

Small **ECO** Houses

Living Green in Style



Universe

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Emigration Canyon

Sparano + Mooney Architecture

Emigration Canyon, Utah

232 m² / 2,500 sq. ft.

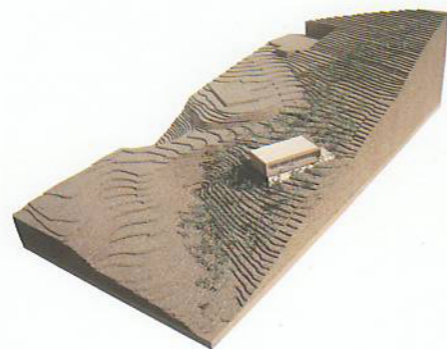
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This single-family residence is located in the vicinity of Salt Lake City. It was designed to capture the views of the canyon and to offer the family a series of communal spaces. The living room has a sliding glass wall that transforms the space into an outdoor room. The design incorporates a number of sustainability criteria; in fact, it was recognized with the first LEED Silver certification in Utah.

Water use is controlled by dual-flush toilets and rainwater collection for outdoor watering. Maximum use is made of natural lighting, with windows and Solatube® skylights letting daylight into the interior. In order to best adapt the building to the climate, weather conditions in the area throughout the year were studied, as were the strict building codes that would define the volume and location of the home. The resulting design captures breezes to cool the house in the summer months. The featured materials—weathered steel, timber, and glass—require little maintenance.



Longitudinal section



Model



Rainwater collection for watering; dual-flush toilets

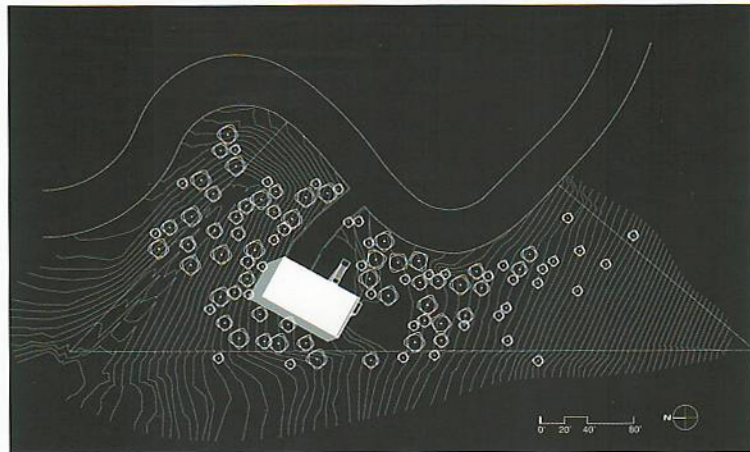


House orientation to provide cross ventilation; Solatube® skylights and windows to provide natural light

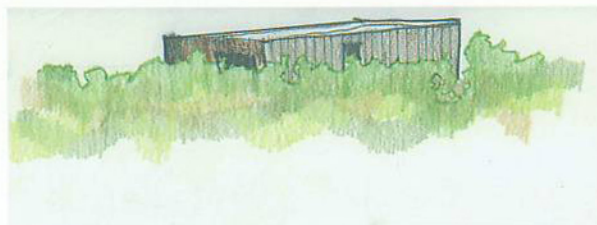


Minimal environmental impact due to design of house; landscaping with native plant species





