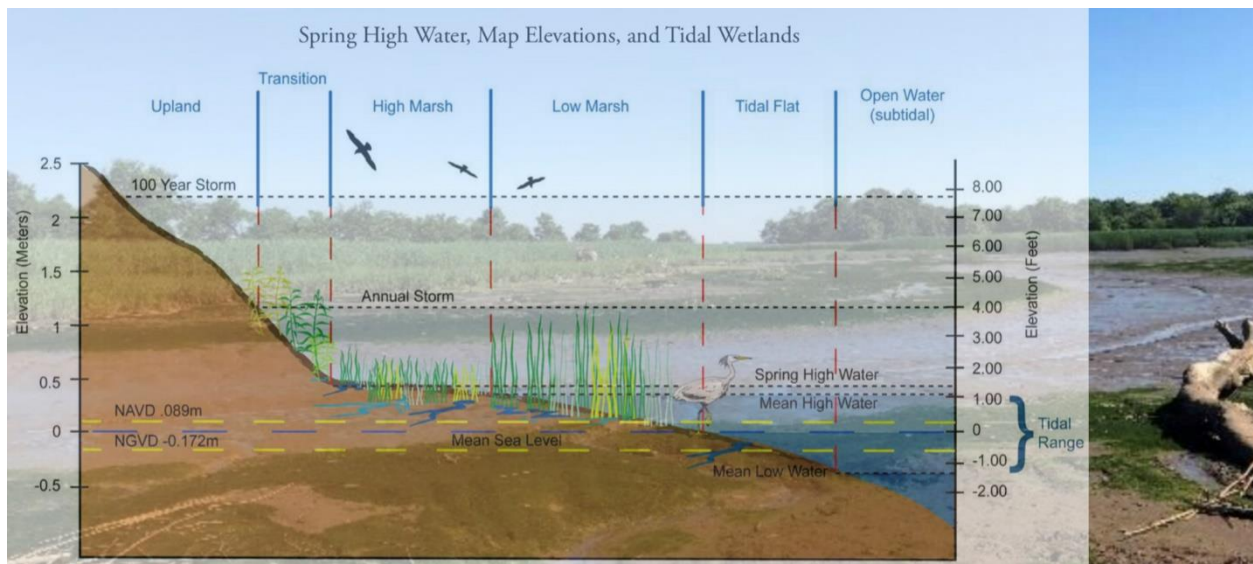


## South River Wetland Complex

Developing an Ecological Respite in the Raritan Bay Area

Rutgers School of Environmental and Biological Sciences, Dept. Landscape Architecture:  
Praxis Studio (EC), 11:550:332, 432, 532  
Spring 2019: T 2:15-6:55; Th 2:15-5:1

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### OVERVIEW

Just 50 miles southeast of New York City, tucked between two municipalities, sits a 650+ acre tidal salt marsh which spans the shorelines of the South River in densely populated, highly developed Central New Jersey. The South River is the first major tributary of the Raritan River, located 8.3 miles upstream of the Raritan River's mouth, which drains into Raritan Bay. Large, contiguous wetland areas like the South River marsh are few and far between.

