This studio will examine the dynamics of change through the lens of the proposed Science and Technology campus at OSU. To make way for the new campus, the proposed demolition of the St. John Arena presents an unsettling erasure and associated questions regarding the fate of its debris. Further change is already underway as the river restoration plan is altering the dynamics of the Olentangy River. Forming the western boundary of the site, the river’s restoration promises not only enhanced water quality and stream habitat but also the possibility of sculpting riverbanks, wetlands, and pedestrian access. The buildings that will house the proposed Science and Technology programs will be sited to extend the architectural experience from the building clusters through a textured landscape that reaches to the proposed river channel. Density and geometry will be primary instruments for generating textures that will vary according to scales of intimacy and immensity. Tree gardens present a model for interventions at a variety of scales and complexities ranging from the refinement of an intimate space to the exuberance and constructed wildness of the forest. Primary to tree gardens is the expression of architectural structure while also acknowledging the dynamics of growth that will radically change as the trees age, grow possibly ten times their size, and die. This studio does not require prerequisite horticultural or botanical knowledge and presents a rich terrain for a dialogue between architecture and landscape practices.

CONTEXT

The approximately 30-acre Science and Technology campus that is proposed to replace the St. John Arena and parking areas extends from Tuttle Park Place west across the proposed realignment of Cannon Drive to the Olentangy River, and from West Lane Avenue south to Woody Hayes Drive. The site borders the Stadium and the Knowlton School of Architecture as it reaches from the pedestrian-based interior of campus to its barren riverbanks.

ISSUES

Demolition
The proposed replacement of the St. John Arena, built in 1956, and adjacent parking areas with a Science and Technology Campus raises questions not only about construction but also destruction. What is the process of demolition or deconstruction? What is the fate of its materials? What is the cost of transporting and land filling its debris? What is the potential reuse or recycling of for example, asphalt, concrete, metal, or limestone? Could it be meaningful, cost effective, or environmentally sound to maintain some of its materials or debris on site?

River Restoration
The Olentangy River restoration plan is altering the size and function of the river. The center portion of the 5th Ave Dam, which was eight-feet high and 475-feet wide and built in 1935, was removed in August, 2012. It had been used as a source of cooling water for the Ohio State University power plant, which is no longer in operation. In addition to removal of the dam, stream improvements will be constructed from the dam upstream to the Lane Avenue Bridge.

According to the City of Columbus, Department of Public Works, the project will help restore the river’s function and water quality while improving habitat for fish and other aquatic species. To restore the riparian corridor, invasive plants will be removed, storm sewer outfalls that flowed into the river will be reconstructed as “scour pools,” and wetlands will be constructed. Riverbanks will be “sculpted” and shorelines will be planted with trees and shrubs to provide a more natural riparian habitat.

Since the new channel of the river will be much narrower than the existing channel, due to the removal of the dam, the vacated river channel will increase the land area, particularly of the
project site where two wetlands have also been proposed. The Department of Public Works puts the word “sculpting” in scare quotes when describing the design of the riverbanks to bring doubt to the issue of sculpting, probably to maintain the pretense of the “natural.” The plan suggests that trees and shrubs will also be planted to look “natural.” Yet there is no pretense of the natural in the design of the river’s straight channels. This studio will assume that the river’s newly designed channel promises not only enhanced water quality and stream habitat but also the potential for sculpting riverbanks, wetlands, planting, and pedestrian access.


Campus Design
The campus will be designed to orient primarily to the river. Issues regarding the accommodation of the proposed Cannon Drive, the orientation to the stadium, and the proposed pedestrian axis to the river will be investigated and assessed by students. Proposed are approximately 225,000sf gross building footprint. Half of the proposed space is dedicated to Plant, Environmental, and Social Sciences and the rest is divided among Science and Technology, Engineering, Food and Animal Science. The architectural experience of the campus will be a textured landscape that is structured by buildings, tree gardens, skyspaces, landforms, and wetlands that reach from the interior of the existing campus to the proposed river channel.

Tree Gardens
Tree gardens can be described as the largest living architectural structures. In dialogue with topography and buildings, they can compete in scale but, by contrast, change dramatically in size over time. Breaking away from the solid lines and scattering of trees that commonly represent the built and the natural, tree gardens express the fact of their making at the same time appreciating the lively contest with natural processes that are working to degrade their architecture. Appealing to the senses and bodily experience, small groves form intimate spaces and larger ones social commons. Mature designed forests at the future Science and Technology campus will not only evoke awe but also improve air quality, reduce storm water runoff, and sequester carbon.

SELECTED REFERENCES


STRATEGIES

In the initial analysis, students will not only investigate site conditions but also assess and respond to plans and proposals already generated for the site by the City of Columbus, OSU, and OSU consultants. Campus precedents, both historical and contemporary, should also be considered. In the first design project, students will devise site diagrams in which the driving force is the movement of pedestrians as they traverse campus to the river. Methods of analysis and evaluation should rely heavily on sectional interpretations, in addition to proposing a schematic site plan. The sectional approach will expose spatial and scale relationships as well as illustrate directional movement. Through collage, drawing, and models, sections will reveal how topography, buildings, and trees occupy the site and structure the campus. In the second stage, students will focus on key elements of the site diagram to develop a series of landscape environments on the campus that express intention and material, scale and context, through three-dimensional studies bearing a strong relationship to the human scale. This will inform the initial site proposal for the built area of campus. In the second project, students will investigate riverbank precedents that stress slope access, views, river walks and gathering spaces. These will inform the development of three-dimensional strategies that transport pedestrians from the campus proper across the slope to river walks and gathering spaces that celebrate the dynamics of water and growth from the wetlands to the river channel. In the third project, students will design a particular element of the schematic plan, such as along the river or on campus, by developing detailed design concepts and three-dimensional explorations.

PRELIMINARY SCHEDULE

1 Monday JAN 6  Lottery, Course intro, syllabus, resources.
   Wednesday JAN 8  Team reviews of site analysis progress.
2 Monday JAN 13 Class review. Begin site strategies and modeling alternatives.
   Wednesday JAN 15 Desk crits.
3 Monday JAN 20 No class.
   Wednesday JAN 22 Class crits. Tree Garden lecture.
4 Monday JAN 27 Desk crits.
   Wednesday JAN 29 Desk crits.
5 Monday FEB 3 Class crits.
   Wednesday FEB 5 Desk crits.
6 Monday FEB 10 Final Review Project 1. Assign precedents, class model.
   Wednesday FEB 12
7 Monday FEB 17
   Wednesday FEB 19.
8 Monday FEB 24
   Wednesday FEB 26
9 Monday MAR 3
   Wednesday MAR 5
10 Monday MAR 17 Final Review Project 2.
    Wednesday MAR 19 Desk crits of site selected for detailed design.
11 Monday MAR 24
   Wednesday MAR 26
12 Monday MAR 31
   Wednesday APR 2
13 Monday APR 7
   Wednesday APR 9 Wall crits of all work to be presented.
14 Final Review Week