

University of Oregon
LA 439 Landscape Architecture Design Studio
Winter 2015
Instructor: Leslie Ryan lryan@uoregon.edu
Office hrs: TTh 12:30-1:30

Over Under Between:

Topography, water, and sustainable agriculture at the Berggren Demonstration Farm



This studio will investigate the interconnectedness of topography, water, soil, and land use at the Berggren Demonstration Farm. The Berggren Watershed Conservation Area and Demonstration Farm is located along the lower McKenzie River near Walterville (address: 36986 Camp Creek Road, Springfield, OR 97478). The 92-acre site is owned by the McKenzie River Trust (MRT), and managed by MRT, Cascade Pacific Resource Conservation & Development, and EWEB; the Bonneville Power Administration has a conservation easement over the site, and McKenzie Watershed Council has a strong voice in land uses at the Farm. This broad coalition of partners are all committed to a long-term investment in clean water and sustainable land use practices along the McKenzie River, the sole source of drinking water for all of Eugene and Springfield.

We will explore and propose design solutions to resolve some major issues on the Farm: storm water runoff and the resulting reduction of usable land, the need to filter ag runoff before it reaches the McKenzie River, and the integration of conservation and agricultural goals.

Within the context of a programmatic land use selected by each student, the design studio will experiment with the imagining of new topographies that will redirect and retain/detain the flow of water across the Farm. Water and landforms are coupled – the pressure or presence of one affects the shape of the other. The studio objective will be to work with topography, water and land use in ways that help fulfill the Berggren Farm mission to educate new farmers and the general public of the connections between land use and water quality, and to develop and implement long-term, sustainable strategies for maintaining the economic viability of agriculture in the valley as well as protecting our common drinking water source.

Water quality in the McKenzie River is high, but under threat by nonpoint source pollutants from development and land uses such as farming and forestry practices. According to the Environmental Protection Agency (EPA), nonpoint source pollutants and sediment from agriculture are the most widespread source of water pollution and main contributors to

contamination of wetlands and ground water.¹ For the past 25 years the EPA has been promoting a “watershed approach” to water protection; EWEB has a Watershed Protection Plan, which includes the Berggren Demonstration Farm.²

Studio work

Work in the studio will result in the following products:

1. Site and context inventories and analyses, including exploratory models, a timeline, and an Opportunities and Constraints analysis
2. Land use proposal for agricultural and/or conservation use of upper field. Students will research potential management solutions, such as silvopasture, woodlots, or alternative crops.
3. Schematic site design plan and sections.
4. Schematic plan and sections for grading and landform manipulation that addresses existing water flow and drainage issues. This will focus on pastureland in the upper field, although will be coordinated at both watershed and field scales.
5. Contour model of final site design plan.

Learning Objectives:

Upon completion of this course with a passing grade, students shall be able to:

- Demonstrate applications of design methods that are based on watershed-scale assessments and specific, on-site conditions, and on understanding of the ecological and cultural impacts and effects as felt on a variety of scales.
- Apply principles of site engineering – grading and drainage systems – to a design problem.
- Understand the potential ecological and social implications of design methods, tools, and impositions that effectively convey solutions/resolutions in a manner addressing both process and product.
- Understand how the profession of landscape architecture can contribute to the overall well-being of community and environment.
- Build ability to use a variety of design translation skills that allow for connections between drawing, model-making, projection techniques and three-dimensional design projects.

Format:

The studio is based on four operating principles: design projects, desk critiques, group critiques and conversations, and content delivery. A variety of media and sources will be recommended along the quarter to complement, or feed, the interactions. Methods of instruction include design exercises and projects, design research, group and individual critiques, guest speakers, readings, films, discussion, precedent/case studies, and field trips.

¹ EPA. Agriculture, in Water: Pollution Prevention and Control. Accessed 10 Dec 2014
<http://water.epa.gov/polwaste/nps/agriculture.cfm>

² EWEB. Drinking Water Source Protection, in Water. Accessed 10 Dec 2014.
<http://www.eweb.org/sourceprotection>

Schedule:

Note that due dates are provided to aid your ability to complete a schematic design package. However, design is a thick process: iterative, continuing, and non-linear. Please expect to be flexible, to return (often) to examine previously-made assumptions, and to project your design thoughts into an unknown future.

	DATE	TOPICS	ASSIGNMENTS and READINGS
Week 1	5 Jan	Introduction to studio Syllabus overview	ASSIGNED: 3 clay models – plane, mound, line ASSIGNED: Site evaluation
	7 Jan	Field trip to Berggren Farm	- Bring sketchbook, camera. Dress for mud.
	9 Jan	Studio work	DUE: 3 clay models
Week 2	12 Jan	Field trip up the McKenzie River	ASSIGNED: Timeline. - Bring UO ID card, camera, & sketchbook. Meet at 2 pm at Eugene Station, 11 th and Olive, Bay "G", Route 91 to McKenzie River Ranger Station. Return to Eugene at 5:20 pm.
	14 Jan	Studio work	ASSIGNED: Table of Opportunities and Constraints
	16 Jan	Discuss Table of Opportunities & Constraints Studio work	DUE: Table of Opportunities & Constraints ASSIGNED: Turning Constraints into Opportunities (design response)
outside lecture	Fri 16 Jan	James Cassidy, OSU Senior Instructor, Soil Physics & Organic Agriculture	presentation: <i>Soil: What it is and how it works!</i>
Week 3	19 Jan	MLK Jr. holiday – NO STUDIO	
	21 Jan	Pinup site/context mapping, timeline, tables of opportunities & constraints + design response	DUE: site mapping, timeline, tables of opportunities & constraints + design response. ASSIGNED: research potential land uses for upper field
outside lecture	Thurs 22 Jan	<i>FULLER LECTURE</i> Stacy Levy Environmental artist	Presentation: <i>Drawing Water</i>
	23 Jan	Discuss land use research/reading Studio work	ASSIGNED: Select land use and diagram/sketch(es) of cultural and ecological requirements
Week 4	26 Jan	Discuss land use research/reading Studio work	DUE: Diagram/sketch(es) of land use requirements ASSIGNED: Preliminary site design
	28 Jan	Studio work	
shadow mentor day	30 Jan	Studio work	

