The COOP: Shared Space Infrastructure for the Creative City

by

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THE COOP shared space infrastructure for the creative city

By Timothy R. Olson

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ABSTRACT

The urban mainstream suffers from a lack of space. Kitchens are too small to hold a gathering of friends. Spare bedrooms, garages, basements, offices and parlors are foregone in the interest of compaction.

The Rise of the Creative Class, an economic engine with its roots in the city, faces an especially challenging relationship to space. While the vitality of urban density is paramount to the success and growth of creative economies, a lack of available affordable space curtails the potential growth of home brewed culture, entrepreneurship and industry. This project engages this resource gap by imagining a cooperative model as a core infrastructure for the creative city.

The context for this project is within the future Innovation District of Boston on the Fan Pier Boston site. The innovation District is currently being imagined by the City of Boston, the Boston Redevelopment Authority, developers, architects and planners as a mixed-use neighborhood with the economic and cultural energy to attract a global creative class workforce.

Fan Pier Boston is a flagship development within the Innovation District. Due to ongoing global recession, 7 of the 8 buildings proposed for the site have been deferred. The COOP is situated in this interim period, between the existing expanse of parking lots that occupy Fan Pier Boston today, and its future promise as a hub of global innovation.

The COOP condenses the vitality of a creative city onto the site of the Fan Pier. Membership owned kitchens workshops and film studios combined with public event spaces for film screening, art openings and concerts anticipate a future creative class urban fabric for the future Boston Innovation District.
home

urban home

1800 SF

SPARE BEDROOM

GARAGE

PORCH

5 10

800 SF

compaction

the coop

SPARE BEDROOM GARAGE PORCH KITCHEN BASEMENT

shared space
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INTRODUCTION
TECHNOLOGY / FORM

Delirious New York elucidates the influence of technology on urban form. Among the most seminal technologies identified by its analysis is the elevator. By enabling differentiated programs to be positioned in vertical adjacency, the elevator has augmented the way in which cities are experienced. The section of The Downtown Athletic Club demonstrates this capacity by revealing contrasting adjacencies compacted into a single form: A boxing ring abuts an oyster bar.  

The formal potentials of a virtualized networked world have yet to be integrated into a city plan or accommodated by architectural form. The potential synergy between the virtual and physical realms is manifest by the capacities of smart phones to link information to geography and the counter culture domestic interlopers riding the wave of websites such as couchsurfer.org. In a hypothetical condition that capitalizes on this potential, programs that are architecturally locked in associations such as The Downtown Athletic Club can be spilled back out into and embedded within the fabric of the city.

WEB 2.0

There is a growing need for physical space to augment social transactions initiated by web 2.0. For example, meetup.com enables a range of local interest groups to coalesce in an ad-hoc capacity. Through this service, coffee shops, public parks and personal homes have become the space for the construction of a new type of community. The COOP imagines a purpose built spatial infrastructure constructed in the service of this community. Cooperative space created in this project becomes a mediator between public and private, virtual and physical.

MOBILITY

Mobile and plug in infrastructure of Peter Cook and Archigram did not anticipate the advent of mobile real time communication and information technology. Uniform grids, reconfiguring components and stilts legged mobile cities represented the extreme extent of the architectural mobility under the imaginative capacity of the 1960’s.
This thesis picks up the torch of mobility and inverts its devices. Instead of employing heavy equipment to mobilize entire buildings, populations are empowered to temporarily inhabit static architectural typologies. Reconfiguration is virtualized through real time communication and programmatic redundancies. Mobility under this construct moves from an Archigram imaginary of plug-in to the plausibility of short-term occupancy.

**LIQUID MODERNITY**

At the same time as the creative class is transforming the economies of post industrial cities, “liquid modernity,” a recent cultural phenomenon identified by Zygmunt Bauman, is transforming the lifestyle, occupation, and ambitions of a generation. “Liquid modernity” describes a condition where identity, occupation and location are in a constant state of flux. The framework of “liquid modernity” reinvents institutions of permanence with nomadic and indeterminate constructs. This form of modernity moves from commodity to service paradigms and from settlement to a state of perpetual unrest.

The COOP fits within this context by unmooring contemporary life from the anchors of ownership. Networked shared ownership spaces lighten the consumer load of the average citizen. In place of static spatial arrangements, storage requirements and the financial burden of ownership, the COOP proposes a network of collaboration and service.

