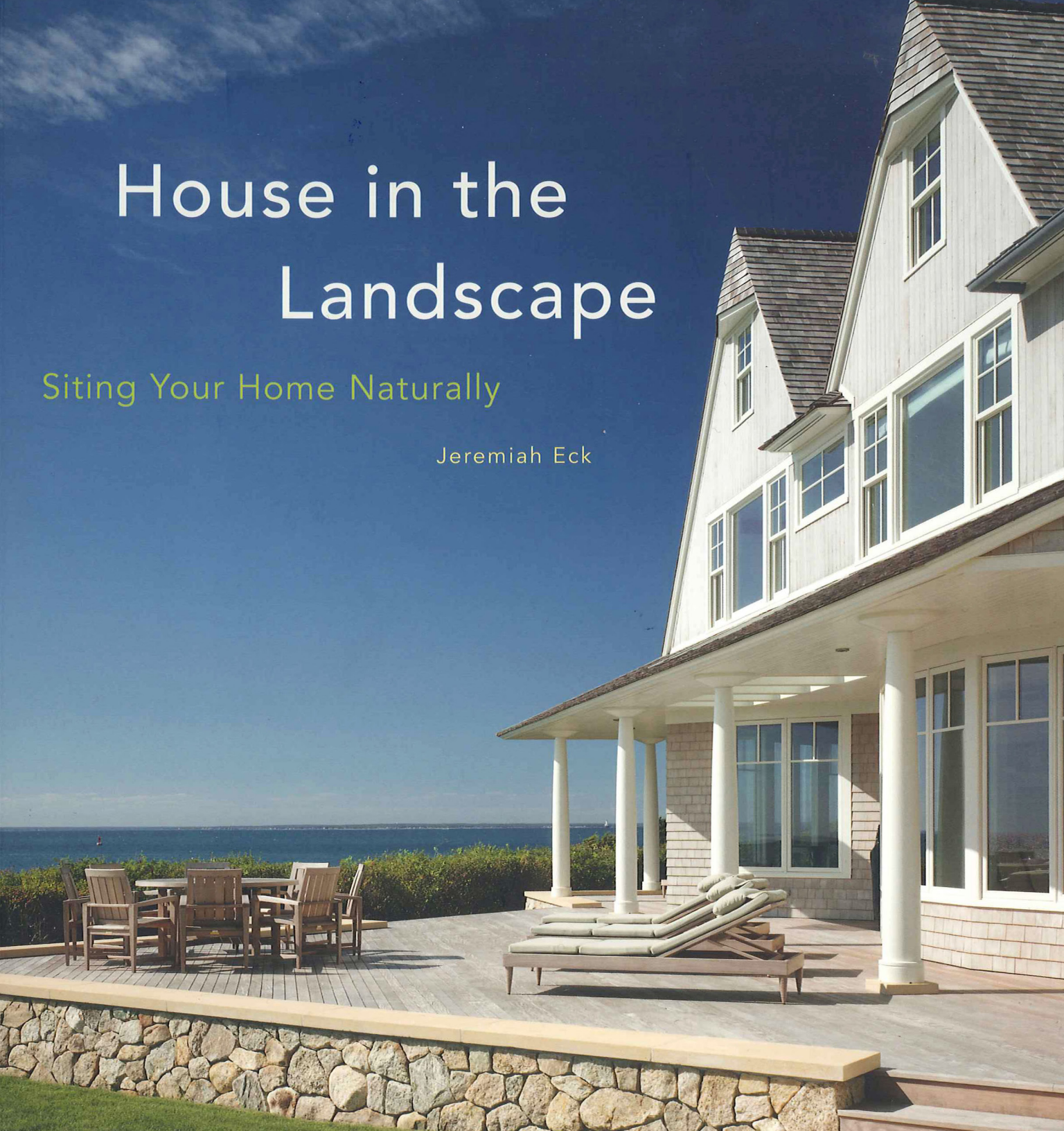


House in the Landscape

Siting Your Home Naturally

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Geothermal House

Lincoln, Massachusetts, 2006
Maryann Thompson Architects

SITES ARE AGNOSTIC when it comes to style; worrying about whether a house is “contemporary” or “traditional” is a waste of time. Good design does not come from any preconceived notion of style; it comes from a thorough examination of the site, then the application of the findings to the house design, inside and out. Maryann Thompson of Cambridge, Massachusetts designed this 4,500-square-foot house in a style that comes from that effort.

