

The GRoW Home: UB's 2nd Place Winner in the US DOE 2015 Solar Decathlon

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ABSTRACT

This presentation is a case study of a high-performance residential home designed by the University at Buffalo for the 2015 Solar Decathlon. After a brief introduction to the decathlon, the presentation describes the overall sustainable design objectives of the project, reviews the basic design, and discusses the constraints which needed to be met in the development of the project. Last, it summarizes the measured performance of the house during competition in Irvine, CA in fall 2015. The house finished second overall, and took first place in both energy balance and thermal comfort, which are discussed in greater detail.

BIOGRAPHY

Martha Bohm is an Assistant Professor in the Department of Architecture at the University at Buffalo, part of the SUNY system. She teaches design studios as well as courses in ecological practices, sustainability, resilience and environmental systems. Her research interests include finding ways to integrate analytical tools into design processes in order to better see the unseeable. She was the lead faculty member and PI on UB's 2015 entry in the US Department of Energy's Solar Decathlon, the GRoW Home. Before coming to UB she was Sustainable Design Coordinator at William McDonough + Partners in Charlottesville, VA. Prior to that she taught in the architecture department at Cornell. She was a Ginsberg Research Fellow at the US Green Building Council and authored the USGBC Research Committee's National Green Building Research Agenda in 2009. She earned her M Arch at the University of Oregon, and got her BA in Earth and Planetary Sciences from Harvard.