NANCY CHENG’s 2023 ARCH 4-585 Terminal Studio

Design for change: How people want to live is changing. As LGBTQ+ identities proliferate and the definition of family morphs, housing also needs to change. New architecture is needed for new types of blended households, non-romantic kinship and the changing needs of an individual over a lifetime. Children seek adventure, teens and young adults need independence within safe bounds. Young parents and seniors need support. Soaring rates of income inequality, housing insecurity, urbanization and forced migration demand attention to creating affordable, livable places. While architects cannot solve the societal condition, we can envision inclusive places where people can thrive through mutual support and sharing, where spaces can adapt to changing needs.

The problem: The COVID-19 pandemic increased the loneliness and social disconnection that started growing in the U.S. in the 1970’s, according to Robert Putnam’s Bowling Alone. In the past, villages, extended families and religious institutions grounded people by giving them a role in a larger framework, which supported their identity, self-worth and connection to place. Social media and some corporations are trying to provide a sense of belonging by supporting needs for interaction and activity. But enjoying these settings is contingent on contributing to the larger mission, i.e. giving up information or pitching for profit. Many have questioned their daily work situation, and have begun seeking more supportive environments.

The challenge: Envision co-living that values the common good by designing an intentional community for 20 to 40 households where people and nature can flourish together.

What can provide community? Students will select an activity that can act as a social magnet and then design a green co-operative multi-family community around it. The studio will look at how architecture can support changing household forms, needs and activities, through adaptable building systems. Projects will show how housing can be livable, efficient and neighborhood appropriate, illustrating how the place could change over time.

Building systems for growth: We will study tectonic approaches to providing basic shelter and guiding residents to develop, complete and personalize units. (i.e. Alejandro Aravena’s incremental housing, Avi Friedman’s Grow Home, or the Open Building model by John Habraken, Stephen Kendell and others.) Engineered mass timber products and digital fabrication increase the promise for pre-fabrication and modular construction.
Global visions realized locally: In the face of climate change, we need to design for a positive future. Utopian design fictions can help craft stories of hope. We can learn how to realize these visions by grounding them in best practices for co-operative living such as Scandinavian woonerfs, co-housing and pocket neighborhoods and income-sharing communities. Ecovillages can reveal how communities steward natural resources and contribute to the ecosystem by providing wildlife habitat and conserving energy and water. As cultural background shapes an individual’s spatial preferences and community needs, looking at successful architecture from other cultures can push us out of dependency on the familiar and wake us up to emerging possibilities.

Unit, cluster, village as form experiments: The studio provides an opportunity to play with geometry and parametric variations to design efficient, delightful and expandable private spaces amid shared green spaces and amenities. Form experiments will consider human activity support; maximizing fresh air, daylight and views while respecting individual domains. Refining the housing cluster can simplify the development of a large site, by adapting patterns with consideration of solar access, water drainage, wildlife habitat and landscape quality in site design.

Site: Students can choose between instructor-identified Oregon sites or propose an urban location for siting the 20 to 40 households. The class will work together to identify the most viable few that would provide the most interesting ecological, cultural or formal contrast.

Process: The learning process will involve looking closely at architectural and urban design examples, reading about key principles, physical and digital design experiments and reflective writing. The studio will support experiments with multiple media to stimulate the creative process, combining the tactile feedback of material studies with the precision and evaluative power of computation. Students can choose to design with a partner to address a program of greater complexity. Common assignments will increase intellectual dialog between classmates.

FALL TERM Prep: A 1 credit independent study will focus on research and development of a Statement of Intent, a preliminary program and site selection. The session will be scheduled on Thursday afternoons. Relevant elective courses are Clay Neal’s ARCH 4-538 Housing Prototypes and Gerald Gast’s Principles of Urban Design.

The Winter term will focus on unit design, sustainable site massing and building design that supports the social program and maximizes passive solar, natural ventilation and rainwater harvesting. The Spring term will focus on technical development of Design Synthesis and Building Integration. External consultants will help coach comprehensive design of building systems (structure, environmental control systems, building enclosure) and code compliance.

About the Instructor: Nancy Cheng has led four terminal studios and co-housing studios based in Bend, Eugene, Portland and southern Oregon. She enjoys art, fiction, and craft, and is inspired by nature. Her education was rooted in Bauhaus material studies and formal composition, and she has led national computational design groups. She connects students to her large network of regional professionals and global contacts.