

ARC2014: Design Studio 4 – Comprehensive Building Project
Winter 2022
Course Coordinator: Sam Dufaux

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Title: On the Surface- Tectonics and Semiotics

The challenge to improve the performance of building envelopes offers an unprecedented opportunity to rethink architecture's modes of expression. Some of our discipline's most cherished tropes- spatial continuity between inside and out; transparency; display of structure- have been achieved through substantial compromise to environmental performance. This tradeoff is no longer acceptable.

At the same time, the development of new tectonics intended to improve building performance holds the possibility for invention. In countries where environmental legislation regulates construction practices, there is a growing inventory of high-performance building envelopes- including double skins; ventilated walls; thermal mass systems; and R80 insulated walls.

Using the Winter 2022 semester project for a Net Zero Climatorium in New York as a point of departure, this studio will focus on building envelopes. Students will undertake research on selected precedent buildings; with the intention to develop a common studio-wide base of knowledge. Subsequent work, benefiting from this research, will include a comprehensive synthetic project undertaken in 2-person teams.

At the same time, drawing upon architecture's longstanding disciplinary history, the studio will take a position against the current rise of technological determinism. There is a misguided tendency to characterize technological issues as "deep problem solving" and appearance as "on the surface". This studio will challenge that narrative. Ultimately our goal will be to rehabilitate the reputation of the surface as both a technically sophisticated and a phenomenally "deep" system.