Confluences
A confluence is defined as “the junction of two rivers, especially rivers of approximately equal width” and as “an act or process of merging.” (oxforddictionaries.com)

The confluence of city and landscape is particularly complex at the site of Freshkills Park in Staten Island. It is here that, in 1948, Robert Moses supported temporarily dumping New York City’s trash in the swamp and wetlands. Local opposition to the Fresh Kills landfill swelled in the 1990’s to the extent that Staten Island actually passed a referendum to secede from NYC in 1992 to become an independent municipality (but dependence on NYC water resources, among other issues, complicated that move). Supported by the Environmental Protection Agency, local pressure finally succeeded in closing the landfill in 2001, although it was temporarily reopened after 9/11 as a site for the debris and remains of the attack on the
World Trade Center. Today, the reimaging of this site as a newly constructed urban landscape is underway. The design for Freshkills Park was awarded to Field Operations, a landscape architecture firm, through an international design competition in 2001. After much public review and input, the implementation of the master plan for the park is underway.

What is the role of architecture in this ecosystem? This is a large site, but it is also just a small part of the history of our engagement and occupation of the landscape. On a global scale, we are faced with issues such as climate change, toxic pollution, species-depletion, dwindling resources, waste disposal and the loss of historically significant landscapes. The built environment both aggravates and alleviates these challenges: buildings and landscapes use energy and create it, generate heat islands, sequester carbon, re-chart waterways, and influence consumption and waste patterns. It was our waste patterns that have created this newly constructed landscape. Our architectural designs can reimagine how we engage with this constructed landscape and re-envision opportunities for the public to inhabit this space.

Have you been to Staten Island? This semester we will explore Freshkills Park and engage both local and global issues by designing places for the public to connect with this site. We are interested in the complexity and contradictions embedded in this place and expect that your research will make some of these invisible histories visible. We will explore the site from the ground, from the water, and from above over the course of the semester – documenting our perception of this place as experienced and analyzing the ways that this park is connected to larger systems of urban infrastructure. There will be two distinct projects in order to interrogate the Freshkills site through multiple lenses of research and design. We will start at the scale of the body (and a boat) – focusing on the experience of the site – and then look at the site as part of a larger set of systems in the city, ultimately connecting that analysis to the cultural production of artistic and scientific research at Freshkills.

**Project 1 – Interface: Boat House and Launch** will focus on a small-scale project in the park where land and water overlap. The project begins with a fieldtrip to Freshkills Park this Friday. You will be asked to document the site and your project through an experiential mapping and to design a boat house and boat launch through the extensive use of physical models.

**Project 2 – Boundaries and Confluence** has two parts. The first part, Boundaries, is the analytical mapping of the networks and systems that Freshkills Park is connected to. This is intended to be a view from above and beyond the site – showing us how site is part of larger eco- and social systems. The second part of this project, Confluence, is to design a field house for art and science, supporting a programmatic goal of Freshkills Park to support arts research alongside science and ecological research.
**Confluences**

1898 Richmond Island joins New York City

1948 Infrastructure meets Landscape (Robert Moses style)

1964 More infrastructure: Brooklyn connects to Staten Island via Verrazano Bridge (S.I. called Borough of Richmond until 1975)

1990 Environmental Conservation efforts confront waste accumulation (decision to close landfill)

1996 Trash and waste capped with concrete and plants (start capping process)

2001 City supports Landscape Design (a design competition)

2001 Closed landfill temporarily reopens (9/11)

2010 Freshkills interfaces with the public (parks open and new programming begins)
**Semester Overview**

We will travel to Freshkills Park twice this semester, exploring the constructed landscape with our alum, Mariel Villeré, who is the Manager for Programs, Arts, and Grants at Freshkills Park.

