume a neutral position with regard to specificity of function. Even the space currently used as a master bedroom could just as well be a living space. Dining occurs in the place that's most desirable at that moment.

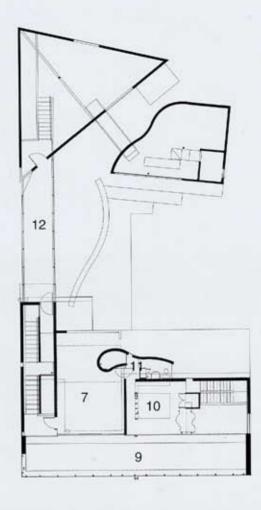
Construction

For the lap pool, new concrete foundations were poured. Spanning 50 feet, the pool is built of reinforced cast-in-place concrete, and is, in effect, a large U-shaped beam. While supporting itself, the pool also carries the wood joists for the second-level floor framing and the steel beam supporting the wood members of the roof framing. The pool is an integral part of the house's structure. The pool's liner is vinyl.

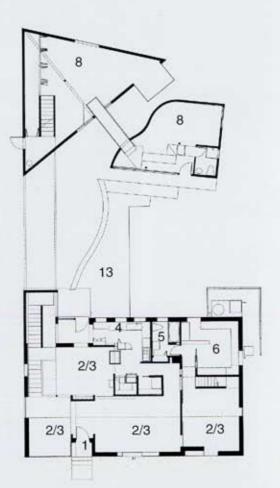
The enclosing walls of the house are wood frame with a stucco outer skin and painted drywall interior skin. Flooring materials include cementitious fiberboard, concrete, carpet, and treated wood decking. Glazing is single-pane clear, textured, or translucent glass. Metal fascias are lead-coated copper and downspouts are

The library/bridge spanning the house and the guest pavilion forms a carport below. It has a structural steel frame, steel-plate floors, and textured glass enclosing walls. The tunnel connecting the two-pavilion guest suite is rusted structural and plate steel.

Second floor plan



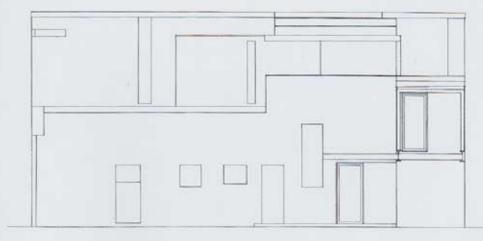
First floor plan



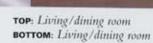
- 1. ENTRY
- 2. LIVING ROOM
- 3. DINING ROOM
- 4. KITCHEN 5. BATHROOM
- 6. DRESSING ROOM
- 7. DECK 8. GUEST PAVILION
- 9. POOL 10. MASTER BEDROOM/LIVING 11. MASTER BATHROOM
- 12. LIBRARY/BRIDGE 13 PATIO



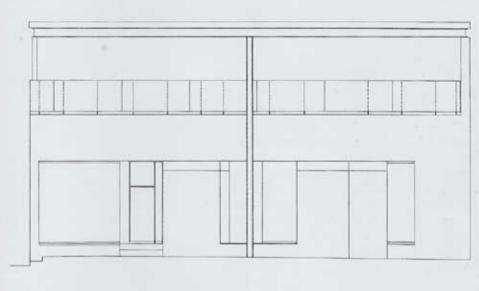




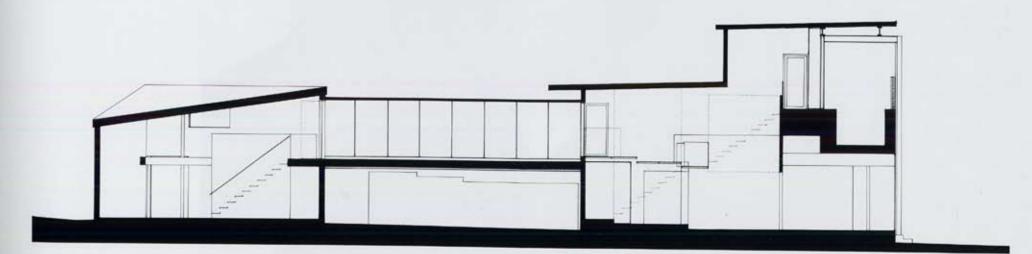




Street elevation













TOP: View from southeast

corner

RIGHT: Living/dining room with
stair landing above
FACING PAGE: View of
living/dining room looking east





ABOVE: Stairs to second floor FACING PAGE: Lap pool with bedroom on right