Site plan

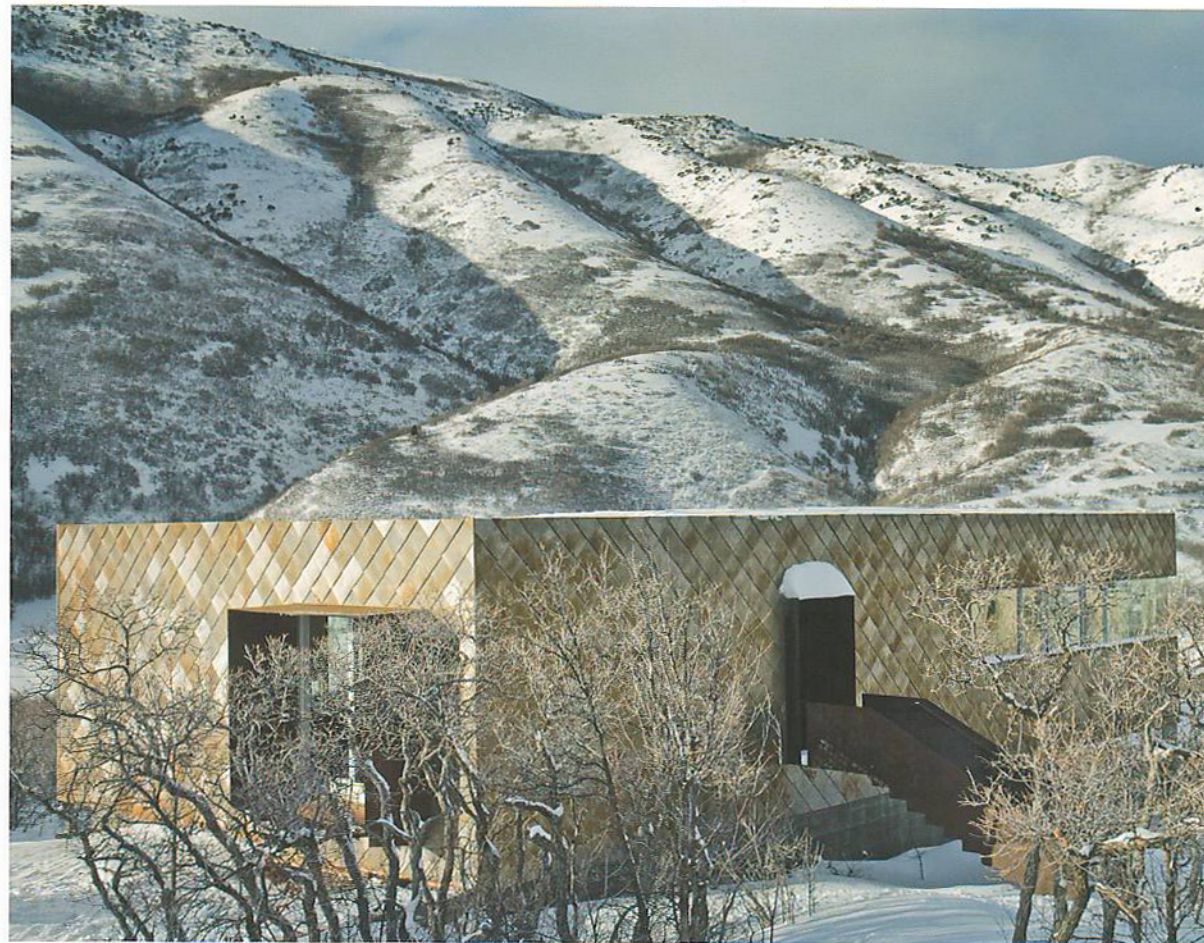


Rendering

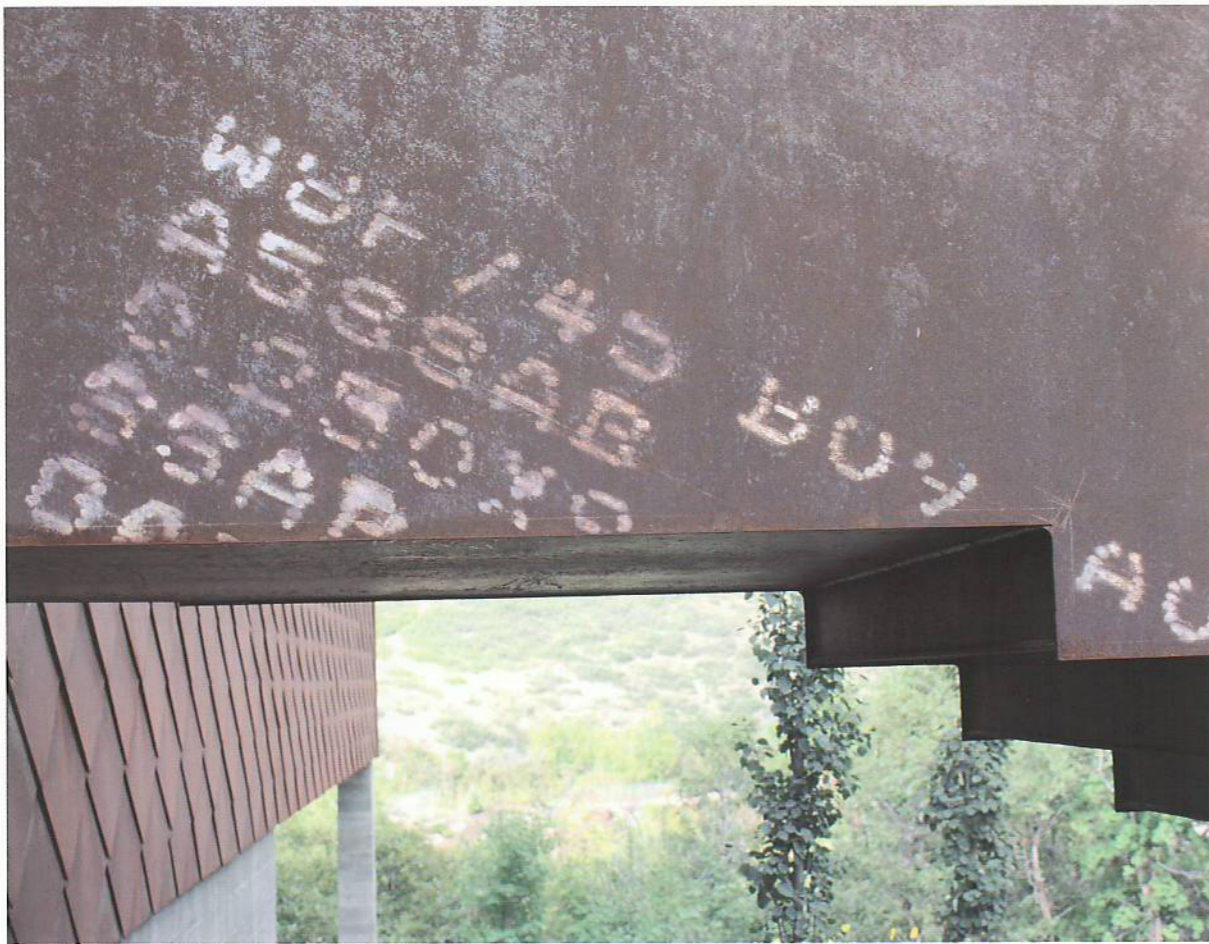


Sketch

Building regulations prevented building on more than 30 percent of the hillside. The design did away with the need for excessive excavation and preserved most of the oak trees on the site, resulting in a minimal environmental impact.



The weathered steel cladding is very durable and needs almost no maintenance, reducing the cost of materials. The color of the cladding makes the house blend into its surroundings.

