

Opportunity in Absence

Activating Vacant Space in The Temporary City

by
Zachary Christensen Fish

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in fulfillment of the
thesis requirement for the degree of
Master of Architecture
in
Engineering

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Author's Declaration

.....

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

.....

The vacant buildings in Cambridge await new uses as traditional commercial activity has shifted to the sprawl that defines the landscape between the city's historic cores. Downtown businesses have been replaced by big-box suburban developments, leaving the question, what will fill the city's urban voids? In declining manufacturing-based economies, like Cambridge, governments focus on attracting the "creative class" for economic growth. Cambridge selected the creative sector as a development target; however, the city has implemented few of the proposed changes from the economic development strategy commissioned in 2008. Further reports identify that the region lacks the physical creative sector space required for creation and networking within its existing building stock, despite statistics showing the commercial vacancy rate in downtown Cambridge climbed above 40 percent in 2013.¹ The vacant buildings in Cambridge create an opportunity for potential programs to promote community engagement. Mobile architecture can be designed to support new activities, leveraging the vacant space into an urban laboratory for experimental programs.

Vacant land is both ubiquitous and diverse and both a problem *and* a resource...²

Bottom-up activism presents the opportunity to act quickly and empower citizens to contrast and complement the top-down, long-term policy strategies. Community initiatives that engage the public can play a role in developing social capital and civic identity. In a year of experimental work with BRIDGE (a student-led nonprofit initiative), a model program was developed to activate the vacant spaces on Main Street in Cambridge. These community activities, within the city's waiting lands, illustrate a translation of theoretical principles and tactics to transform vacant spaces. Informed from the evolving temporary programs, a mobile architecture is proposed to activate empty spaces, bridging from short- to mid-term occupancy, while creating a unique identity with the ability to adapt as users' needs and desires change.

¹ Colliers Macaulay Nicolls (Ontario) Inc., Brokerage

² Ann O'M Bowman and Michael A. Pagano, *Terra Incognita: Vacant Land and Urban Strategies* (Washington: Georgetown University Press, 2004), 1

Conceived to occupy absent space, the proposed mobile architecture is designed as a portable, reconfigurable toolkit that can aggregate and disperse to support different spatial programs. Filling a void in the core, the space for production experimentation and community initiatives creates a temporary public asset from the city's unused private capital. Building partnerships at the street level, the work aims to create discernible change within the limitations of the community by capitalizing on its strengths, while developing social capital and organizational capacity between citizens, nonprofits and public-private institutions. The absent space in the city presents an opportunity to prototype mobile architecture and new programs, transforming unused vacant space for productive community building.

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.....

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To my parents and grandparents,
Your love and unwavering support have made anything possible.

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Preface

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As I ran my fingers across the crumbling plaster, I was filled with inspiration. A warm glow of incandescent trouble lights hung precariously from the wooden rafters, illuminating the cavernous space. I had walked, cycled and driven by this century-old building at 40 Main Street almost daily in my sporadic habitation of Cambridge during the past seven years, yet I had never before stepped inside. The storefront had sat abandoned, a gap in the activity on Main Street for as long as I had known—and now I had the key. My imagination flooded with the possibilities for the space, littered with materials from the property owner’s unfinished renovations.

Plans never materialized at 40 Main Street, just as they hadn’t at the space before that. The property owner, Perimeter Development, had promised to lease us a storefront rent-free, but it was a challenging process. We were given access to 35/37 Main Street, but it had pools of water on the floor from the leaking roof three stories above. We were offered a temporary term at 60 Main Street while we awaited the repair of the roof at our new home. Perimeter Development, the owner of the properties, had made a large real estate investment on Main Street, and their goal to transform it was ambitious. Progress could already be seen in the improved facades of neighbouring businesses and the city’s granite redesign of the sidewalk out front. Despite the government’s investment in the urban infrastructure upgrades and Perimeter Development’s purchase of the majority of the buildings on the block, progress was slow. Seven storefronts sat empty on the two historically prominent blocks of Main Street, and two years later, five still remained empty, with an additional three becoming vacant.

Important questions emerged from this experience. How can we invest in the development of a property for which we are unable to pay rent? How can we grow an identity and engender action when we may be forced to relocate again? How can architecture be redefined, rebranded and removed to facilitate the incubation of business and culture?

Plate 1: [Previous] 35/37 Main Street [2014-09-14]

The following thesis emerged from my desire to utilize architecture as a driver for change. In my position as co-director of the start-up, student-run BRIDGE initiative, my work evolved from two years of collaboration with my colleagues and the community. As an organization led by graduate students with rolling graduation dates, supported by undergraduate students who left on co-op terms every four months, it was a struggle to manage. It took a team effort of collaborators who were responsible for facilitating the development, publication and exposure of community initiatives in the promotion of architecture and design as an attempt to transform the city.

The right to the city is far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization. The freedom to make and remake our cities and ourselves is, I want to argue, one of the most precious yet most neglected of our human rights.¹

¹ David Harvey, "The Right to the City," *New Left Review* 53, September-October 2008

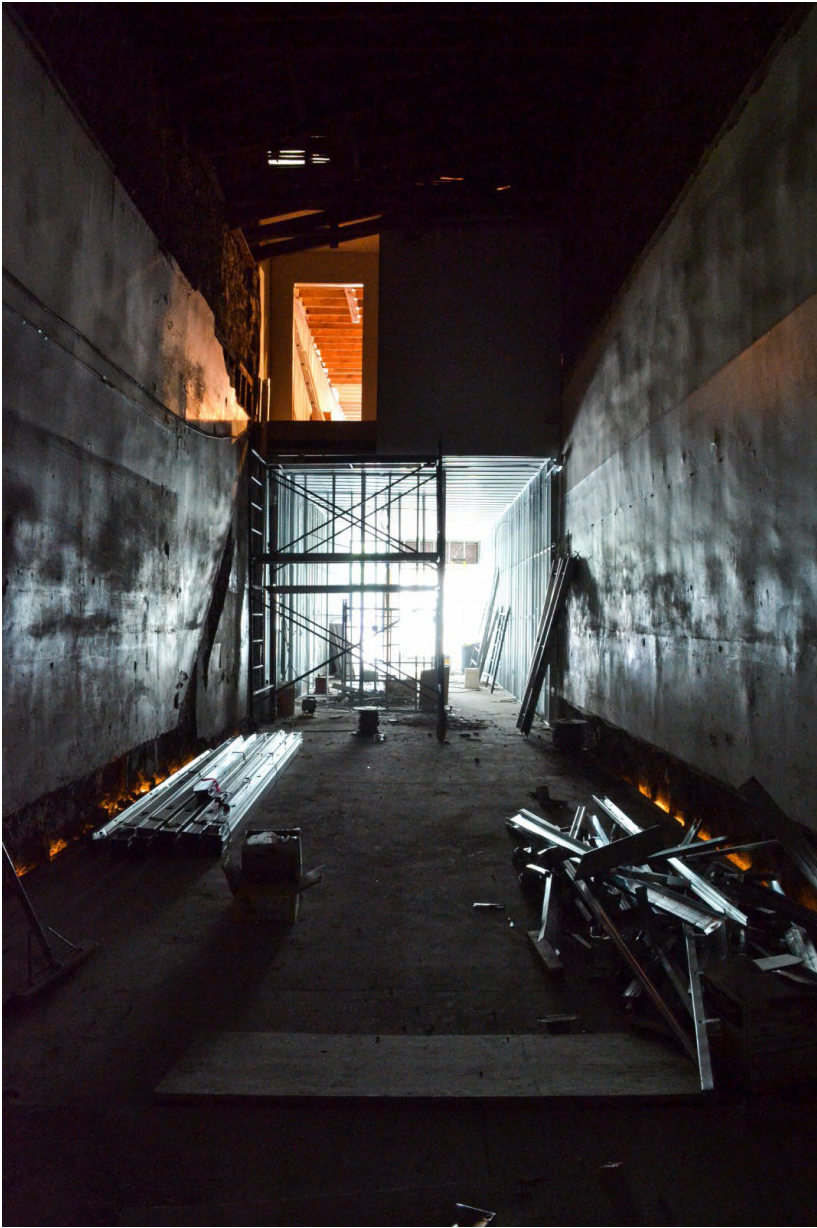


Plate 2: 40 Main Street
[2013-10-17]

BRIDGE:

BRIDGE was founded in 2012 as an initiative run by students from the University of Waterloo's School of Architecture committed to the advancement of the discourse surrounding Art, Design and Architecture in Cambridge, Ontario.

Our program of exhibitions, events, workshops, lectures and digital publication generates an open and alternative platform to engage the community. BRIDGE creates a dialogue between designers, artists, architects and citizens to share their thoughts, ideas, experiments and work.

Through our physical and digital platforms, BRIDGE aims to connect the students of the school to the community, and the community to the global discourse of architecture, design and its continuing role in growing community and cities.

Major Contributors

Piper Bernbaum
Alex Bodkin
Vikkie Chen
Kelsey Dawson
Sarah Gunawan
Magdalena Milosz
Michael Kim
Andrea Hunniford
Connor O'Grady
Jake Reid
Prianka Smita
Mark Tam
Tristan Van Leur

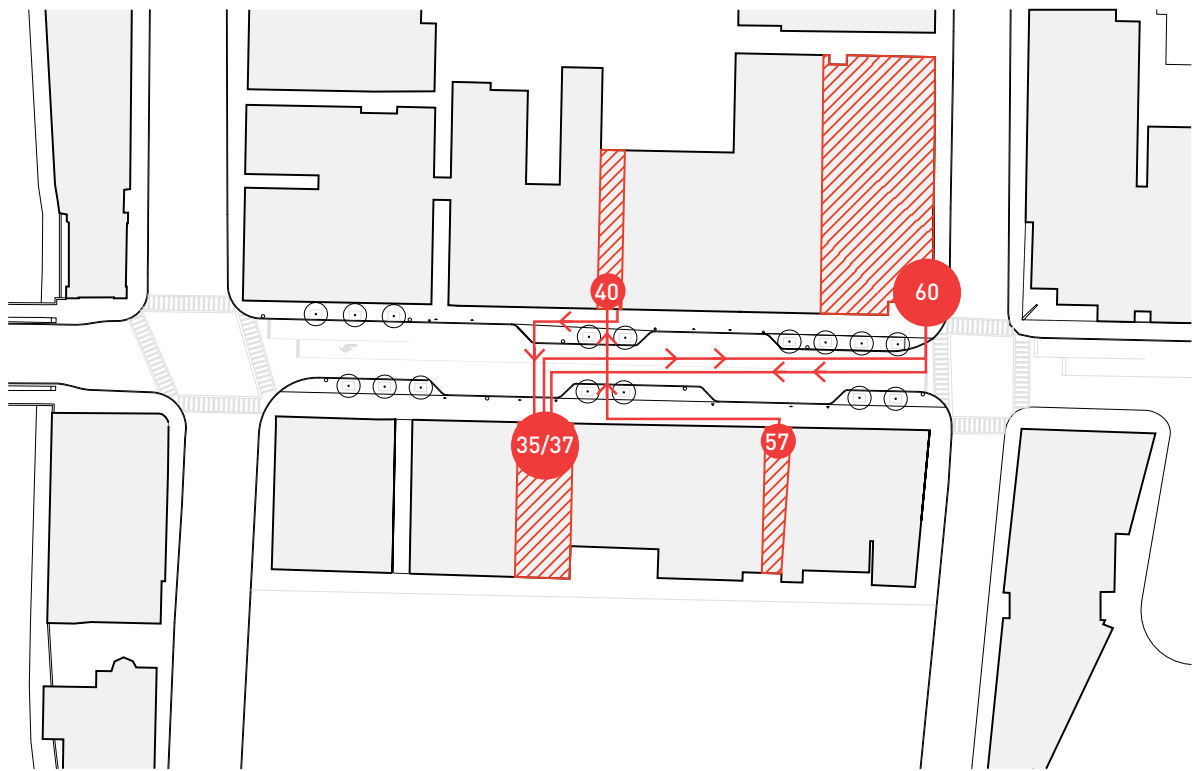


Figure 1: BRIDGE locations from 2012-2015

Introduction

“Form is an instigator of performances and responses, a frame that suggests rather than fixes, that maps or diagrams possibilities that will be realized only partially at any one time.”¹

The leftover fragments of our cities require a radical set of tactics to expose their latent potential. Vacant space in North American inner cities is a symptom of sprawling growth at the urban edge, which has become a problem in its own right. Cambridge, Ontario, once a prosperous manufacturing city, has been swallowed by the bleeding edge of sprawl that has hollowed its historic cores. While the number of dwellings in the downtown has tripled in the past decade, the commercial landscape remains relatively unchanged, where the commercial office vacancy rate at over 40 percent in 2013 being the highest in the region.⁸ These unwanted empty structures negatively affect the character of the city but have the potential to play a role in the built environment, and the opportunity to engage the vacant buildings presents possibilities for new models to incubate positive, productive spaces. To address the challenges of central city decline, this thesis proposes to investigate how small, incremental ground-up action can complement top-down government policies, creating an opportunity for experimentation, community building and learning, connecting community members to reimagine how our cities can be used.

Whether vacant, reserved, open, or razed, empty spaces thus play crucial roles in the fabric of the city.⁹

Architecture is tied to the physical, political and social structures of society. When viewed through this lens, as an embedded part within our society, it must negotiate inside these existing conditions. The agency to transform these structures will only be effective if it responds to the constraints the structure presents. To understand the factors at play in the region and how ground-up activities can work within the city's existing structures, the document begins with background research. Analyzing what has influenced the growing amount of vacant space in the city and what current policies are in place to address this issue provides a departure point for investigations.

In the amalgamation with Hespeler, Preston and Galt, Cambridge grew through sprawl in the spaces between the once prominent historic cores emptying the downtowns in a pattern of suburban development that affects mid-sized cities

Op-por-tu-ni-ty *noun*

1. "a set of circumstances that makes it possible to do something"²
2. "You must live in the present, launch yourself on every wave, find your eternity in each moment."³

Ab-sence *noun*

1. "A state or condition in which something expected, wanted, or looked for is not present or does not exist"⁴
2. "Want, lack, privation, or failure of something"⁵
3. "The most beautiful is not to be present."⁶
4. "Absence is the highest form of presence."⁷

¹ Stan Allen, *Points + Lines: Diagrams and Projects for the City* (New York: Princeton Architectural Press, 1999), 5

² "opportunity, n.," *OED Online*, June 2015, Oxford University Press

³ Henry David Thoreau, *The Journal of Henry David Thoreau*, Vol. 12 March 1859 to November 1859, (Salt Lake City, UT: Peregrine Smith Books, 1984), 159

⁴ "absence, n.," *Merriam-Webster Online Dictionary*, 2015, Merriam-Webster, Incorporated

⁵ "absence, n.," *OED Online*

⁶ Rem Koolhaas and Bruce Mau. *Small, Medium, Large, Extra-Large: Office for Metropolitan Architecture*, (New York: Monacelli Press, 1998), *cxviii*

⁷ *Ibid.*, 130

⁸ Colliers Macaulay Nicolls (Ontario) Inc., Brokerage

⁹ Rotenberg and McDonogh, *The Cultural Meaning of Urban Space* (Westport, Conn.: Bergin & Garvey, 1993), 15



Plate 3: Reflection of 40 Main Street in the pool of rain water inside 35/37 Main Street. [2014-09-14]

across North America and Europe. Vacant space, a product of the sprawling development, affects the image of a city and, as a part of Galt's redevelopment, these temporary vacant spaces can be transformed into an asset. In 2013, 93 percent of commercial real estate listings went unleased or unsold and those that did sell in the Galt Core sat on the market for over four months.¹⁰ The businesses that moved to the suburbs no longer fit in the urban fabric that make the downtown unique, and a shift in programmatic strategy is required to form the city in a new image. Galt's heritage properties, located along the picturesque banks of the Grand River, attracted the Waterloo School of Architecture, a new city hall and performance theatre that give the city creative capital to construct a unique experience in the region. The creative sector was identified as two of four major targets in Miller Dickinson Blais' economic strategy for Cambridge, and these developments came from top-down governmental approaches that cities across the globe use to combat urban decline. Economic development reports commissioned by the City of Cambridge and the Region of Waterloo highlight the creative sector as a growth target and cite the lack of available space for the creative sector to work, collaborate and exchange ideas. They propose a response from regional actors to provide accessible spaces appropriate for facilitating project development, knowledge sharing and networking.

The dearth of available and appropriate space that accommodates the diverse needs of the creative sector presents an opportunity for action in the city's vacant buildings. Ground-up agency is needed to bridge the gap between urban planning policies and urban reality. Grassroots innovation can engage the community in street-level activity, instigating a discourse within the urban morphology, as a catalyst to reimagine people's image of the hollowed urban core.

A surplus of freed-up space provides new possibilities. A dearth of long-term options for repurposing is replaced by the ephemeral activities of interested parties who have little capital to spare. They experiment with new uses and forms of cooperation, create social

¹⁰ MLS Database



Plate 4: Installing vinyls at the
BRIDGE Pop-Up Storefront at
60 Main Street.
[2014-10-17]

interactions and give new cultural meaning to the empty spaces as they are found. Not every vacant building will find interested parties, and the fleeting actions are of limited duration. Still, sometimes they represent seeds for longer-term developments.¹¹

This concept does not exclude traditional top-down civic planning but proposes alternate models for short-term action to complement the existing socio-political structure. Tactical urbanism has emerged in the contemporary discourse as a strategic operation that provides a spatial agency to respond to the structure of society. It proposes an incremental approach of implementable interventions that develop social capital between citizens and institutions. These incremental, pop-up, small-scale activities demonstrate the potential for change and are increasingly seen as a way to stage more substantial development. As a strategy for pop-up placemaking, this study proposes to generate immediate action and visually noticeable results with a short-term commitment and realistic expectations to test new concepts. These tactical strategies provoke an opportunity to create a temporary city within the waiting lands of the existing physical and political structure.

Operating from the vacant storefronts on Main Street, an experimental approach emerges from BRIDGE, a student-led initiative that is transforming abandoned property into a space for production, experimentation and community. Documentation of the work with BRIDGE presents a model program of community-based activities from which a physical prototype can be developed. The work aims to create discernible change within the limitations of the community by capitalizing on its strengths, developing social capital and organizational capacity between citizens, nonprofits and public-private institutions. In a reversal of the figure-ground, the vacant space in the city comes into focus as Cambridge's chance to redefine itself. It is a reconceptualization of form that frames a possibility of outcomes, activities and habitation. Collaborative experiences generated the basis for what follows, an outlook on how temporary activities can be encouraged and promoted as a tool for city and community building.

¹¹ Philipp Oswalt, *Shrinking Cities, v. 2. Interventions*. (Ostfildern-Ruit Germany: Hatje Cantz, 2005), 339



Plate 5: BRIDGE Rome Show at
35/37 Main Street.
[2014-07-16]

surReal Estate

part one





P
2 h
9AM - 6PM
with-01

No left turn

1.1 The Fourth City

Growth and Decline in Amalgamated Cambridge

“While North American cities escaped the destruction of war, great damage was inflicted to the core of cities through ill-advised urban renewal policies, traffic planning priorities, zoning policies, and the construction of single function large scale commercial centers.”¹

Plate 6: [Previous] Main Street
[2013-12-10]

The Ontario provincial government forced amalgamation on the three cities of Galt, Hespeler and Preston and the settlement of Blair in 1973. The three town centres of relatively equal populations held a vote to choose the name of their new city. Galt lobbied hard for the amalgamated city to adopt its name but, in a bitter fight between the three rival towns, the province stepped in and forced the municipality to choose a new name. A fourth city, the city of Cambridge, was born from this “shotgun wedding.” The suburban sprawl that grew with the post-amalgamation city began to define it. The “Fourth City” is not one of the three historic centres located along the Grand River, but consists of a new connection between them, Highway 24. Highway 24, locally known as Hespeler Road, is the major suburban artery that binds this new city together.

Alan Berger’s *Drosscape* analyzes the migration from urban centres to the bleeding edge of cities, describing a phenomenon seen in Cambridge and the world over. The maps, depicted on the following pages, show that 55 percent of the built area in the city was constructed after amalgamation in 1973.³ Berger states population growth has occurred in the highest rates at the edges of metropolitan areas in the last half century, hollowing out their city centres and decreasing urban population density by over 50 percent in America.² The elasticity of the city’s urban edge directly correlates to its high vacancy rate, as observed in Bowman and Pagino’s research studied in the subsequent chapter. This elastic boundary continues to stretch as big-box developments grow, building larger facilities in new locations, leaving their out-of-date monstrosities behind in the wake of progress.⁴ Government policies and urban planning intended to promote economic growth have had an inverse effect in the cities’ cores and need to be addressed.

Berger’s horizontal landscape describes the terrain that has come to define Cambridge’s modern image of progress in the shopping mall and 401 Superhighway. Driving the national economy, Highway 401 runs along the northern edge of amalgamated Cambridge. As North America’s busiest highway, it carries up to 500,000 vehicles a day and \$1.2 trillion worth of goods annually, spanning 39 percent of the



Figure 2: Joe Forte, a local artist, sporting his controversial “Whats Happening?” t-shirt printed in 1973 at the Tiger Brand factory in support of the city’s Cambridge name. The owner of the factory supported Blair as the name for the city and had Joe forcibly removed from the building when the shirt was printed.² The city’s identity is shaped by the pride and pessimism of its residents and is subsequently projected to the region and beyond.

¹ Henry Lennard & Suzanne Cowhurst Lennard, eds., *The Wisdom of Cities: Architecture, Place, Community, Neighbourhood, Identity Planning and Values* (Carmel, Calif.: International Making Cities Livable Council, 2004), 3

² Joe Forte, (Artist) in discussion with the author, Ignite Pop-Up Event in the Design at Riverside Gallery, May 21, 2015

³ Alan Berger, *Drosscape: Wasting Land in Urban America* (New York: Princeton Architectural Press, 2006), 22



“If smaller urban centres are to prosper and maintain their identities in the face of mass cultural influences and big-box retailing, they need to think critically about notions of scale, space, and place.”⁶

Plate 7: Cambridge SmartCentres Mall viewed from Pinebush Road.

In 2010, IBM declared Cambridge Canada’s first ‘smart’ city, for deploying its infrastructure asset management technology. This includes parking lots, roads and sewers.⁵ The conception of cities needs to be challenged if the big-box development depicted above can be labeled ‘smart’.