There are many opportunities for design exploration this semester, and as liberal arts students, we expect that you will bring unique perspectives related to your own particular research interests. Some of the topics/issues we are interested in as a studio:

- making the invisible visible
- relationships between infrastructure + city; landscape + architecture; art + science
- bound / unbound / boundedness
- micro / macro scales; multi-scalar relationships
- systems and networks
- parks and constructed landscapes
- materials and their effects
- ecological / biological
- artists as mediators
- research and experimentation

The studio method requires a commitment to the design process – an iterative process with an expectation for risk taking and experimentation. There are no “correct” answers for many of the questions that arise during desk crits – only suggestions for ways to approach research. We expect you to establish your own research question(s) based on the project and to develop a graphic argument to support it. The development of your project, the rigor of your research, the clarity of your representation, the presentation of your design are all significant parts of the evaluation of your work – not just the final product.
Student Leaning Objectives
Students in Architectural Design 1 & 2 should be able, at an advanced level, to:
1. Visually communicate architectural concepts and design intent using discipline-specific techniques including:
   - orthographic projections (plans, elevations, sections),
   - paraline projections (axonometrics, isometrics),
   - physical models using various techniques and materials,
   - multiple media and/or combined representational strategies
2. Verbally communicate architectural research methods and spatial concepts
3. Demonstrate an understanding of precedent and site analysis
4. Demonstrate an understanding of design method as a step-by-step, iterative and incremental process of research, synthesis and feedback
5. Demonstrate an understanding of design thinking as responsive to and shaper of social and cultural context
6. Demonstrate the ability to work independently and collaboratively
7. Demonstrate an understanding of the historical and theoretical contexts for architectural representational conventions
8. Utilize both analog and digital techniques in the design process
9. Demonstrate an understanding of program, use and activity
10. Demonstrate an understanding of material and fabrication
11. Utilize a range of analog and digital techniques in the design process

Contact Information
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Fred Tang (Studio Coordinator)
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rcruz2945@columbia.edu GSAPP M.Arch I Program; 2nd year

Choonghyo Lee
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<table>
<thead>
<tr>
<th>Week</th>
<th>Mon</th>
<th>Wed</th>
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<tr>
<td>Week 1</td>
<td>09/09/15</td>
<td>09/11/15</td>
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<td>Class</td>
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<td></td>
<td><strong>Confluences</strong> - Class Introduction; Project 1 <strong>Interface: Boat House</strong></td>
<td><strong>Freshkills field trip #1: 8:30am-12pm or 12:30pm-3:30pm</strong></td>
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<td><strong>Group 1 (Kayakers) Take 8:30am Ferry from Whitehall to meet at 9:00am on the Staten Island side. Group 2 (Hikers) Take the 12:30pm Ferry from Whitehall to meet at the Staten Island side at 1pm.</strong></td>
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<td>Week 2</td>
<td>09/14/15</td>
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<td><strong>Note: Rosh Hashana</strong></td>
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<td>Week 3</td>
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<td><strong>Note: Sukkot</strong></td>
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<td>10/05/15</td>
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<td><strong>Project 1 Interface: Boat House Due; Final Review</strong></td>
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<td><strong>Freshkills field trip #2: 9am-1pm or 1pm-5pm</strong></td>
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<td><strong>Group 1 - Take 8:30am Ferry from Whitehall to meet at 9:00am on the Staten Island side. Group 2 - Take the 12:30pm Ferry from Whitehall to meet at the Staten Island side at 1pm.</strong></td>
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<td>Week 7</td>
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<td><strong>Project 2.1 Boundaries: Mapping</strong> - Pin-Up</td>
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<td>Week 8</td>
<td>10/26/15</td>
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<td>Week 9</td>
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<td>Week 10</td>
<td>11/09/15</td>
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<td><strong>Project 2.2 Mid Review</strong></td>
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<td>Week 11</td>
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<td><strong>Thanksgiving Vacation</strong></td>
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<td>Week 13</td>
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<td>Week 14</td>
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<td>12/09/15</td>
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<td><strong>Project 2 - Tiled/Small Format Drawings due</strong></td>
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<td>Week 15</td>
<td>12/14/15</td>
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<td><strong>Project 2.2: Confluence: Art / Science Field Station Final Review</strong></td>
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<td><strong>Reading Day - no class - group grading by faculty</strong></td>
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PROJECT 1: INTERFACE
Boat House and Launch
Assigned: Wednesday, September 9
Field Trip #1: Friday, September 11
Final Review: Wednesday, October 7
Field Trip #2: Friday, October 9

