Carnegie Mellon University

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Levittown, Kit of Parts housing, Margent Farms

48500 48650: Rematerializing the American House
18 Units
Jeremy Ficca, AIA

This studio examines a defining feature of the American landscape, the house, to explore alternative materializations, spatial configurations, and models of living in the face of climate change and economic inequality. It aims to design prototypes for serial produced houses that prioritize circularity, bio-materialism, and multi-generational living. Central to American identity, culture and politics, the single-family house has for generations embodied aspirations of newness, ascension, and security. While most American houses rely upon highly conventional typologies and construction logics, the past century reveals a range of experiments that sought to reposition construction, increase affordability and occasionally, introduce radical alternatives for living. The stability and prosperity afforded through the purchase of the average American house is increasingly out of reach for younger generations. Additionally, newly constructed American houses condense the carbon intensity of the US economy and are nearly inseparable from the economic and environmental entanglements of consumption, energy flows, and land use found across suburbia. The housing affordability crisis of the past few years coupled with the urgent need to decarbonize our economy reveal the unsustainability of the status quo. While the densification of housing and the emergence of sharing economies offer solutions for affordable urban living, the typology of the house and its associated financial benefits remain deeply relevant for many Americans.

Through the detailed design for a prototypical American house students will address three primary questions: How might we leverage carbon reducing, bio-based material strategies to imagine new possibilities for the house? How might incremental construction increase affordability and promote expanded models of habitation over longer periods of time? How might prototypical designs scale in number to accommodate a range of spatial configurations? This studio mines past experiments into the American house to understand their methodologies, successes, and shortcomings. It also looks to catalogue houses, track homes, and experiments in prefabrication to understand economies of scale and efficiencies of standardization. As a design research studio, it relies upon collaboration to conduct research, develop material strategies, and imagine alternatives for the American house.