⁴ Ian Caine, "Big Box Operations: Managing Waste and Change in Walmart Superstores" *ACSA Waste Lands + Material Economies* (ACSA 2013), 61

⁵ Jennifer Kavur, "IBM declares Cambridge Canada’s first ‘smarter city’," *IT World Canada*, September 9, 2010

⁶ Jane Jacobs, *The Death and Life of Great American Cities*, (New York: Vintage Books, 1961), 14

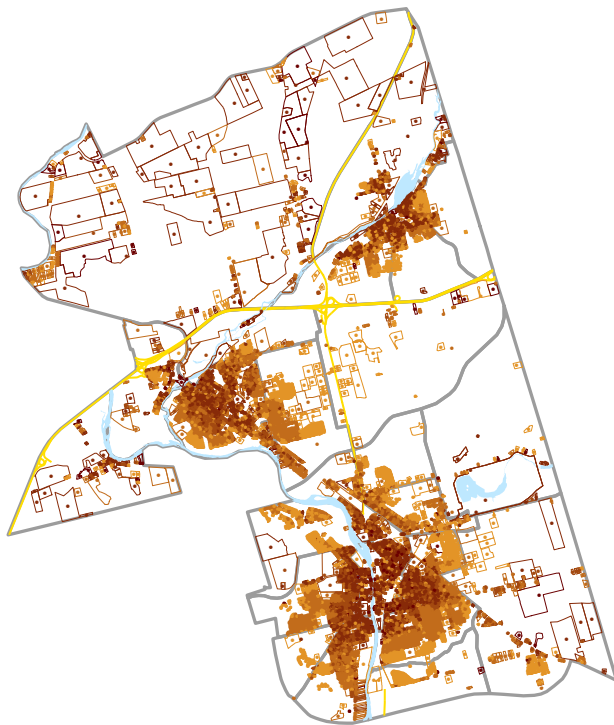


Figure 3: Before Amalgamation.

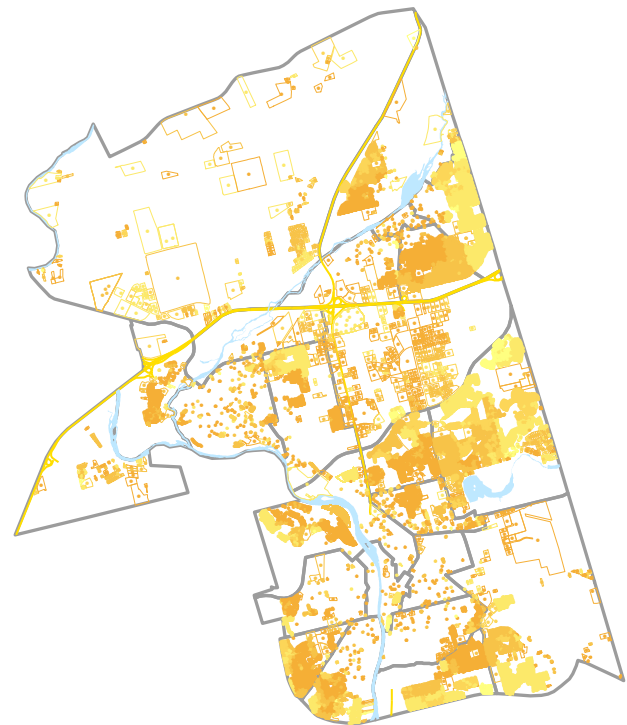


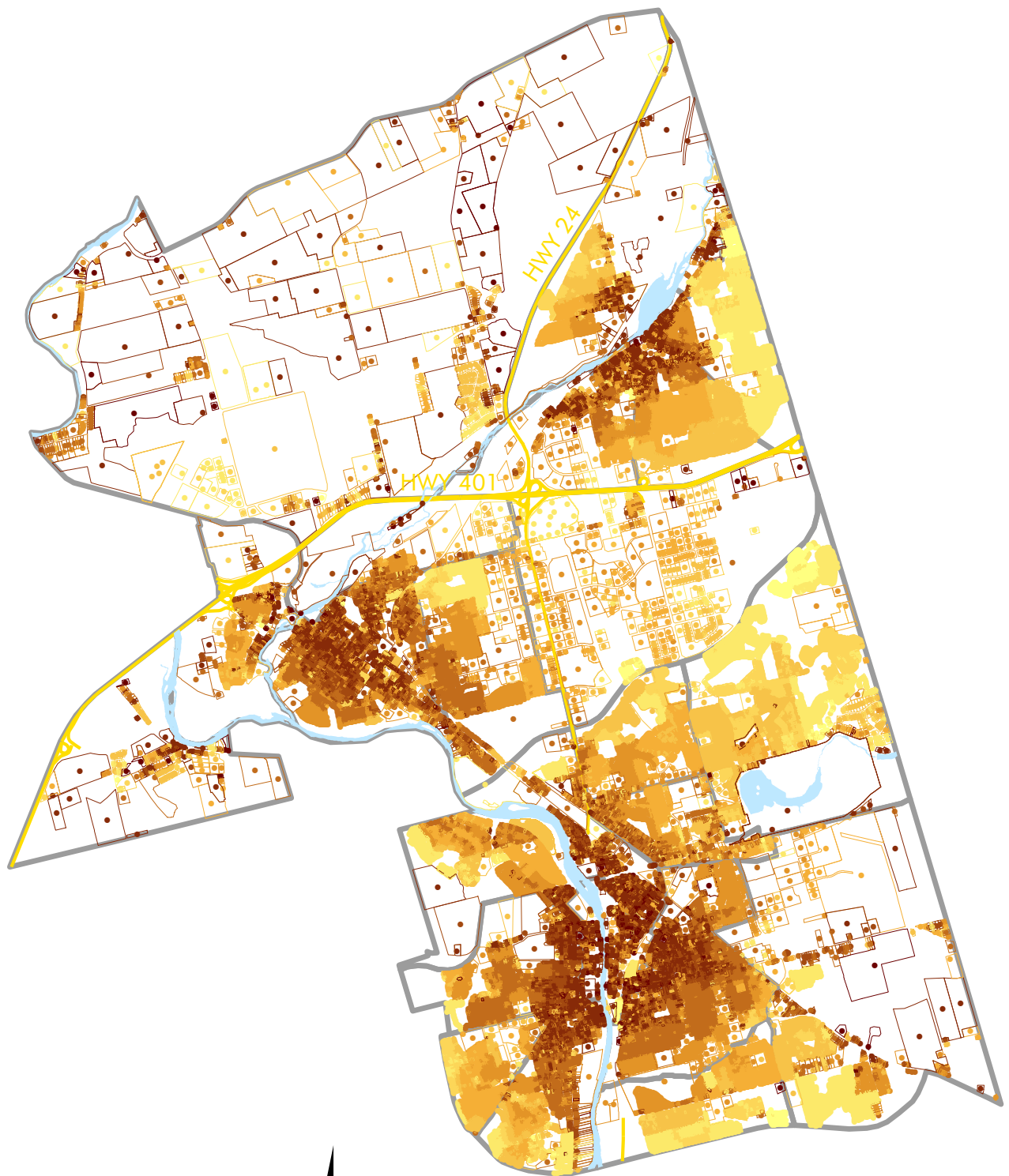
Figure 4: After Amalgamation.



Urban Growth

Figure 5: [Right] Civic Address Age.

Data Source: City of Cambridge



Canadian Population.⁸ It has heavily impacted the development of Cambridge, as they grew up together, diverting the regional economy along its sprawling length.

The Provincial Places to Grow Legislation (depicted bottom right), in combination with the Green Belt Act, is the regional strategy to limit urban growth and to prevent further sprawl from cannibalizing valued agricultural lands that are some of the most fertile in the country. As a result of the economic and societal shift away from the suburban model of sprawl, the Provincial government's Places To Grow plan focuses on urban intensification and the development of diverse cities. The plan identified key urban locations within the region and designated Downtown Cambridge as an Urban Growth Centre with a desired minimum gross density of 150 residents and jobs combined per hectare by the year 2029. Downtown Cambridge, as defined in the city's Official Plan, is the former Galt City Centre, located along the Grand River and is the southernmost centre in the municipality. The City of Galt is at the base of Highway 24 that runs north, splitting between Preston and Hespeler on its way towards Highway 401. The Official Plan aims for the Galt Core to be the focal area for investment in institutional and region-wide public services, as well as commercial, recreational, cultural and entertainment uses, and as a pedestrian-oriented, walkable centre with active streetscapes.⁹ Designed in a time before the invention of the automobile, the handsome historic centre has the fortune of being fairly walkable, but its streetscapes remain far from active. While Galt's Core has seen its housing stock more than double in the past decade, the commercial landscape remains relatively unchanged and devoid of activity.¹⁰

Waterloo Region has emerged as a major national growth centre, with a population of 507,096, ranking the Census Metropolitan Area as tenth in the country and fourth in the province.¹¹ Despite all the markings of success in the region, the streets of downtown Cambridge remain empty. With the prevalence of the automobile in the 1970s, Cambridge began to feel the effects of suburbanization as the 180,000-square-foot John Galt Mall opened.¹² To maintain a healthy downtown,

Cit-y *noun*

1. Cities are constantly changing, forever in flux.
2. "The sketches could not hide the fact that most of the people in love with the idea of urban super-highways did not really like cities very much. Almost all early supporters of super-highways believed that either cities would eventually wither away as society, helped by the decentralizing highways, evolved toward a pastoral, suburban ideal, or that the cities would be replaced by the new cities of a very different pattern."²

⁷ Rem Koolhaas, *SMLXL*, 130.

⁸ Geoffrey Thün and Kathy Velikov, "The Post-Carbon Highway," *Fuel*, ed. John Knechtel (Cambridge: MIT Press, 2008)

⁹ Cambridge (Ont), City Council. *City of Cambridge Official Plan* (Cambridge, Ont: Corporation of the City of Cambridge, 2004), 27

¹⁰ Statistics Canada Census Data

¹¹ Waterloo Region Planning, Housing and Community Services, "Population and Dwelling Counts – Statistics from the 2011 Census for Waterloo Region," *Census Bulletin*, 2011, 42

¹² Our History. Galt On The Grand, March 28 2014

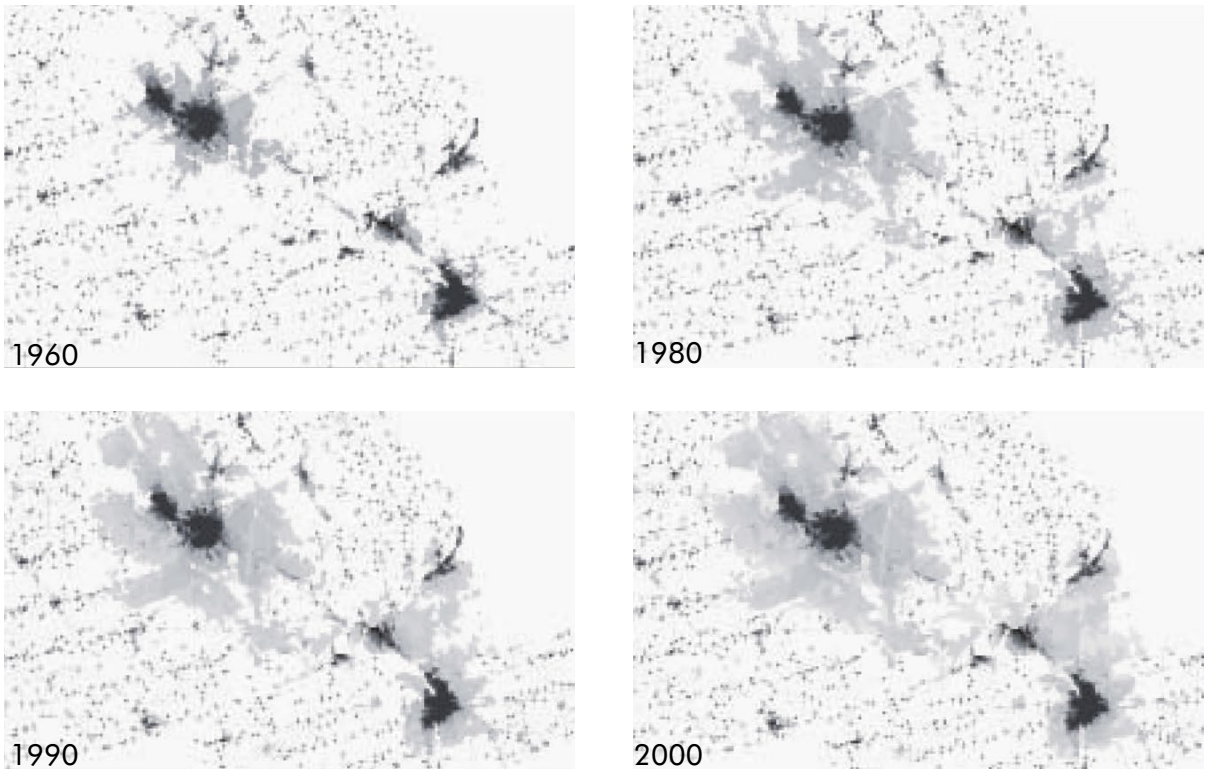


Figure 6: Growth in Waterloo Region. Source: Regional Municipality of Waterloo.

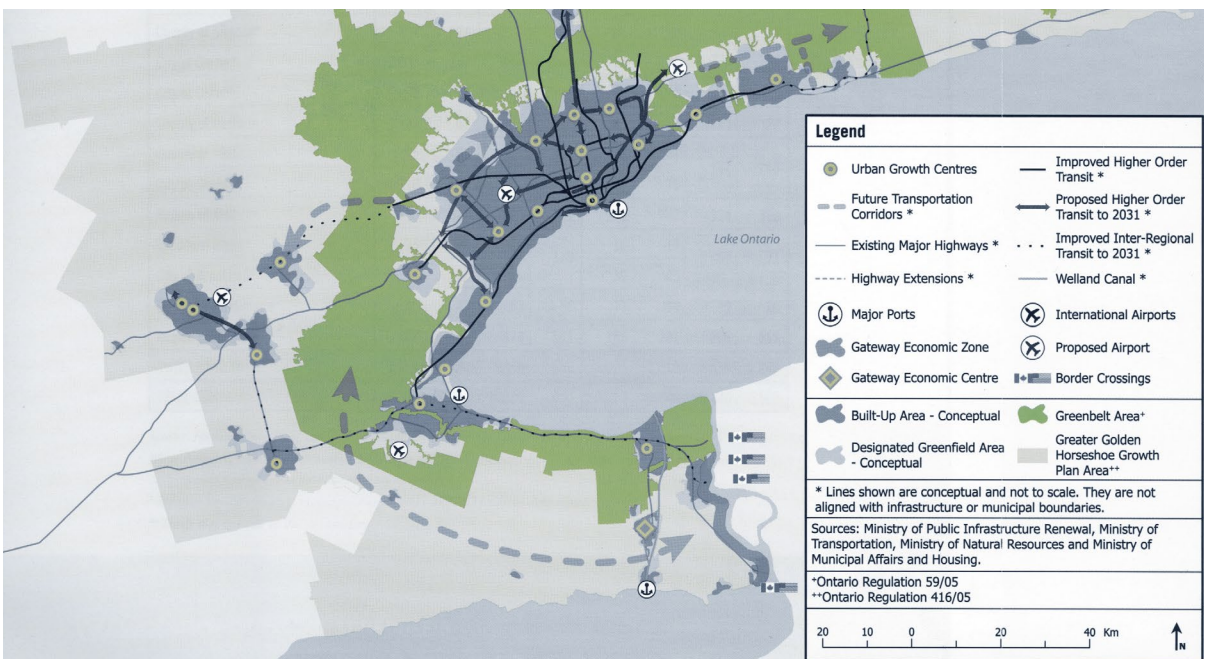


Figure 7: Places to Grow. Source: Ontario Ministry of Municipal Affairs and Housing.

merchants banded together to form the Downtown Cambridge Business Improvement Association in 1977 following in the footsteps of the world's first BIA that formed in Toronto seven years earlier.¹⁶ The BIA was successful for a number of years as the vacancy on Cambridge's Main Street was as low as 0 percent in 1985,¹⁷ but it was ultimately no match for suburban flight to the John Galt Mall, which became the 140-shop, 700,000-square-foot Cambridge Centre, illustrated in Figure 8.¹⁸ It sits among an array of big-box development along Highway 24 that collectively amounts to over two million square feet of commercial space that has decimated the core, leaving it with the highest vacancy rates in the region.¹⁹ In 2013, 95 percent of commercial building permits were for buildings in the Fourth City, showing further evidence of Cambridge's decentralized growth. Only three were issued in the historic centres of the city, while the remaining forty-three added to the existing sprawl, as seen in Figure 14.²⁰

While the Fourth City grows with investment that continues to add to the sprawling suburban edge, the cities' cores face growing vacancy rates and are filled with empty storefronts. The commercial activity on Main Street has moved to the malls and downtown can't compete with the one-stop discount shopping destinations. Knowing how the city has grown away from its downtowns is important to understanding how the cores can be used differently—to offer something unique that the Fourth City cannot.

Can-ni-bal-ize *verb*

1. "To take parts from one unit for incorporation in, and completion of, another"¹³
2. "To take salvageable parts from (as a disabled machine) for use in building or repairing another machine."¹⁴
3. "To deprive of an essential part or element in creating or sustaining another facility or enterprise..."¹⁵

"It is futile to plan a city's appearance, or speculate on how to endow it with a pleasing appearance of order, without knowing what sort of innate, functioning order it has."²¹

¹³ "cannibalize, v.", *OED Online*

¹⁴ "cannibalize, v.", *Merriam-Webster Online Dictionary*

¹⁵ *Ibid.*

¹⁶ Angela Kryhul, "How Canada pioneered BIAs," *The Globe and Mail*, March 11, 2013.

¹⁷ Francois Leblanc, "Cambridge, Ontario" *Main Street Heritage Foundation*, 1992

¹⁸ Cambridge Centre, History, 2014 www.cambridge-centre.com/history

¹⁹ Colliers Macaulay Nicolls (Ontario) Inc., Brokerage

²⁰ City of Cambridge

²¹ Jane Jacobs, *The Death and Life of Great American Cities*, 14.



Plate 8: Downtown living sold at the Cambridge Centre shopping mall.
[2014-11-29]



Shopping Mall



Parking Lot

The malls on Hespeler Road have displaced the historic commercial centre of the city, which now must reinvent itself.

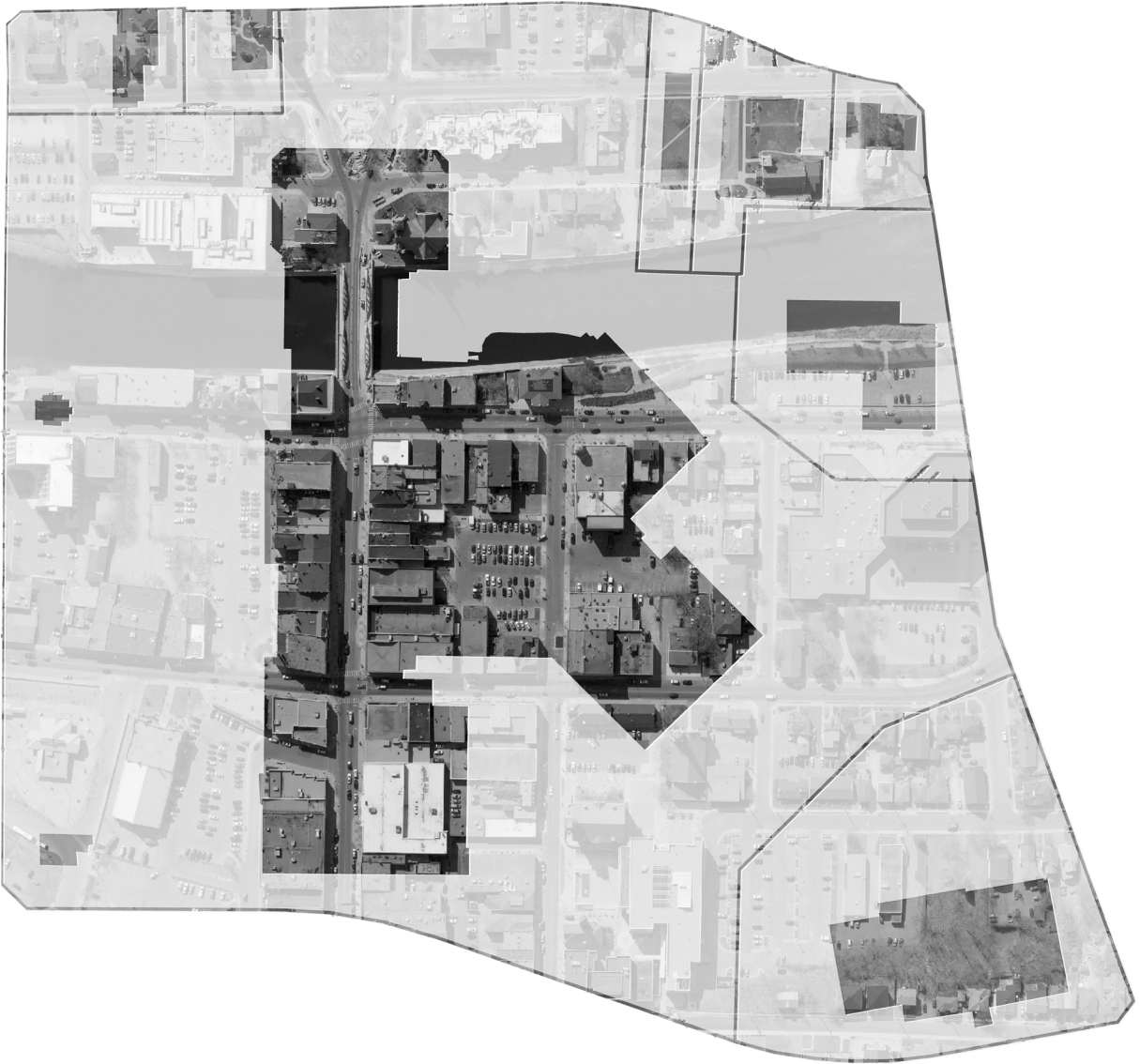
1973: John Galt Mall Opens - 180,000 square feet

1986: 300,000 sq ft \$60 million expansion announced

1997: Receives Cambridge Centre designation and adds 10-screen movie theatre

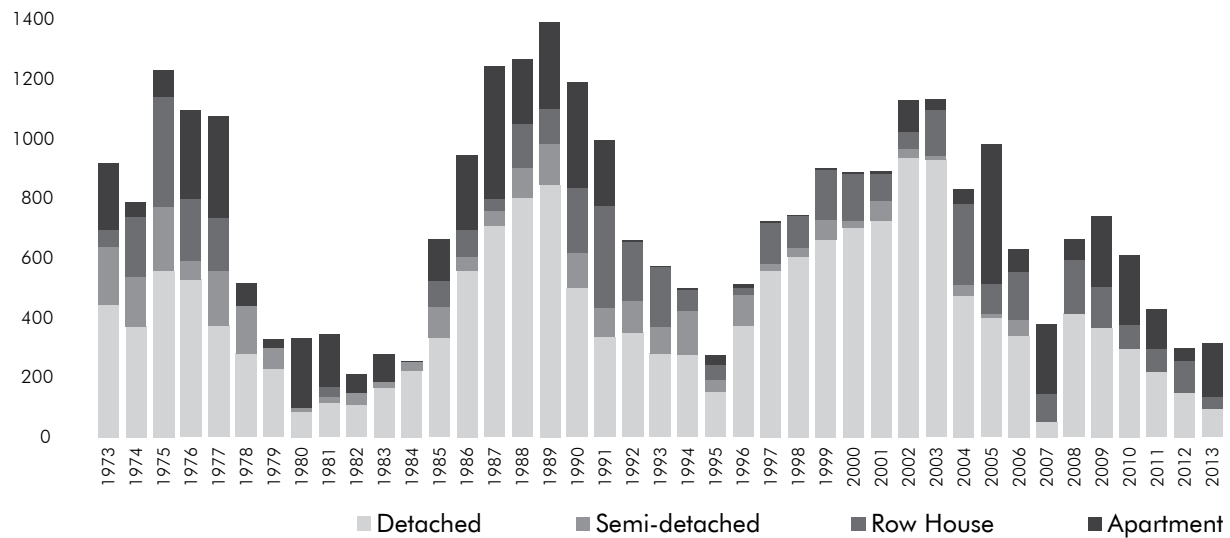
2002: Adds 300,000 sq ft addition, including NHL-sized ice rink²²