The tidal changes at the water’s edge intimately connect kayaking in Freshkills Park to a larger temporal condition. The tides challenge our understanding of where there are edges or boundaries at this site. The tides determine accessibility and duration of activities. Designing for our inhabitation of this edge, and for the particular activity of kayaking, will necessarily address the relationship of both those material and immaterial conditions that affect design.

Where does the experience of this site begin? You will arrive at Freshkills having traveled, most likely, from the upper west side of Manhattan. And in one trip, you will have taken subways, ferries, and buses to get to the site, which you will then explore by walking and/or kayaking.

Your project has two parts: a site documentation/site section and the design of the boat house and launch. These are parallel projects, both ongoing and both informing the other as you work.

The site documentation starts the day of your field trip. The emphasis is on an experiential mapping of the site – this is to be sectional in nature and using any type of media that best captures that experience, including but not limited to: photography, video, orthographic section, and collage. We expect aspects of time, distance, scale, and section as perceived or experienced by a park visitor to be part of this mapping exercise. Each student will select particular aspects of their experience to form the basis of their mapping.

Boat house and launch program:
- Interior storage for 30 kayaks and paddles: 1,500sf
- Storage for life jackets and miscellaneous equipment: 200sf
- 1 small office (10’x10’): 100sf
- 2 composting bathrooms: 160sf
- Mini lockers for 30 visitors to store valuables (12”x12”): 100sf
- Community program space: 1,000sf
- Circulation and building spaces: 1,000sf
- Boat launch surface
- Bicycle racks (30 - exterior)

Total enclosed program: 4,060sf + exterior spaces

Final Deliverables:
1. Physical Model(s) – final model and archive of process models. Final model to be 1/2”=1’-0” (min).
   Group site model scale to be determined.
2. Experiential Analysis - documentation in 2D is required. If your project is digital (2 minutes play time maximum), provide a form of drawn documentation (for example, screen captures organized around time)
Studio Notes

0.0 READ ME
This course introduces the student to the complex array of ideas, methods and techniques that form the discipline of architecture. Architectural Design 1 and 2 broaden and deepen the scope of architectural research begun in the major’s entry-level classes and adds a variety of cultural, technological and theoretical issues with which students learn to work.

Architectural Design 1 and 2 is a two-semester sequence of design projects which require that each student work at a variety of scales, with a variety of techniques and in a variety of research situations. Architectural issues include the interpretation of the body in space, the shifting conditions of scale, light, and texture, the nature and complexity of a site or a program and the role of structure, materials and construction. At the same time, the projects in Design 1 and 2 are purposefully embedded in the cultural and social fabric that shapes, and is shaped by, the forms and processes of architectural production. Projects investigate the connections between architecture and other disciplines familiar to the liberal arts students. The projects also refine the students’ knowledge of the designer’s tools – models, drawings, digital images, etc. – that join, often in unexpected ways, the mind, the hand, and the eye. Readings, lectures and workshops complement these tools. Finally, and perhaps most important, the course emphasizes the examination of the process of design as well as its outcome.

