The Urban Waterfront Studio:
Re-Imagining Working Waterfronts in Portland, San Francisco and Brooklyn

Introduction

This is a design thesis studio of self-defined projects within the topical framework of Urban Waterfronts. The Winter + Spring design studio is preceded by a Fall term preparatory seminar in which students identify projects, conduct in-depth research and prepare a design program. The studio is a series of rigorous design investigations that focus on a strong theoretical foundation, creative design explorations, and a high level of architectural refinement through tectonic studies that integrate conceptual design with building systems. The emphasis of the academic year is development of a comprehensive architectural project backed by a strong research effort.

Persons interested in the studio are urged to confer with me in person or by e mail before studio preferencing takes place. This provides an opportunity to discuss your interests and potential cities.

Collaboration on urban design and master plans.

Students are encouraged to form teams of two, three or four to work on urban design and master planning in the project areas. This will need to be negotiated in Fall after
specific student interests are identified. Individual architectural projects supportive of the urban design plans will take place within these areas.

Portland Projects

Central Reach of the Willamette River. Downtown Portland

The studio continues a collaboration with the City of Portland. The City is currently in the process of preparing both the Willamette River Plan and The 2035 Downtown Plan, both projects a once in 25-year planning opportunity. The studio will provide students with an opportunity to contribute to the Plans and interact with City officials and the public.

Previous waterfront studios involved meetings with the Mayor, an exhibition of final work at Portland City Hall and a final publication. The upcoming year’s plan includes similar contacts and a publication.

Morrison Bridgehead Opportunity Site

Portland’s Challenge

During the past thirty-five years, Portland removed the Harbor Freeway on the west bank of the Willamette River to create Tom McCall Waterfront Park, built new mixed-use residential neighborhoods at River Place, the River District and South Waterfront, sponsored new waterfront public buildings such as OMSI and the Water Pollution Control Lab in St. Johns, and designed impressive recreational projects such as the East Bank Promenade. A prime opportunity during the next fifty years will be to redevelop a
vast array of sites for new civic, living, workplace and recreational activities that connect the city with the Willamette in creative ways.

Portland Development Opportunities

San Francisco Pier 70

A second focus area is the Pier 70 district in Francisco. Located about a mile south of the central business district and Ferry Building, Pier 70 is the oldest industrial district in the city and the oldest continuously operating shipbuilding and repair yard in the United States.

Despite the city’s economic growth, high real estate prices and demand for space (workplace R&D, housing, public facilities) Pier 70 has been remarkably untouched and undeveloped due to Port ownership, cleanup costs and the general indifference of the City. The area has potential as a National Register Historic District. The ship repair yard is thriving and will remain, regardless of what other activities may be developed in the area.

The City and Port of San Francisco have finally acted to attract developers to the site(s). Forrest City Development of New York was recently given an option on much of the land and has developed a general “framework plan”, but approvals and the actual
development are several years away. More detailed urban design is needed, as well as new activities and buildings (new infill and adaptive reuse). A significant amount of information, reconnaissance and photos are available online at “Pier 70 San Francisco”. This Fall’s Option 2 trip is being tentatively scheduled for San Francisco. Students selecting this site are welcome to join the trip, which is tentatively being scheduled at the end of Week 2 of classes.

Brooklyn, New York

Brooklyn is arguably the most culturally diverse “city” in North America. Its rich maritime and industrial history provided jobs for millions of immigrants to the United States who set down deep roots in Brooklyn’s neighborhoods. As a Borough of New York City, Brooklyn has its own distinct identity, economy and urban living districts that are simultaneously interdependent with the city as a whole. The borough has been in transition during the last generation as Port and industrial activity have declined, although both remain as important generators for jobs and economic activity. People seeking affordable housing due to Manhattan’s sky high prices have flocked to Brooklyn, reviving (and gentrifying) historic working neighborhoods such as Williamsburg and Green Point. Similar patterns of business re-location out of Manhattan have taken place. The former Brooklyn Naval Yard is an example. It has been re-developed by the City as a vast incubator for new industry and businesses, creating over 6,000 new jobs and a home for businesses, advanced technology industries and start-ups.