22 Cambridge Centre, History, 2014



Cambridge Centre Mall Overlaid Downtown

Figure 8: Data Source: City of Cambridge



Residential Building Permits Issued

Figure 9: Number of Units

Data Source: City of Cambridge

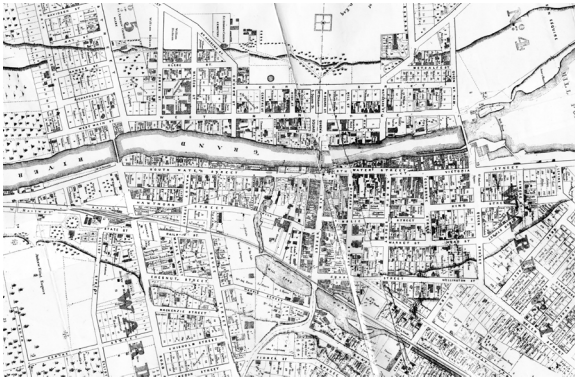


Figure 10: 1867

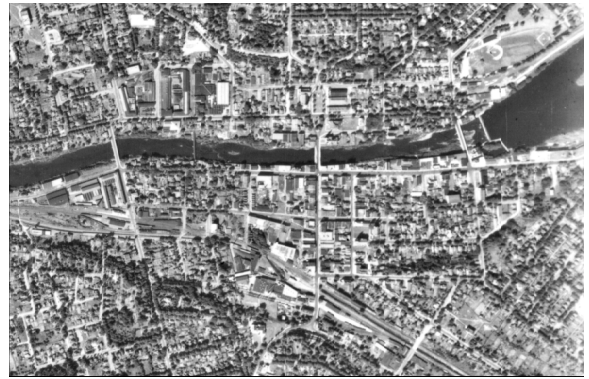


Figure 11: 1945

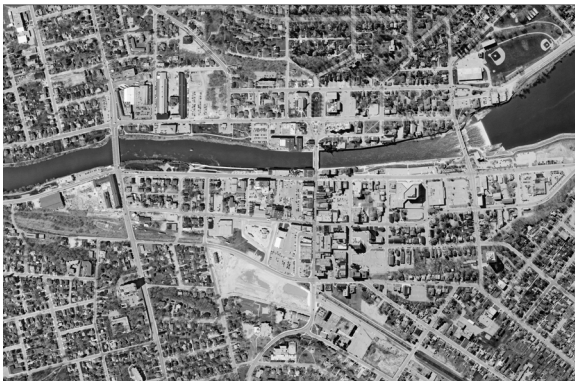


Figure 12: 2000

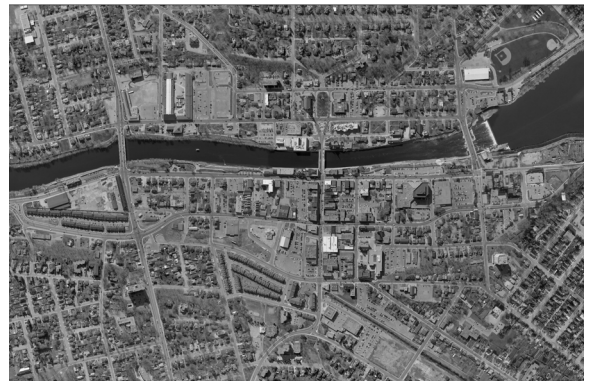
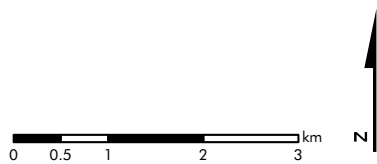


Figure 13: 2009

Building Size - SqFt

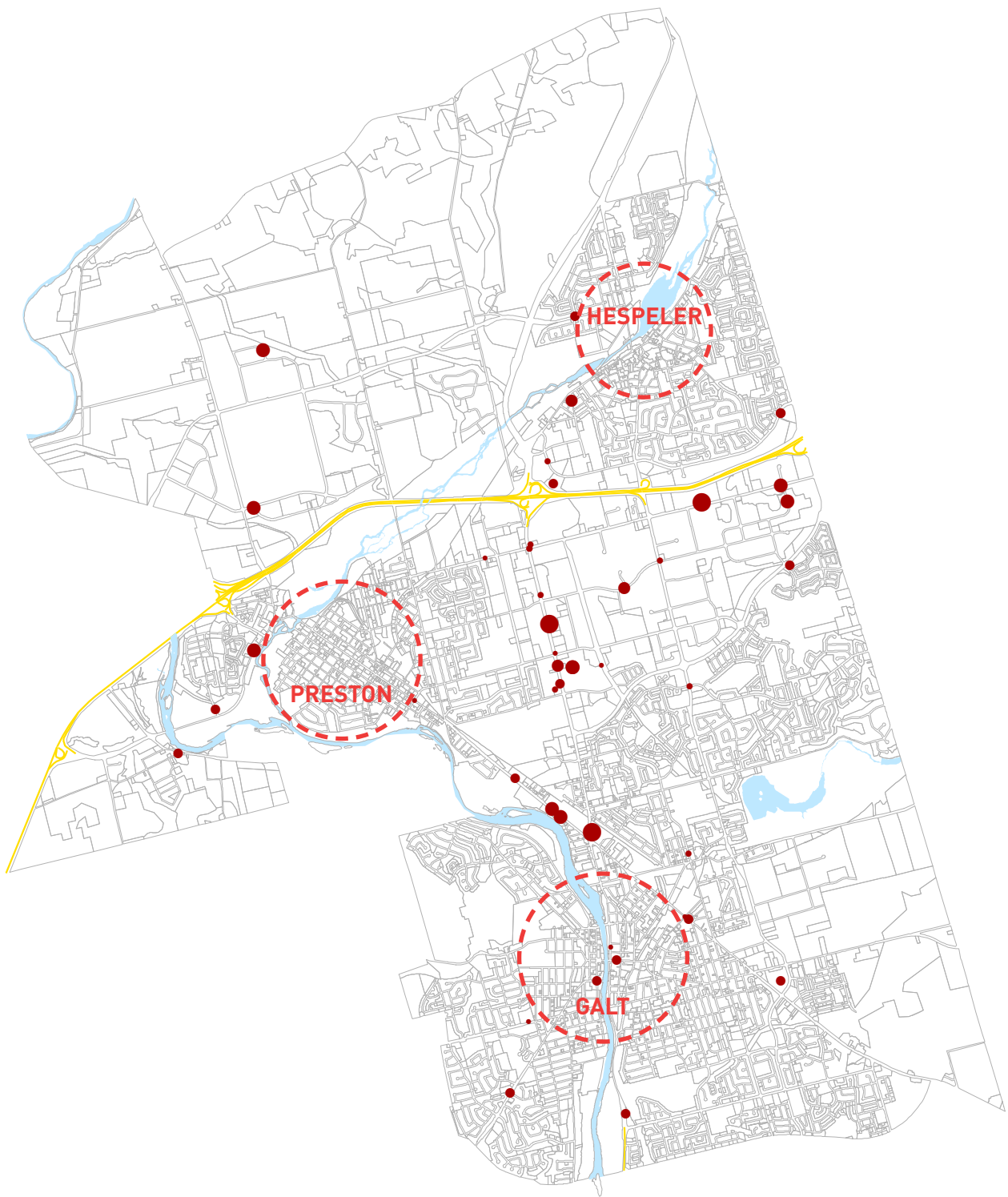
- 0 - 4,000
- 4,000 - 10,000
- 10,000 - 28,000
- 28,000 - 58,000
- 58,000 - 175,000



Commercial Building Permits

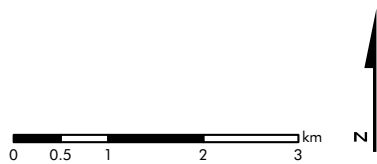
Figure 14: Buildings permits issued in 2013

Data Source: City of Cambridge



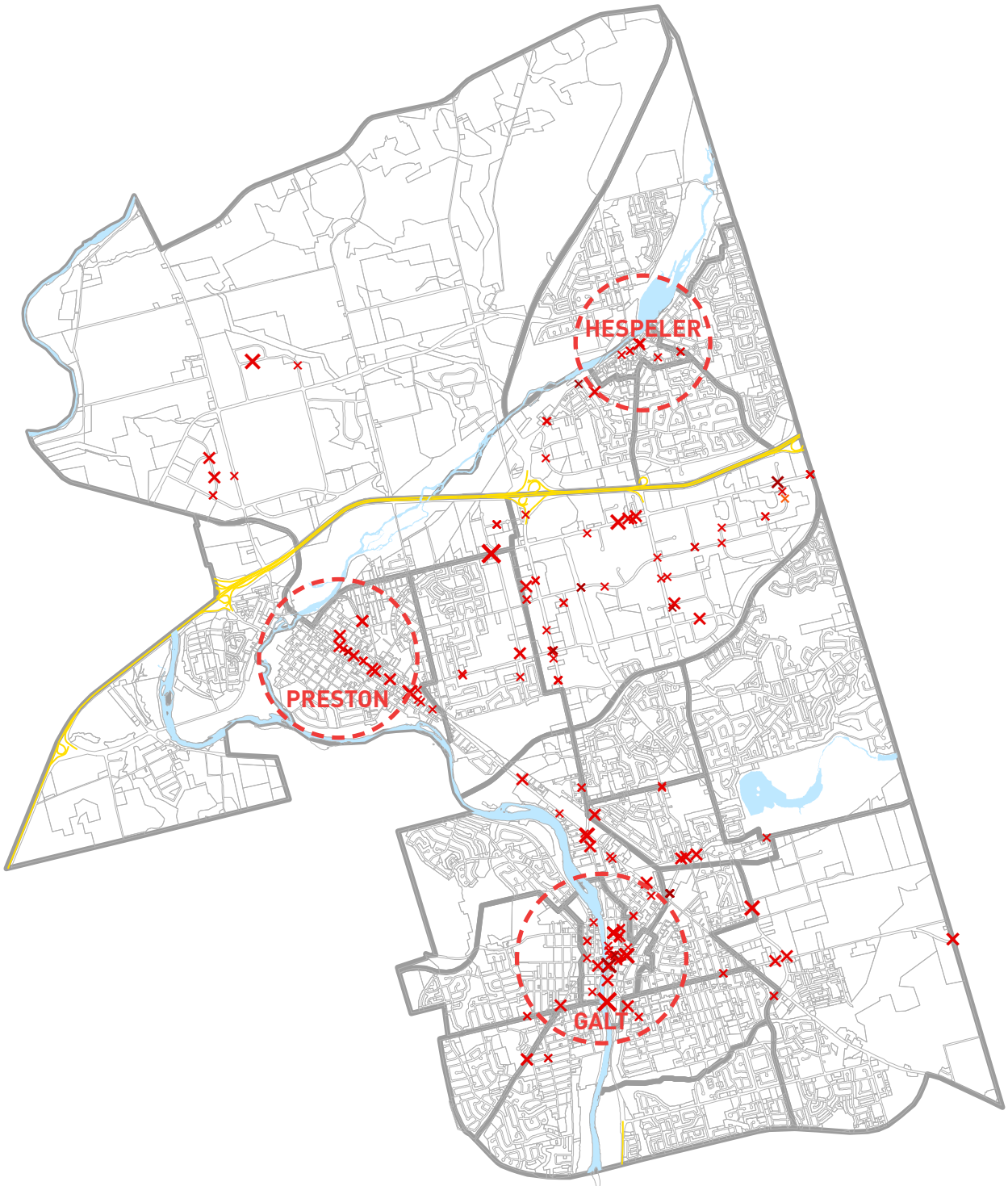
Building List Price

- × \$0 - \$270,000
- × \$270,000 - \$1,000,000
- × \$1,000,000 - \$2,300,000
- × \$2,300,000 - \$5,100,000
- × \$5,100,000 - \$11,000,000



Expired/Cancelled Real Estate Listings

Figure 15: MLS Listings in 2013 by Value







SPACE

VACANT

Plate 9: Vacant building voids on Main Street in 2015.

1.2 Patterns of Vacancy

“Vacant land is both ubiquitous and diverse and both a problem *and* a resource...”¹

Cambridge's growth shifted the city's momentum to the suburban sprawl in between its historic centres. Instigated by the proliferation of the automobile, large discount shopping centres constructed at the periphery of the city resulted in the decline of smaller businesses. This pattern of development left the city's centre in Galt a shell of its former self, with a commercial vacancy rate that climbed over 40 percent in 2013.⁴ Cambridge's vacant building stock is a symptom of its city-centre decline that has become a problem in its own right. To address this issue, it is important to define the physical character and temporal quality of vacant space. Bowman and Pagano looked to recast the phenomena of vacant urban land and began by defining its broad and imprecise perception.

The label vacant land frequently carries a negative connotation. Associated images include disinvestment, degradation, blight, and decay." For example, Coleman (Coleman, A. 1982. Dead space in the dying inner city. *International Journal of Environmental Studies* 19:103-7.) used phrases such as "dead space" and "disturbed space" to describe bare derelict land, roughly vegetated wasteland, abandoned buildings, and an assortment of various temporary uses such as materials dumps and construction sites. Perhaps the most creative label is the acronym TOADS, which refers to temporarily obsolete, abandoned, or derelict sites.⁵

In addition to defining vacant urban land, the authors also provided statistics as to its nature: for example, approximately 15 percent of the average city's land base is vacant. The book is based largely on a comprehensive survey of 90 U.S. cities with populations greater than 50,000. Disinvestment, suburbanization and deindustrialization were the most frequently cited causes of vacancy, all of which are visible in Cambridge. Examining the policies different municipalities had in relation to vacancy, the report revealed that more than half of the cities fine owners of unoccupied residential or commercial/industrial structures on a periodic basis, such as every 90 days.⁶

As a planning policy, this is the opposite to Waterloo Region's taxation structure that inversely offers a Vacancy

Vacancy *noun*

1. "Temporary freedom or cessation from business or some usual occupation."²
2. "The state or condition of being free from or unoccupied with work, business, or action; absence of occupation; idleness; inactivity."³

¹ Bowman and Pagano 2004, *Terra Incognita*, 7

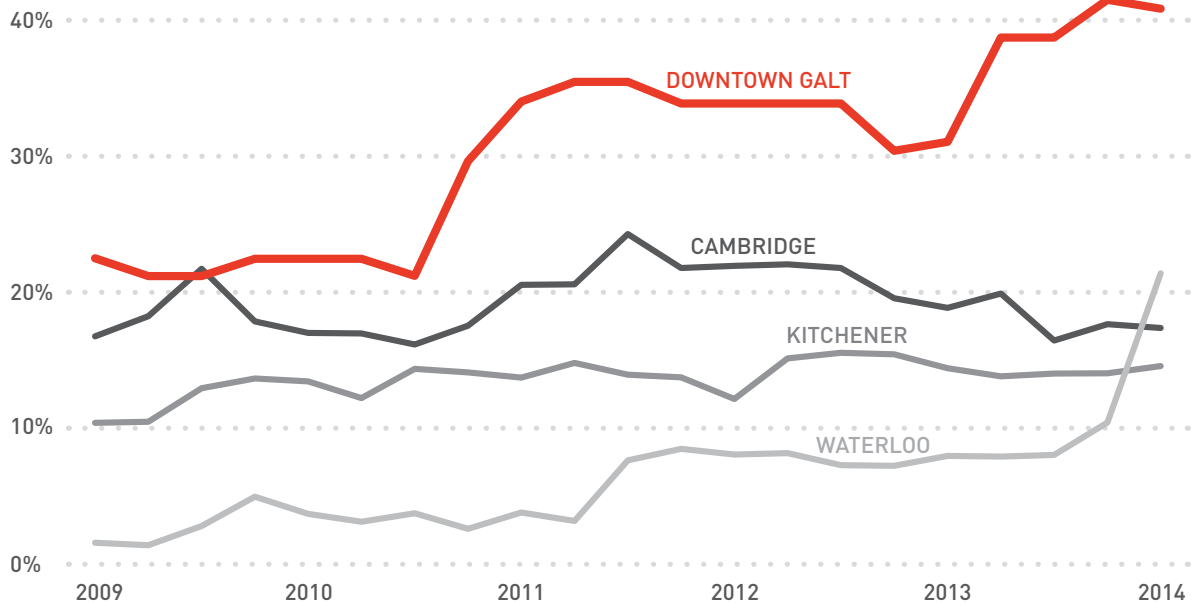
² "vacancy, n." *OED Online*

³ Ibid.

⁴ Colliers Macaulay Nicolls (Ontario) Inc., Brokerage

⁵ Bowman and Pagano, "Transforming America's Cities Policies And Conditions Of Vacant Land," *Urban Affairs Review*, Vol. 35, No. 4, (Sage Publications, Inc, 2000), 561

⁶ Bowman and Pagano, *Terra Incognita*, 42



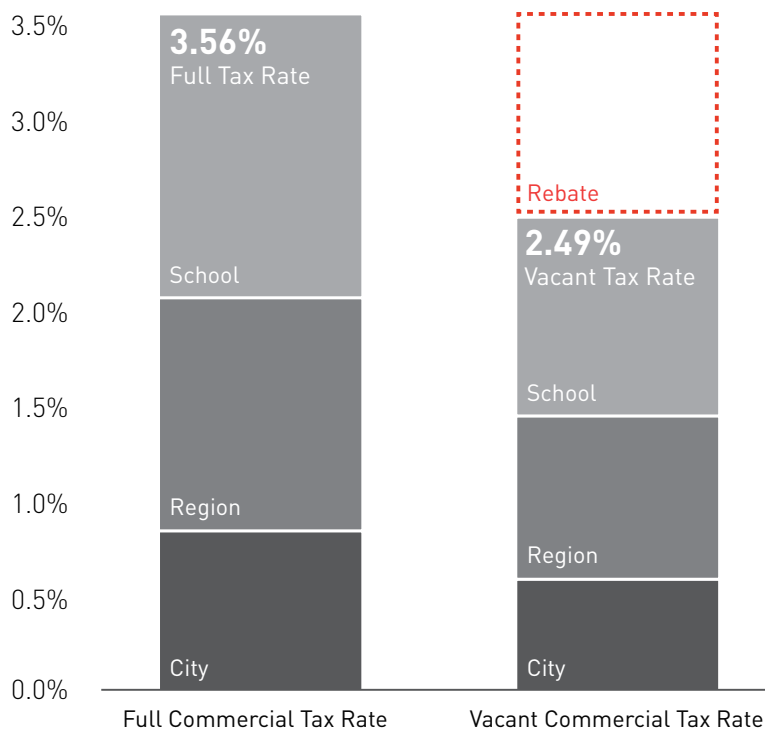
Commercial Vacancy Rate In Waterloo Region

Figure 16: Data Source: Colliers.

Downtown Galt has a commercial vacancy rate that doubles that of the rest of the city and its more affluent neighbours in Kitchener and Waterloo. The City of Waterloo has historically been more prosperous than its regional partners, only recently being affected by an oversupply of commercial office space as a result of Blackberry's decline and ensuing real-estate sale.

Tax Rebate. Instead of penalizing owners of vacant land, the rebate program rewards them with lower taxes, starting in 2001. The Region of Waterloo established a rebate for commercial and industrial property of 35 percent. This rebate program is mandatory and governed by section 364 of the Municipal Act and Ontario Regulation 325/01. The rebate has been described as a stop-gap measure to provide relief to property owners as they search for new tenants. In the city of Toronto, 40 percent of rebate-receiving properties collected tax deductions only once. Beyond that, however, the rebate program can be seen to distort the rental market, providing incentive for property owners to await the rise of their property values without having to attract lower-rent tenants. The remaining 60 percent of properties receiving the vacant tax rebate in Toronto were vacant for more than two years with a staggering 21 percent collecting payouts for five to twelve years, the duration of the program.⁸ Efforts to obtain the tax rebate data for the Region of Waterloo were unsuccessful as the data collected by municipalities in Ontario is held by the Municipal Property Assessment Corporation who

- New York City can fine owners of abandoned structures up to \$2,000
- In Kansas City, Missouri, the fine is capped at \$500; and in San Diego, it is \$250
- Several cities are authorized to imprison the owners of abandoned structures for health and safety violations.
- Violators in Columbus, Ohio, and Charlotte, North Carolina, can be sentenced for up to 30 days
- Louisville, Kentucky, charges owners of unoccupied residential and commercial/industrial structures an abandonment tax that is 1.5 times the standard property tax.

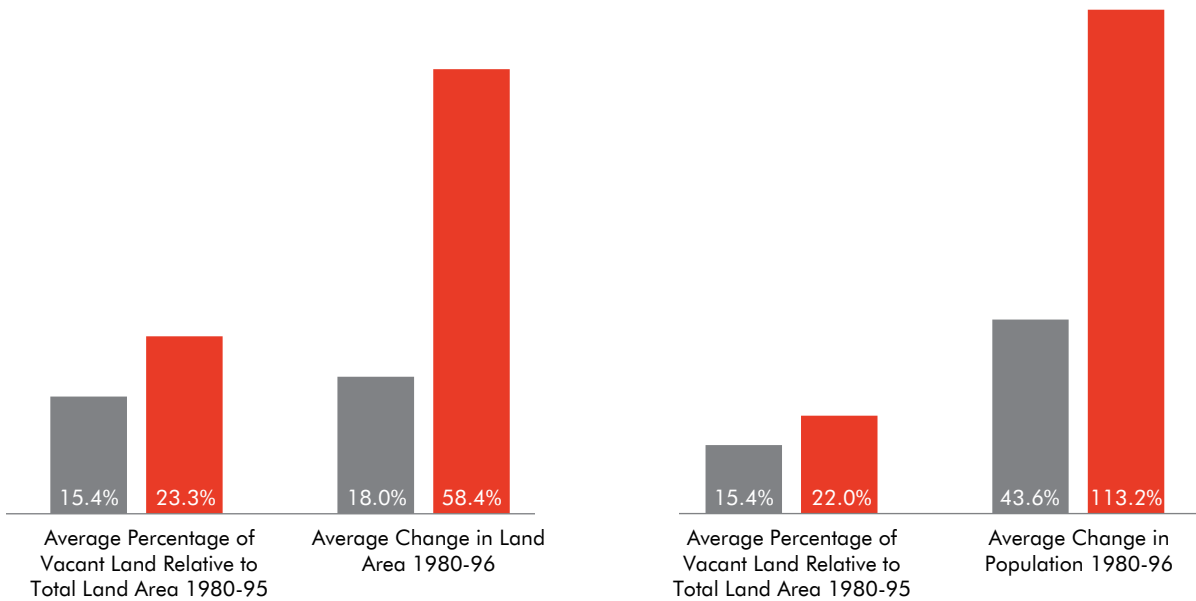


Source: Bowman and Pagano⁷

⁷ Bowman and Pagano, “Transforming America’s Cities Policies And Conditions Of Vacant Land” 568

⁸ Matt Elliott, “Why did owners of vacant units in Toronto get \$367M in tax rebates?” *Metro*, May 06 2014

Figure 17: Commercial Tax Rates in Ontario.