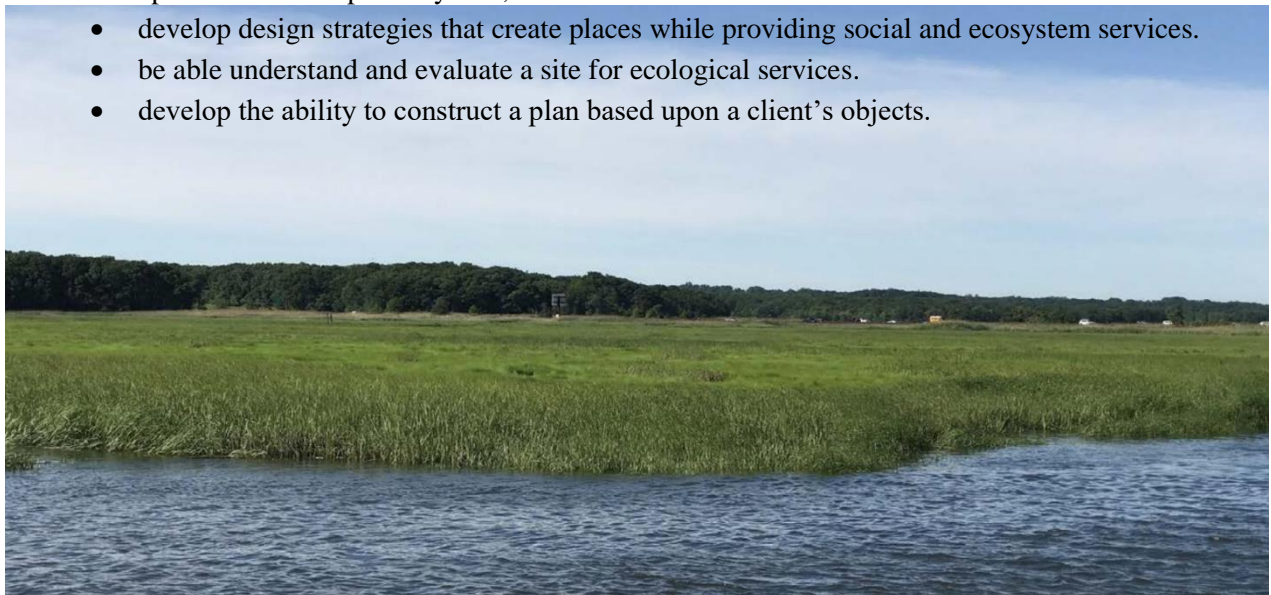
While the South River salt marsh ecosystem has been spared from direct development, it has been degraded in quality, and does not provide optimal habitat for wildlife or maximum flood protection for residents. Recent overbank events from the South River have caused nearly all the significant flooding in

the Boroughs of Sayreville and South River. According to the Borough of South River's March 2014 Strategic Recovery Planning Report (Bignell Planning Consultant, Woodbridge, NJ), "flood prone neighborhoods generally fall into four geographic areas: east of Whitehead avenue, the entire Waterfront Revitalization District, the Ferry/Reid Street corridor, and north of Reid Street." All these areas either border or are near the west bank of the South River. Both Hurricane Irene and Superstorm Sandy caused significant damage in western Sayreville, mainly on Weber Avenue and MacArthur Avenue, which are parallel roads immediately east of and near the South River.

Through the vehicle of lectures, field trips, multi-discipline collaboration, and engagement with the client, government agencies, and professionals in the field students will gain an understanding of the challenges to influencing big picture changes within urban environments as landscape architects. The hope is through this process, each student will begin to define a personal thesis for how and where landscape architects and planners might find new opportunities to intervene in more meaningful ways. Ways that seek to adaptively reuse industrial landscapes while providing ecosystem services, and most importantly create areas of "place".

### **Course Goals and Objectives:**

1. Students will develop the skills to interpret science, technology, and cultural context to critique, design, and to envision and develop innovative solutions in sustainability, land stewardship, and other contemporary urban challenges. They will;
  - be able to differentiate between ecosystem functions and services within the context of urban green space.
  - be able to differentiate between native, novel, and non-native vegetative assemblages and develop an appropriate context for each.
  - be able to relate site-scale observations and interventions to larger regional ecological and social processes spatially and temporally.
2. Students will gain a functional understanding of and develop the ability to creatively design space and spatial relationships. They will;
  - develop design strategies that create places while providing social and ecosystem services.
  - be able understand and evaluate a site for ecological services.
  - develop the ability to construct a plan based upon a client's objects.



**Schedule:** The studio is structured in three broad phases:

**Phase I: Landscape Research Inventory & Analysis**

During this phase of research and analysis, you will investigate not only the site and its history, but also broader human and ecological systems in which the site exists as well as engaging in a class-wide investigation and discussion of issues of environmental ethics, nature and ecosystem services. You will meet with the client and examine the existing conceptual redevelopment plan and environmental impact statement. Your study of the site, landscape, and environmental issues will set the framework in which you will develop your site-specific plan. This phase of the studio will culminate in the presentation of your site and system investigations as well as your proposed locations for your constructed intervention.

