University of Pennsylvania

The incorporation of material logics in the architectural curriculum at the University of Pennsylvania has been abundant, with noted architect Louis Kahn quizzing his students at the school in the 1960’s and 1970’s as to what a brick wants to be. “… honor … and glorify the brick instead of shortchanging it”, he would say. With this proposal, we hope to expand the integration of precast concrete systems into our student work, integrating the material further into our curriculum while strengthening our relationship with our industry partner Northeast Precast. By securing the support of the PCI Foundation and its resources we intend to expand precast concrete systems in the following areas:

Lectures on the History and Technology of Precast Concrete:

A history of reinforced concrete from the turn of the 20th century, and more specifically the rise of precast in the 1950’s as part of an offsite, factory-based movement within the construction industry, will be introduced across the curriculum. Specifically, concrete’s relationship with both modernity and nature will be considered.

Introduction of Novel Precast Precedents:

Precast building precedents will be introduced as part of our coursework that range in scale from houses to larger buildings of various typologies. Projects will be selected not only for their cultural and technical novelty, but for the unique and increasingly digital and collaborative processes that led to their formation

Design Collaboration, Development of Digital Content and Physical Mock-ups:

The most important aspect of this work are opportunities for students to explore precast concrete, its historical and cultural impact, its forming and production process, and put it into material action Through an evolving relationship with Northeast Precast, graduate architecture students at the Weitzman School of Design will enroll in technical seminars and design studios where they will work collaboratively to produce all virtual information required to realize the precast mock-up at full scale, as well as a panel schema with joint patterning and formwork images that will position the mock-up within both larger and more local scales.