Cities With Increased Land Area

- Total Survey
- Cities with more than 25% Increase in Land Area

Cities With Increased Populations

- Total Survey
- Cities with more than 50% Change in Population

Vacant Land in Expanding U.S. Cities

Figure 18: Data Source: Bowman and Pagano, *Terra Incognita*

American cities that allowed their boundaries to expand and those who experienced population growth were marked with a significant increase in vacant land, as surveyed by Bowman and Pagano.

would not release the information. Should this data be studied, it could clearly define the state of vacancy in the region.

With the data from their surveys, Bowman and Pagano looked to define relationships between growth and vacancy in American cities. They proved an inverse relationship between population change and the amount of vacant land in a city; the author's analysis on urban elasticity appeared especially noteworthy.

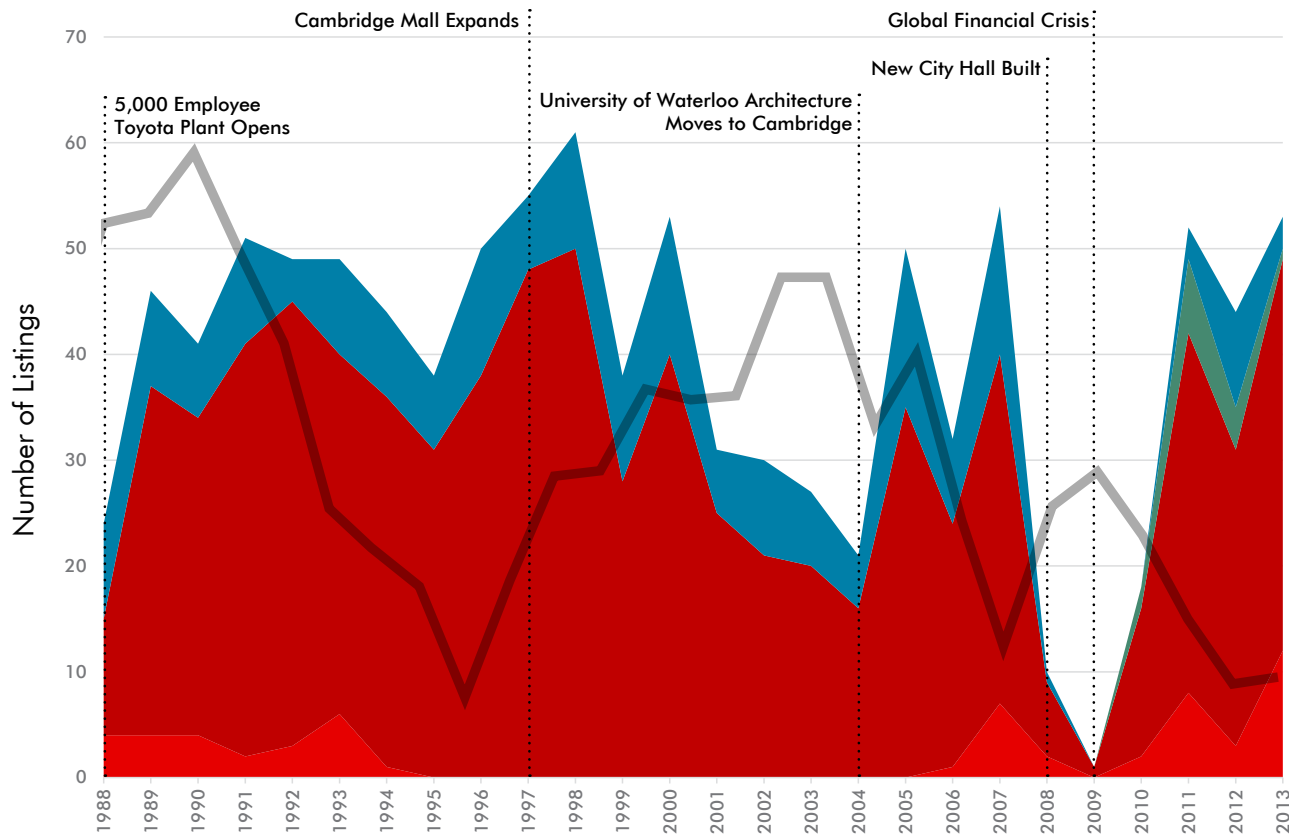
It is clear that neither the proportionate amount of vacant land nor the number of abandoned structures is a simple function of region or economic condition. Far more important in explaining the proportion of a city's vacant land to its total area is the elasticity of a city's boundaries.⁹

While one might assume cities that are growing are in short supply of vacant space, thus spurring the need for growth, Bowman and Pagano found the opposite to be true. Cities, like Cambridge, that were allowed to extend their boundaries to accommodate growth were found to have higher proportions of vacant land and demonstrated a correlation coefficient of .437 between increases in land area and increases in vacancy. This relationship provides an interesting correlation linking Cambridge's post-amalgamation growth and its current high vacancy rate. Geographically similar to the North Eastern United States, it is again interesting to note that 50 percent of cities with populations over 100,000 in this region exhibited the highest percentage of studied cities that stated vacant land had been vacant for "too long."¹⁰

As vacancy statistics are unavailable to compare directly to Bowman and Pagano's, the commercial real estate landscape was studied to define the cities' absent space. The Multiple Listing Service (MLS) is a database structured for the sale of property and is managed by the Canadian Real Estate Association. As the MLS facilitates the overwhelming majority of real estate transactions, it is often used to determine economic health as an indicator for real estate growth in the economy. The market is generally considered a seller's market when there is excess

⁹ Bowman and Pagano, *Terra Incognita*, 27

¹⁰ *Ibid.*, 9



Status of Commercial Real Estate Listings

Figure 19: MLS Data Source

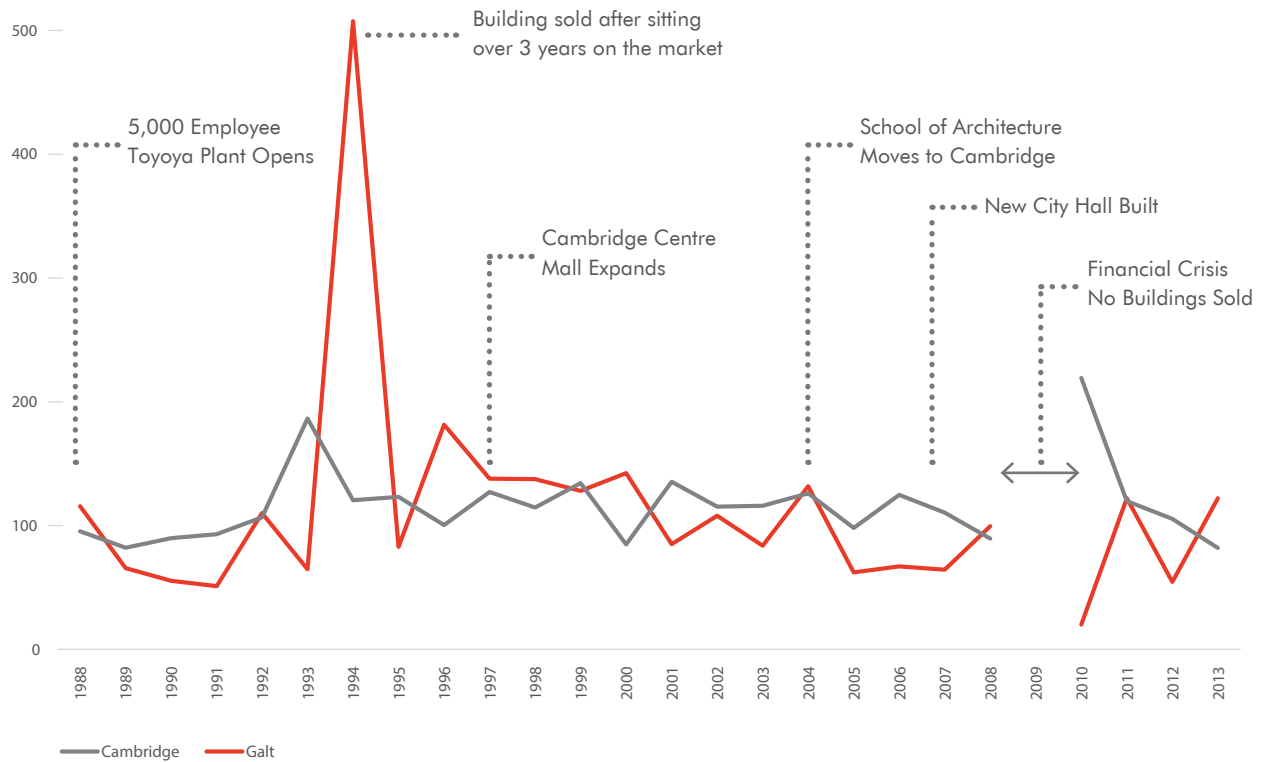
- Cancelled
- Expired
- Sold
- Leased
- Building Permits Issued

demand of property. It is considered in oversupply when the sales-to-active-listings ratio exceeds 20 percent.¹¹ As illustrated in the graph on the previous page, the commercial real estate market is in dire straits in downtown Galt, where 93 percent of listings went unrented or unsold in 2013. The majority of these unsold properties are identified in the database as expired listings and marked with an “x”. This means the property has exceeded the listings timeframe determined between the owner and the realtor and has sat on the market for upwards of 60 days, which is the MLS minimum. The 25-year historic average days on the market for sold commercial listings is 113 days in Cambridge. While some spaces have short listings before their sale, most are repeatedly listed as the spaces go unsold, distorting the average. The concentration of the listings in the historic cores and the duration of their time on the market begin to paint a picture of vacancy in the city and frame a timeline for potential temporary actors to fill the time gap of occupation.

Breaking down the commercial listings data delineates a physical and temporal landscape of vacant space that varies across Cambridge’s different districts. The historic cores, Galt City Centre and Preston Central Park, are the areas that have the first and third most expired and cancelled commercial listings in the city. The Industrial Park district to the south of Highway 401 ranks second as it has fallen out of favour in the commercial market to the new industrial area in the North Cambridge District on the opposite side of the highway that houses the technologically advanced Toyota Factory. The continual construction of new commercial development in the Fourth City, in contrast to the unwanted properties in the historic cores, illustrates a disconnect between what is currently desired and existing development. Downtown Cambridge has by far the highest office vacancy rate in Waterloo Region at 41.5 percent in the fourth quarter of 2013. In contrast, there was only a 10 percent vacancy rate in its suburban counterpart.¹² Comparatively, Cushman & Wakefield’s average commercial vacancy for Canadian cities fell to 5 percent in 2012.¹³ Class A commercial office buildings are in high demand in Canada’s major urban centres, yet downtown Cambridge has no Class A

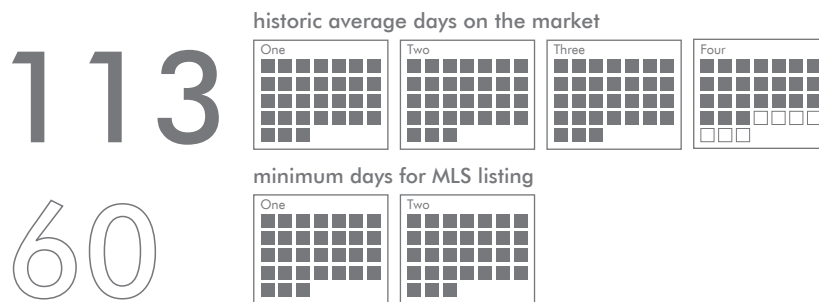
¹¹ British Columbia Real Estate Association. “BC Real Estate Terms of Reference,” BCREA, 2015

¹² Colliers Macaulay Nicolls (Ontario) Inc., Brokerage



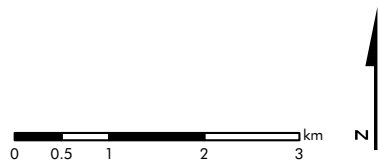
Average Days on the Market

Figure 20: Commercial Buildings. Data Source: MLS



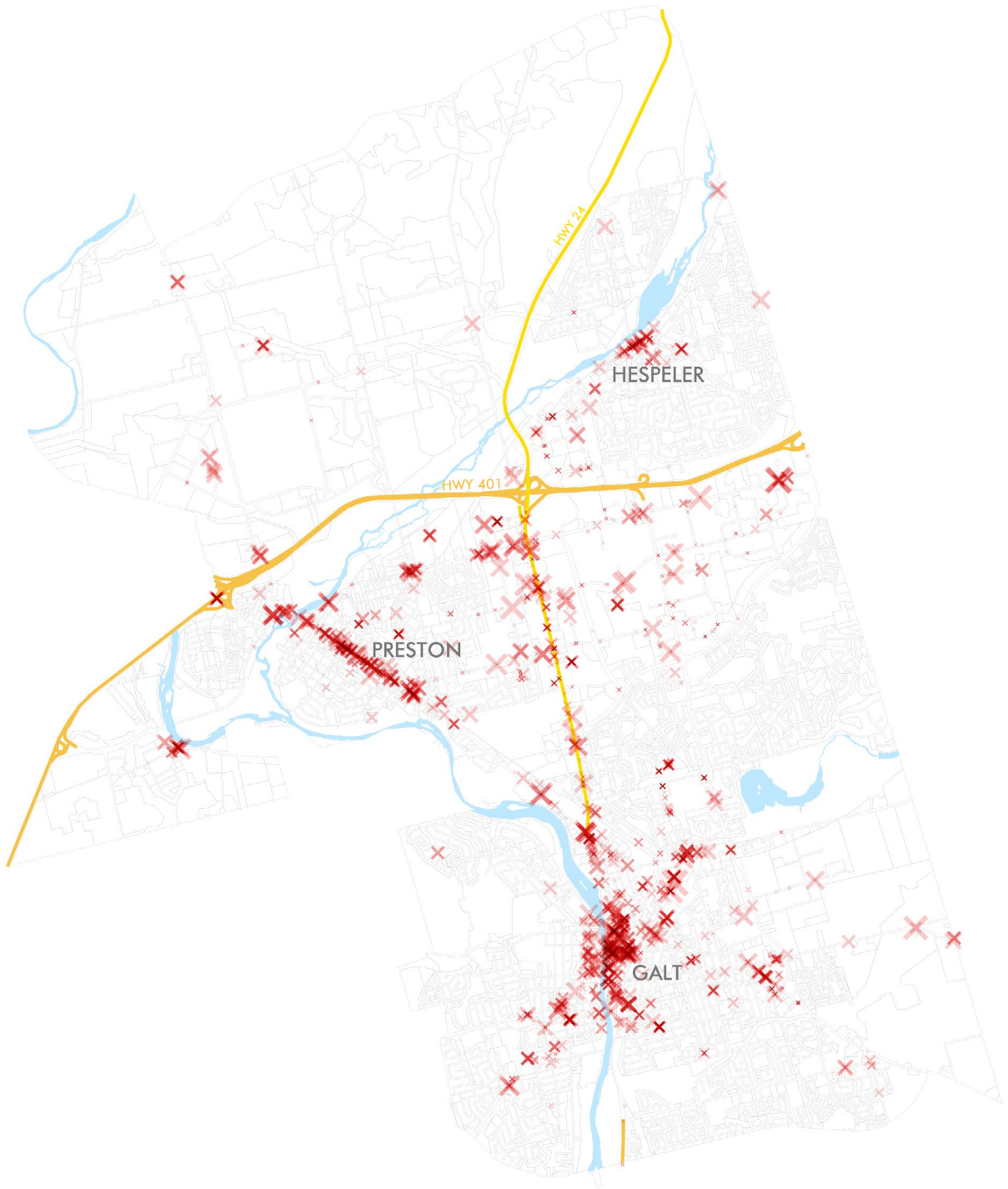
Building List Price

- × \$0 - \$42,000
- × \$42,000 - \$130,000
- × \$130,000 - \$235,000
- × \$235,000 - \$385,000
- × \$385,000 - \$640,000
- × \$640,000 - \$1,050,000
- × \$1,050,000 - \$1,800,000
- × \$1,800,000 - \$3,000,000
- × \$3,000,000 - \$5,200,000
- × \$5,200,000 - \$10,500,000



Unleased and Unsold Properties 1988-2013

Figure 21: Data Source: MLS



office space.¹⁴ Distorting the downtown real estate market is Cambridge Place at 73 Water Street in the heart of downtown Galt that has 50,000 square feet of office space begging for occupants. Constructed as the “City Hall” for post-amalgamation Cambridge, it remains half empty over five years after the Civic Administration vacated the building for its new city hall.

Framing the city within its regional context, Cambridge has the smallest supply of office space at 800,000 square feet, compared to 2.5 million in Kitchener and 2.1 million in Waterloo. While Waterloo rules the office market, the opposite is true in industrial real estate. Cambridge dominates with an inventory of 30 million square feet, followed by Kitchener with 21 million and Waterloo with 10 million.¹⁵ This can be attributed to Cambridge’s close proximity to Highway 401, anchoring it as the industrial capital of the region, as Kitchener and Waterloo are further away from the highway. Thirty-seven percent of Canadian business is concentrated along the 401 transnational trade route that connects the province to the United States and accounts for roughly 50 percent of the province’s GDP.¹⁶ As business and industry are drawn towards the highway, the city’s cores require alternative approaches to attract investment.

The vacant real estate in Cambridge’s historic core defines a landscape of space that has fallen out of favour with contemporary consumer practices where residents prefer to drive down Highway 24 and the 401 for their one-stop, big-box, discount shopping experience. The two million plus square feet of commercial space available in the Highway 24 Commercial District provides a suburban retail focus that can’t be matched by the traditional main streets that comprise the historic cores. Despite the legislated desire for downtown development, Wal-Mart and the malls that abandoned downtown are not going to return.¹⁷ A new definition of occupation, encouraging new programs and uses, is needed to fill the void in the historic cores that traditional businesses are not.

If downtown Cambridge cannot attract the return of the former downtown programs, what will fill the void? There is no single solution to the issue, a symptom of the city and its place

¹³ Brad Finkelstein, "Office Vacancy Rate in Canada at 5% and Shrinking," *National Mortgage News*, Jun 19, 2012

¹⁴ Beverley Smith, "Commercial property the 'belle of the ball'," *The Globe and Mail*, March 18 2013.



in the broader economy. One possibility during Cambridge's long-term recovery is to recast the vacant buildings in a new light, creating months' and years' worth of unused capital that can be reshaped as a resource for alternative investments. Top-down and ground-up approaches can activate the vacant buildings with temporary uses, offering an opportunity to fill a gap in activity, improving the city's appearance and gradually contributing to the resettling of Cambridge by urban pioneers.

Plate 10: Vacant Target at
Cambridge Centre shopping mall
[2015-06-24]

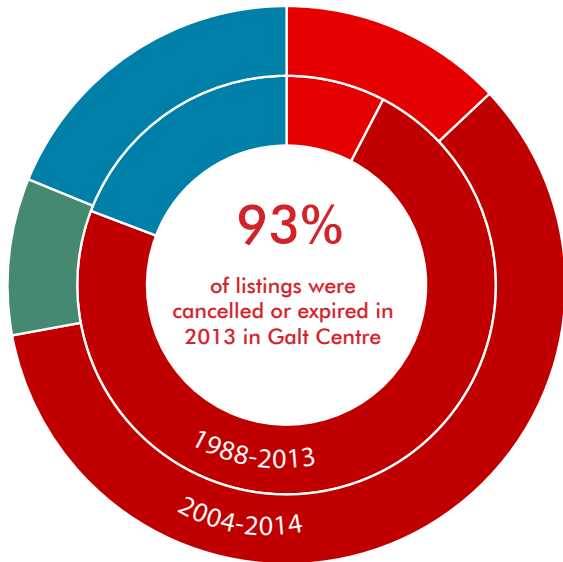


Figure 22: Commercial Listing Status 1988-2014.
Data Source: MLS.

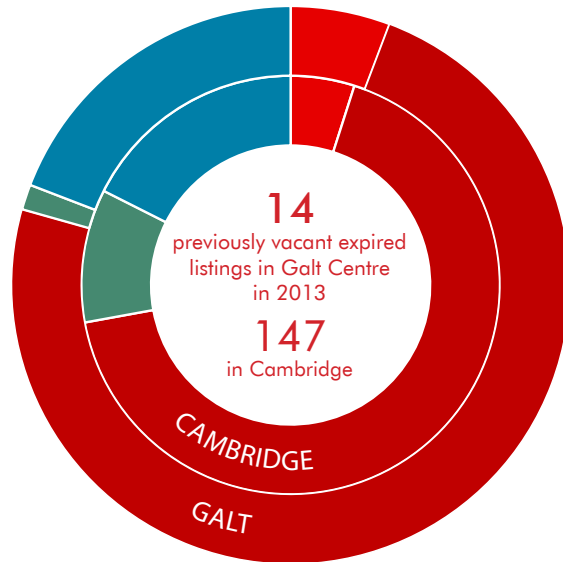
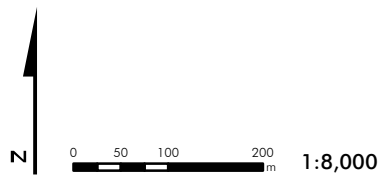
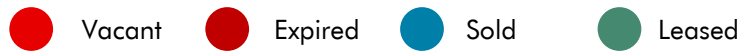


Figure 23: Commercial Listing Status 2013.
Data Source: MLS.