**Phase II: Synthesis, Case Studies and Presentations**

During this phase of the studio you will synthesize your research into a design approach. You will each undertake several case study investigations of similar projects. You will combine this information with the needs of the community. You will formulate a conceptual landscape design based upon your approach.

**Phase III: Conceptual and Final Designs** The final design will present a landscape solution which represents your teams' resolution of the issues and opportunities discovered during the process. The design will present a specific philosophical approach to landscape design that is reflective of the Commoner's Laws of Ecology.

**Field Trips:**

Field Trips are designed for half or whole day examinations of specific sites. Field Trips will generally take place on Thursdays. You will be given the opportunity to talk with site personnel and examine how policy is translated into action.

**Reviews:**

You will have two or three reviews over the course of the semester where you will be asked to formally present your work to outside guest critics as well as your instructors. The dates of these reviews will be determined by the progress of the class.

We will try to limit these reviews to normal class hours, please keep in mind that presentations by the entire class can be time intensive and we will need to work around the schedules of guest critics. Reviews may start before normal class hours or end after, do what you can to schedule accordingly. Please let us know immediately of any schedule conflicts that arise over the course of the semester.

**The detailed schedule below is tentative and may change as the course develops:**

Detailed Schedule				
Week	Date	Activity	Assignments	Readings
1	1/19/2021	Lecture: <i>Connections to the Land</i>		
		<i>Four Trace Concepts in LA and Topolgy</i>		Topology Pamphlet 15 (Intro, Definitions, Maxims)
		<i>Ecological Design</i>	Assignment 1	Ecological Design (Marie Listner)
	1/21/2021	<i>Existing Resource Review</i>	Expressing Experience - Your "Place"	A Sense of Place (Stegner)
			Assignment 2	
		Assignment 1 Discussion	<b>Assignment 1 Due</b>	
2	1/26/2019	The Ecology of the Rartian Bay and Marshes		Ecological Legacy_ Is Urban Marsh Sustainability Compatible with CWA Water Act?
	1/28/2019	Site Visit		
3	2/2/2019	<i>What is a "Landscapeist Attitude" in The Three Natures, Fourth Nature</i>	<b>Assignment 2 Due</b>	The Land as Palimpsest (Corboz)
				Novel ecosystems: theoretical and management aspects of the new world
	2/4/2019	GUEST Lecture		
4	2/9/2019	<i>Urban Ecology</i>	Assignment 3	Novel Ecosystems
	2/11/2019	GUEST Lecture	Exploring Concepte	James Corner
			<b>Assignment 3 Due</b>	Harborne and Mumby
5	2/16/2019	Inventory and Analysis Work Session	Assignment 4	What is Good
	2/18/2019	Inventory and Analysis Work Session		Ecological Restoration
6	2/23/2019	Initiate Conceptual Design		Readings for Projections
		<i>Protecting Open Space</i>		
	2/25/2019	Inventory and Analysis Pin-up	<b>Assignment 4 Due</b>	Economic Value of Ecological Restoration
7	3/2/2019	Developing Alternatives Work Session	Assignment 5	How to Study Public Life
		GUEST Lecture		
	3/4/2019	Developing Alternatives Work Session		
8	3/9/2019	Developing Alternatives Pin-up	<b>Assignment 5 Due</b>	
		<i>The Public Trust</i>		Public Trust Doctrine
	3/11/2019	Choosing a Solution		
9	3/16/2019	No Class / Spring Break		
10	3/23/2019	Who is the Space For?	Assignment 6	
		<i>New Jersey Demographics</i>		<a href="#">4 Change in New Jersey</a>
	3/25/2019	Developing the Solution		
11	3/30/2019	Who is the Space For? Pin-up	<b>Assignmnet 6 Due</b>	
				<a href="#">Climate Change with Landscape Architecture</a>
	4/1/2019	<i>Rates of Change during the Anthropocene</i>	Assignment 7	
12	4/6/2019	Case Study Presentation	<b>Assignment 7 Due</b>	
	4/8/2019	Work Session Final Design	Assignment 8	
13	4/13/2019	Work Session Final Design		
	4/15/2019	Work Session Final Design		Readings: Ascension Island
14	4/20/2019	Work Session Final Design		
	4/22/2019	Final Presentation	<b>Assignment 8 Due</b>	
15	4/27/2019	<i>The World Without Us</i>		
	4/29/2019	Booklet		
16	5/7/2019	<b>Booklet Due</b>	<b>Booklet Due</b>	