The site is a seductive three acres of rolling meadowland in Lincoln, Massachusetts, ringed by trees and adjacent to an Audubon wildlife sanctuary. Lincoln was one of the first New England towns to adopt residential zoning in the mid-twentieth century that required every new house to have at least two acres of land. Although such zoning would later be given the moniker “snob zoning,” the net result here is a community of houses that respect the many natural features of the New England landscape, its meadows, trees, rock outcroppings, and roads that follow the topography. The house was positioned near an access road on the top of a south-facing hill so that it could take advantage of a long sloping meadow just above a small pond that was dredged and restored. A number of large specimen trees were also preserved, contributing not only to shading in the summer but also to the sense that the house has been there all along.

What’s really intriguing is the feeling that each room making up the overall massing of the house was designed in direct response to various site conditions. A north-facing corridor packed with utilities and an exterior entry court formed by the U-shaped plan organize

and connect the central south-facing living area with bedrooms and offices on the east and west wings of the plan. The position of each room and the size of its screen or glass openings is dependent on its relation to the sun or views. For instance, the screen porch seems to float off the end of the house and jut out into the landscape to catch the breezes. A garage near the street partially closes off the entry court and increases privacy. Upon entering the house, visitors step down a few steps to the living room, and then again a few more steps to the kitchen area. There’s a kind of unfolding that takes place, as if a series of horizontal planes are stepping ever so gently down the slope of the hill. As the house comfortably nestles into the hill, the architect imagined the homeowners wandering through it as if wandering through a landscape with multiple views in all directions. Rather than the axial movement often found in many houses, there’s a kind of gradual dispersion.

This is a house that was designed so carefully to take advantage of the sun that you could say the life within follows the sun’s path throughout the day. Positioning a building toward the south is one of the most sustainable decisions designers can make, and this house reinforces that strategy by calibrating daily activities and their ideal lighting conditions with the path of the sun. In the morning the sun shines from the east into the kitchen/dining area and a delightful screen porch, at midday it fully illuminates the living area, and by the afternoon it shines on an outdoor sitting terrace facing west. Inside, a continuous flow of space magnified by a clerestory in all the rooms makes inhabitants aware of the movement of the sun throughout the day and during the change in seasons. The almost uninterrupted glass wall along the entire south face of the house, along with trellises, low stone walls, and terraces on the exterior, blurs the distinction between inside and out. The architect refers to it as “exteriorizing” the inside of the house and “interiorizing” the outside.

The house has been nicknamed the Geothermal House because it uses a technique relatively new in New England to heat and cool the house. It is similar to common heat pumps with compressors and heat exchangers, but instead of using air as a medium, it uses the earth’s natural heat by passing water or antifreeze through a deep loop in the ground. Such a system worked exceptionally well with the low-temperature radiant floor system of this house. Between the natural passive heat gain from the south, cross ventilation in every room, and the radiant heating system, the homeowners were able to save as much as 60 percent of their projected energy costs for heating and air conditioning.

Many early New England houses are quite elegant in their sense of independence on the landscape; Thompson takes a more contemporary approach. Rather than displaying independence from the land, she accommodates it, positioning the house to use the natural vegetation, topography, sun, and even the heat of the earth. The house’s style is a true response to the site.

▷ This house seems to grow naturally from the bucolic New England landscape.

overleaf Stepping down gradually on the site, each room or exterior space reaches out for a particular view or experience of the landscape.