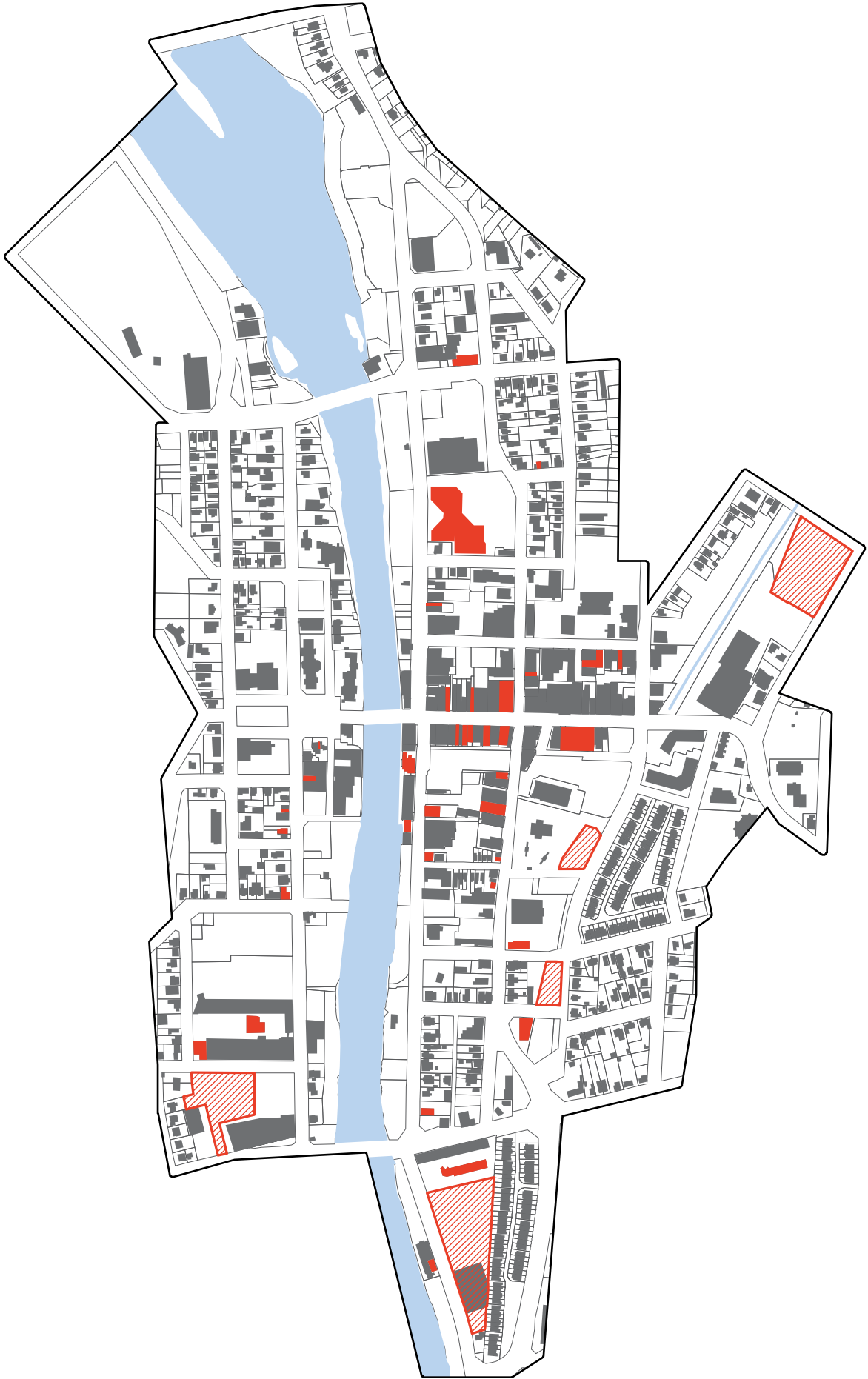


■ Vacant Building

▨ Vacant Land

Visibly Vacant Buildings in Downtown Galt

Figure 24: [Right] Field study conducted in January 2014.



1.3 Policy and Placemaking

Top-Down Approach

"More and more businesses understand that ethos and are making the adaptations necessary to attract and retain creative class employees—everything from relaxed dress codes, flexible schedules, and new work rules in the office to hiring recruiters who throw Frisbees. Most civic leaders, however, have failed to understand that what is true for corporations is also true for cities and regions: Places that succeed in attracting and retaining creative class people prosper; those that fail don't."¹

High vacancy rates in Cambridge and in cities across the continent are affected not only by local planning policies and consumer patterns, but by macroeconomic forces that weigh heavily on real estate markets. The decline of manufacturing economies in developed nations has been a trend closely observed and discussed in a world of rapid globalization. Thomas Friedman's focus on globalization and dispersion of economic activity in a flat world misses what Michael Porter dubs the "location paradox"² that highlights clusters of economic activity in spite of removed barriers for trade and investment.

Canada's Technology Triangle is a prime example of this economic clustering that combines Blackberry's foundation in Waterloo, plus the emerging startup culture in Kitchener growing further with Google's recent investment, and the manufacturing sector in Cambridge, to name a few. In the centre of Ontario's industrial heartland, Cambridge has seen the manufacturing economy evolve from its founding mill and textile production to heavy industrial manufacturing and a strong automotive sector. Toyota Motor Manufacturing Canada Inc. is the largest employer in the city with a growing force of over 4,500 employees, more than the next three leading employers combined.³ Regionally, it is the third largest employer after Blackberry and the Public School Board.⁴ Despite the strong influence of the manufacturing sector, the Toyota plant is not the low-skill assembly plant of previous generations, but a high-tech facility; the first of its kind built outside of Japan. After Michigan, Ontario's American neighbour, the province ranked as the second largest auto producer in North America, accounting for almost 18 percent of North American automobile assembly.⁵ Wolfe and Gertler describe a period of economic restructuring stemming from Ontario's deeper integration in the North American economy following the signing of the Canada-US Free Trade Agreement in 1989 and North American Free Trade Agreement (NAFTA) in 1994.⁶ They posture the paradoxical consequences of globalization have accentuated the significance of place as a locus for innovation.

¹ Richard Florida, "The Rise of the Creative Class," *The Washington Monthly*, May 2002, 4

² Peter Engardio, Online Extra: Q&A with Michael Porter. Bloomberg Business Week. August 20, 2006

³ City of Cambridge 2012

⁴ Chris R. Keller, "Largest Employers In Waterloo and Kitchener 2010," *Profitworks*, 2010

⁵ David A. Wolfe and Metric S. Gertler. "Globalization and Economic Restructuring in Ontario: From Industrial Heartland to Learning Region?," *European Planning Studies*, Vol. 9, No. 5, 2001, 584

⁶ *Ibid.*, 576



Figure 25: Main Street circa 1970
by Bill Law

As the information and communication networks created by digital technologies integrate the economies of the globe ever more tightly (Archibugi & Michie, 1997), they simultaneously increase the importance of space and proximity... Since competitive success depends heavily on their ability to produce knowledge and utilize it effectively, there is a pressing need for firms, communities, regions and nations to invest a greater share of resources in education and training than they have in the past (Nonaka & Takeuchi, 1995). The production paradigm of the new economy, with its emphasis on knowledge and creativity, is highly dependent on localized, or regionally-based, innovation.⁷

Although the sector was weakened by NAFTA, it continues to enjoy a strong competitive advantage through the reputation it acquired as a highly skilled and reliable labour market. Citing a long-term investment strategy beginning in the 1950's, Wolfe and Gertler describe Ontario's 17 universities and 22 colleges as "the bedrock of Ontario's economic development policy" putting Ontario above or on par with almost every other North American jurisdiction.⁸ Highlighted in this strategy was the Premier's Council Technology Fund in 1986 and the Industrial Policy Framework of 1992. Both focused on integrating knowledge in the economy; the Council's Technology fund explicitly required university-based academic centres to collaborate with industry partners and the Industrial Policy Framework was an initiative to create systems of social learning within sectors of the economy.⁹ Despite their relative success, these and other related policies were ended or wound down in the subsequent Conservative government that favoured broad policies of lower taxes and reduced regulatory burden in contrast to targeted spending. While the abrupt end to these programs led the authors to question the success of Ontario's ability to create a learning region, the decade following their publication has seen increased interest in the knowledge economy with the influence of Richard Florida's *The Rise of the Creative Class*.

According to Florida, the creative class is a key driving force for economic development. Florida's research shows

⁷ Wolfe and Gertler, "Globalization and Economic Restructuring in Ontario," 577

⁸ Ibid., 584

⁹ Ibid., 585

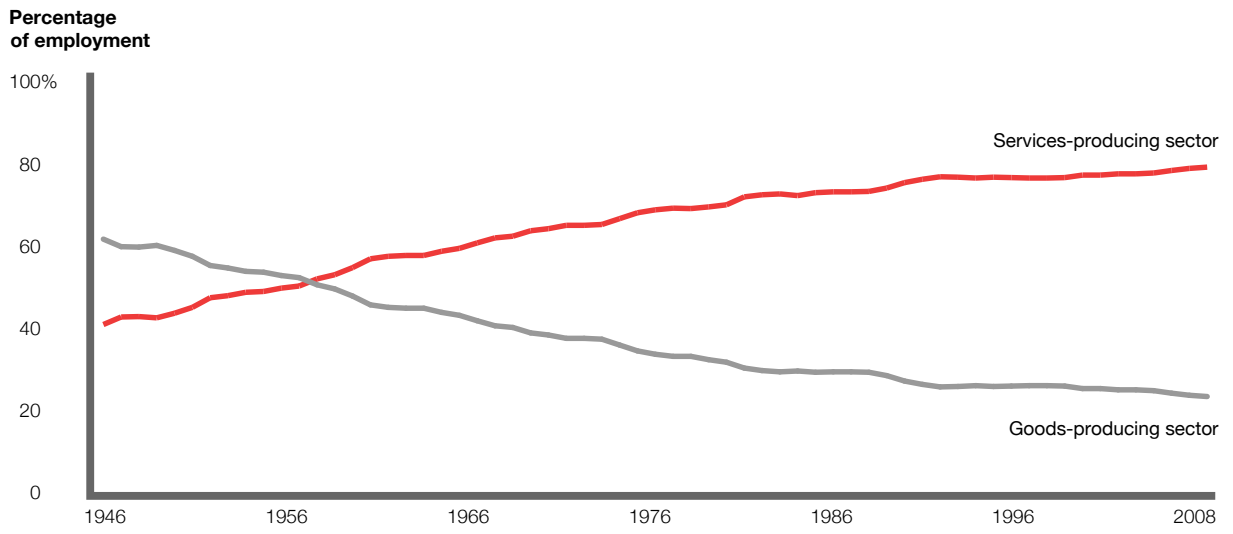


Figure 26: Employment in Goods vs Services Sector
by The Martin Prosperity Institute.

the growth in the creative sector of employment and states that employment in what he defines as the creative field relates directly to higher income. Richard Florida identifies three broad skill sets that impact our economy. Our previous industrial economy developed from physical skills, like lifting and manual dexterity. However, in our emerging economy, great importance lies in analytical and social intelligence skills. Analytical skills, such as pattern recognition, problem solving and social intelligence skills for teamwork, such as situational sensitivity and persuasiveness, are crucial to the knowledge-driven economy. While analytical and social intelligence skills are generally important components of creative occupations, all people and occupations use these skills. Florida's research found that earnings rise with increases in occupations' analytical and social skills; however, this is not true with physical skills. The connection between education and earning potential have been recognized by Ontario's policy makers who have invested heavily in the province's education system. Further establishing a link between the creative economy and the education system, Florida describes the tendency for recent graduates to cluster near their schools in his most recent book, *Who's Your City*.

For recent college graduates, one obvious choice is to stick around where you went to school, at least for a year or two. Most young graduates eventually move on, but many do choose to stay for at least a while-to engage in research, hang out with friends, or take advantage of a school-related job opportunity. As my own rankings indicate, college towns such as Madison, Ann Arbor, and Boulder are quite successful in attracting this demographic.¹⁰

The policy focus on education and recognition of economic clustering sets the stage for regional and municipal levels of government, who through a decentralization of responsibilities, have become increasingly central to the implementation of economic development. The importance of place-based policy has positioned regions and their communities as essential actors in contemporary economic development.

Despite the overwhelming popularity of Richard Florida's

¹⁰ Richard Florida, *Who's Your City?: How the Creative Economy is Making Where to Live the most Important Decision of Your Life* (New York: Basic Books, 2008), 241

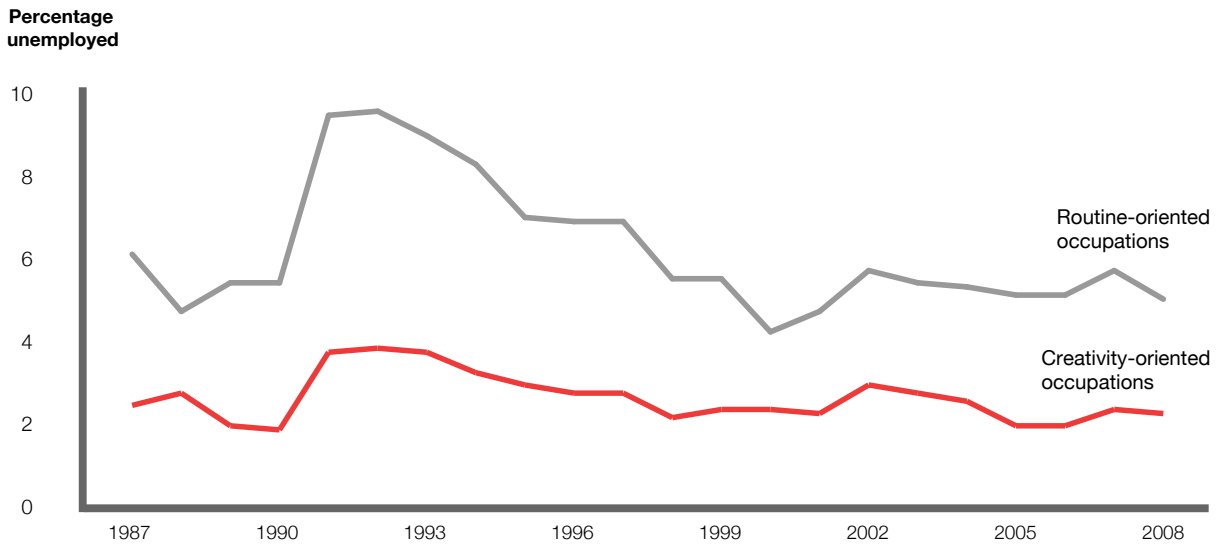


Figure 27: Ontario Unemployment Rate by Sector by The Martin Prosperity Institute.

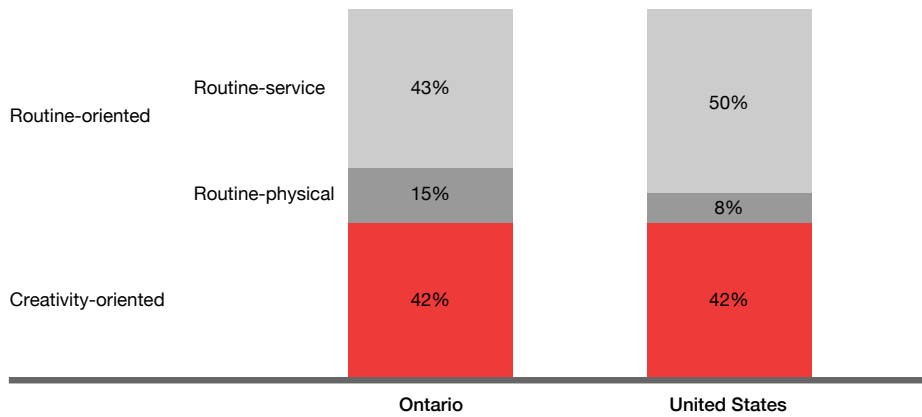


Figure 28: New Job Creation by Sector 2006-2016 by The Martin Prosperity Institutw.

work, which has rapidly been enacted into policy all over the world, his theories are not without opponents. Critics call his policies elitist, and he even wrote an article himself citing “that talent clustering provides little in the way of trickle-down benefits to service and blue-collar workers.”¹¹ Those skeptical of public-policy capacities seriously question the ability for top-down policy to foster creative culture.

He doesn't seem to recognize that the cultural attributes of cities he most admires are not a product of government planning but have been a spontaneous development, financed by private-sector wealth.¹²

Creative policies have quickly become policies of choice, as they provide a distinct and deliverable development agenda. Jamie Peck writes of the creative-class strategies:

They empower, though only precariously, unstable networks of elite actors, whose strategies represent aspirant attempts to realize in concrete form the seductive ‘traveling truths’ of the creativity script; they give license to ostensibly portable technocratic routines and replicable policy practices that are easily disembedded and deterritorialized from their centers of production — at least in a shallow, essentialized form — for all the talk of local ‘authenticity’; they reconstitute urban-elitist, ‘leadership’ models of city governance, despite their ritual invocation of grassroots efforts;¹³

Peck and Malagna's criticism could, however, be addressed by ground-up approaches that truly empower citizens as Florida imagines, with the support from top-down public policy. The popularity of Florida's position is not unfounded and, should his policies be crafted to enable spontaneous grassroots action as discussed in the subsequent chapters, they could incubate the authentic spirit of local actors.

The City of Cambridge has not missed out on the rising tide of creative-class enthusiasm, and even cites Florida in their economic development strategy. The economic development strategy, “Designing The Future,” prepared by Miller Dickinson

¹¹ Richard Florida, "More Losers Than Winners in America's New Economic Geography," *City Lab*, January 30 2013.

¹² Steven Malanga, "The Curse of the Creative Class," *City Journal*, 2004, 45

¹³ Jamie Peck, "Struggling with the Creative Class," *International Journal of Urban and Regional Research*, Volume 29, Issue 4, December 2005, 767

Blais in 2008 identifies four targets for proactive decisions connected by the common thread of the knowledge economy. The primary target of Advanced Manufacturing builds on the traditional industrial base, highlighting retention programs and opportunities for growth by linking Conestoga College to industry partners.

Building off this manufacturing base, the life sciences sector is the stated second target, growing from strengths in device, biotechnological and pharmaceutical manufacturing.

Small knowledge-based industries are positioned as the third of four targets. The report highlights bringing the University of Waterloo School of Architecture to downtown Galt, paid for by the city and province through a multi-million dollar investment, as a part of their economic development strategy. Cambridge has since invested in a new professional theatre down the block from the School of Architecture. The city is now constructing Idea Exchange's innovative bookless public library and maker space directly across the river in a derelict, vacant, federally designated, historic post office. Cambridge is also in the process of funding a twofold expansion of the School of Architecture, jointly funded by the provincial and federal governments, further demonstrating their belief in the knowledge economy. These investments will help to foster a creative cluster in the scenic, walkable downtown, creating a point of attraction to contrast the city's sprawling commercial centres.

The fourth target identified is the environment, ranging from the existing park space, the scenic Grand River and environmental design seen in the new LEED-certified downtown city hall.

As a delivery strategy for the four economic targets, Miller Dickinson Blais proposed 28 actions, 15 of which were in relation to the School of Architecture, whose activities spanned across all four targets, as well as being a core area of focus for the knowledge-based sector. Seven years following the presentation of the report, it is clear that relatively few, if any, of the actions listed have been implemented. Many of the actions proposed the creation and facilitation of networks to leverage local assets and connect local partners to developments

and areas of growth in the region. As a student at the School of Architecture for the past seven years, it is apparent that the institution has not leveraged its full potential to engage with actors in the local economy.

In their analysis of the creative sector of Waterloo Region, Vinodrai et al. highlights the central role of local networks in the development of knowledge-based industries. Despite this, they found a lack of coordination in programs and funding between the municipalities of Kitchener, Waterloo and Cambridge and the Region of Waterloo that they comprise, clearly evident in the inaction taken from the *Designing the Future* report. Their findings identified that a void in leadership has resulted in a number of initiatives that lack a coordinated vision and strategy leading to a dependence on informal relationships.¹⁵ They challenge leaders in the region to structure these relationships across the civil, private and government sectors to further leverage key assets to grow their potential. Investigating further, they found the creative and cultural industries lacked available physical space needed for cultural production.

Our interviews from all sectors identified that value creation in knowledge-intensive sectors requires appropriate physical space, as well as networking space for the exchange of industry knowledge.¹⁶

Coworking and maker spaces represent a new growing trend in building occupancy for the creative economy. Increased mobility in the workforce has laptops replacing desktop work stations, while many businesses and workers are choosing to forgo traditional static offices, turning instead to drop-in desks, meeting spaces and cafes where they can come and go as their needs and desires dictate.

Maker spaces, also known as ‘fab labs’ or ‘hacker spaces,’ are facilities dedicated to helping creators, designers and entrepreneurs engage in methods of production that were previously the exclusive domain of institutions. Often equipped with 3D printers, laser cutters, open-source computer hardware and CNCs, these spaces for production and experimentation help translate ideas into tangible products. The maker economy

“It is really quite important this business of having a space; it’s part of our infrastructure. When people think about artistic infrastructure, they think about concert halls, galleries, and all this sort of stuff. They don’t think of the layer below that—in order to make the stuff that goes in there, you have to have a place to make it.”

—Visual Artist¹⁴

¹⁴ Tara Vinodrai, Riaz Nathu, Scott Ross, Emily Robson, Steffanie Scott and Paul Parker. "Taking regional action?" *Economic Developers Council of Ontario*, February 2012, 96

¹⁵ Ibid., 89

¹⁶ Ibid., 94



Plate 11: A dynamic future is imagined for Idea Exchange's Post Office Project in Thomas Fullers 1887 riverfront building. As seen from the vacant building at 35/37 Main Street, it has sat empty since 2007. [2015-06-26]

has been enabled by an increasing availability of maker spaces, with over 2,000 now in operation worldwide, making expensive equipment available to the public.¹⁷

The movement is further supported by crowdfunding, which helps raise financial capital for the growth of ground-up initiatives, raising \$13 billion in funds from 2011 to 2014.¹⁸ Coupled with local retailers, start-up business can raise awareness of their products, building a client base, while avoiding the hurdles required to sell to the large retailers established in the malls. Vinodrai et al. propose a response from regional actors to provide accessible spaces appropriate for facilitating creative-sector project development. Their report identifies four recent initiatives with broader regional mandates to address this issue. Despite these initiatives, their interviews indicate that there still remains a lack of affordable space to foster interaction, innovation and creation for the creative and cultural sector.¹⁹

Entrepreneurialism captures the sense in which cities are being run in a more businesslike manner, and the practices that have seen local government imbued with characteristics once distinctive to businesses – risk-taking, inventiveness, promotion and profit motivation.²⁰

As the city of Cambridge positions itself to attract the creative sector, it must compete with other municipalities in the region. The city has multiple proposals to market itself to the creative class and has made several investments towards creating space for the sector, seen in the construction of the School of Architecture and the proposal for the Idea Exchange Post Office project. To truly transform the local economy, large investments in transit infrastructure and additional facilities coupled with changes in public policy are needed, in alignment with proposals from their unimplemented economic development strategy. Creative entrepreneurial approaches, however, can complement the macroeconomic and policy plans that ultimately shape the vacant space in the region. The dearth of available and appropriate space that accommodates the diverse needs of the creative sector presents an opportunity to be filled in the city's waiting lands.

¹⁷ John Tierney, "How Makerspaces Help Local Economies," *The Atlantic* April 17, 2015

¹⁸ Ibid.