Week 5	2 Feb	Studio work	
	4 Feb	MIDTERM REVIEW	DUE: Site and context mapping, timeline, Opportunities & Constraints + design response, land use research and sketch, clay models, preliminary site design
	6 Feb	Revisions as per midterm review	
Week 6	9 Feb	Studio work	ASSIGNED: Schematic design, including site grading and drainage strategies
	11 Feb	Studio work	
	13 Feb	Studio work	
Week 7	16 Feb	Pin up Schematic Design	
	18 Feb	Studio work	
	20 Feb	Studio work	ASSIGNED: Schematic grading and drainage plan
Week 8	23 Feb	Studio work	
	25 Feb	Studio work	DUE: Schematic grading and drainage plan
	27 Feb	Studio work	
Week 9	2 Mar	Studio work	ASSIGNED: topo site model with grading and drainage
	4 Mar	Studio work	
outside lecture	Wed Mar 4	<i>HELPHAND LECTURE</i> John Dixon Hunt, U Penn landscape historian	Presentation: <i>"design is of things not yet appearing": gardens & landscapes on paper</i>
	6 Mar	Studio work	
Week 10	9-13 Mar	FINAL REVIEW WEEK – our studio presentation date TBD	DUE: All work presented at midterm (revised), schematic site design plan and sections, topo site model, schematic grading and drainage plan and sections
FINALS WEEK		No final exam	

Attendance

Attendance is required in all studio sessions and field trips. If you are unable to attend, you must inform me prior to your absence to request an excused absence. More than one unexcused absence will be grounds for a "marginal pass" grade, and more than two unexcused absences will result in a "no pass" grade.

Grading

This studio course is graded on a pass/no pass basis. A passing grade indicates that you have achieved the Learning Objectives stated above, have completed all assigned work, and participated in group discussions and pin-ups. The following grade breakdowns are provided to help you understand what a passing grade will entail:

- A 100 – 90 % ---- Excellent. Ideas are clearly stated and developed. Specific examples are appropriate and help develop claims. Student not only demonstrates full knowledge of subject, but also demonstrates insight, invention, critical thought and ability to elaborate.
- B 80 - 89 % ----- Good (satisfactory for graduate level work). Meets expectations for assignments, analysis and critique.
- C 70 - 79 % ----- Average. Work is competent. Student demonstrates reasonable awareness and knowledge of subject, but fails to elaborate; work is often not supported by specific examples, analysis or synthesis.
- D 60 - 69 % ----- Inferior. Notably lacking preparation; project/assignment content may be irrelevant or dispersive.
- F 59% or less ---- Failing. Work is incomplete, not understandable or logical, poorly organized. Student doesn't have grasp of information, and can't answer questions about subject.

Accommodations for students with disabilities

The University of Oregon strives to provide equal opportunity and access for all students. It is "dedicated to the principles of equal opportunity in education and accepts diversity as an affirmation of individual identity within a welcoming community. Disability is recognized as an aspect of diversity integral to the university and to society" (<http://aec.uoregon.edu/>). If there are aspects of the instruction or design of this course which may result in barriers to your participation, please notify me as soon as possible so that accommodations may be made. Please contact the UO Accessible Education Center (website above) for further information and assistance.

Inclusion statement

The School of Architecture and Allied Arts is a community that values inclusion. We are committed to equal opportunities for all faculty, staff, and students to develop individually, professionally, and academically regardless of ethnicity, heritage, gender, sexual orientation, ability, socio-economic standing, cultural beliefs or traditions. We are dedicated to an environment that is inclusive and fosters awareness, understanding and respect for diversity. If you feel excluded or threatened, please contact me and/or the department head for assistance. The University Bias Response Team seeks to create a just campus by providing resources for the university community to respond to incidents of bias and harassment" and is a valuable resource: (<http://bias.uoregon.edu>).

Academic misconduct policy

The University Student Conduct Code is available at <http://conduct.uoregon.edu>. Academic misconduct includes cheating, plagiarism, or fabrication (see website for definitions and further information). Students should always properly acknowledge and cite all sources of information, including documents, images, photographs, and especially in the context of a design studio, known precedents or inspirations for design. Plagiarism is taking and using as *one's own* the ideas, concepts, analysis and writings of another without giving appropriate credit through

proper documentation. "Proper documentation" includes quotation marks, foot- or endnote citations, or noting that a sentence or paragraph is paraphrased (with references to where the original information was found). Providing assistance to another student who is attempting to cheat or plagiarize is also considered academically dishonest.

If there is any question about whether an act constitutes academic misconduct, it is the student's obligation to clarify the question prior to taking any action. Principles of academic honesty and professional ethics also apply to any use of computers associated with the class. This includes observing all software licensing requirements and respecting copyrights of intellectual property published on the Internet.

