

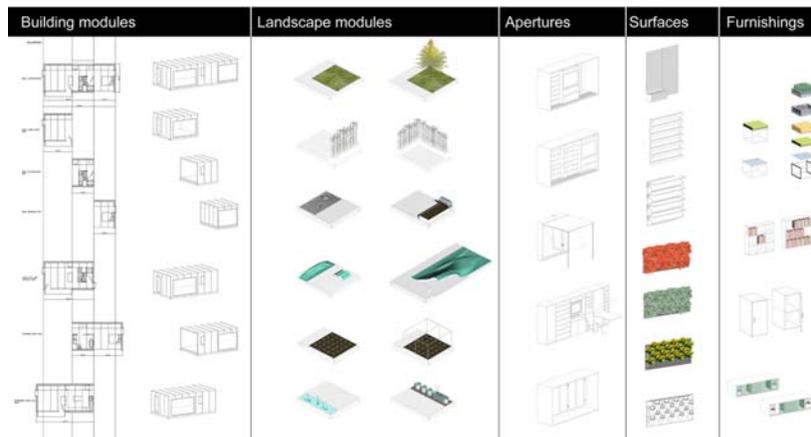
Architecture Jury Evaluations

The CUSD team believes that sustainability is not achieved through a singular prescription, but rather a series of choices based on an evolving knowledge base. The challenge to the wide-spread adoption of sustainable practices is first and foremost a cultural one. In response, we have designed a housing system that uses mass-customization to facilitate and encourage environmentally responsible consumer choice.

We feel it is problematic to completely integrate (or embed) a high capital cost, such as solar panels, into the design of our house. Instead, the versatile modular design of our roofing system permits a scaleable investment. It allows for the incremental addition of solar panels, landscaping modules, and/or a simple decking material. The consumer is permitted to choose the amenity (solar power, inhabitable green roof, or inhabitable roof) and the amount of it, which in turn determines the monetary investment.

In many situations, it is difficult to prioritize one set of environmental criteria over another, such as weighing the benefits of a rapidly renewable material over one that is extremely durable. Our building materials were selected by considering a number of criteria including, but not limited to, aesthetics, accordance with design intension, availability to the CUSD team, the product's growth, transportation, fabrication, byproducts, effect on indoor air quality, and durability. For example, we chose to use bamboo plywood for our cabinetry instead of particleboard in order to reduce that amount of volatile organic compounds (VOCs) present. Among other benefits, the use of this bamboo product also provided a more dimensionally stable material for our carpenters, allowed us to rely on rapidly renewable resource, and created an attractive aesthetic alternative to typical cabinetry finishes.

The CUSD house is organized into sleeping and living spaces, with a consolidated core of mechanical and water systems (including the bathroom and kitchen) separating the two. The living space includes the kitchen, home office and exterior patio. Our design can be thought of as a suburban loft, designed for two people. Conventional notions of enclosure that create 'private' spaces and mono-programmatic rooms (such as a dining room) within the domestic setting are discarded in order to maximize usable space and flexibility. Accordingly, the living space can be transformed for a number of scenarios the occupants might encounter.



The various technologies employed have been considered holistically, yet still in accordance with our commitment to flexibility. The uses of water throughout the house are a prime example of this integration. Water use, collection of heat for hot water, water filtration, and water reuse are all consolidated within a central strip of space within our site. Above, on the roof, evacuated tubes collect heat meet our hot water and heating needs (for a radiant flooring system). Inside the house, water-saving appliances and fixtures are consolidated within this area, minimizing the need for extraneous piping. Wastewater from the close washer, bathroom sink, and shower are diverted to a grey water storage tank below our landscape. Once combined with the rainwater collected from the roof, it is filtered through an architectural water element located in the landscape. A light slope in this 'water wall' allows the grey water to travel along the length of this two-foot wall. Spatially, the wall mediates between house (or living space) and landscape. It physically defines a service path around the house and negotiates a grade change. By the time the water reaches the end of the wall, it is safe for use in our landscape.