## **Features**

## Edgewood House: Designing for Life

## Naomi Hansen

## Facilitating the everyday and enabling sustainable and multigenerational living for a couple with a disability

When we were approached by a young Deaf couple to design a remodel for their Eichler house in Palo Alto, California, their program raised a number of challenging considerations and design requirements. They needed a design that would permit them to communicate easily by sign language. They were deeply committed to having a sustainable house, one that could host their young and growing family as well as its older generation. They were equally committed to the modernism of their Eichler neighborhood and wanted to continue enjoying all the light and openness that it embodied. This demanding design exercise presented the opportunity to cross-reference many seemingly unrelated strategies that ultimately connect in a satisfying whole.

Some design items were must-haves: open spaces to allow the family to communicate visually from one area to the next, as few obstacles as possible to keep signing while walking so as not to interrupt conversations, and visual alarms everywhere to keep them connected to the outside world. Sustainability beyond the code requirements was a bonus — the couple holds a deep commitment to sustainability and wanted to integrate as many green features as possible. We did our best to integrate both passive and active features into the design.

Hyperextended overhangs shade the floor-to-ceiling glass walls in the summer months while letting some welcome solar radiation heat the space in the winter. We reduced a large pool to a smaller lap pool to minimize the energy needed to maintain it while providing more generous backyard spaces for indoor-outdoor living. We designed an uninterrupted connection between the interior family rooms (kitchen, living, and dining area) and the pool deck, along with wide sliding doors to blur the lines between the house and landscape. The wide-open spaces allow for cross-ventilation, keeping the house naturally cool. Highly efficient insulation also helps to maintain a comfortable temperature in the summer months without the need for an air-conditioning system. The continuity of the volumes, which allow for generous air circulation, also provides extended visual contact between family members who might need to see each other to communicate across long distances.

Active features include an extensive solar photo voltaic panel array that meets all the family's electrical needs (including an electric-powered car) and solar hot water panels that heat the pool. A 1,200- gallon subsurface rainwater catchment tank provides irrigation for the native landscaping throughout the site.

As designers, it was incredibly gratifying to keep in touch with the family after they moved in and started occupying the space. Not only did we get to meet their delightful son, born while the house was under construction, but we also received extensive feedback on how they inhabit their house. Their real-life energy use is very much in line with their energy production, which is a satisfying conclusion to the guessing game that energy design can be. They enjoy high levels of physical comfort and love how the house performs and meets their expectations. In this project where sustainability and functionality are inextricably intertwined, the architecture responds on multiple levels.



Naomi Hansen was born and educated in Paris, France, and moved to the Bay Area in 2005. She has been working with Terry & Terry Architecture since 2013, thoroughly enjoying how our gentle climate makes residential design so straightforward. She lives in central Berkeley, California, where she and her husband are raising three sons and two cats, as well as slowly remodeling their home.