¹⁹ Vinodrai et al., "Taking regional action?" 96

²⁰ Mihalis Kavaratzis, "Place Branding: A Review of Trends and Conceptual Models," *The Marketing Review* (Westburn Publishers Ltd., 2005), 331



Plate 12: Unsilent Night
Installation on Main Street,
constructed with recycled doors
to bring attention to Cambridge's
urban issues and raise awareness
for the BRIDGE Storefront.
[2013-12-21]

1.4 Tactical Urbanism for the Fourth-Dimensional City

Ground-Up Action

"The quest for permanence, however, guides many of our choices. We want to achieve 'lasting results', or find 'permanent solutions' or 'enduring love' to make 'continuing commitments', to invest our savings with 'permanent' investment funds and to achieve 'sustainable' regeneration... Meanwhile there is implicit criticism in 'short-termism', while solutions that are labelled 'temporary' are deemed to be secondary to more permanent visions. However we deceive ourselves in believing that the world is permanent. In reality, the only certainty is that everything changes."¹

Traditional commercial development follows market-driven processes where property owners commission designs in accordance with local authorities to follow their long-term master plans and economic development strategies. They are heavily dependent on large financial investments and, as a result, vacant buildings and lots can sit undeveloped for years as developers await market conditions to improve. Independent actors are marginalized as their dependence on other stakeholders and outside forces obstruct their ideal visions. Traditional master planning is a lengthy process that can take years to enact into legislation and implement, unable to adapt to short-term change. Conventional top-down models of formal planning address what should be developed; however, they omit implementation plans.⁷

Most researchers will agree that creative environments cannot come into being purely as a result of top-down measures sponsored by city authorities. They are bottom-up spontaneous happenings that principally require cheap space and freedom from constraints.⁸

Tactical urbanism is proposed as an additional approach, complementing traditional top-down public policies to produce space for the creative sector. It is an elastic and global movement that applies to a wide spectrum of designers and approaches. In the North American context, it is attributed to increasing frustration with overly complex bureaucratic processes, increasing urbanization to accommodate growth, the economic fallout associated with the Global Financial Crisis in 2008 and a radical shift in mobile communication that can facilitate spontaneous project delivery methods.⁹ The Street Plans Collective defines tactical urbanism as having five characteristics:

- A deliberate, phased approach to instigating change;
- The offering of local solutions for local planning challenges;
- Short-term commitment and realistic expectations;
- Low-risks, with a possibly high reward; and

tac-ti-cal *adj*

1. "of or relating to small-scale actions serving a larger purpose"²
2. "adroit in planning or maneuvering to accomplish a purpose"³

di-a-lec-tic *noun*

1. "Enquiry into metaphysical contradictions and their solutions."⁴
2. The existence or action of opposing social forces, concepts, etc."⁵

du-al-i-ty *noun*

1. an instance of opposition or contrast between two concepts or two aspects of something; a dualism.⁶

¹ Peter Bishop and Lesley Williams, *The Temporary City*, 11

² "tactical, adj.," *Merriam-Webster Online Dictionary*

³ Mike Lydon, *Tactical Urbanism*, The Street Plans Collaborative, 2010, 1

⁴ "dialectic, n.," *OED Online*

⁵ *Ibid.*

⁶ "duality, n.," Google Dictionary, Mountain View, California, 2014

⁷ Phillip Misselwitz, Oswald, Phillip & Overmeyer Klaus, eds., *Urban Catalysts: Strategies for temporary uses – potential development of urban residual areas in European metropolises*. (Berlin: Studio Urban Catalyst, 2003), 5

⁸ Peter Bishop and Lesley Williams, *The Temporary City*, 174

⁹ Mike Lydon, "Part One: Should MoMA Tout Tactical Urbanism(s) as a Solution to Uneven Growth?," *Planetizen*, December 20, 2014

TOP DOWN

Mayors
Politicians
Municipal Departments



Citizen Activists
Community Groups
Neighbourhood Organizations

BOTTOM UP

Figure 29: Tactical Urbanism by the Streets Plan Collective.

- The development of social capital between citizens and the building of organizational capacity between public-private institutions, nonprofits, and their constituents.¹⁰

Incremental, small-scale activities that demonstrate the potential for change are increasingly seen as a way to stage more substantial development. It can be understood as prototypical tools for supporting informal activity within the city. This approach allows participants to engage in the process, gaining public confidence before making substantial financial and political investments.

Tactical urbanism is a strategic operation that lives within the realm of spatial agency. Spatial agency expands the notion of architecture beyond physical walls to an abstract social construct that mediates ground-up activism with top-down structure. Agency is traditionally held in a dialectic paring with structure. Agency is described as the ability of the individual to act independently of the constraining structures of society; structure is seen as the way that society is organized. The dialectic forces of agency and structure unfolds in architectural practice. Agency is our hope that creative actions will affect change. It opposes the operation of architecture as a social structure that is confined by economic and social forces, relegating the architect as a facilitator. Awan, Schneider and Till redefine spatial agency as a duality, two linked but separately identifiable conditions.¹¹ Architecture, when viewed through this lens, is understood as embedded in a set of associations within society. Spatial agents are negotiators of existing conditions, implying that the agency to transform the structure will only be effective if it responds to the constraints the structure presents. To instigate change, tactical urbanism, as an operation of spatial agency, must respond to desires and needs for all who will construct, occupy and experience the built world, acting on behalf of others through the notion of empowerment.

The Street Plans Collaborative places tactical urbanism projects within a spectrum of sanctioned-to-unsanctioned actions. They list many examples in their publication that began

¹⁰ Mike Lydon, *Tactical Urbanism*, 1

¹¹ Nishat Awan, *Spatial Agency: Other Ways of Doing Architecture*, edited by Tatjana Schneider, and Jeremy Till (Abingdon, Oxon England; New York; Routledge, 2011), 31

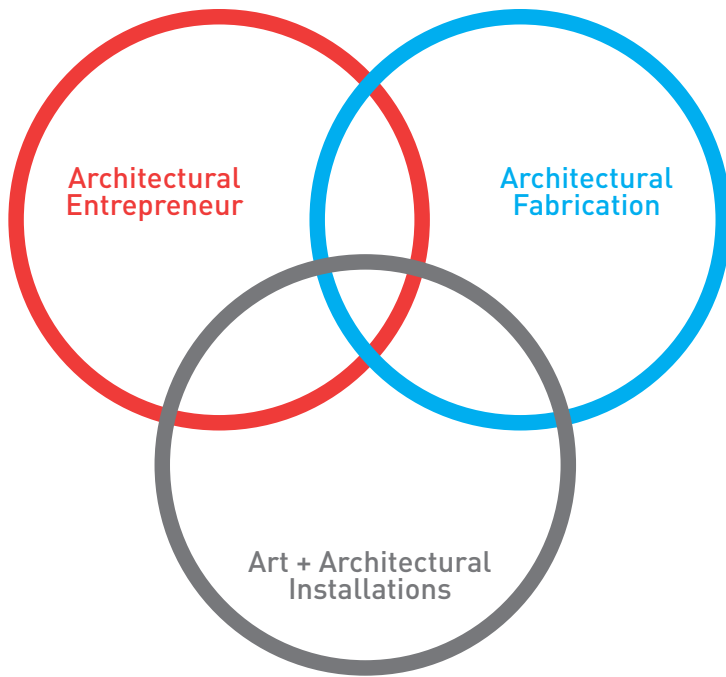


Figure 31: Adapted from John Locke, in *Hacking the Urban Environment*.

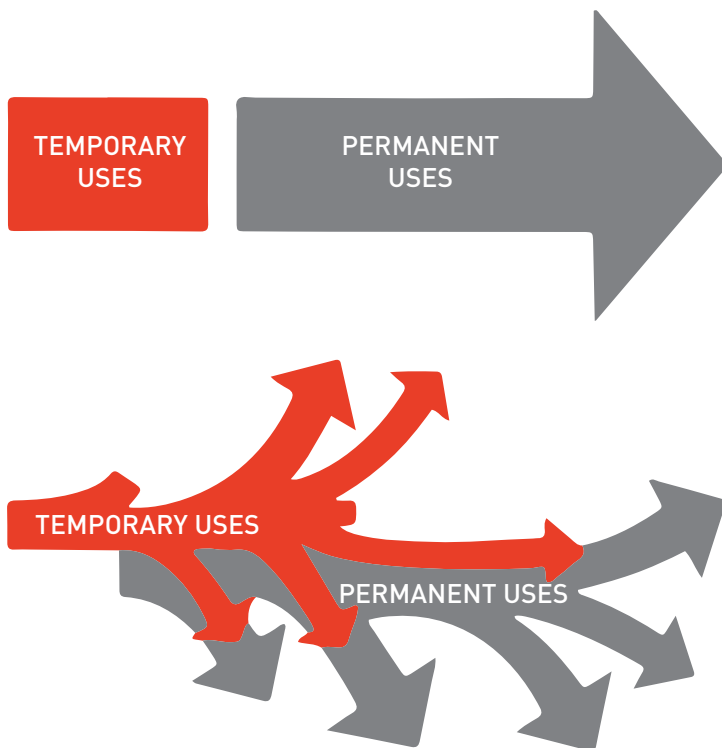


Figure 30: Temporary use can change future development options. From Bishop and Willimans, *The Temporary City*, 189

as grassroots or unsanctioned events that proved successful, leading to sanctioned or permanent interventions. They identify “temporary retail” and “pop-up storefronts” as hybrid tactics that fall in the middle of the spectrum. As tactical urbanism encompasses a wide range of activity, the scope of this thesis is focused on activism in vacant buildings. These interventions face unique challenges within the spectrum as actors must negotiate with the interests of private property owners in addition to public authorities.

Trendwatching.com describes the phenomenon of pop-up storefronts as a response to abundance in the experience economy:

In an age of abundance, with a reduced need for constant securing of the basics, and goods so plentiful that the status derived from them is sometimes close to nil, the only thing that remains is consumption of the thrill, the experience, the new.”¹²

Beekmans and de Boer site Target, the 10th largest retailer in the world,¹³ for spurring the pop-up phenomenon into prominence.¹⁴ Launching a temporary 140 m² store in New York’s Rockefeller Centre in 2003, many retailers soon followed this strategy. These temporary tactics are used as marketing tools to create a buzz and attention for large brands.

For brands, it is not simply about sales, but also experiential marketing and brand communication. For small entrepreneurs, however, the main reason to go pop-up are the low entry costs, limited risk, and the opportunity to create momentum for blooming business”¹⁵

Within the spectrum of tactical urbanism, it is the truly grassroots initiatives popping up in vacant properties that have the opportunity to transform a place for the benefit of its citizens. While one can learn from the strategies employed by large corporations, they can spend as much on a temporary establishment as they might on a permanent one. In the scope of this thesis, the power of tactical urbanism is viewed for its community building and place-making potential. The strength



Figure 32: Hamilton/Burlington Society of Architects



Figure 33: Guerilla bike lanes by Robin Doolittle, 2007

¹² Trendwatching.com, "Transumers", www.trendwatching.com/trends/Transumers.htm

¹³ Deloit, "Top 10 global retailers show modest growth in 2014," New York: September 25 2014, www2.deloitte.com/global/en/pages/about-deloitte/articles/consumerbusiness.html

¹⁴ Jeroen Beekmans *Pop-Up City: City-Making in a Fluid World* (Amsterdam: BIS Publishers, 2014), 154

¹⁵ Ibid.



Figure 34: Spectrum of Tactical Urbanism. From *Tactical Urbanism*

of the movement is its ability to manoeuvre through the city's spatial leftovers, capitalizing on the unique assets of a specific location. It reflects new trends in marketing that are both legitimising and inspiring temporary uses where the brevity of the activity is almost as important as the activity itself. There is an essence to the qualities of the temporary, and it should not be seen only as a replacement for what is perceived as permanent.

Pedro Gadanho's recent MOMA exhibition *Uneven Growth: Tactical Urbanisms for Expanding Megacities* presented a more global definition of the movement.

tactical urbanisms: a creative and resourceful appropriation of the contemporary city's conflictual conditions, expressed in terms of informal urban objects, adaptive habitat, alternative forms of infrastructure, temporary and illegal uses of public space, and vehement claims to the "right to the city."

As the world shifts toward a large majority of urban population, and as recent global economic crises call into question traditional modes of planning cities, different narratives and design tactics are urgently needed to address new urban conditions.¹⁷

Lydon criticised Gadanho's exhibition for trying to solve larger economic, social, and environmental challenges with tactical urbanism.

Tactical Urbanism is not *a* or even *the* solution to [Insert urban problem here]. It alone will not build public transit systems in Lagos, deliver affordable housing in New York, or create brand new islands in Hong Kong Bay. What Tactical Urbanism can do is get planners and designers out of city hall, design studios, and museums, and back into the streets where the foundation for social, political, and economic capital is built. It can also cut through bureaucracy and break big plans down into manageable projects using many, many small actions that test concepts with quick feedback loops.¹⁸

Tactical urbanism is a paradoxical approach as it can be hard to reconcile the gap between the modest scale of its initiatives

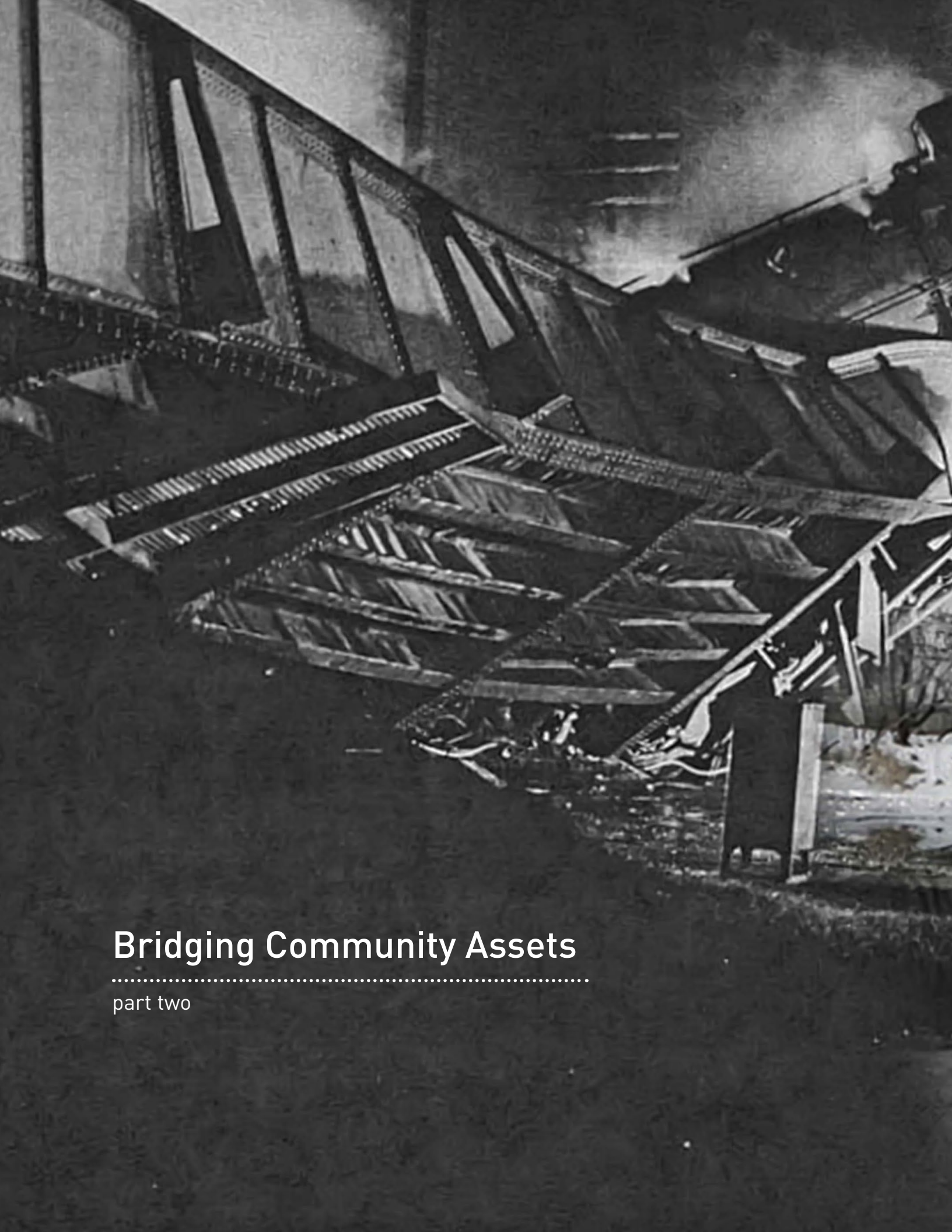
¹⁶ Mike Lydon, "Part Two: Should MoMA Tout Tactical Urbanism(s) as a Solution to Uneven Growth?," *Planetizen*, December 20, 2014

¹⁷ Ibid.

and the large urban issues they address. Tactical interventions should not be misunderstood as ‘the cure’ for the many intractable problems facing cities. What it provides is a liberation of new urban practices from traditional building development. The city is never an end state, perpetually evolving, necessitating an urban condition that can adapt to unexpected uses. This range of transitory, temporary and ephemeral urban tactics constitutes complementary practices to officially sanctioned urban developments.



Figure 35: The Art of Home storefront sign bringing attention to the city’s unhealthy focus on parking spots.
[2015-05-17]



Bridging Community Assets

.....
part two



PILLAR
OF HOPE



2.1 Building Social Capital

From the Ground Up

“The question of what kind of city we want cannot be divorced from that of what kind of social ties, relationship to nature, lifestyles, technologies and aesthetic values we desire. The right to the city is far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization.”¹

Plate 13: [Previous] The Galt Wreck 1956/ Pilar of Hope 2012.

“A common thread in many of these [temporary use activities] is that they occur largely outside the control of business or government. They are usually small-scale, are initiated by groups of committed enthusiasts and most are either temporary or started temporarily. Greater community activism is likely to be an increasingly important influence on the shape of twenty-first-century cities. The empowerment that activism brings can reinvigorate political systems, social structures and local economies.”⁴

Tactical urbanism is a manifestation of personal, ground-up community activism. Our ability to transform urban life necessitates alternate visions of the city and our ability to work together to engender action. David Harvey argues that our most precious human right is our freedom of collective agency over the city and is intrinsically linked to our personal ability to change. Yet, North American society has grown an increasingly apathetic character, a marginalized belief in one’s influence or efficaciousness and ability to affect change. Voter turnout has seen decades of decline in tandem with our increasingly disconnected social behaviour and falling participation in social structures. Samara’s Democracy 360 report card recently illustrated Canada’s declining relationship among citizens and their sentiment that their voices are not being heard. The concept of “Social Capital” describes the tangible assets of our social networks and the trust, goodwill, fellowship and reciprocity that comprise them. Robert Putnam argued, in his publication, *Bowling Alone*, that civic engagement could be restored by encouraging citizens to become increasingly connected by joining more groups, or volunteering and by encouraging youth, whose habits are more impressionable, to be increasingly socially engaged. Social interaction is functionally understood by Putnam as a factor in production as a source of economic growth. Tactical urbanism interventions emphasize use value over exchange value, expanding our conception of space to embrace the vacant, waiting lands of the urban environment. Improving the quality of social capital is crucial to the developing role of ground-up community activism and the effectiveness of tactical urbanism.

“Our ability to improve the well-being of city dwellers has suffered from a failure to see cities as complex social organisms, with physical and social features in close interdependence.”²

“This is the single most important problem facing America... If we can solve this one, if we can get more people engaged in community life in contexts that respect American pluralism, many of our other problems—to begin with, our politics—will be different.”³

¹ David Harvey, "The Right to the City," *New Left Review* 53, September-October 2008

² Henry Lennard and Suzanne Crowhurst Lennard, eds., *The Wisdom of Cities: Architecture, Place, Community, Neighbourhood, Identity, Planning and Values* (Carmel, CA: International Making Cities Livable Council, 2004), 5

³ Robert D. Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon & Schuster, 2000), 18

⁴ Peter Bishop and Lesley Williams, *The Temporary City*, 147



Figure 36: @BRIDGEarch
Instagram photo by Elizabeth
Lenny
[2015-04-20]

The disintegration of society has been clearly documented through growing statistical evidence. Since 1973, the number of Americans who identified as having “attended a public meeting on town or school affairs” in the past year fell over a third, from 22 percent in 1973, to 13 percent in 1993.⁷ Canada’s federal voter turnout of 61 percent places it in the bottom fifth of democracies, where in a year-long period, 39 percent of citizens haven’t had a political conversation, online or in person. In our country’s irrelevant perception of politics, only 37 percent of Canadians give any time or resources to political activities between elections.⁸

This decline is not limited to political engagement. Putnam observed a decline in associational membership between 1967 and 1993. The decline was most notably seen in church-related groups, labour unions and for school-service groups. Putnam highlighted parental involvement in the educational process as a particularly productive form of social capital, demonstrated in Parent Teacher Association (PTA) membership, where participation dropped from more than 12 million in 1964 to barely 5 million in 1982. In addition, the number of Americans who socialize with their neighbours more than once a year declined from 72 percent in 1974 to 61 percent in 1993.¹⁰ Putnam hypothesized the declines in public participation were the result of the increasing involvement of women in the labour force, the mobility of recent generations that disrupt social roots and the technological transformation of leisure activities that have disrupted opportunities for the formation of social capital. His work also reflected on public policy’s power over social capital formation. The effects on social capital from the amalgamation of Cambridge’s distinct communities to an undefined form can pose challenges for community development. Alternatively, past initiatives, such as tax deductions for charitable contributions, can encourage the formation of social capital. The municipality of San Luis Obispo, California, mandated all new houses have front porches, illustrating the government’s influence over where and how social interactions occur and their architectural implications.¹²

“Democracy is not intended to be efficient, linear, logical, cheap [...] The key to its secret is the involvement of the citizen.”⁵

The average number of association memberships held by Americans fell from 2.8 to 2.0 (-26%) among college-educated Americans, from 1.8 to 1.2 (-32%) among high-school graduates and from 1.4 to 1.1 (-25%) for citizens without a high school degree.⁹

⁵ John Ralston Saul, *Doubter’s Companion: A Dictionary of Aggressive Common Sense* (New York: Free Press 1994), 6

⁷ Robert D. Putnam, *Bowling Alone*, 3

⁸ Jane Hilderman, Kendall Anderson and Alison Loat, *Democracy 360*, Samara 2014, 4

⁹ Robert D. Putnam, *Bowling Alone*, 7

¹⁰ *Ibid.*, 8

The power constellation in cities determines how urban problems are addressed. Usually those individuals concerned with 'hard' infrastructure are at the top of the hierarchical tree – engineers, land use or transport planners. Any solution to a problem is seen through that prism. Mental pictures – concepts – drive what we do and how we do it. This group's concept of the city is as a machine, which leads them to find mechanical solutions. In contrast, those who see the city as a living organism would focus on the dynamic effects of the people who inhabit it.¹³

Engendering positive social change necessitates an expanded role for architects and designers to generate a proactive, participatory process that engages the public. The resolution of traditional master plans can be perceived as being forced upon the public from the civic administration “which can attract broad opposition and be subject to complex political, logistical, and financial obstacles. Once an elaborate design has been committed to, backing away from it—or even altering it—becomes both politically and mechanically complicated.”¹⁴ Participation can help to develop structures that are designed to be more sensitive to citizens' needs. For urban practitioners, who are viewed as specialists, this means a more direct involvement in, and with, the community, who possess the local knowledge that is fundamental to the design of places. Transforming citizens into active participants in the planning of the city, through processes like tactical urbanism, is not a replacement for the master plan but is about giving “committed and innovative people a place and opportunity to develop.”¹⁵

Placemaking needs to complement the way in which the Internet is influencing social exchange. It needs to provide adaptive, flexible frameworks within which sociability, 'social capital' and entrepreneurial networks grow. [David Barrie] suggests that since social enterprises prioritise human relationships and social transactions, not just those with commercial value, they 'shift the narrative of renewal from the provision of space to services, with sites acting as places that enable change, rather than dictate them via a master plan'¹⁶

It is now time for a “new generation to further transform practice, enable students and upcoming practitioners to understand and utilize these ideas as a critical and stimulating platform for their future work, and re-calibrate the outdated author-relationship.”¹¹

¹¹ Markus Miessen and Basar Shumon, eds., *Did Someone Say Participate? : An Atlas of Spatial Practice: A Report from the Front Lines of Cultural Activism Looks at Spatial Practitioners Who Actively Trespass into Neighbouring Or Alien Fields of Knowledge* (Cambridge: The MIT Press, 2006), 287

¹² Maria L. La Ganga, "Can Required Porches Prod People Into Neighborliness?: Cities: San Luis Obispo considers an unusual step in the name of 'social ecology.' Many won't take it sitting down," *LA Times* April 25, 1994

¹³ Charles Landry, *The Creative City – A Toolkit for Urban Innovators*, (Earthscan Publications, London, 2000), 163

¹⁴ A. Manshel, "A Place is Better Than a Plan." *City Journal*, 2009

¹⁵ Klaus Overmeyer, *Urban Pioneers: Temporary Use and Urban Development in Berlin* (Berlin: Jovis Verlag, 2007), 115.

