

# USC School of Architecture

Urban Forestry: Turning Cities into Biosphere Carbon Sinks

ARCH 546 | 2 units | Fall 2018  
Mondays / 11:00-12:50

Instructor: Takako Tajima [[ttajima@usc.edu](mailto:ttajima@usc.edu)]  
Office Hours: By appointment



## COURSE DESCRIPTION

A recent study in the Proceedings of the National Academy of the Sciences of the United States of America (PNAS) examines conditions that may push us towards a “Hothouse Earth” pathway in which the stabilization of the rate at which global temperatures rise becomes impossible. The international team of scientists who authored the study urge collective human action to steer our fate away from this critical threshold. Landscape architects are poised to lead this “collective human action” based on not only our familiarity with natural systems but also our understanding of urban systems and how they inter-relate and -react.

This course will examine historical and contemporary approaches to “urban forestry” from around the world. We will focus not only on implementation but long-term maintenance and succession. The aim of this course is to familiarize students with a variety of existing approaches that may serve as catalysts for

innovation. Students will also work closely with the Korean Youth + Community Center participating in a grassroots effort to enhance tree coverage in Los Angeles and gaining hands-on tree-planting experience.

## COURSE OBJECTIVES

- + To expand your knowledge of urban forestry, its key concepts and theoretical frameworks, and associated vocabulary.
- + To begin a dialogue about testing the boundaries of landscape architecture through innovative ideas of urban forestry.
- + To provide hands-on experience organizing a tree planting event and actually planting trees.
- + To create a unique educational experience about engaging in the community with the support of a non-profit partner, KYCC.

## READING ASSIGNMENTS & DISCUSSIONS

Reading assignments are provided as a means to spark new ideas and to spur discussion regarding topics relevant to our investigation. Some may be challenging as they may introduce you to concepts that are completely foreign to you, but they are meant to be interesting and hopefully, even provocative.

All students will be expected to participate in the discussions. We are a small group. Our discussions will only be as lively and productive as each of our discussants. Please come to class prepared. Reading assignments will be made available on Blackboard.

### I. REQUIRED READING

Czerniak, Julia, Hargreaves, George, eds, *Large Parks*, (New York: Princeton Architectural Press), 2007.

Davis, Brian, Vanucchi, Jamie, "Urban Forests as Urban Artifacts," *Scenario Journal, Scenario 4: Building the Urban Forest*, (Philadelphia: Scenario Journal Inc.), 2014, <https://scenariojournal.com/article/urban-forests-as-landscape-artifacts/>.

Goodyear, Sarah, "A 140-Acre Forest Is About to Materialize in the Middle of Detroit," *CityLab*, October 25, 2013, <https://www.citylab.com/design/2013/10/140-acre-forest-about-materialize-middle-detroit/7371/>.

Lee, Su Jin, Longcore, Travis, Rich, Catherine, Wilson, John P., "Increased home size and hardscape decreases urban forest cover in Los Angeles County's single-family residential neighborhoods," *Urban Forestry & Urban Greening*, 24 (2017) 222–235.

Muir, John, "The American Forests," *The Atlantic Monthly*, August 1897 Issue, <http://www.theatlantic.com/magazine/archive/1897/08/the-american-forests/305017/>.

Piana, Max, Troxel, Blake, "Beyond Planting: an Urban Forestry Primer," *Scenario Journal, Scenario 4: Building the Urban Forest*, (Philadelphia: Scenario Journal Inc.), 2014, <https://scenariojournal.com/article/beyond-planting/>.

Roman, Lara A., "How Many Trees are Enough? Tree Death and Urban Canopy," *Scenario Journal, Scenario 4: Building the Urban Forest*, (Philadelphia: Scenario Journal Inc.), 2014, <https://scenariojournal.com/article/how-many-trees-are-enough/>.

## II. SUGGESTED READING

Fountain, Henry, Vikings Razed the Forests. Can Iceland Regrow Them?" *New York Times*, October 20, 2017, [https://www.nytimes.com/interactive/2017/10/20/climate/iceland-trees-reforestation.html?\\_r=0](https://www.nytimes.com/interactive/2017/10/20/climate/iceland-trees-reforestation.html?_r=0).

