



Fringe and housing fabric studies, Leslie Lok,
Representation, Jiayi Xing

FRINGE CITY

Hybridized Low-tech and High-Tech Housing Systems

FALL 2020, OPTION STUDIO & EXPANDED PRACTICE STUDIO - In Person/Hybrid
LESLIE LOK

Housing is a key element of the urban environment and a driver for today's rapid urbanization. In 2016, residential land accounted for one of the largest portions of China's urban built areas. Through unrelenting spatial transformation over the past several decades, the fringe territory between urban centers and rural landscapes – a collage of regularized urban fabric, productive landscapes, and vernacular village fabric – emerged as the predominant framework for urbanization. The “in-between” fringe is characterized by the uncompromising clashing of systems, architectural typologies, material practices, spatial practices, economies, technologies, and ecologies.

The studio will explore the multivalent urban fringe as an incubator for alternate housing models by coupling advanced construction methods and local building practices in rural-urban China. **Bottom-up strategies informed by local construction methods and materials will be paired with robotic and digital fabrication processes to create much-needed innovations in mass-customized housing design for rural-urban communities.** Paired with technology advancements, the distinct co-existence of local-specific and urban-generic conditions opens the possibility to cultivate novel hybridized housing systems.

The semester is structured into three phases of investigation that will culminate in a design proposal for a multi-level housing cluster. Students will work in teams of two. First, the onset of the studio will be foregrounded by site context research towards the development of a collective masterplan strategy. Second, subsequent design research will investigate low-tech material applications such as bamboo, masonry, rammed earth, or cast-in-place concrete. Material applications will be augmented by emergent technologies such as AR tools (Fologram) and robotic fabrication tools to identify unique opportunities for construction that can be adapted and deployed by local labor and communities within a low-tech setting. Third, based on research in phases 1 and 2, innovative housing designs will be developed that establish a speculative urban narrative within the fringe context.

MWF 8:30 a.m. - 12:20 p.m.

CORNELL AAP DEPARTMENT OF ARCHITECTURE