¹⁶ Peter Bishop and Lesley Williams, *The Temporary City*, 188

2.2 Actors in Temporary Action

“Every citizen has had long associations with some part of his city, and his image is soaked in memories and meanings.”¹

In our capitalist-driven society, urban development is conceived as an act of colonization – designating land for development and its ensuing construction. In new emerging practices, the focus shifts to addressing the existing urban environment and its development over time.

There is broad agreement that radical change must take place in the structure of urbanization, which will lead to a more democratic, post-capitalist system that puts human needs above the imperatives of profit making and social enclosure.⁴

Temporary use places importance not on a building's exchange value and monetary returns, but on its use value that recognizes the utility and function of urban spaces.⁵ This process reverses the perspective where a building is no longer the end goal but the starting point in a different perception of a city, existing and associated with change. It involves the participation of temporary-use actors who invest their time and creative resources, property owners who allow their buildings to be used, foregoing traditional rent for intangible benefits and an accommodating, or at least an indifferent, public administration to allow the activities, avoiding confrontation or the erection of roadblocks in permit processes, enabling activities through promotion, financing and administrative support. Temporary-use activities involve coordinating a staged, open-ended development, where existing buildings, natural features and human resources are integrated. Actors require free buildings, the properties provide the inspiration and property owners and public authorities can benefit from the results in a collective building of social capital from the unused private space.

tem-po-rar-y *adjective*

1. There is a certain cache with time limited exclusivity in the perpetual quest for new experiences
2. "...our discipline's most enduring moments are its least permanent."²

in-sti-gate *verb*

1. "to bring (something volatile or intense) into being"³

¹ Kevin Lynch, *The Image of the City* (Cambridge, Massachusetts: MIT Press, 1960), 1

² J. Rafkin, Preface in Lahman, S., *Absolutely Public* (Images Publishing Group, 2006)

³ "instigate, v.", *Merriam-Webster Online Dictionary*

⁴ Neil Brenner, Peter Marcuse, and Margit Mayer. *Cities for People, Not for Profit: Critical Urban Theory and the Right to the City* (London; New York: Routledge, 2012), 4

⁵ Mark Purcell, *Recapturing Democracy: Neoliberalization and the Struggle for Alternative Urban Futures* (New York: Routledge, 2008), 2



Plate 14: Layers of the building's history exposed on the second floor at 60 Main Street.
[2015-06-26]

2.2.1 Urban Pioneers

.....

Temporary users are the forerunners of space occupation in our increasingly unstable and decentralized society. This transformation is seen in the decline of permanent employment, the growth of self-employed, small-scale business enterprises and part-time employees. The cultural sector's innovations are emerging outside the traditional economic models, the pioneers being college dropouts and businesses grown out of basements and garages. Temporary users seek to derive unique qualities from their ready-made surroundings. They are unbound by the traditional architecture of big business and the inflexibility and red tape of large-scale investments, liberated instead by the principles of travelling light. Temporary users manifest a promiscuity, where the importance of developing spatial platforms grow from their public personality and their role as a contributor to the city's character and image.

Temporary users do not develop in isolation, but in heterogeneous clusters with specific use profiles and identities. The users' capital is not financial means, but creativity, commitment, and social networks.⁷

Studio Urban Catalyst defined temporary users in two groups, on the basis of their relationship to established social structures. The first group consists of young entrepreneurs, typically well-educated individuals between school and career, who use urban niches as a springboard for the realization of an idea. The second group of urban actors engage in temporary uses as a kind of hobby. They have a steady income and seek socio-cultural projects, the freedom to pursue experimental practices and enriching experiences beyond conventional categories. "Common to both users is a tendency to work quickly and spontaneously and a willingness to work with existing conditions improvising solutions to adapt the space to their needs."⁸ In users' direct connection to the work, they invest not only money, but time, materials, and individual and social resources. Moving beyond standard practices as "passive renters and users of finished properties they become property managers, investors, and contributors to the city's structure, economic, social and cultural relationships."⁹

Studio Urban Catalyst concluded the following in their study of temporary urban actors:

1. Citizens become temporary users in order to follow different aims
2. Specific vacant sites attract specific temporary uses
3. Temporary uses flourish with a minimum of investment
4. Temporary uses are mostly organized in networks and use clusters
5. Temporary uses are initiated through agents
6. Temporary uses are a laboratory for new cultures and economies⁶

⁶ Phillip Misselwitz et al. *Urban Catalysts: Strategies for Temporary Uses*, 5

⁷ Ibid, 2

⁸ Phillip Oswalt, *Urban Catalyst*, 53

⁹ Birgit Schmidt, "Alternative Investment in Shrinking Cities" from: Ed. Philipp Oswalt, *Shrinking Cities Volume 2: Interventions* (Germany: Hatje Cantz Verlag, 2006), 386



Plate 15: Returning rented equipment to the University of Waterloo School of Architecture. [2015-03-29]

Urban pioneers are evidence of a growing movement towards increased social commitment for the common good and the desire to connect and experiment. The Internet and social media now allow spontaneous events to gain widespread attention and attract large audiences quickly. In our rapidly changing, digitally-altered urban environments, temporary users have the ability to redefine forgotten spaces and to make a lasting impact on citizens' mental map of their city.

The publication, 'Urban Pioneers' by Studio UC/ Klaus Overmeyer and commissioned by the Berlin Senate's Urban Planning Department, analyzed almost 100 temporary-use projects on disused sites or in vacant buildings throughout Berlin in 2004/2005.¹⁰ Barely half of space pioneers studied chose to identify as a business, be it exclusively commercial or cultural ventures or even a community-minded business. A socially minded mission, not the profit-driven dominance of the last century, drive these urban pioneers.

As the studied projects show, few temporary users expect to generate a profit-driven business from their endeavors, and the viability of their vision relies heavily on finding sites and buildings to use for free, reduced rates or expenses limited to utility expenditures. As temporary users lack financial support, they rely on discovering abandoned or disused sites and reinventing them with minimal costs. Equipped with a do-it-yourself mentality, the opportunity to redesign and redevelop the space for themselves is more important than a fully developed setting, instead adapting to the environment at hand and exploiting all available resources. This recycling of architectural elements, complemented with repairs or added infrastructure, allows temporary users to exert the smallest effort required to construct a new space from its latent potential.

Reliability of temporary users is crucial for developing relationships with the public, regulatory bodies and property owners. Temporary users need a strong commitment to their work, whether their motives are financial gain or personal passion. Available networks and voluntary support are critical to a project's success.

¹⁰ Jill Denton, and Senatsverwaltung für Stadtentwicklung, *Urban Pioneers: Temporary use and Urban Development in Berlin* (Berlin: Jovis, 2007), 36

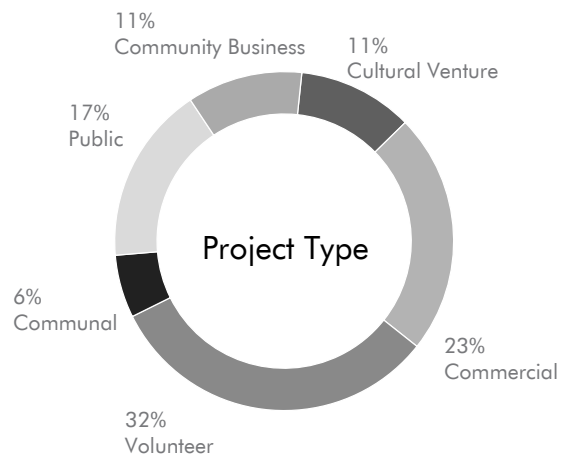
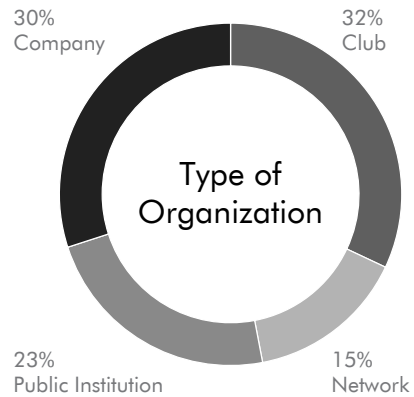
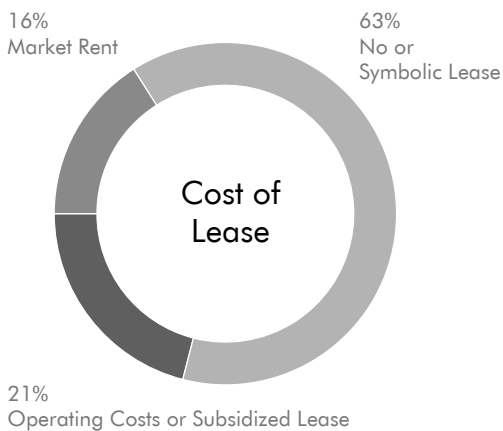
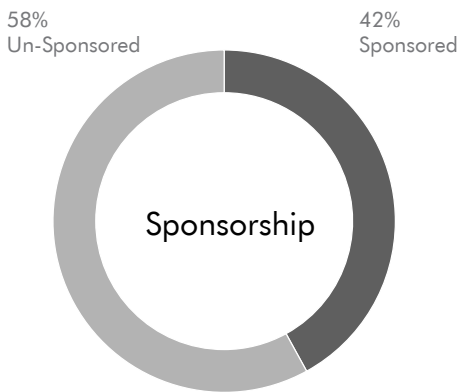
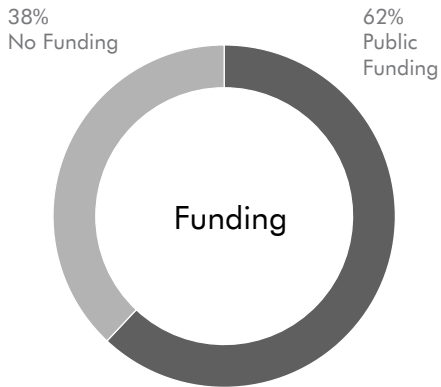


Figure 37: Study of more than 100 Berlin Temporary-Use Projects from Jill Denton, and Senatsverwaltung für Stadtentwicklung, *Urban Pioneers*, 37-38

2.2.2 Properties

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The role of architecture has changed alongside our societal transformation and declining social capital. Prior to the 1970s, buildings were thought of largely as expenditures; they have since evolved as a means of revenue, resulting in further downward pressure on construction budgets.¹³ When buildings no longer generate income in contemporary practice, they lose their value to property owners and, in turn, can and should be reconceived as generators of social capital. Temporary users select sites that have been abandoned by their former users, as they are temporarily unsuited to traditional commercial ventures.

Properties with more pre-existing infrastructure are, in general, more likely to succeed as a location for temporary users. Working bathrooms, electrical outlets, lighting, telecommunication lines and safe, ready-to-occupy conditions can significantly reduce the effort required to transform a space for temporary use. Users need to adapt their ideas considerably to the properties they find, as each has its own unique challenges and opportunities. Reimagining the space requires users to project the possibilities and to make a selection of what to leave unused and what to recycle.

Centrally located properties, accessible to transit and in close proximity to existing networks of potential populations to generate and engage the temporary development, are vital factors for a project to succeed. The aggregate of the local district and its environment, the atmosphere of the usable space and the resources available at the property, to its owner and the temporary user define the location. Proximity to potential patrons is key, as sites on the edges of cities that do not have an engaged audience to witness the transformation can be prohibitive for potential use. Properties will remain unused if heavy investment in basic repairs is necessary for temporary occupation. Smaller sites can be more easily established as large properties have a higher threshold risk and require a larger infrastructure and effort to maintain, install temporary facilities and have higher insurance rates, which increase with a building's size.

“The specific qualities of sites and their situations provide both the rationale and the raw material for making new projects. The form and character of a subsequent design derives from the physical fabric as well as the inherited attributes (past conditions) of the site and its larger territory.”¹¹

“existing conditions conceal potentials that can be made visible or accessible by discreet, almost immaterial gestures.”¹²

¹¹ Sebastien Marot, *The Reclaiming of Sites in Recovering Landscape: Essays in Contemporary Landscape Architecture* (New York, Princeton Architectural Press, 1999), 49

¹² Luc Levesque, *Interstitial Landscapes as Resources*. from http://www.amarrages.com/amarrages/amar_textes/amar_textes.html

¹³ Reinier de Graaf, "Architecture is now a tool of capital, complicit in a purpose antithetical to its social mission," *The Architectural Review*, April 24, 2015



Plate 16: 39 Main Street second
floor.
[2015-06-26]

Rent abatement models represent a form of cooperation between property owners and renters, where occupants construct their own renovations. Property owners benefit from building improvements and securing a tenant, while renters finance renovations themselves, executing the construction to their own desires and with as much of their own labour as possible, receiving rental compensation for their time and investment. The renters feel much more closely associated with their buildings because they have contributed to it with their own effort. Monigram Coffee Roasters has successfully used this model to gradually transform a once abandoned brick and timber building in the city's core. Renovating the structure to their needs and desires, expanding over time as their business grows, they have improved their premises, contributing to the city and receiving rent abatement to compensate their efforts in transforming the property into an integral part of Cambridge's café culture.¹⁴

A trend observed in many projects is the preservation of vacant, historically valuable buildings that greatly impact the image of the city and are often in poor condition. The restoration of these buildings improve the value of their locations and help create an identity for cities and neighbourhoods.¹⁵ Generally, temporary users' property preferences are no different from the mainstream market. Contrary to convention, however, temporary users attach importance to the unknown and unexpected and do not expect properties to meet standard states of renovation and repair.

¹⁴ Graham Braun, (Monigram Café Owner) in discussion with the author, August 11, 2015

¹⁵ Birgit Schmidt, *Shrinking Cities*, 390



Plate 17: 39 Main Street back entrance looking towards Monigram Coffee Roasters. [2015-06-26]



Plate 18: 35/37 Main Street
Second Floor.
[2014-04-25]

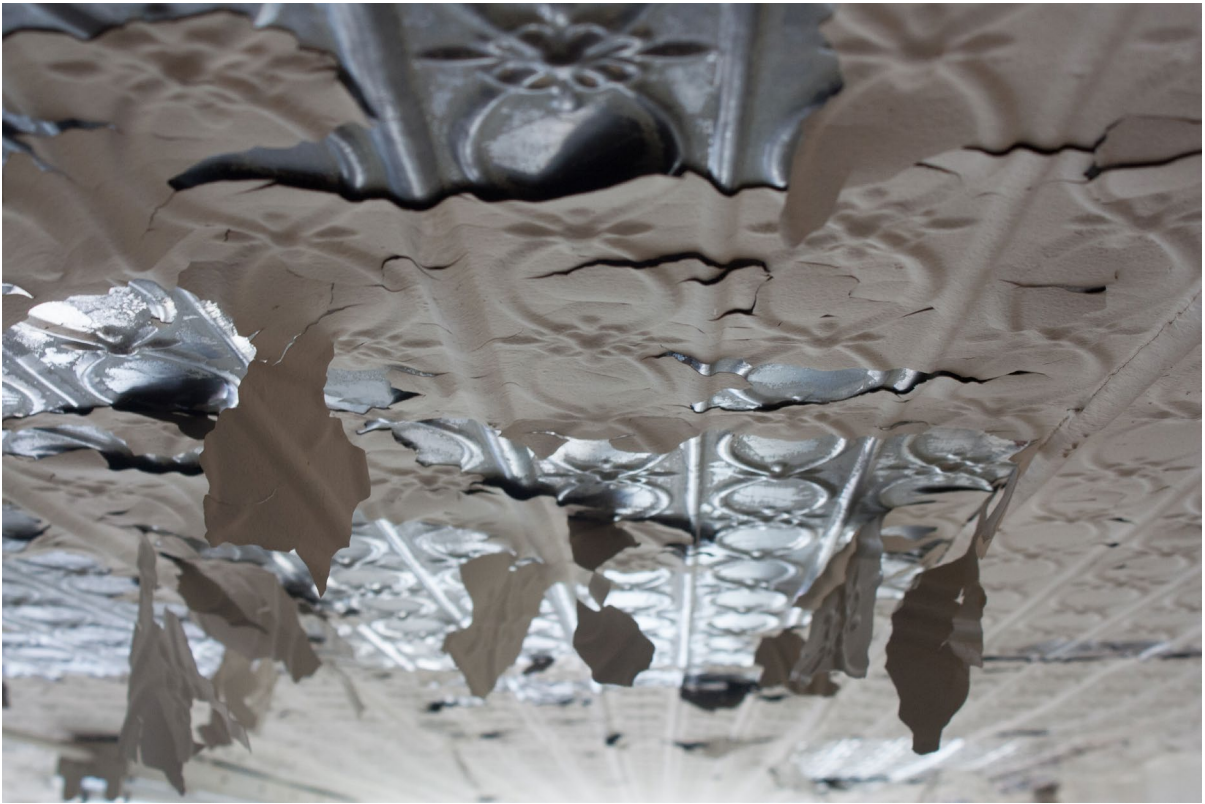


Plate 19: The tin ceiling at 35/37
Main Street was left to decay
from years of neglect.
[2015-05-03]



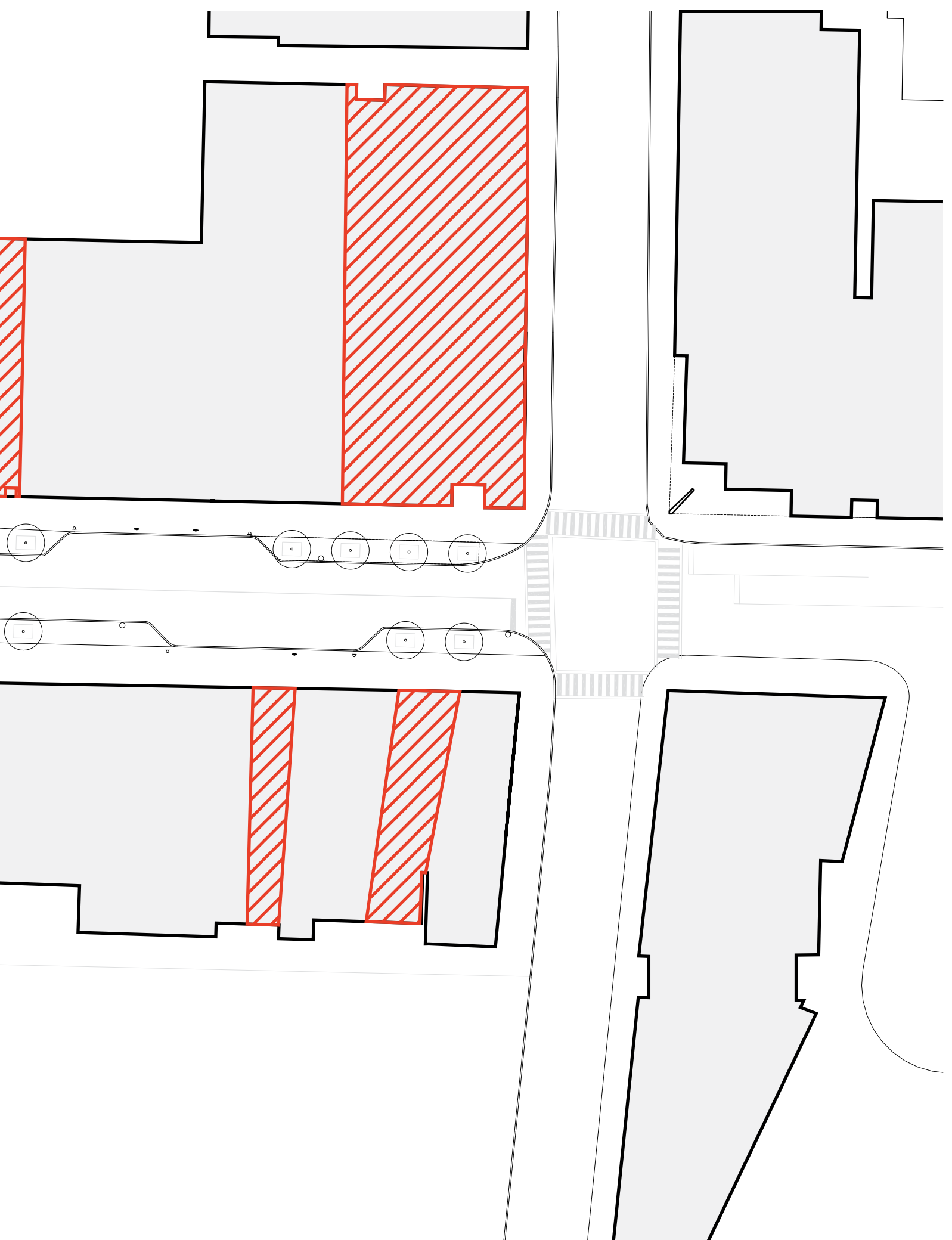
Plate 20: 39 Main Street Third
Floor.
[2015-06-26]



Plate 21: 60 Main Street Second Floor.
[2015-06-26]

Figure 38: [Following] Main Street Site Plan
1:500







2015													
16% VACANCY	Legal Offices	Beauty Bank	Willow House	Natur-Sleep	Liberty Tax	Fine Lingerie	Brown & Son	Elixir Bistro	[vacant]	Bank of Montreal	Value City	[vacant]	Scotiabank
2/12 Buildings Vacant				↕		↕			×			×	



2014													
33% VACANCY	Legal Offices	Beauty Bank	Willow House	[vacant]	Liberty Tax	[vacant]	Elixir Bistro	Brown & Son	[vacant]	Bank of Montreal	Value City	[vacant]	Scotiabank
4/12 Buildings Vacant		↕		×		×			×			×	



2012													
42% VACANCY	Legal Offices	[vacant]	Willow House	[vacant]	Liberty Tax	[vacant]	Elixir Bistro	Brown & Son	[vacant]	Bank of Montreal	Value City	[vacant]	Scotiabank
5/12 Buildings Vacant	↕	×		×	↕	×			×			×	



2011													
33% VACANCY	[vacant]	Century 21	Willow House	Hidden Treasure	Designer Discount	[vacant]	Elixir Bistro	Brown & Son	[vacant]	Bank of Montreal	Value City	[vacant]	Scotiabank
4/12 Buildings Vacant	×	↗		×	×	×			×		↕	×	



2009													
25% VACANCY	Legal Offices	Century 21	Willow House	Hidden Treasure	Designer Discount	[vacant]	Elixir Bistro	Brown & Son	[vacant]	Bank of Montreal	[vacant]	[vacant]	Scotiabank
3/12 Buildings Vacant						×			×		×	×	

Figure 40: Main Street North

× Vacant
 ↗ Business Moving
 ↕ New Business

2.2.3 Property Owners

.....

