It is a tragedy for the world, and for the many people who compete fiercely with one another for chances to make some of the world, that most of them do not aspire to make most of the world. One cannot teach in a school of architecture for decades touching the lives of thousands of students, and not be overcome with sadness at the poignant nuttiness of this situation. So many of these earnest, striving students have nothing but disappointment to face. So many of them could also contribute so much and receive gratification from it if only they thought about the making of town fabric a little differently.

Dan Solomon, Global City Blues

American housing is going to change radically in the near future. We are seeing the first signs of this now in the financial sphere, 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 survive the crash of the housing production system. Towards this end, this multi-family housing design studio will be experimental in its agenda, process, and goals.

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.
- 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

- Development of an integrated set of concepts for multi-family housing, and the application of that system to specific sites in the northwest.
- 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.
- Students will be able to select their own sites for their final project proposals.
- Much prior work and analysis has shown that low-rise high density is the way to go, for reasons of practicality and sustainability. Target net densities in this studio will be in the 30 units or 75 residents per acre range.
- 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 will be limited in size and complexity, probably no more than an acre (although a larger project could be proposed based upon the replication of the smaller module).

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 see and professionals to talk to in the northwest about these issues. I would like to schedule a studio trip to Seattle, Portland and perhaps Vancouver before winter term, somewhere between December 5 (end of fall review week) and January 5 (start of winter term). Please think about your schedules, and get those passports.

- This diagram above shows the most typical process for a terminal studio. However, this studio will follow the diagram below, first addressing the global parameters, 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. Actual prototyping of typical elements will be encouraged.

- This conceptual kit-of-parts will then be used to design particular buildings on real sites: spring term will be for schematic design, including unit, building and site design simultaneously. (Instead of picking a site and then figuring out what works, students will have figured out what works, then pick a site.)

- 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.

- Students will be required to analyze and document their proposals using LEED criteria, as if they were to be submitted for certification. A study group will be formed, so that students (and the instructor) will be ready to take the LEED accreditation exam upon graduation.

**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 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
- 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*