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ZIPCAR

By leveraging the capacity of information technology, Zipcar has recalibrated car ownership to work within a context of "liquid modernity". Its efficiency enables a radical revision of convenience. Because of Zipcar’s increasing ubiquity in American cities, no longer is ownership the most effective mode, but rather by sharing a fleet of vehicles it is possible to gain more by owning less.

The types of cars, branding and well honed public relations of the company have transformed the image of car sharing from hippie idealism to hip eco consumerism. This is accomplished, in part, by providing cars that appeal to a young urban demographic. Mini Coopers, BMWs and Volvos provide aspiration transportation options that are beyond the financial means of many of the program participants.

The feature that distinguishes Zipcar from previous car sharing models is the use of information technology to economize operations. Cars are reserved online. An RFID enabled card unlocks the car at the time of the reservation. Billing is automatically generated. Maintenance items such as check engine lights and oil change warnings are sent automatically to a team of technicians. This efficiency has enabled Zipcar to maintain half the car to employee ratio of the rest of the car rental industry.3

KITCHEN

Contemporary shared use arrangements engage two oppositional spheres. The sphere of socialism constructs shared architectural typologies as a physical manifestation of an ideological position, while a parallel capital-driven motivation for sharing generates economic potential through the strategic organization of temporal use.

Contrasting manifestations of the kitchen evidence the ambitions of these two spheres. The socialized kitchens of cohousing are a locus for the construction of community. The shared space of the kitchen provides the forum for members to connect socially. In a typical cohousing layout, individually owned and occupied homes surround shared spaces such as community kitchens, dining rooms and woodshops.

In opposition to the social sharing of cohousing, capitalism builds temporal use spaces that fill a market need and generate mutual gains for the administrators and users of space. Industrial kitchens evidence a growing market for shared spaces as a place to generate economy. Entrepreneurs who lack the resources to begin businesses in the food industry increasingly rely on industrial kitchens to host their operations.
As the YMCA membership grew, so too did an expansive building program. Purpose built buildings, such as New York's West Side YMCA featured increasingly elaborate facilities constructed to attract and maintain their membership base. Paula Lupkin suggests in her PhD dissertation *YMCA Architecture: Building Character in the American City*, that the West Side YMCA was hardly distinguishable from upscale hotels of the period.  

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3RD WARD

The 3rd Ward artist collaborative in Brooklyn, New York is an association established in an age of creative enterprise.

Founded in 2006 by Jason Goodman, 31, and his partner, Jeremy Lovitt, 30, the 3rd Ward has grown its membership base to over 750 artists, designers and DIY freelancers. Distinguishing the 3rd Ward from other artist spaces is its hybrid program that combines commerce, education, leisure and community. The 3rd Ward collaborative contains facilities such as wood and metal shops, photo studios, and digital editing suites. It hosts classes that range from screen-printing to furniture design. Emerging artists, designers and entrepreneurs can rent space on a month-to-month basis.

Augmenting these aspects is a robust social program of art openings and weekend barbeques. Bicycles and free coffee available to members expand the mission of more typical artist space arrangements to include the creation of a unique brand of community.

**BOSTON ARTIST SPACE INITIATIVE**

In 2002, the Boston Redevelopment Authority enacted a program called the Artist Space Initiative. The mission of this program, to create and support low-cost spaces dedicated to artistic production, underscores the primary tenet of this project: the resource of space is central to creative production.

**Regional space cost survey per square foot**

**Source:** US census data
midway studios: 89 units $950-1050 / mo
dartmouth hotel: 71 units $765-3329 / mo
the signal building: 20 units
the distillery
walter baker lofts: 13 units

1000sf

live/work spaces

work space

L/W

1 allston sculptors workshop
2 charlestown stove factory
3 dorchester humphreys street studios
4 east boston atlantic works
5 hyde park the arts center
6 hyde park first highland management
7 hyde park stanton and tierny real estate
8 jamaica plain the brewery
9 jamaica plain stoneybrook fine arts
10 mission hill diablo glass and metals
11 south boston distillery
12 south end bates art center

100sf

RANGE: $6-13 PSF
BOSTON ARTIST SPACE INITIATIVE GUIDELINES
CREATIVE CLASS

This project hypothesizes that the creative class demographic of the Future Innovation District will ascribe creative ambitions to a broader range of activities than the classical tradition supported by the Boston Artist Space Initiative. This speculation aligns the cultural landscape of the Future Innovation District to Michel De Certeau's *Practice of Everyday Life*. Cultural production, a topic described by Certeau as a "residue" of capitalism, will in the future Innovation District become a central feature.  