### Studio Resources:

Course readings will be made available on the course SAKAI website. Data and information such as base maps and the environmental impact statement will be available through the course folder.

This studio will require all of the basic drawing, drafting and modeling materials that you have employed in prior studios. Individual assignments may require you to purchase specific materials depending on the approach you choose to take in developing your design. For all studio meetings, you should be prepared with the following at your desk:

HARD COPIES (if you are working in the computer, drawings should be printed to a known scale)

Trace paper for sketching and diagramming; you should have a roll of 12” trace at your desk at all times, and large sizes as is required by the size of your drawings.

Drawing implements including but not limited to: a medium – thick felt-tipped pen (such as medium sharpie or pentel sign pen), pencils (medium to soft led), and colored markers (at least 3 colors).

### **Computer and Software:**

In addition to analog materials, this studio will require you to utilize the computer for research, analysis, and drawing. You should utilize your own computer or use the schools computers available in the computer lab when necessary. You should be familiar with and have access to the following programs:

The Adobe Design Suite (Photoshop, Illustrator, InDesign)	AutoCAD
ArcMap 10 and associated Esri programs	Microsoft Excel (Microsoft Access may also be useful)

### **Grading**

You will be graded based on your achievement of the learning objectives for the course through the completion of course assignments and active participation in course activities. Deliverables and evaluation criteria for specific exercises will be provided prior to the exercise. The studio will employ a variety of techniques and exercises over the semester, and grading techniques will vary with each assignment.

Assignment 1 - 5%	Assignment 5 – 20%
Assignment 2 - 5%	Assignment 6 – 20%
Assignment 3 - 5%	Assignment 7 – 30%
Assignment 4 - 5%	Assignment 8 – 10%

### **Departmental Grading Guidelines**

While the assignment of grades is ultimately the purview of the instructor, the department uses the following guideline for understanding appropriate grading in its courses:

A- Outstanding -This not only means fulfilling the requirements, but impressing and going beyond the initial expectations of the project. The student has demonstrated a superior grasp of the subject matter coupled with a high degree of creative or logical expression, and strong ability to present these ideas in an organized and analytical manner,

B- Very Good - The student has demonstrated a solid grasp of the material with an ability to organize and examine the material in an organized, critical, and constructive manner, The projects and in-class performance reveal a solid understanding of the issues and related theories or literature.

C- Acceptable -The student has shown a moderate ability to grasp concepts and theories for the class, producing work that, while basically adequate, is not in any way exceptional. This performance in class display a basic familiarity with the relevant literature and techniques.

D- Unacceptable - The work demonstrates a minimal understanding of the fundamental nature of the material or the assignment with a performance that does not adequately examine the course material critically or constructively. Students cannot graduate from the Landscape Architecture program with 2 D's in required SSO classes,

F- Failure - The student has demonstrated a lack of understanding or familiarity with course concepts and materials. Their performance has been inadequate. Failure is often the result of limited effort and poor attendance which may indicate that the student is not in the proper field of study.

### **Studio Etiquette**

In studio, as you should in life, treat your fellow students and their work with respect. This will require patience and tolerance at times, but is critical to fostering a safe and nurturing work environment for everyone. This is particularly important in a studio environment. You will be working closely together over the course of the semester, and such collaboration cannot succeed without mutual respect, patience and tolerance. As you are all in the third year of your tenure here, we should have a shared understanding of what this means in the studio environment. However, if issues of disrespect of people or their work arise, they will be addressed promptly and seriously.