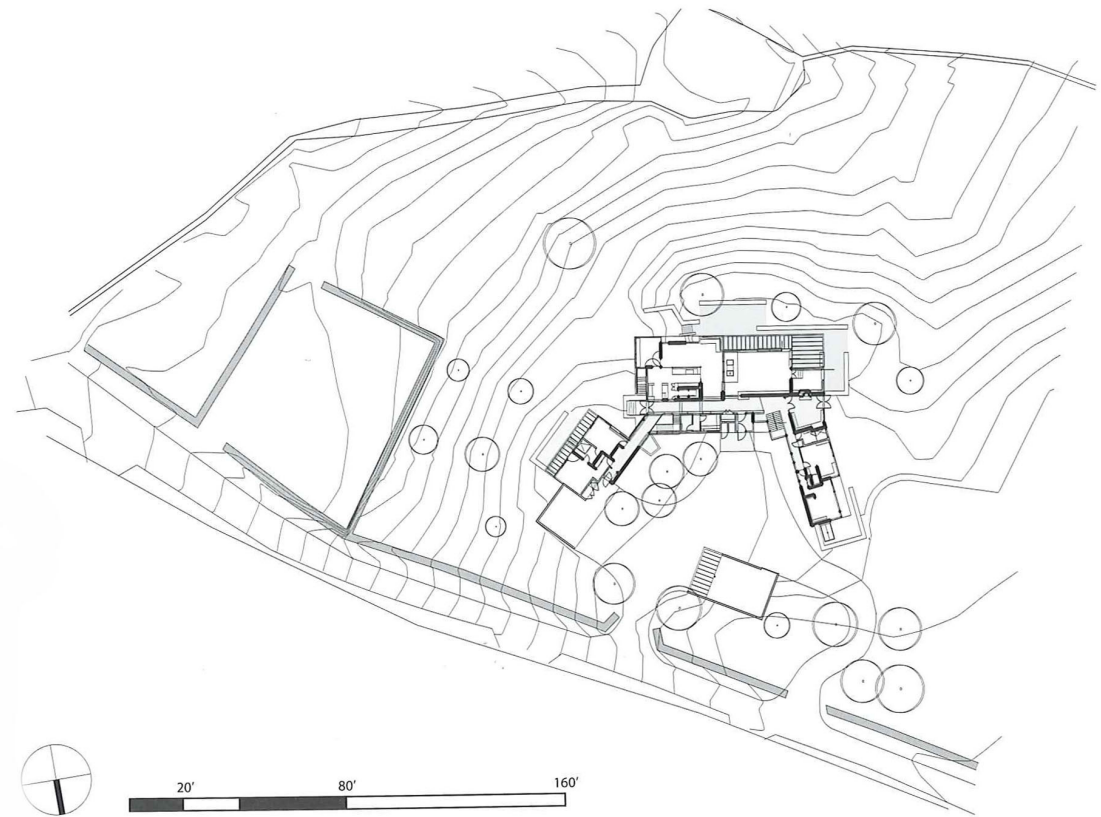
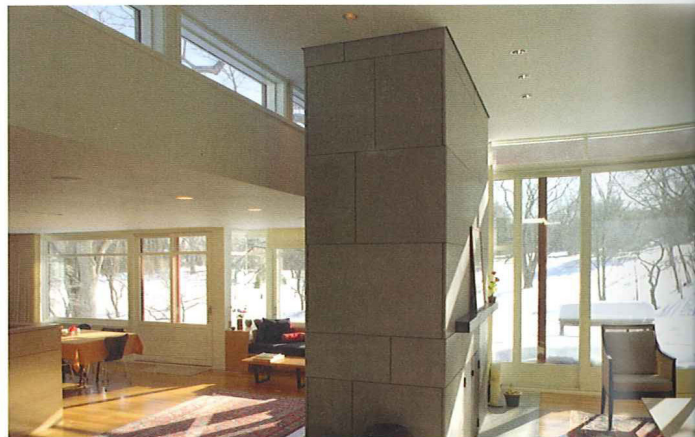






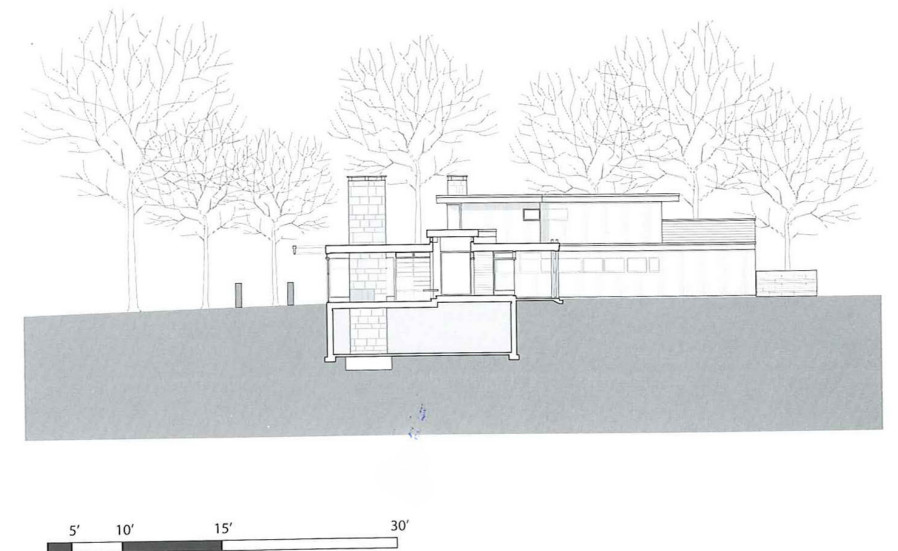
△ Even in the snow, the house's colors blend with the bare trees and stone walls that abound on the site.

▷ A centrally located fireplace punctuates an otherwise open plan.



△ Site plan

▷ Section





△ Cantilevered overhangs shelter the house's entries.