Janzen, D. H., "How to grow a wildland: the gardenification of nature," *Nature and Human Society*, P. H. Raven and T. Williams, eds. (Washington, D.C.: National Academy Press), 2000, pp. 521-29.

Konijnendijk, Cecil C. et al., "Defining urban forestry—A comparative perspective of North America and Europe," *Urban Forestry & Urban Greening*, Volume 4, Issues 3-4, 3 April 2006, pp. 93-103.

Weller, Richard, Hands, Tatum, "Building the Global Forest," *Scenario Journal, Scenario 4: Building the Urban Forest*, (Philadelphia: Scenario Journal Inc., 2014), <https://scenariojournal.com/article/building-the-global-forest/>.

Whiston Spirn, Anne, *Granite Garden: Urban Nature and Human Design*, (New York: Basic Books), 1984.

## EVALUATION AND GRADING

Final grades will be based on the following breakdown:

Reading Responses	15%
Verbal Participation	15%
Case Study	35%
KYCC Collaboration	35%

University guidelines on plagiarism pertain to original design work. Students are expected to do all of their own design and presentation work. Substantial assistance in the form of model construction and drawing preparation, or deliberate appropriation of the design work of others will be considered non-original work and will be treated as plagiarism. See "Statement on Academic Integrity" below for more information.

## USC & SCHOOL OF ARCHITECTURE POLICIES

### School of Architecture Attendance Policy

A student may miss the equivalent of one week of class sessions without directly affecting the student's grade and ability to complete the course. An excused absence is a confirmed personal illness, family emergency, or religious holiday. **For each absence over the allowed number, your grade can be lowered by 1/3-letter grade.** If additional absences are required for a personal illness, family emergency, pre-approved academic reason/religious observance, you must discuss the situation with your faculty member immediately.

**Any student not in class within the first 10 minutes is considered tardy, and any student absent (in any form including sleep, technological distraction, or by leaving mid-class for a long bathroom/water break) for more than 1/3 of the class time can be considered fully absent.** If arriving late, a student must be respectful of a class in session and do everything possible to minimize the disruption caused by a late arrival. It is always the student's responsibility to seek means (if possible) to make up work missed due to absences, not the instructor's, although such recourse is not always an option due to the nature of the material covered.

### **Statement for Students with Disabilities**

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to your faculty member as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

### **Statement on Academic Integrity**

**\*\*PLAGIARISM IS GROUNDS FOR FAILING THIS COURSE\*\***

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. *Scampus*, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: <http://www.usc.edu/dept/publications/SCAMPUS/gov/>. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: <http://www.usc.edu/student-affairs/SJACS/>.

### **Support Systems**

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the American Language Institute <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. The Office of Disability Services and Programs [http://sait.usc.edu/academicsupport/centerprograms/dsp/home\\_index.html](http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html) provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, USC Emergency Information <http://emergency.usc.edu> will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

### **Religious Holidays**

The University of Southern California recognizes the diversity of our community and the potential for conflicts involving academic activities and personal religious observation. The University provides a guide to such observances for reference and suggests that any concerns about lack of attendance or inability to participate fully in the course activity be fully aired at the start of the term. As a general principle, students should be excused from class for these events if properly documented and if provisions can be made to accommodate the absence and make up the lost work. Constraints on participation that conflict with adequate participation in the course and cannot be resolved to the satisfaction of the faculty and the student need to be identified prior to the add/drop date for registration. After the add/drop date the University and the School of Architecture shall be the sole arbiter of what constitutes appropriate attendance and participation in a given course.

### **Sustainability Initiative**

The School of Architecture has adopted the 2010 Initiative for Sustainability. Solutions to design problems must engage the environment in a way that dramatically reduces or eliminates the need for fossil fuel.

