

**Global concerns:** American housing is going to change radically in the near future. We have seen the first signs of this in the housing market crash, and as behavior starts to shift in response to energy costs. Awareness of, and perhaps a willingness to do something about climate change will accelerate. Architects have set a demanding agenda for themselves with the 2030 Imperative. But we need more than resolve; we must extend our knowledge and skills so that as society shifts towards a more responsible way of dwelling, we have some clear and ready answers. Architecture students should graduate with more than good intentions - we can use this time in school to test new ideas and prototypes, seeing which ones could rebuild and reorient the housing production system. We should respond to global concerns with a range of universal types that can fulfill our changing needs and address our changing circumstances, and with a firm grasp on emerging technologies that will enable us to reach those goals.

**Local concerns:** But while we architects welcome innovation, everyone else in the housing production process likes the status quo (even here in ecotopia). Most neighborhoods don't want new housing types or higher density. Government agencies take forever to change codes and regulations. Developers want to keep making money doing the same things. If our proposals are ever to have an impact in the world outside academia, we must learn how to adapt our universal goals and types to meet local concerns and conditions, to reinforce the existing places.

This studio will proceed on two parallel tracks. First, the development of housing types and technological strategies that can be applied in many locations. Second, adapting these universal strategies to design buildings that respond to specific sites and in particular places.

**Premises and goals**

- **Sustainable inhabitation of the earth by humans can only be achieved through changing the typical patterns of building and dwelling in the modern world, at all scales. Individual signature buildings will not do it.**
- **Housing and settlement pattern are critical places to focus, perhaps the most critical.**
- **While housing design must respond to particular parameters (site, market, program), it must also respond to global parameters (building technology, production system, economics, environmental goals).**
- **Responding intelligently to the global parameters will yield clear housing typologies (at all scales) and systems, which can then be adapted to address local and particular conditions.**
- **Projects should push the boundaries towards serious environmental response. However, students must demonstrate where their projects fall in terms of technological, social and economic feasibility.**
- **Program:** Students will produce their own programs for their projects, which should reflect their understanding of demographics and market trends in the next 50 to 100 years. Program statements should be overwhelmingly focussed upon housing components; any ancillary uses should be minimal and diagrammatic.
- **Sites:** Site selection will occur late in winter term, after development of types and strategies. The studio will look for collective opportunities (such as working with SCI) or else students may be able to propose their own locations.
- **Density:** Much prior work and analysis has shown that low-rise high density is the way to go, for reasons of practicality and sustainability. Target minimum net densities in this studio will be in the 30 units or 75 residents per acre range.
- **Scale:** Studio projects that are too ambitious in scale often fail to reach the desired degree of development, as students spend their time solving problems they’ve inadvertently created for themselves. So specific design projects should be limited in size and complexity.

**Studio methodology**

- **Typology:** Development of an integrated set of concepts and types for multi-family housing, and the application of that system to specific sites in the northwest.
### Format and Process

- All students in this studio must enroll in Arch 410/510, Housing Design, in fall term. This course will cover current issues, technologies and processes in housing production. Terminal studio students in this course will lead teams comprising other enrolled students, which will research specific topics to be further developed in the studio. Students must be able to pose concrete, critical questions whose answers might drive their designs.

- There are many good projects to on the West Coast. We will try to schedule a studio trip, perhaps ranging as far as San Francisco, at the beginning of winter term.

This diagram above shows the most typical process for a terminal studio. However, this studio will follow the diagram below, first addressing global parameters and local concerns, to develop a conceptual / typological kit-of-parts. So inverting the usual studio order, **winter term will be for design development**, including further refinement of research projects from fall term, design studies of elements and components of typical housing, and the definition of performance criteria.

- This conceptual kit-of-parts will then used to design particular buildings on real sites: **spring term will be for schematic design**, including unit, building and site design simultaneously.

- The production of knowledge which can inform design will be just as important as the production of designs. Perhaps studio work could not only develop individual design skills, but might also advance the general state of knowledge in the profession. Deliverables for this studio might include research papers (individually or in groups) as well as building designs.

- Design decisions will be driven by clear criteria, some of them quantitative. Schematic economic and energy modelling will be used throughout the whole process. BIM would be great, if you can handle it.

### Issues to be explored

The full range of issues as enumerated in the LEED criteria, or the Green Studio Handbook, will be covered. The instructor will also attempt to steer students towards issues he is particularly interested in, such as:

- building envelopes and edges that work technically and socially
- passive heating and cooling strategies (including ventilation)
- open spaces that balance privacy and community
- development patterns which create pedestrian neighborhoods, or enhance existing neighborhoods
- futureproofing and adaptability for changing demands in the next century
- industrialized housing, open building systems, and their appropriate use

### Reading list

A short list of references that will enrich your summer:

- Stewart Brand, *How Buildings Learn*
- NJ Habraken, *The Structure of the Ordinary*
- Corbett and Corbett, *Designing Sustainable Communities*
- Jørn Ørum-Nielsen and Mike Pease, *Dwelling*
- Dan Solomon, *Rebuilding and Global City Blues*
- Kwok and Grondzik, *The Green Studio Handbook*

### Past student work

A detailed Sustainable City Year report on our prior housing terminal studio work completed in Salem in 2011 can be linked to at: [http://pages.uoregon.edu/pkeyes/](http://pages.uoregon.edu/pkeyes/)