Arch 4/584 Architectural Design – Winter 2015 University of Oregon Department of Architecture
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image by Brandon McCoy, entobox.com

Image from Kellogg for Coho Initiative

TWO COUNTRIES, ONE PLANET

The 2015 Shanghai Xian Dai - UO Exchange program's Studio class will focus on cross-cultural learning and sustainability. Students will have the opportunity to partner with top architects from a top Shanghai architecture firm in applying sustainable design principles.

The studio will focus on DESIGN WITH NATURE: sun, water and wind. Emphasis will be placed on low-cost energy-efficiency through load reduction, passive solar, daylighting and natural ventilation, secondarily looking at integration of solar thermal and photo-voltaic panels. Stormwater management and artful rainwater design strategies will also be discussed. To incorporate performance-based design, the studio will teach solar simulation and parametric design methods using Rhino Grasshopper software.

It is envisioned that the Shanghai visiting architects will share architectural knowledge and skills along with Chinese cultural insights, while the Oregon students will help interpret local context and contribute ecological design methods. All will meet Monday and Wednesday afternoons (with additional field trips), Oregon students will have a separate session on Friday afternoons and the visiting architects will have separate seminar.

The studio will examine sustainable design issues in two contexts:

1. Green makeovers for Chinese buildings:
Each visiting architect will present a project for conceptual redesign. UO students will study the project documentation, query the architects and then work with them on revisions addressing specific energy-saving topics with input from faculty, ESBL staff and visiting critics.

2. Milwaukie, Oregon building:
Much of the term will focus on the design of an Oregon building, examining urban structure and ecological systems. The studio will study Milwaukie, Oregon, which is positioned to develop with a new rail line opening in 2015 that will make it a 15-minute ride to Portland. While the downtown views of the Williamette River are stunning, the neighboring waterways suffer from pollution and salmon disruption from a dam.

Students will learn about the urban plans, ecological issues, pattern language, and architectural proposals designed for the area from practicing professionals. Site design in teams will be followed by building design, optionally also done in teams.

Korea Blue Marble image by NASA through Wikimedia