January 2, 2020

SITE AND ENVIRONMENTAL SYSTEMS PLANNING

Industrial Remix

Site Planning and Landscapes of Production -- Turin, Italy

MIT Department of Urban Studies and Planning
15 units (6-0-9 + IAP Field Work in Italy)
Wednesday 5:30 pm – 7:30 pm, Friday 9:00 am – 12 pm

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Course Description
This practicum is an international collaboration between the Politecnico di Torino (Polito) and their interdepartmental lab, Future Urban Legacy Lab (FULL) and the Site and Environmental Systems Planning Workshop in MIT’s Department of Urban Studies and Planning. With the city of Turin’s Department of Planning as our client, the workshop will envision, plan, and design new approaches for integrating industrial areas of Turin into contemporary city-making.

This workshop is part of a long-term international research collaboration between DUSP (Professor Eran Ben-Joseph) and various agencies around the world that explores new ways in planning industrial areas, where the city can co-exist with manufacturing through an industrial remix. We believe that this new form of industrial remix can be achieved through a tripartite strategy of industrial urbanism, refigured manufacturing, and closed loop urban metabolism. The long-term research strives to plan, design, and retrofit existing residential communities to become low carbon, ecologically responsive, incorporate new technologies, and generally enhance the livability and self-reliance of local residents and potential newcomers. (see: https://www.industrialurbanism.com/)

Course Objectives
For roughly a century, cities have shifted industrial sites to the peripheries of their metropolitan regions and have erected barriers between places of production and places where residents live and go about their day-to-day lives. Technological advances in production methods have made it possible to reconsider the relevance of these barriers and to question whether the preferred location of industrial sites is on the periphery. This project aims to understand the spatial effects and dynamics of 21st century manufacturing, and to recommend policies that respond to these effects and dynamics. In doing so, this course will strive:

- To thoroughly understand the spatial ramifications and dynamics of manufacturing and the industrial economy
- To create policy recommendations and design strategies that promote resilient urban development
- To use the city of Turin and the larger regional context as a case study for research that investigates new planning strategies and innovative technological approaches for urban
development. This development should accommodate the next generation of manufacturing and industrial production.

**Specific Project Goals:**

- To conduct an interdisciplinary study that leverages different expertise that collectively contribute to a strategic plan that proposes sustainable design for the manufacturing and industrial areas of Turin, Italy.
- To understand the industrial history of Turin and the resulting spatial outcomes from past policies and plans. With this knowledge, understand the spatial ramifications and dynamics of new manufacturing and the contemporary industrial economy. With the future of manufacturing in mind, help make recommendations for policy response systems to the city and foster responsible and resilient urban development that integrates industrial uses.
- To bring new insights and technical expertise (site planning) that can be utilized for the future industrial and creative economy in the city and region.

**Themes**

New models for design and development will come from major research themes, including:

1. **Exploring the Dynamic between City and Industry**

   Manufacturing constitutes a significant portion of the world’s total economic activity and industry occupies large areas of our built environment—yet, we tend to think about industry in an economic or even political context often divorced from spatial or locational considerations. In a time of dramatic shifts in technology and the manufacturing sector—from large industrial-scale production and design to small-scale distributed systems; from polluting and consumptive production to a clean and sustainable process; from a demand for unskilled labor to a growing need for a more educated and specialized workforce—cities will see new investment and increased employment opportunities. To reap these benefits will require a shift in our thinking about the city’s planning, design, and development.

   While there is no single answer that can anticipate what future manufacturing will require, cities can begin to set the stage and create a new framework for re-embracing industry. Three key challenges identified are:

   i. With the rapid growth of biotechnology and digital fabrication comes the pervasive confusion regarding terminology: what exactly do we mean when we speak of “industry,” “manufacturing,” or “production”?
   
   ii. The lack of exposure to modern industry among the general public and political leaders may lead to outdated perceptions of urban industry. How do we help educate others on modern industry and clear strategies for encouraging the return of industry to urban sites?
   
   iii. There is limited and declining supply of urban land zoned for industry in cities. How does zoning code accommodate a return to industry?

   While economic arguments for urban manufacturing and the policies that support it are maturing, the spatial strategies for supporting manufacturing are either scattered or nonexistent. How does one address the challenges facing industry through spatial solutions? What criteria should guide the development of contemporary urban industrial development? Furthermore, can we use...
industry as a prime catalyst in retrofitting cities? These questions are crucial in the process of envisioning the future relationships between production, people, and place.

2. Rethinking Urban Industry and Manufacturing in Turin

This project proposes the testing and exploration of a new industry-city strategy for the existing Regio Parco (Royal Park) district of Turin. Located in the northeastern edge of the city, Regio Parco is comprised of several small industrial sites distributed along the southern edge of Stura di Lanzo River and Park. This project will focus on a strategy integrates the existing industrial areas of the district (working across scales of the city and region) with the environmental systems of the open space networks and waterways, and the residential fabric of the city. This strategy will be driven by ecologically sensitive development that aggregates the production activities and uses of related industries, while providing an economic and environmental framework that plans for a resilient industrial urbanism.

Specifically, the project aims to bring innovative approaches to planning industrial areas, where the city of Turin can reintegrate manufacturing through an industrial remix. The new form of industrial remix can be achieved through a tripartite strategy of industrial urbanism, refigured manufacturing, and closed loop urban metabolism. This strategy is a place-based strategy that draws upon Italy's strengths in industry, environment, culture, and people. New forms of industrial development will be examined with a range of proposed prototypes that examine new models of manufacturing, housing, and policy.

In an effort to develop a full scope of possibilities for industrial areas in Turin, the project will explore both the regional context as well as site-specific issues of site planning, infrastructure and ecological systems. The project will also develop strategic goals and policy recommendations.

