

Resilient housing

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For the past forty years, the design and production of housing in this country has served only the relatively well-off. While low-income people have always faced a severe lack of housing they can afford, in the years since the Great Recession, the "housing crisis" has spread far up into the middle class. Housing is only being produced now for a fairly narrow band of the upper and middle classes, ignoring those of different needs, abilities, household types, life stages, classes, and economic resources.

While the current housing production system has fallen short of meeting our present needs, it is completely incapable of anticipating the impending and growing crises of the coming era. Climate change (with all its consequent natural disasters), earthquakes, refugee crises, etc. - all these factors will fundamentally challenge our conceptions of what functions we need housing to fulfill. Housing in the 21st century will need to be less about marketing, and more about shelter. The paradox we face is this: how can we design and produce housing that will meet the needs of the future, while being produced under the economic, social and political constraints that define the present?

Course content

This course will examine both the current and future forces that shape our housing. The beginning lectures will focus on the "rules" of current housing production - real estate development, demographics of household types, the realities of construction, building codes, and zoning ordinances. Subsequent lectures will consider housing typology (including useful types which are no longer being produced), site selection and design, and future directions. The intent of this course is to bring together in one place the basic information and principles needed to effect change in housing design, structured in such a way as to make it directly helpful as it is applied in the design process, always relating back to the question, what can architects contribute to this agenda?

While the material in lectures and readings will be primarily focussed on the conditions, needs and constraints of the current system, the students' work will be focussed on the conditions and demands of the future.

Course format

We will meet twice a week, with presentations by the instructor and visitors, and in-class pin-ups of projects.

Texts:

Housing Design: a Manual. B. Leupen & H. Mooij
Additional readings on course Canvas site, and through the Facebook closed group "Housing Design"



Course requirements

Students will form teams, each of which will be led by one of the students who will be enrolled in the terminal studio, *Housing for a Changing Climate*. Each team will complete a research project focussing on one of the many challenges that we are facing, and the range of design strategies (at both the building and district scales) that can respond to these challenges. (These will be used by the students in the subsequent studio.) These topics will include:

- Earthquakes
- Floods
- Severe storms
- Droughts
- Famines
- Increased temperatures
- Wildfires
- Water supply and waste processing
- Pandemics
- Economic disruption or decline
- Utility outages and disruption
- Transportation and supply chain disruptions
- Demographic changes and population shifts (refugees)

Given the current trajectory of global civilization, we have little chance to make our civilization sustainable. Our task as architects now is to develop strategies for resilience, to enable humans to survive and thrive, and to form a foundation for the civilization that will follow.