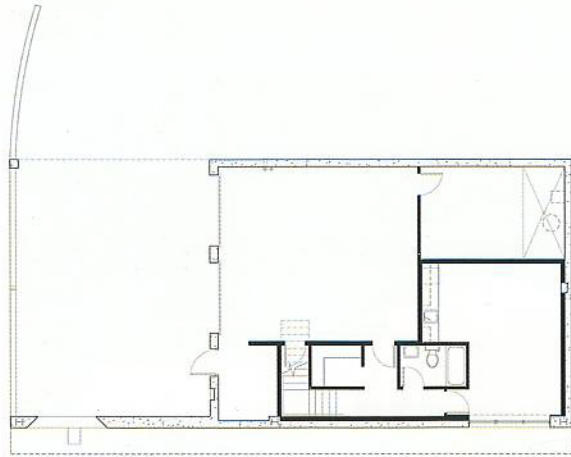
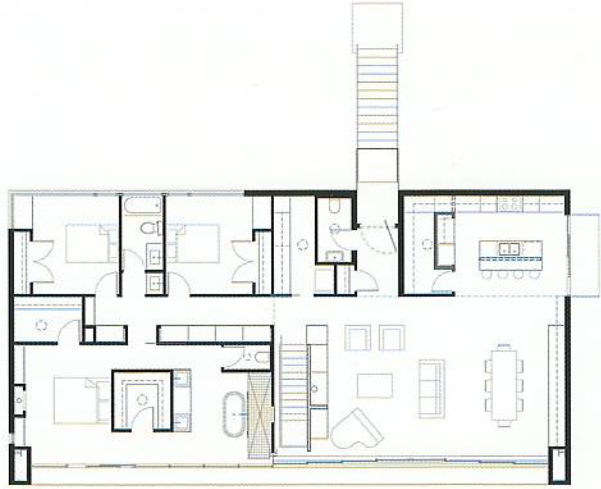


Cross section

The steps leading to the house were also made from weathered steel. The durability of this material makes it ideal for exterior use.



The sloping site required entrances to the house on different levels. An original entrance in the south facade leads directly to the upper level.



Upper and lower levels

Wood interiors create warm and comfortable spaces. Glass expanses provide exclusively natural lighting during the day.