The challenge in Brooklyn is to balance economic development (jobs) with affordable housing, redevelop old industrial, port, railyard and brownfield sites, and provide high quality public services and facilities for the diverse urban population.
Projects in other cities of the world.

Waterfront sites in North America and overseas are invited. This provides comparative study opportunities of design precedents that stimulate thinking about the potential of urban waterfronts in general, informing Portland and other cities. From past experience in thesis studios, about half the students want to do projects in Portland, half in other cities. Projects outside Portland, San Francisco and Brooklyn must have at least two students to form a team for the urban design and master planning work. (I would like to avoid sixteen individual projects on sixteen different sites spread throughout the country and world). Collaboration is valuable and is an essential part of architectural practice.

Site Selection

If you select a site outside Portland, you must have visited the city (not necessarily the site) at some time in the past, or plan to do so during the course of the school year while you are working on the project. It is highly desirable that you visit the site before the studio begins in January, although in some cases this may not be possible. During the past few years, sites in my thesis studios have been located in Portland (approximately half), Seattle, San Francisco, Los Angeles, New York, Denver, Minneapolis, Milwaukee, Cleveland, Detroit, Vancouver BC and other places in North America; and overseas in Berlin, Amsterdam, Rome, Spain, Cyprus, China, Vietnam, Korea and other locations.

The topic holds the studio together, while the diversity of sites creates a rich mix of places to compare and contrast.

**Potential project and building types (examples):**

- Downtown riverfront public, mixed use and commercial buildings,
- Transportation and infrastructure projects,
- Education and recreation activities, with special relationships to water edge locations,
- Laboratories, research & development and scientific facilities,
- New project typologies

**The Urban Waterfront in History**

Stockholm City Hall. The Seine. Paris

Most of the great cities of the world were born on waterfront settings. Although water transportation and defense often provided an initial force for development, the identity and spirit of countless cities is inseparable from their water edges. Paris is unthinkable without the Seine, Rome without the Tiber. New York’s history and identity is closely tied to the East and West Rivers of the Hudson.

Rivers and bodies of water evoke memory, cultural history, place and meaning. A great river, lake or sea often links a city with its larger ecological and psychological region, providing a physical and symbolic “gathering” of forces that transcend function.

**Sustainable Urbanism and Urban Design**

Sustainable urbanism is a central component of the Portland Urban Architecture Program. The first principle of sustainability is to avoid use of an automobile on a daily basis, a feat that is rare in North America. Public transit and alternative modes of transit need more investment and expansion. Other components of sustainability such as
building energy conservation have been stressed in your other courses. These issues are fundamental to this studio.

Re-use and regeneration of urban land and neighborhoods represent a significant opportunity to revitalize urban economies and populations as an alternative to infinite expansion of suburbs and the destruction sprawl causes in the natural environment.

**Waterfronts in Relationship to Climate Change**

The impacts of climate change are particularly critical to waterfront cities. New York, for example, suffered deeply when Hurricane Sandy struck in October 2012. As the second most costly natural disaster in American history, Sandy illustrated the increasing storm-related challenges facing cities. We can wall off waterfronts with expensive concrete dikes and seawalls, or use intelligent planning and urban design to reconfigure waterfronts with natural features that absorb storm shock. The US NASA Goddard Institute for Space Studies (1) has developed models of climate change, concluding that catastrophic events will become more frequent in the future, with 100 year events taking place every 20-30 years, and so on down the line with lesser storms. This studio will explore waterfront urban design that considers climate change.

**Project Selection and Precedents**

The project must be visionary in the way it explores theoretical and real-world issues. Ideally, it should experiment with new building and site typologies. While the project may learn from precedents around the world, it should clearly demonstrate that it has probed critical design issues in an original way.