Treating fellow students and their work with respect extends to all of your fellow students, not just your classmates for this course. Please be patient and tolerant and respectful of other work going on around you. Should any issues arise with treatment of your work or working space, notify the instructor immediately.

Addition requirements for etiquette regarding the use of department facilities and equipment can be found in the student handbook; you should be familiar with and abide by these rules.

([http://landarch.rutgers.edu/current\\_students/student%20handbook/StudentHandbook\\_web\\_SectI.pdf](http://landarch.rutgers.edu/current_students/student%20handbook/StudentHandbook_web_SectI.pdf) and [http://landarch.rutgers.edu/current\\_students/student%20handbook/StudentHandbook\\_web\\_SectII.pdf](http://landarch.rutgers.edu/current_students/student%20handbook/StudentHandbook_web_SectII.pdf))

### **Accommodations for students with disabilities**

Please follow the procedures outlined at <https://ods.rutgers.edu/students/registration-form>. Full policies and procedures are at <https://ods.rutgers.edu/>

### **Attendance**

Studio Attendance is Mandatory. A minimum level of participation is defined as being in attendance for the entire duration of a class session. It is the student's responsibility to be in attendance at all required classes and trips. All personal plans should be made in accordance with the class schedule.

Attendance and active participation in studio is a fundamental part of design learning. The interaction, discussion, and design activity that takes place during studio will be critical to both the development of

your design for this studio, but also your development as a designer. Unexcused absences are not permitted.

**If you miss studio for illness or an emergency, please use the University absence reporting website <https://sim.rutgers.edu/ssra/> to indicate the date and reason of your absence, preferably before the class missed, but no more than a week after the absence. An email is automatically sent to us.**

More than one unexcused absence will result in a reduction of half a letter grade with each absence. Should you be absent, you are responsible for following up with the course instructor and fellow students to find out any work that you have missed. An absence is not an excuse for not being prepared for the next class. The course requirements above are in addition to, and do not obviate any departmental requirements as are laid out in the departments Student Handbook ([http://landarch.rutgers.edu/current\\_students/policies\\_st.html](http://landarch.rutgers.edu/current_students/policies_st.html)).

### **Work Becomes Department Property**

Submitted drawings, models, photographs, or written papers for any project assigned in Landscape Architecture courses are considered the property of the Department and may be retained in its archives for exhibition and accreditation purposes. All projects will be graded and returned to the student at a location designated by the instructor. Should your drawings be retained by the Department, you will be given the opportunity to obtain a print or photographic record of your work. Department files are OFF LIMITS to students.

### **Academic Integrity**

As an academic community dedicated to the creation, dissemination, and application of knowledge, Rutgers University is committed to fostering an intellectual and ethical environment based on the principles of academic integrity. Academic integrity is essential to the success of the University's educational and research missions, and violations of academic integrity constitute serious offenses against the entire academic community.

The principles of academic integrity require that a student:

- properly acknowledge and cite all use of the ideas, results, or words of others.
- properly acknowledge all contributors to a given piece of work.
- make sure that all work submitted as his or her own in a course or other academic activity is produced without the aid of impermissible materials or impermissible collaboration.
- obtain all data or results by ethical means and report them accurately without suppressing any results inconsistent with his or her interpretation or conclusions.
- treat all other students in an ethical manner, respecting their integrity and right to pursue their educational goals without interference. This requires that a student neither facilitate academic dishonesty by others nor obstruct their academic progress.
- uphold the canons of the ethical or professional code of the profession for which he or she is preparing.

Adherence to these principles is necessary in order to ensure that everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments.

- all student work is fairly evaluated and no student has an inappropriate advantage over others. the academic and ethical development of all students is fostered.
- the reputation of the University for integrity in its teaching, research, and scholarship is  maintained and enhanced.

Failure to uphold these principles of academic integrity threatens both the reputation of the University and the value of the degrees awarded to its students. Every member of the University community therefore bears a responsibility for ensuring that the highest standards of academic integrity are upheld. See also: <http://academicintegrity.rutgers.edu/>.