Location: Regio Parco (Royal Park) district of Turin, Italy.

Client
The client for the practicum workshop will be the City of Turin (City Planning Division).

Collaborators
In addition to working with the City of Turin, the class will be collaborating with the local institution, Politecnico di Turin (PoliTO) and their interdepartmental lab, Future Urban Legacy Lab (FULL) http://urbanlegacylab.net/. The Future Urban Legacy Lab’s mission centers on imagining cities with an interdisciplinary approach to urban phenomena, built on the integration of morphology, economy, evidence-based design, and socio-technological understanding. FULL will include faculty, researchers, and students from architecture, landscape architecture, and planning. The Politecnico di Turin faculty who will be participating in the workshop are: Professors Matteo Robiglio and Francesca Frassoldati.

At MIT, the course will be an opportunity to share interdisciplinary expertise within DUSP and other departments, including guest lectures from: Kairos Shen, Visiting Lecturer in MIT Center for Real Estate and former Chief Planner at the Boston Redevelopment Authority, Gary Hack, Professor
Emeritus at MIT, and Carlo Ratti. Other collaboration opportunities include potential Media Lab presentations and workshops with Sasaki Strategies’ Director of Technology and MIT alum, Ken Goulding.

Class Description
The class addresses the range of practical approaches involved in evaluating and planning sites within the context of natural and urban systems. The course concentrates on developing the knowledge and skills to make one capable of analyzing and planning a site for development through practical exercises and a major site planning project.

Class Objectives
Beyond the educational and professional purpose, there is also a wider important public service objective attached to this course. Typically, there has been a concerted effort to stimulate public understanding and debate about current design or policy issues within the project locale. Thus, the class has always worked with specific clients who can benefit from the proposals that such a workshop can generate. Student teams produce design and policy recommendations including methods of implementation. Past clients and collaborators have confirmed that the class has influenced thinking and shaped decision-making in their cities.

Reflective Practice
Reflection will be a significant aspect of the workshop. Written exercises and class discussion will be used to help students understand how they think and learn in the course of action and deepen their understanding of some of the core issues of site planning practice. Students will be expected to keep an on-line journal where reflection assignments will be completed regularly. These assignments are geared to explore issues faced by planners during the planning process as well as document student professional growth and experiences working in interdisciplinary teams.

Many of the reflection exercises will focus on the following themes and questions:

- How are you combining your values, education and actions in complex situations in the professional work of the class?

- How are you learning from experiences? How are your experiences shaping your view of what it means to be good planner/urban designer and what you need to be effective as a planner/urban designer?

- What are the key issues, opportunities and challenges in planning for industrial urban areas and how are these similar to and different from other planning problems?

Format
The course combines seminar, discussions and studio formats. Short informal talks will introduce concepts, analytical techniques and site planning models. Short exercises as well as a major project will provide practice in various site planning and design techniques. This course will use supplementary site planning tutorials and presentations that were developed for Site Planning Online for MITx, which was co-created by Gary Hack and Mary Anne Ocampo in 2019. The online class material can be found here: https://www.edx.org/course/site-planning-online. Students in the
workshop will be able to utilize the new online content to teach fundamentals of site planning with online presentations, design exercises, and tutorials.

Students will share work space in room 10-485 or studio.

Class Requirements
This class is a workshop. The class will meet twice weekly. Wednesday classes are 2 hours in length and are devoted primarily to lectures, tutorials, and some studio time. Friday classes are 3 hours and are reserved mostly for in-class work time/studio time, discussion of issues arising on the project, and discussion of reflection exercises.

*Attendance is mandatory for classes. Any known absence must be arranged with the instructors in advance and work is expected to be turned in on time or per alternate arrangements.

Expected Deliverables and Outcomes
The expected deliverable for the workshop will be a report for the City of Turin that includes research, analysis, and a proposed framework with recommendations for the industrial areas of Turin. The workshop report will be a record of this creative and strategic work and will be produced for the client, PoliTO and MIT.

Grading and Evaluation
Students are graded on the basis of active participation, commitment, team work, quality of presentation and submitting exercises on time. Progress during the semester and striving for improvement will be credited.

Materials
Readings and other auxiliary resources will be distributed in class. They will be updated weekly and can be downloaded from the class website:  http://stellar.mit.edu/S/course/11/sp20/11.304J/

COURSE STRUCTURE
The course will be organized in four phases:

January Travel to Turin, Italy (January 22-31, 2020)
During the last week of IAP, students will meet with the client, the City of Turin’s Planning Department, and PoliTO students, researchers, and faculty. A series of presentations, meetings, interviews will take place during this week. A tour of the site and other case study sites, guest presentations, and site observations/analysis will be part of the visit.

February Phase I: Researching and Analyzing Turin
For the first phase of the practicum, students will conduct research and analysis, documenting the larger Turin municipality context the site’s existing conditions,
including: site planning analysis, creating community profiles (from data-mining through past community surveys and their engagement with community members), as well as identifying priority programmatic needs from stakeholder feedback.

The objective of the first phase is to create rigorous site planning analysis for Turin at three scales: the Turin – Milan regional scale, the Turin municipality context, and the Regio Parco district scale. Analysis will include demographic profile, topography, soil conditions, hydrology, open space, mobility systems, land use, and patterns of use.

March /April Phase II: Creating a Framework and Designing Strategies (Policy and Placemaking)
Defining an approach that structures how environmental systems influence future development patterns for Regio Parco site. Mid-term presentation to the client.

May Phase III: Synthesizing and Preparing Final Recommendations
Synthesizing recommendations and strategies into a final presentation and a report.