

Formulations: Practices of Architectural Mathematics

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Abstract

Since the Renaissance, and particularly since the advent of computation, mathematics has served as a dynamic engine for striking new forms and ways of creating architecture. In this lecture Andrew Witt will consider the past and future of mathematized design as a creative and visual practice, through the work of his design office Certain Measures and through his new book *Formulations: Architecture, Mathematics, Culture*. First, he will show how a contemporary design practice might embrace mathematical processes as a core dimension of creative process, through a series of projects ranging from extreme material reuse to morphological classification of the world's buildings. Second, through case studies drawn from his book *Formulations: Architecture, Mathematics, Culture*, he will reflect on the transdisciplinary past of design mathematics and uncover how mathematical techniques inflected the ways architecture was seen, drawn, modeled, and imagined in the predigital period. Witt argues that a fusion of design and scientific processes can open new possibilities for the nature of design itself.



Figure 1: *Certain Measures*