Innovative Women in Architecture & Sustainability: Eleanor Raymond, 1887-1989 by Gal M. Cavenagh

During the early years of women’s participation in the architectural profession, women made very few significant or major contributions because the prevailing culture of the architectural world was about a woman’s role. Until 1958, there were only 200 registered women architects in the United States representing 1% of total registered architects.1 One early practitioner, Eleanor Raymond, wouldn’t allow her dreams to be limited by the expectations of others. In 1945, she founded her own office, the first women’s architectural firm.2“Early Domestic Architecture in Pennsylvania” was written around the countryside of Pennsylvania and compiled a photographic journal of residential structures and outbuildings.3 “In 1931, the book was considered a groundbreaking work in architectural documentation.”4 Her willingness to be influenced by new ideas in technology, materials and design philosophy set the stage for lifelong experimentation. A solar water heater was first patented in the US in 1891 and by 1910, William J. Bailey had elaborated on the original invention and patented a solar heater that had the capacity to store the sun’s energy.5 With the rapid advances in inventions, experiments in heating a structure were undertaken by universities such as MIT, which had built its first solar test lab in 1930.6 This new technology was the catalyst to the design of the Sun House completed in 1948.7 The Sun House was specifically designed to test the results of her experiments because it was the first structure built by a woman architect to integrate an active solar heating system into an occupation house.8 Ms. Amelia Peabody was the client for the Solar House providing the site and the funding. Dr. Marie Taliesin, an influential member of the M.I.T. department of metaleurgy, was the designer of the heating system and Raymond was the architect.9 Taliesin’s experiment in solar heating was different from the solar labs/homes built by MIT. MIT used water as the storage device but Dr. Taliesin used sodium sulfate decahydrate.9,10 Four level drifts of collecting glass could gather and store only enough heat for a room four feet wide by seventeen feet deep. Therefore, the floor plan could only be one-room deep. The solar collection panels needed to be very large in order to capture enough radiant energy to be served to the building in the New England climate.11 Consequently, the entire second level, consisting of glass collector panels could not be used as livable space.

The solar collectors were two ppy glass sheets painted black with an air space behind. Dust collectors were used to heat the air to heat the structure. Dust collectors stored the sodium compound. As they began to leak, the experiment was terminated but the house continued to be occupied for some time using a conventional heating system.12

Raymond was never an imitator. She understood her responsibility as a designer to provide a personal haven for clients, a clearer sense of what the environment then it fails to uphold properly as well as look beautiful ideal. If a design doesn’t function work more personal. It was challenging dealing with a client’s quirks at times, but providing them with a solution that you love makes it definitely worth the potential aggravation. The house that I designed for an artist and her husband in Wheaton is a testament to the rewards of dealing with a challenging client. I had to churn through a lot of ideas before finding the perfect solution. Exploring many options for the client, before we settled on a plan that worked for her. I know this happened frequently in the context of the work, but I love the fact that I’m a problem solver. Sometimes for clients, a certain sense of what home should be is the catchphrase for my business is “design that works”, and really for a designer to have a sense of her ideal. If a design doesn’t function properly as well as look beautiful or blend harmoniously into its environment then it fails to appeal to our design. Of course, clients don’t know what they want or what will solve their problems, and that’s part of the fun, figuring out the “design that works”.

Raymond was elected to become a Fellow of the American Institute of Architects in 1946. Her elevation was based on her prolific body of work over 50-years of practice Raymond never an imitationist. She solved complex architectural problems involving the integration of technology, aesthetics, livability and environmental strategies. Ultimately, Eleanor Raymond’s groundbreaking career contributed to and informed many of today’s architectural concerns.

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Firm Perspectives
Focus on kbh architects by Kim Haig

Kim Haig recently founded her own firm, kbh architects, Ltd. After working almost twenty years at another firm, Styczynski Walker & Associates, in the western suburbs. Although the move was precipitated by a layoff after a huge slowdown in work at her former firm, Kim had been planning and working towards the goal of starting her own firm for two years prior to that date. So rather than being upset about being laid off, Kim took it as a sign that the right time was right to begin her business, and so it has been. Many of the builders and client contacts Kim had been developing over many years chose to continue working with her, providing a steady stream of work in an otherwise challenging economic environment. Kim earned her BEA, a four year architecture degree, from NC State University, and then finished her fifth year at the University of Tennessee. When Kim moved to Downers Grove in 1991, she sought out work close to her home to make it easier to take care of her business and book the architectural license for her firm. She was just three months old, knowing that life could only get more hectic that she better get right to the first time! Since becoming licensed Kim has focused on residential architecture, finding that much more rewarding than commercial work.

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