## COURSE SCHEDULE

### WEEK 1 / 20 AUGUST

INTRODUCTION      **COURSE OVERVIEW**

### WEEK 2 / 27 AUGUST

KYCC COLLABORATION      **KOREAN YOUTH + COMMUNITY CENTER INTRODUCTION**

### WEEK 3 / 03 SEPTEMBER

NO CLASS      **LABOR DAY**

### WEEK 4 / 10 SEPTEMBER

LECTURE      **WHAT IS URBAN FORESTRY?**  
READING RESPONSE      Due at 9:00 am  
READING      Piana, Max, Troxel, Blake, "Beyond Planting: an Urban Forestry Primer," *Scenario Journal, Scenario 4: Building the Urban Forest*, (Philadelphia: Scenario Journal Inc.), 2014, <https://scenariojournal.com/article/beyond-planting/>.  
Davis, Brian, Vanucchi, Jamie, "Urban Forests as Urban Artifacts," *Scenario Journal, Scenario 4: Building the Urban Forest*, (Philadelphia: Scenario Journal Inc.), 2014, <https://scenariojournal.com/article/urban-forests-as-landscape-artifacts/>.  
Muir, John, "The American Forests," *The Atlantic Monthly*, August 1897 Issue, <http://www.theatlantic.com/magazine/archive/1897/08/the-american-forests/305017/>.

### WEEK 5 / 17 SEPTEMBER

LECTURE      **GUEST LECTURER TBA**  
READING RESPONSE      Due at 9:00am  
READING      TBA

### WEEK 6 / 24 SEPTEMBER

KYCC COLLABORATION      **NEIGHBORHOOD WALK-THROUGH AND ASSESSMENT**

WEEK 7 / 01 OCTOBER

LECTURE	<b>URBAN FORESTRY STRATEGIES</b>
READING RESPONSE	Due at 9:00am
READING	Goodyear, Sarah, "A 140-Acre Forest Is About to Materialize in the Middle of Detroit," <i>CityLab</i> , October 25, 2013, <a href="https://www.citylab.com/design/2013/10/140-acre-forest-about-materialize-middle-detroit/7371/">https://www.citylab.com/design/2013/10/140-acre-forest-about-materialize-middle-detroit/7371/</a> . Roman, Lara A., "How Many Trees are Enough? Tree Death and Urban Canopy," <i>Scenario Journal, Scenario 4: Building the Urban Forest</i> , (Philadelphia: Scenario Journal Inc.), 2014, <a href="https://scenariojournal.com/article/how-many-trees-are-enough/">https://scenariojournal.com/article/how-many-trees-are-enough/</a> .

WEEK 8 / OCT 08

KYCC COLLABORATION	<b>DOOR-TO-DOOR CANVASSING FOR PERMISSION TO PLANT</b>
CASE STUDY	Outline, questions, and preliminary bibliography due at 9:00am.

WEEK 9 / OCT 15

FIELD TRIP	<b>MOON VALLEY NURSERY</b>
------------	----------------------------

WEEK 10 / OCT 22

LECTURE	<b>A HOUSE IN THE WOODS</b>
READING RESPONSE	Due at 9:00am
READING	Lee, Su Jin, Longcore, Travis, Rich, Catherine, Wilson, John P., "Increased home size and hardscape decreases urban forest cover in Los Angeles County's single-family residential neighborhoods," <i>Urban Forestry &amp; Urban Greening</i> , 24 (2017) 222–235.

WEEK 11 / OCT 29

FIELD TRIP	<b>CULVER CITY / MEETING WITH URBAN FORESTER, PAMELA PALMER</b>
READING RESPONSE	Due at 9:00am.
READING	Culver City Urban Forest Master Plan

WEEK 12 / NOV 05

KYCC COLLABORATION	<b>USC X KYCC CONCEPT DEVELOPMENT WORKSHOP</b>
	+ Design flyers
	+ Post on social media

+ Presentation boards

WEEK 13 / NOV 12

LECTURE	<b>LARGE PARKS</b>
READING RESPONSE	Due at 9:00am.
READING	Lister, Nina Marie, "Sustainable Large Parks: Ecological Design or Designed Ecology?" in Czerniak, Julia, Hargreaves, George, eds, <i>Large Parks</i> , (New York: Princeton Architectural Press), 2007, pp. 35-57.

WEEK 14 / NOV 19

CASE STUDY PRESENTATIONS

WEEK 15 / NOV 26

KYCC COLLABORATION    **TREE PLANTING EVENT**

FINAL EXAM WEEK

CASE STUDY                      **FINAL PAPER DUE AT 9:00AM ON ASSIGNED FINAL EXAM DATE TBA.**