A resonance is obtained when the "practice of everyday life" is overlaid with the emerging lifestyle arrangements of the creative class. Both involve the production of time and space relationships that are increasingly obscure. A relentless integration through the vehicle of creative actions homogenizes the space of work and leisure and produces synergy between economy and lifestyle.

prototypical creative class biographies

**BRIDGET**

Bridget is a biomedical researcher for a start up in Cambridge. She is also a freelance photographer who is looking for a production suite, a location to meet with potential clients and a place where she may exhibit her more experimental works.

**MATT**

Although by day Matt works as an attorney, he has always been a tinkerer. He is an avid reader and occasional contributor to MAKE magazine. Matt is looking for a machine and woodshop near his home so that in between the long hours of his day job he can access facilities where he might hone his craft.

**FELIPE**

Felipe is a full time student and a professional party organizer. Felipe is currently writing a grant proposal to host a series of outdoor concerts that highlight up-and-coming Boston DJ's. He seeks an accessible and affordable location where late night noise from raging dance parties won't wake the neighbors.

**DAN**

Dan is a professional baker. He is developing a new line of confections for an upcoming new bakery. Dan seeks a kitchen he can use a few times a month to test recipes and a nearby space he can host tasting parties. He imagines these parties as an ideal way to start a buzz about his future business venture.
boston's future innovation district
SITE
The site for the COOP is located within the Seaport District of Boston.

The Seaport is in near proximity to the downtown core of Boston. The site of Fan Pier Boston is a quarter of a mile from the central business district by way of a pedestrian bridge at the terminus of Northern Avenue (1).

The Fort Point neighborhood, within the Seaport District, is already a center for Boston’s creative economy. A rare collection of mill buildings built in the late 1800s by the Boston Wharf Company are today home to the Fort Point Artist community, the largest organization of artists in the United States (2).

The Boston Seaport is now home to a number of new cultural resources including the Boston Children’s Museum (3), The Institute for Contemporary Art (4), Civic Center (5) and the Bank of America Concert Pavilion (6).

The Boston Harbor is a regional aesthetic and recreational resource (7).
fan pier boston site
december 2010
SITE HISTORY

The constructed landmass of the Boston Seaport was originally a tidal marsh abutting deeper waters in the Port of Boston. These shallow waters were both in direct proximity to the increasingly viable sea transit and fishing industries of the Boston Harbor and the commercial core of Boston.

This advantageous geography was the basis for the creation of an industrial and maritime zone. In addition, the creation of the Fort Point channel enabled access to a supply of water for industrial purposes, easy transport by way of the Fort Point waterway, and an interconnected series of wharfs that supported the growth of industries such as wool, iron, glass and shipbuilding in the area.
rail lines

site 1920
During its first fifty years, the shipping capacity of the Boston Seaport grew enormously in response to the booming industries of the area. The quantity of cargo handled on the site expanded from 23,891 tons in 1826 to 4,145,187 tons in 1900. By 1900, the South Boston waterfront employed 50% of the area’s industrial workers.  

Changes in transportation technology after 1900, however, caused a dramatic decline in the shipping and industrial activities of the Seaport. The introduction of rail service around the turn of the century displaced heavy industry on and around the Fan Pier site. 

By bypassing the Seaport, the John F Fitzgerald elevated expressway disabled the Seaport’s successful integration with interstate highway transit systems. 

The advent of containerized shipping technology required larger ships and trucking infrastructure incompatible with the narrow channel and wharfs of the Fort Point Channel.

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TODAY

Over the past decade, the Boston Seaport has been the recipient of several infrastructural projects that have updated and connected this former site of industry and prepared it for an alternative future use.

The recently completed Big Dig project constructed a highway interchange in the Seaport that connected the long isolated region to the interstate highway system.

The introduction of the Silver Line bus rapid transit in 2004 connected the Seaport to both Boston and Logan International Airport. Adjacent to the Fan Pier site is the newly constructed Court House station, an elaborate harbinger of the future promise of the site.