0.1 STUDIO PROCEDURES
Design is a unique type of knowledge production requiring unique working methods. This course is taught by the studio method – an iterative process that requires dialog, design production, and risk taking by the student to explore ideas in the form of a variety of media. The Studio will be divided into small, individual sections, each led by a Studio Critic. The core method of instruction is that of 'desk crits', a one-to-one dialogue at the desk between the student and the Critic. At the desk crit, previous design work is reviewed and discussed and the student and critic formulate the next steps in the process. Desk crits are supplemented by Interim Reviews, or 'Pin-ups', where all students in the Section (sometimes teamed up with another Section) present their design ideas for group critique and discussion. The culmination of each project is the Final Review in which students present their work for public evaluation by a group of Studio Critics and Visiting Critics.

Students will remain in the same Studio Section, at the same desk, for each semester. At the midpoint of each semester, critics will shift sections so by the end of the academic year, each student will have been exposed to four different approaches to design methods. Teaching Assistants will be conducting workshops focusing on techniques and methods relevant to ongoing projects.

0.2 ATTENDANCE
You are encouraged to work in the studio and to take advantage of the shared learning environment to discuss your work with your peers.

Attendance is mandatory at all scheduled classes. Studio is held Monday and Wednesday beginning promptly at 9:00 AM. Any student arriving after 9:20 AM will be considered 'late' and arrivals after 10:00 AM will be considered as absent. The only excused absences are those for reasons of health or crisis, and you must alert your critic or the studio coordinator. Unexcused absences, late arrivals, or early departures from class will reduce your course grade.

Three non-consecutive absences within the semester will result in a grade reduction by one-third (1/3) of one letter grade (e.g., A- to B+). Three consecutive absences or four nonconsecutive absences will mean that you have dropped the course, whether or not you have filed the appropriate "drop" form. You may not leave class early or after a desk crit. Plan to use your time in the studio so that you are not simply waiting for your Critic.
0.3 GRADING
Each Studio Project will be graded with a letter grade and a written evaluation. Your work will be evaluated by the following criteria: (1) idea/concept; (2) conceptual development and design process; (3) final execution. Project #1 will count for 40% of your final grade and Project #2 will count for 60% of your final grade. Sketchbooks will be reviewed periodically by your critic and may be required for grading. The instructors recognize learning and improvement as important factors in determining your final grade.

Students are required to present their work in all Interim and Final Reviews. Failure to do so will reduce the grade of the exercise by a minimum of one letter grade (e.g. B to C). Work not presented at the designated time will not be reviewed at a later date. Project grades will be based on the work you present at your Final Review. Required work that was not completed at the Final Review must be completed in time for grading. Additional work completed after the Final Review and before grading will not be considered at the grading session unless otherwise stated by the Studio Critics. NO INCOMPLETES will be given at the end of the course.

0.4 SECURITY
Please attend to the security of the Studio space. You will have swipe access to the studio through your ID and it is crucial that this door remain closed and locked at all times. Only students enrolled in the class should have access to the space. Because there is occasional theft, it is highly recommended that you do not prop open the door, leave any valuables unattended when away from your desk, and leave costly tools or devices (iPods, laptops, cameras, etc.) in your desk even if locked. You may leave your parallel rule attached to your desk. Columbia Security does make periodic checks of the studio but security is a responsibility that we all share; please help us maintain a safe and productive environment. IF SOMETHING OF YOURS IS TAKEN, PLEASE MAKE SURE YOU CONTACT SECURITY AS WELL AS THE STUDIO COORDINATOR.

0.6 STUDIO WORK PRACTICES
Please refrain from the use of spray paints, spray adhesives, or similar products in the studio – there is a spray hood in the adjacent storage room for this. In order to maintain a productive workspace for all, music must be listened to through your headphones.

0.7 PREREQUISITES
Architectural Representation: Abstraction and Architectural Representation: Perception are both prerequisites for this course. It is recommended that the lecture course, Perceptions of Architecture is completed before enrolling in this class. Priority for this course is given to Architecture Majors.

