Regional Foodshed Resilience: An Interdisciplinary and International Practicum
Columbia University GSAPP, Urban Planning
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Tue. 3pm – 5pm
Avery 600

The current food system, with its complex global supply chain and regional specificities, annually produces enough food to feed 10 billion people — nearly 1.5 times the current population, and even a billion more than the estimated population for 2050. And yet nearly one seventh of the global population suffers from chronic hunger, while another seventh is overweight, and more than thirty percent of the food we produce is wasted. Meanwhile, the world's population is already majority urban, and will only become more so, with 6.5 billion people, or more than 70 percent of the global population, expected to live in cities by 2050. These numbers imply that on average, an extra 205,000 urban mouths will have to be fed every day, with huge impacts on the rural foodshed from which the majority of that sustenance (and its embodied water) will be sourced. With the climate changing, human population growing, and the distance between the place of food production and food consumption increasing, there has never been a more important time to analyze the resilience of our current food systems, in order to understand common weaknesses, innovative adaptations, and collaborative opportunities that will help shape planning processes for both cities and food systems.

The Regional Foodshed Resilience Practicum course takes place simultaneously at universities in two global cities: New York and Mumbai. In each city, a similar set of pressing and large-scale issues around land ownership and access, a growing urban-rural disconnect; food security, access, and justice; health; and food system resilience in the face of increasingly common severe weather events are filtered through a very different cultural, governmental, infrastructural, and spatial reality — but, at scales both large and small, from street vendors to macro-economic policy, the varying weaknesses, failures, opportunities, and successes of all four regions' responses can help inform a much more nuanced understanding of the challenges at hand.

Students taking part in the Regional Foodshed Resilience course meet with experts in the field, engage in critical learning workshops, take part in hands-on projects, and collaborate across borders. During the first semester, students examine the resilience of their respective food system as it pertains to the natural environment, built environment, equity, economic development, and human health in their city and region. Their guiding question is: How resilient is our food system in the face of changing environmental, demographic, and economic factors? To focus these efforts, the classes trace one staple food item through their entire food system. The second semester is an international collaboration between the two classes during which they learn from one another and use their combined knowledge to draw connections, compile a list of best practices, and create region-specific recommendations and global synergies.

The course is comprised of two semesters, and students are expected to take part in both. The city and region will be act as course packs for the practicum, so students will not be asked to purchase books or readers for the course. All supplemental reading and video materials are available online for free. Students will be using funds generally reserved for reading materials in order to fund a portion of the outings and field trips; this fund will not exceed $150 per student.

1st Semester: The Local Foodscape
Advanced Studio (3 credits)

Week 1-2: General introduction to food systems study
Week 3: New York City & region foodscape (including infrastructure, access, and stakeholders)
Week 4: Food system resilience
Week 5-12: Tracing the staple food item (investigating the ways in which the environment, the economy, and the population is both influenced by and influences the production, processing, distribution, and consumption of the given staple food item)

Time commitment:
Students will meet one time per week, for a total of 2 hours. The sessions will alternate between academic study and critical discussion on campus one week and meetings with experts and hands-on work off campus the following week.

Final Project:
Students produce a series of maps tracing the production, processing, distribution, and consumption of the staple food item (tomato in New York; onion in Mumbai). These maps include key points of waste, vulnerability, and potential for improvements.

2nd Semester: International Collaboration, Local Implementation
Elective Course (3 credits)

Week 1-4: Peer-led learning about each region
Week 5-8: Students work in international groups, comprised of one or two students from each of the four cities, to explore the issues of vulnerability and resilience within the different parts of the food system
Week 9-12: Local exhibits public programming to re-engage experts from 1st semester meetings and produce content for final report / website

Time commitment:
Students will meet one time per week, for a total of 2 hours. Students will also be working independently to arrange meeting times with their international counterparts. Students must be available for 8-10 days of international travel during Spring Break. Students will work on the final presentation to partners, as well as the public programming and exhibit, during class time as well as outside of class time.

Final Project:
Students and instructors collaborate on a campaign to raise public awareness about key resilience issues within the region and lessons learned from other cities. This will include workshops with various stakeholders and decision-makers, public exhibition and an associated event (to take place at Studio X and / or Global Center); final report to be disseminated online.

Week 1

Root Causes and Ideologies that Shape Our Systems and Our World

- What are the dominant myths and official pronouncements that form the foundation of our society? What do they obscure? Reveal?
- What systems rule our lives? How do they operate? Who runs them? How do they reflect, reject, relate to the natural world?
- What can symbols teach us about who we are?
- How do we increase in our awareness to become more sensitive to and cognizant of systems and forces that we have grown so accustomed to, they are almost invisible?
- What is a city? Materially? Symbolically? Ecologically?
- What is a practicum? What is expected of students?