Urban design may be a part of the total effort, but the scope of the urban design study will be limited in time so the architecture can be thoroughly-developed.

The architecture of the historic Port. Genoa, Italy. Renzo Piano Building Workshop. Public spaces and paths of movement create a new symbolic and economic center to regenerate the historic harbor.

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Is a Self Selected Project for You?

A self-defined design project may not be the best option for everyone. From past experience, most students who have been through this experience feel they benefited from the opportunity to select and define their own project, as opposed to a project, program and site being chosen by the instructor. However, a few students may have benefited from the latter option since they were not certain what they wanted to do. By national comparison, most of the best schools in the country have a self-defined design “thesis”, “capstone” or final comprehensive project of some kind. I believe a self-defined project is a healthy professional challenge and experience for the student, since it best prepares students for the professional world, encouraging research, creativity and resourcefulness.

Preparation During Summer

Studio participants should arrive at the beginning of Fall term with a preliminary project proposal (2 page statement), including a general description of the topic, building type and city where you would like to work. The specific site may be selected during Fall term. The preliminary proposal will serve as a basis for discussion and negotiation. We will work together to finalize the location and project selection.

Thesis Preparation Seminar: Fall Term

All students in the studio are required to enroll in the Arch 407/507 Thesis Prep Seminar (3 units) scheduled for Fall term. The seminar will focus on the theoretical and conceptual issues of the studio, and provide an opportunity for preparatory research. A “Thesis Statement” and Program document are prepared as a product of the seminar. Additional credits may be earned for project-related research by enrolling in independent studies with the instructor.

The Programming course offered by Yosa Huggins is highly recommended as a support course if you do not have previous programming experience.
Studio Structure. Winter + Spring Terms

▪ Regular design studies with pin-ups take place every week to ten days during the term.

▪ Media selection is generally up to the student, with study guidelines issued for each pin-up and phase of work. In addition to the use of traditional and digital media, physical study models at different scales, including tectonic models, are emphasized throughout the design process. Study models will serve as important study tools for the studio. For persons who do not want to build physical study models, this studio is not your best option.

▪ During the two studio terms, each student will have a specific, regular individual critique time each week. The regular weekly schedule enables the student to know exactly when she/he will meet with the instructor, timing preparation of drawings and models for the conference. Additional critique times are always available by asking.

Project Book / Monograph

A project monograph / portfolio presentation is prepared as a final product at the end of Spring term, in addition to the traditional gallery review.

In addition, a class publication is anticipated with grant support. This will be a scholarly and graphically-imaginative monograph that documents the work of the studio as a whole.

Information / Questions

You are encouraged to contact me with any questions you may have or if you want to discuss your interests before studio preferencing and during the summer. It would be helpful for me to know student interests in advance, as well as individual interests as projects are considered over the summer.

Gerry Gast

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Gerald Gast is an architect and urban designer, a member of the University of Oregon Portland Architecture faculty, and Visiting Associate Professor in the Program on Urban Studies at Stanford University. He is a founding principal of Gast-Hillmer Urban Design in California. Recent projects include design of the new Stryisky Park campus for the Ukrainian Catholic University in Lviv, Ukraine, and the Urban Design Component of the General Plan for Redwood City, California, the latter recognized as the 2012 California Award of Excellence for a Comprehensive Plan, small jurisdiction, by the American Planning Association.

Research interests focus on recent seminal and urban design work, including a comparative study of projects in Vancouver BC, Baltimore, Berlin, the German Ruhr, Barcelona and Curitiba, Brazil. Recent professional work on water edge design includes the Master Plan for the San Diego County Government Center in Downtown San Diego, the Oregon Science and Technology Park (OSTP) in Gresham –Troutdale, OR, citywide and district urban design studies for San Clemente, Dana Point and San Diego, CA.