0.8 ACADEMIC INTEGRITY
The faculty statement on academic integrity begins with: “The intellectual venture in which we are all engaged requires of faculty and students alike the highest level of personal and academic integrity. As members of an academic community, each one of us bears the responsibility to participate in scholarly discourse and research in a manner characterized by intellectual honesty and scholarly integrity.” The full statement can be found here: http://www.college.columbia.edu/academics/integrity/statement. We expect that students will work in accordance with their honor code (Barnard: http://barnard.edu/dos/honorcode and Columbia: https://www.college.columbia.edu/honorcode). The consequences of committing an academic integrity violation in this class will be an academic sanction and the matter will be referred to the Dean’s Discipline process.

0.9 DISABILITY SERVICES
Students with disabilities who will be taking this course and may need disability-related accommodations are encouraged to register in advance with the Office of Disability Services (ODS) in 008 Milbank for Barnard students or Disability Services at Wien Hall, Main Floor — Suite 108A for Columbia students.
Bibliography and Resources:

Freshkills
http://freshkillspark.org/the-park/chronology-of-the-freshkills-park-site
http://freshkillspark.org/the-park/the-park-plan
http://freshkillspark.org/design-construction
http://freshkillspark.org/os-art
http://freshkillspark.org/os-research
http://freshkillspark.org/videos

Staten Island
Center for an Urban Future (CUF) conducted a study on Staten Island a few years ago:
https://nycfuture.org/research/publications/staten-island-then-and-now
Staten Island “Green Zone”: http://www.landscapeandurbanism.com/2010/12/07/city-concealed-staten-island/ (La Tourette Park and William T. Davis Wildlife Refuge, the Staten Island Greenbelt, Arden Woods, etc.)

Landfills
Other NYC Landfills to Parks: Brookfield, Jamaica Bay, Pelham Bay

Other Suggested Online References
New York Public Library Digital Collections: Collections about New York City. (Two collections in particular: Atlases of New York City & Staten Island Post Cards.)
http://digitalcollections.nypl.org/collections/lane/collections-about-new-york-city

Envisioning Gateway: a public design competition for gateway national park.
- Envisioning Gateway. New York: Urban Landscape Lab and Spatial Information Design Lab, 2007. The full research report is available as PDF on the Van Alen’s website here:
http://gateway.vanalen.org/site_researchreport.php
- The website has an online exhibition of competition entries here: http://gateway.vanalen.org/exhibition.php

Rebuild by Design Competition http://www.rebuildbydesign.org/

Books and Articles


Botkin, Daniel Discordant Harmonies: A New Ecology for the 21st Century (for those interested in ecological systems latent in our environment, see sample of chapters on courseworks)


Lally, Sean, guest editor, Energies, AD Journal, John Wiley & Sons, Ltd., 2009. (on courseworks, see work of Sean Lally/Weathers and Philippe Rahm in particular.)

Corner, James, Taking Measures Across the American Landscape, Yale University Press, 1996. (excerpts on courseworks)


**Architecture, Art, + Science Practices (and Events)**

Mel Chin, [http://melchin.org/oeuvre/mel-chin](http://melchin.org/oeuvre/mel-chin)


P.S. 1/MoMA Young Architects Program Design Competitions, [http://momaps1.org/yap/](http://momaps1.org/yap/)


Sean Lally, Weathers, [http://www.weathers.cc/](http://www.weathers.cc/)


**Mapping and Data Visualization**

Spatial Information Design Lab, GSAPP [http://www.spatialinformationdesignlab.org/projects](http://www.spatialinformationdesignlab.org/projects)

**Free Kayaking in New York City** *(selection from online listings, there are probably others)*

The Downtown Boathouse [http://www.downtownboathouse.org/](http://www.downtownboathouse.org/)


New York City Parks [http://www.nycgovparks.org/events/kayaking](http://www.nycgovparks.org/events/kayaking)

**Software Support**

Lynda.com (Columbia University site license)

**Your critics**

http://www.data-to.com/

http://joebmoore.com/

http://www.officemg.com/

http://marblefairbanks.com/