Readings

- Berry, Wendell. The Unsettling of America; Culture & Agriculture. San Francisco: Sierra Club Books: 1977
- Capitals of Capital: The Rise and Fall of International Financial Centres 1780–2009 (excerpts)

Field Trip

- Lower Manhattan & Beyond

Week 2

Introduction to Food Systems Study & Regional Resilience

- The Anthropocene - the current state of the environment
- Global Food Crisis trivia / just the facts
- What is food planning?
- What are the components of a food system?
- What are the changes expected to occur in the NYC region in the next 10 years? 20 years? (environmental, demographic, infrastructural)

Readings

- American Planning Association, “Food System Planning”
- PlaNYC *A Stronger More Resistant New York*

Video

- Toby Hemenway - How Permaculture Can Save Humanity and the Earth, but Not Civilization

Week 2

NYC Regional Foodscape: The People and the Infrastructure

- How much food is consumed in NYC?
- How much is wasted and what are the instances of waste?
- How does food get into the city? Into supermarkets, restaurants, delis, farmers markets, schools, etc.
- How much of the food is grown regionally? What is the potential to scale up?
- Who is hungry? Well fed? Obese? Nutritionally insecure?

Readings / Resources

- Carolyn Steel: *How Food Shapes Our Cities*
- Selected readings from Tristram Stuart's *Waste: Uncovering the Global Food Scandal*
- Profits from Poverty: How ***Food Stamps*** Benefit Corporations

Field Trip
- Hunts Point
    - What are the benefits and pitfalls of a centralized food hub
    - How is Hunts Point expected to change in the next 10 years? 20? What adaptations are being planned? Being implemented?

Week 4
Food System Resilience
- What makes any system resilient (diversity, redundancy, groups, wealth, social capital)
- The benefits and pitfalls of diversity (centralized vs. decentralized system - issues of efficiency, scale)
- Where are current global and NYC regional food systems most vulnerable?

Readings
- Rethinking Ecosystem Resilience in the Face of Climate Change
- Legitimacy, Adaptation, and Resilience in Ecosystem Management

Guest Speaker
- Daniel Zarrilli, Director of Resiliency at NYC Office of the Mayor

Week 5
Tracing the Tomato, the Staple Vegetable
- Why focus on the tomato?
- Basic facts and figures (history, production, processing, consumption)
- What does it take to grow a tomato?
- Understanding the tomato in our current food system

Readings
- Selections from Barry Estabrook's *Tomatoland*

Field Trip
- Local supermarket

Week 6
Production
- Where are tomatoes grown today?
- Industrial vs. Heirloom?
- Tomato varieties, seed patents
- The tomato in the economy
- Regional tomato production
    - Large-scale in NJ
    - Medium-scale in Hudson Valley & Catskills

    - Small-scale in individual gardens
- Strengths and Vulnerabilities
- Points of waste

Readings
- In Search of the Jersey Tomato
- Making the Trip From the Vine to the Shelf

Field Trip
- Bright Farms / Gotham Greens

Week 7
Processing
- How and where are tomatoes processed?
- How are they transported, and how does this impact the product itself?
- The big 3: Ketchup, Salsa, Sauce
- What are the environmental impacts of processing?
- Local / regional processors (NJ)
- Strengths and Vulnerabilities
- Points of waste

Readings
- Selection from Frederick Kaufman's *Bet the Farm: How Food Stopped Being Food*

Field Trip:
- First Field Jersey Ketchup
- Marc and Holly Phillips, Phillips Farm (Milford, NJ)

Week 8
Distribution
- How do tomatoes and tomato products reach retailers and consumers?
- What are the channels of transport?
- Strengths and Vulnerabilities
- Points of waste

Readings
- Scaling Up: Meeting the Demand for Local Food
- Moving Food Along the Value Chain: Innovations in Regional Food Distribution
- Selection from www.FoodLogistics.com

Guest Speakers
- Challey Comer, Greenmarket / GrowNYC

Week 9
Retail
- How and where are tomatoes and tomato products sold?
- Strengths and Vulnerabilities

- Points of waste

Readings
- Selection from *Tomatoland*

Field Trip
- Park Slope Food Cooperative
- Costco

Week 10
Consumption
- The modern tomato's taste test failure
- Connecting production and consumption; how do consumer choices impact which tomatoes are produced
- Food stories
- Community engagement and social (vs. infrastructural) resilience
- Building social capital through food / social resilience
- Strengths and Vulnerabilities
- Points of waste

Readings / Writing Project
- Read one another's *Food (Hi)Stories*; explore similarities and differences

Guest Speakers
- Family Dinner Project

Week 11
Mapping & Putting it All Together

Week 12
Final Presentation, Conclusions, Recommendations, Looking Ahead to Second Semester

Guest attendees:
- Experts encountered throughout the semester