The Seaport Public Realm Plan produced in 2002 by the Boston Redevelopment Authority outlines a vision for the Boston Seaport that specifies pedestrian amenities centered around a network of green spaces. The Boston Harbor Walk provides a pedestrian and recreational link between the Seaport waterfront and the waterfront of Boston's central business district.
In 2005, Joseph Fallon, CEO and president of the Fallon Company, purchased the site of the Fan Pier and Pier 4 and enlisted Elkus Manfredi Architects to organize the site into a mixed-use development known as Fan Pier Boston. By 2007, optimism for this master plan was so great that the Fallon Company initiated the construction of the first building on the site, One Marina Park Drive, entirely on speculation.  

Global financial instability of 2008 and the ongoing recession have since cooled this initial zeal. Plans for the remaining plots have been deferred until economic rebound again supports investment.

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9 *Developer Sets Schedule for Fan Pier Construction* (Boston Globe, 2007)
This context has sponsored a number of short-term sublets. The vacant parcels of Fan Pier Boston have over the past two years hosted temporary cultural events such as Puma City, a mobile inhabitable assembly of containers accompanying the Volvo Ocean sailboat race and the Cirque du Soileil.

LOUiS Boston, a high-end clothing retailer, formerly sited in Boston’s Back Bay, has recently purchased a ten-year lease on one of the vacant parcels. In the place of a future mid rise residential complex, Louis Boston has assembled a series of modular components onto a slab-on-grade.\textsuperscript{10}

\textsuperscript{10} Louis Boston moving to Fan Pier (www.fortpointboston.com)
LOUiS boston

ica + one marina park drive
FAN PIER BOSTON

This thesis activates the dormant plans for Fan Pier Boston. It proposes expediting the site work and foundation construction for buildings delayed due to recession.

The COOP occupies and augments these foundations. It appropriates the foundations as its interim building site. The voids created by the foundations monumentalize the future development of Fan Pier Boston. They are conceived as earthworks that index the latent potential of the site and surrounding region. In addition, they provide the interface that connects the COOP to city services such as power, water, waste and electrical and create a space within which to hold events such as a summer concert series, film screenings, and flea markets.

The volume of the foundation pit is imagined to produce unique subterranean effects. The space within the foundation walls is visually and acoustically isolated from the surrounding environment. At 40 feet below grade, a geothermal cooling effect is a possible attribute during summer months.
existing services

proposed services

floating foundation
figure bridge
The modular logic of the bridge scheme enables incremental implementation. Eventual expansion and adaptation to changing user group and facility needs, is made possible through the aggregation of autonomous units.

The project is imagined as a series of components that arrive at the site and are craned into position. Bridge units are dimensionally constrained by the sixteen-foot wide maximum envelope specified by interstate transportation guidelines.
Permutations of a single loaded corridor organize the sixteen-foot wide bridging structures into circulation and rooms. Partitions are planned as infill components that may be repositioned, as demands require.

By tapering the single loaded configuration, a hierarchy is established between an open-plan end condition and a demarcated midsection.

Strategic alignments between adjacent structures produce “double wide” spaces of varying length to accommodate specific programmatic requirements.

The structures are arranged on the site according to desire lines and anticipated site circulation.

Bridges spanning across adjacent foundations produce visual portals that frame the Boston Harbor and the Institute for Contemporary Art (ICA).

The connection between the Courthouse transit station, the Boston Harbor Walk and the ICA is facilitated by public circulation paths within the COOP plan.
foundation access
frames
public access
9. foundation stair
10. media
11. cafe + lounge
12. machine shop
13. classroom
14. event hall
1. kitchen + bbq
2. industrial kitchen
3. foundation stair
4. wood shop + gallery
5. wood shop
6. storage + annex
15. library + print + media
16. foundation stair
17. dance + band
18. assembly hall + video screening
19. netflix theater + sound + film library
STRUCTURE +
ENVELOPE
STRUCTURAL DIAGRAM

cylindrical tube
rectilinear tube
moment adjusted
moment adjusted
tube

truss
ENVELOPE

The envelope of the COOP is conceived as a layered system.

1. A simple frame clad in polycarbonate sheet is allocated to the open ends of the structures.

2. This system is augmented to accommodate interior programming with the addition of insulation, an interior finish membrane and operable windows.

3. In zones where even natural light is desired, aero gel insulation and a translucent interior membrane are specified. In areas where darkness is desired polystyrene insulation and an opaque interior membrane are specified.
physical model
1/8" = 1'
physical model

1/8" = 1'
view from one marina park drive
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WORKS CONSULTED


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