Owners of abandoned, disused and neglected buildings face a long and costly process to redevelop their properties for new tenants, but they have a central urban resource at their disposal: space. The feasibility of temporary-use projects relies on contractual agreements or, at least, a level of tolerance from the property owner. Temporary use is made possible because property owners' traditional development models are unattainable in the short-to-medium term. As temporary-use projects generally emerge from nonprofit or incubator business models, free or affordable space is central to their development. In exchange for waiving rent or offering significantly reduced rental rates to temporary occupations, property owners are compensated with long-term indirect benefits. Temporary occupation of their properties can prevent further vandalism and decay, improve its image and attract interest amongst prospective tenants. A series of events, or a cluster of projects, can create a new identity for the site and re-establish its presence to the public.

Properties considered for temporary use need to be realistically assessed for their value and marketability, as a property owner's primary concern is to secure long-term profitable tenants. Imminent development plans can be a significant obstacle for temporary-use projects. High financial pressure to ensure profitability at a location consequently competes with temporary use. Generally, property owners are averse to investing in construction work until a long-term development plan is secured and are unwilling to sink financial resources into their sites. Owners require a willingness to hand over their property and accept intangible benefits from temporary use.

BRIDGE began preliminary talks with Perimeter Development to use one of its many properties on Main Street in Cambridge in the fall of 2012. When I arrived in the fall of 2013, the location promised to the student initiative had already moved to 40 Main Street from 59 Main Street, illustrated in Figure 1. Perimeter's construction work had commenced at the 57-61 Main Street property, securing commercial tenant



Plate 22: 40 Main Street.
[2013-10-17]

Gallery M in unit 57 and finding tenants for the upper-floor luxury residences well above market rate.¹⁶ As the property had almost fully reached its development potential with the one commercial unit #59 left vacant and an annual net operating income of \$155,410, the property was sold for \$2,695,000.¹⁷ It is presumed this sale helped finance Perimeter’s further real estate investments in Kitchener, to where the company has shifted its focus. In the fall of 2013, BRIDGE was again moved across the street to its current location at 35/37 Main Street, as it was felt the construction completion at 40 Main had prepared it for a prospective paying tenant. The 35/37 Main Street property, ravaged by years of neglect, required significant roof repairs as water damage had rotted through the building’s historic three stories. Perimeter was reluctant to invest in a property with no near-term plan for profitability, but we reasoned the roof repairs were inevitable and would prevent further damage to the building. As a tenant with no direct monetary contribution to offer, we were far down the developer’s priority list and, with no negotiating leverage, it took 20 months from when the 35/37 Main Street location was offered to us to when the roof repairs were completed and it was available to move in. Fortunately, Perimeter was kind enough to allow us temporary use of their property at 60 Main Street until it, too, had a potential tenant and was ready for development. Our equipment and furnishings were hastily moved to a corner of the space the day before a prospective tenant came for a tour. Beggars can’t be choosers, and as temporary users aiming to grow a nonprofit business, we were willing to move where the price was right. Our current location at 35/37 Main Street is further down Perimeter’s priority list and will, hopefully for us, sit a while longer as we grow the ability to pay rent and as Perimeter focuses on their efforts on larger projects in Kitchener and at 60 Main Street. At the time of writing, all previous BRIDGE locations on Main Street #40 #59 and #60 still remain vacant.



Figure 41: 57 Main Street
[2014-09-24]



Figure 42: 35/37 Main Street
roof repairs.
[2014-11-28]

¹⁶ David Gibson (Partner, Perimeter Development), in conversation with Author, April 24, 2014

¹⁷ Colliers, 57-61 Main Street, Kitchener, Ontario, 2014



Plate 23: 60 Main Street.
[2015-06-26]

2.2.4 Public Authorities

.....

These situations show how urban planning is no longer an off-the-peg profession that people can be trained to perform, but a discipline that must be defined and invented by its practitioners, and that is as complex as the waiting lands themselves. Urban planners can no longer sit behind their desks until a commission comes their way; projects of this kind must be exhaustively identified, defined and conquered on one's own initiative.¹⁶

The negative effects of vacant buildings extend beyond property lines as the image of decay and neglect detract from a city's character. By helping temporary-use projects gain momentum within an urban environment, city officials can reclaim the abandoned space. In a recovering economy increasingly focused on employment statistics, vacant spaces give the opportunity for start-up ventures and socially-minded volunteers to create an immediate impact on the urban environment without significant financial investments. A major challenge for public officials in our cities today is to manage an increasing number of vacant properties on shrinking budgets. Public authorities, restricted by the pressures of austerity, lack the financial means to directly invest in their own projects. The City of Cambridge's recent investment in the nationally designated heritage post office that sat vacant for years was heavily criticized in the local media for its \$11,000,000 price tag. Public Authorities must increasingly act as facilitators to support underdeveloped areas through mediation and support of local networks and actors. The Urban Pioneers commissioned report proposes a shift to what they define as process-oriented planning. Traditional urban planning defines targets for the final stages of development with comprehensive conclusions on a district's design defined by civic master plans and legislation. A process-oriented approach to planning focuses on actively configuring development, allowing for citizens and time to shape the civic vision.¹⁷

¹⁸ Kees Christiaansse, *Situation KCAP: Architects and Planners* (Rotterdam: Basel: NAI; Birkhäuser, 2005), 155

¹⁹ Jill Denton, and Senatsverwaltung für Stadtentwicklung, *Urban Pioneers*, 106



Plate 24: 35/37 Main Street.
[2014-04-30]

It is not hard-and-fast designs that are needed, but transformation methodologies in which urban management and stakeholder management are aligned with the design process.¹⁸

This method promotes temporary users to activate sites years before vacant architectural resources are primed for long-term investment. Temporary development contributes momentum to long-term development, filling a gap in the current conditions and the ultimate planning ambition.

In an increasingly apathetic society, disconnected from its ability to impact political structures and development, urban planners can invite citizens to engage and shape civic spaces themselves. Temporary development and tactical urbanism empower the public, not only by looking at plans prepared for them, but also by involving them in a wide spectrum of social initiatives in the construction of the city.

²⁰ Kees Christiaansse, *Situation: KCAP Architects and Planners*, 152

2.2.5 Civic Opportunities

.....

As these divergences take on a recognizable shape of their own, it becomes meaningless to speak of regulatory violations; informal economic activity, as here described, is not a scattering of isolated deviations, but a recurring pattern. Rather than treat its components as isolated deviation from the norm, policymakers should recognize that a new norm has developed; rather than attempt to make this new norm fit the regulations developed decades ago, they should develop new regulations to fit this norm.²⁰

Public authorities have the ability to enact accelerated licensing procedures for temporary users as lengthy permit applications can be a prohibitive roadblock for temporary users. To significantly reduce the barriers for temporary users, municipalities can make permits available for limited periods and can simplify the application process. For example, the Regional Municipality of Waterloo has made food permit applications easily available on two weeks' notice to the University of Waterloo Federation of Students. Mediating processes like these, not only for selected groups but also for larger audiences, can make the reactivation of disused spaces considerably easier. The Alcohol Gaming Commission of Ontario special-event permits need only be applied for 30 days in advance of an event in contrast to the lengthy and arduous process of acquiring a permanent liquor licence.

As facilitators, civic administration can contribute significantly to the promotion of temporary-use projects. Economic development departments often maintain a database of vacant commercial and industrial property available in their municipality. Brochures of information on large vacant industrial facilities at the urban periphery are available at Cambridge City Hall but it is not prepared with temporary use in mind. Digital databases of these properties that can help users find locations, contact partners and provide descriptions of relevant aspects of the property for temporary use can help to guide potential actors. Interdisciplinary teams can assess the properties for challenges and opportunities for potential temporary users. Having a civic official or local BIA to contact,

syn·er·gy *noun*

1. "a mutually advantageous conjunction or compatibility of distinct business participants or elements (as resources or efforts)"¹⁹

²¹ "synergy, n.", *Merriam-Webster Online Dictionary*

²² Phillip Oswalt, *Urban Catalyst*, 97

disseminate information and share experiences can accelerate the process and clarify uncertainties. The City of Kitchener, for example, has a detailed ‘Special Event Planning Guide’ to help actors prepare for events, clearly outlining the required steps and listing available planning resources.²¹ Temporary-use projects can be successful within current planning approaches and public authorities can promote temporary action through policy changes, grant or loan programs and in-kind donations. Furthermore, cities that own vacant properties have the power to release them for temporary use, in addition to acting as a facilitator.

As a policy precedent, the City of Amsterdam organized a competition for temporary use of an abandoned wharf warehouse within a €3,000,000 square metre development of a former industrial harbour. The Kinetisch Noord Organization received €7,000,000 in funding and a ten-year lease of the 20,000 square metre property. The winning concept divided the property into the themed zones of a 7,000m² ArtTown, 4,200m² skate park, 1,000m² outdoor performance area and 4,200m² café exhibition and living area. In this mixed-use development, artists and creative commercial ventures can apply to rent the spaces for affordable rates, while consciously integrating local initiatives in the process of urban development. The project was funded by the Broedplaatsfond Amsterdam, which distributed €41,000,000 to 37 culturally-driven incubator projects that subsidized over 2,000 workshops and 1,000 jobs on sites leased between 10 and 50 years.²¹

Larger-scale policy reforms of property rights can improve access for users of temporary spaces that remain vacant or disused. The City of Leipzig in Germany has integrated terms into their licensing agreements, where property owners who support temporary use receive reduced tax rates. The new regulations stipulate that owners make their vacant property available for public use for a period of at least five years. As compensation, they are exempt from property taxes during the term of their contract and qualify for grants to improve their properties through demolition, decontamination and landscaping.²² These grants could be offered in the form of

²³ City of Kitchener, *Special Event Planning Guide*, City of Kitchener

²⁴ Jill Denton, and Senatsverwaltung für Stadtentwicklung, *Urban Pioneers*, 110

²⁵ *Ibid.*, 111

property tax abatement as currently done with brownfield sites in Ontario.²³ In London England, vacant properties face higher business rates. However, if the property is rented on a casual basis for at least six weeks, it can be vacant again for three months (for retail premises) or six months (for industrial premises) before facing the higher tax rate.²⁴ Ontario's Vacant Property Tax Credit could be similarly modified to encourage temporary-use development. The city of Toronto is in the process of reviewing the Vacant Property Tax rebate that gives much-needed tax dollars to owners of vacant industrial and commercial lands while there is a growing demand for affordable space in the city's booming real-estate market. The city refunded \$198 million of municipal taxes and \$169 million in provincial education taxes between 2002 and 2013.²⁵ While the reduced tax rate removes pressure on owners to abandon or demolish their structures, the lost tax revenue could greatly benefit vacant property programs should the policy be restructured to better accommodate temporary-use projects.

As urban planning policies are designed for long-term development, they are of no use or can often obstruct temporary development. Temporary use goes against current planning regulations and temporary actors often seek refuge in legal grey areas and loopholes. A rethinking of current planning processes would involve the coordination of a formal master plan, feasibility studies and construction planning practices with temporary-use stages to accommodate the implementation of informal development. By integrating temporary development into the planning system, the civic administration can include temporary users as partners and catalysts for process-oriented development.

Plate 25: [Following Pages] Main Street. [2013-12-09]

Plate 26: [Following Pages] Unsilent Night Police crowd control car reflected in the BRIDGE storefront window. [2014-12-11]

²⁶ Ministry of Municipal Affairs and Housing, *Financing a Brownfield Project*, Ministry of Municipal Affairs and Housing

²⁷ Peter Bishop and Lesley Williams, *The Temporary City*, 40

²⁸ Toronto City Council, *Re-designing the Vacant Commercial and Industrial Tax Relief Program to Stimulate Economic Growth (Collaborating for Competitiveness, Implementation Action 8)* City Council Decision, May 6, 7 and 8, 2014

Emerging Models

part three





E. J. Brown & Son





3.1 Occasion

“Cities are an immense laboratory of trial and error, failure and success, in city building and city design. This is the laboratory in which city planning should have been learning and forming and testing its theories. Instead the practitioners and teachers of this discipline (if such it can be called) have ignored the study of success and failure in real life, have been incurious about the reasons for unexpected success, and are guided instead by principles derived from the behavior and appearance of towns, suburbs, tuberculosis sanatoria, fairs, and imaginary dream cities—from anything but cities themselves.”¹

Physical space is conceptualized as the ordering of material elements. Space, however, can be understood as a relational ordering of people and social goods. Rendering people as a part of the constitution of spaces creates a duality between the ordering of physical structures and performance.⁴

In spontaneously imagining a space, one often thinks of doors, walls, windows, shelves, tables, etc, the ordering of which creates spaces. Common to all these “bodies” is that they are “products of present and especially past material and symbolic action” (Kreckel 1992, 77), in brief, social goods. But people, too, are integrated into the constitution of spaces.⁵

Physical structures and people form spaces through perception and active connections, not only between people and goods, but also between people themselves. Active connections between people, or groups of people (who have a network of relationships between them), synthesize space by positioning themselves among each other and situating themselves within buildings and their physical structures.⁶ Martina Löw defines the essential dimensions in the constitution of space as: the routinized paths of action, the structural dimension of spatiality, the deployment of the body and the potential for change. She describes the repetitive cognitive processes people use to quickly comprehend the world around them, situating themselves in developed habits that define day-to-day life, goods and personal connections.⁷ As one walks by the stores on Main Street, both open and closed, in the routine of everyday life, a deviation from, or transformation of, day-to-day experiences is required to reconceptualize a new activity in a vacant storefront. This challenge was made evident in conversations with neighbouring store and gallery owners who were unaware of the activities and experiments conducted with BRIDGE just a few doors down. The subsequent pages document the observations from experimental activities in vacant commercial storefronts on Main Street in Cambridge.

These activities were designed to engage, both the internal network of the University of Waterloo School of Architecture

pro-to-type *noun*

1. "an original model on which something is patterned : archetype"²
2. "a first full-scale and usually functional form of a new type or design of a construction"³
3. derives from Greek **πρωτότυπον** *prototypon*, “a first or primitive form” from **πρῶτος** *protos*, “first” and **τύπος** *typos*, “impression, mold, pattern”³

¹ Jane Jacobs, *The Death and Life of Great American Cities*, 6

² “prototype n.”, *Merriam-Webster Online Dictionary*

² Ibid.

³ Douglas Harper, “prototype n.”, *Online Etymology Dictionary*

⁴ Martina Löw, "The Constitution of Space: The Double Existence of Space as Structural Ordering and Performative Act" Technical University Darmstadt, Residenzschloss, Lecture at Paris I/ Sorbonne, March 14, 2005, 2

⁵ Ibid.

⁶ Ibid., 3

⁷ Ibid., 4

community who organized the events, and the external community of Cambridge. These cultural programs came together to weave the disparate creative communities in the city's interstitial space. Some events were specifically for the students at the school of Architecture, while others were developed with a mission to encourage community participation. Most activities fell at the intersection of the two, developed out of interest from students at the School of Architecture while being open to, and encouraging, public participation. The two groups used and perceived the spaces quite differently. The internal student groups were fairly familiar with the structure of the activities derived from past school events organized by their peers, arriving together and gathering in groups to share in the experience. These events are embedded in the profession of architects who network at exhibitions and events like the Gladstone Hotel's Come Up to My Room exhibition or the Stop Night Market in Toronto, which can feel like University of Waterloo reunions.

The general public, on the other hand, was often perplexed by the activities, unsure if they were welcome to enter spaces to which they have grown accustomed to being vacant, deteriorating and off limits. Members of the public would generally arrive in pairs, as small groups of friends, or families. This was often their first encounter with the students at the school and provided them with an alluring insight into the temporary actors interests and work. Redefining the public's mental map of the city was part of the challenge; opening their minds to an unfinished informal cultural space, activated by volunteer sweat equity, borrowed lights and donated materials was another.

The tactical use of fabric partitions, soft lighting, rented and borrowed furniture gave the vacant storefronts at 60 and 35/37 Main Street a new purpose. New life came from the visitors who filled the space with their energy. Music instantly altered the mood, filling a space with sound that had sat quiet for far too long. Footsteps on the hard concrete floor, conversation, laughter and the clinking of wineglasses infused the senses. Capturing the energy of the participants was an important part

“To understand the layered and paradoxical way that contemporary urban places are used nowadays, one needs to transcend the narrow and normative definitions of both public space, and rigidly conceived notions of private and public, should be left behind. In order to find a way out of the rhetoric of loss one can only give up these fixed definitions by starting with the field of practice, actions, and behaviour: the production, constant readjustment, and restructuring of space in the contemporary city.”⁸

⁸ Kenny Cupers and Markus Miessen, *Spaces of Uncertainty* (Wuppertal: Verlag Muller + Bussmann KG, 2002), 49

of the layout of the spaces. Partitions played a crucial role in dividing the ready-made buildings, accommodating the number of participants for each event, creating an intimate atmosphere in the cavernous buildings. Illuminating the events with small incandescent lights was essential to providing an ambiance in the derelict environment. Shadows hid the dirty, dusty, water-damaged structures from wandering eyes, while the spotlights directed attention to displays and added elements that were the focus of each event. The activities were improvised with whatever materials and furnishings were available to be borrowed from the School of Architecture or purchased at the dollar store. The adaptability of the storefronts' columns provided supports for displays within the building's structural grid, while the repetition of tables and chairs helped provide an order for people. Lighting highlighted displays, the arrangement of common furnishings, reception desks and drink bars, providing areas to congregate and socialize, delineating activity zones. The proposition was to use the ordering of recognized elements to infer and imply use, while allowing the space to transform beyond the means of what is expected in an empty storefront.

Something new was developed for each performance; feedback from visitors and volunteers constantly proposed ways to improve and redefine the space. Equipment, furnishings and ideas were gradually acquired at each activity, every addition bringing new experiences to the space. The ambitions were high, and our ability to meet them often varied, but each additional event was a step forward in a cumulative effort, building a community and a framework for coordinated action. These events served as a testing ground for potential programs, performances and ways to use vacant spaces in their found states.

⁸ “improvise, v.”, *OED Online*

⁹ *Ibid.*

¹⁰ Rem Koolhaas, *SMLXL*, 716

im·pro·vise *verb*

1. Create and perform spontaneously or without preparation⁸
2. Produce or make (something) from whatever is available⁹

hap·pen *intransitive verb*

1. You're missing the point. We don't arrange things in an order (that's the function of the utilities). Quite simply, we are facilitating the process so that anything may happen.¹⁰



Plate 27: A display of first-year students' spatial constructions in the Storefront's "U"-shaped window attracted glances from people walking by, while creating a condensed space of social activity inside.

[2014-10-16]



Plate 28: A wall of responsive prototypes from the third-year *NEST* studio delineated a linear exhibition that drew patrons deep into the space.
[2014-10-16]



Plate 29: The Photography collective filled the cold building with a friendly mood, where fluorescent lights revealed the details of the hung photographs and the building's flaws. [2014-11-13]



Plate 30: Photograph displays suspended between columns also worked to divide the space.
[2014-11-13]



Plate 31: Papier-mâché and Christmas lights framed the rows of tables that anchored the Graduate Soirée. [2014-12-11]



Plate 32: The arching installation from the Third-Year *NEST* studio created an intimate and ephemeral space beneath the looming empty ceilings.
[2014-12-11]



Plate 33: Glistening lights of the *NEST* studio installation adds depth to the vacant property for all who pass by.
[2014-12-11]



Plate 34: A closely seated crowd made for engaging presentations from Robert Jan van Pelt and Terri Meyer Boake's book launches. [2014-03-02]



Plate 35: FR_M Lab's oscillating light-wave installation made for colourful karaoke performances. [2015-03-05]



Plate 36: A collage of ideas came together on the rows of paper-covered tables at the 100 Notebook Social Event. Designed to engage participants and raise interest for the forthcoming event, art supplies were provided, while Phidon Pens had a table of items for sale.
[2015-03-14]



Plate 37: Listening in on BRIDGECAST, the podcast hosted by Brandon Mooi and Tomas Mashidlauskas, viewed through the gritty salt-stained windows at 60 Main Street. Cleaning the storefront glazing is an ongoing effort in improving the appearance of vacant buildings. [2014-02-11]



Plate 38: During a recording of BRIDGECAST, the fire department appeared as, unknown to us, the city's water line into our building had burst, resulting in severe flooding on the block. We dealt with the authorities and neighbours until our property manager could be contacted. Our assistance in navigating the building and ability to quickly help on-site at the time of the event was greatly appreciated by the property owner and fire officials. This unfortunately ended our bathroom access at 60 Main Street as the property owners were unable to invest in the significant infrastructure repairs required during our short-term use.

[2015-03-24]



Plate 39: Draping fabric across the walls and ceiling created an enclosed space, capturing the energy of an electric atmosphere at the French Curves Performance, organized by first-year students. [2015-04-18]



Plate 40: Photographs were suspended from posts to offset them from the uneven and damaged wall at the third Photography Exhibition hosted at BRIDGE, and the first in the new space at 35/37 Main Street. [2015-06-18]



Plate 41: Children were quick to tour their families around the models they built at the university student-led workshop at Clemens Mill Public School. They were, however, primarily interested in creating things in the activity areas, supplied by their science teacher.

[2015-06-15]



Plate 42: Models on display, from the previous workshop with students in grades 1-3, were not nearly as captivating as the building toys in the play area. [2015-06-15]



Plate 43: Armed with markers, crayons and pencils of all colours, children were quickly engaged in drawing when prompted. [2015-06-15]



Plate 44: A floor mat combined with interactive toys created a collaborative space for children to build and demolish structures from their imagination. [2015-06-15]



Plate 45: Sound from the performers at the Waterloo Architecture Student Association organized coffee house resonated out onto the street, drawing visitors deep into the storefront. [2015-06-25]



Plate 46: The evening's creative energy culminated in a spontaneous informal jam and sing-along session integrating performers and audience members.
[2015-06-25]



Plate 47: Colours from the street reflected into the space on the recently exposed plaster wall during PechaKucha presentations. [2015-07-02]

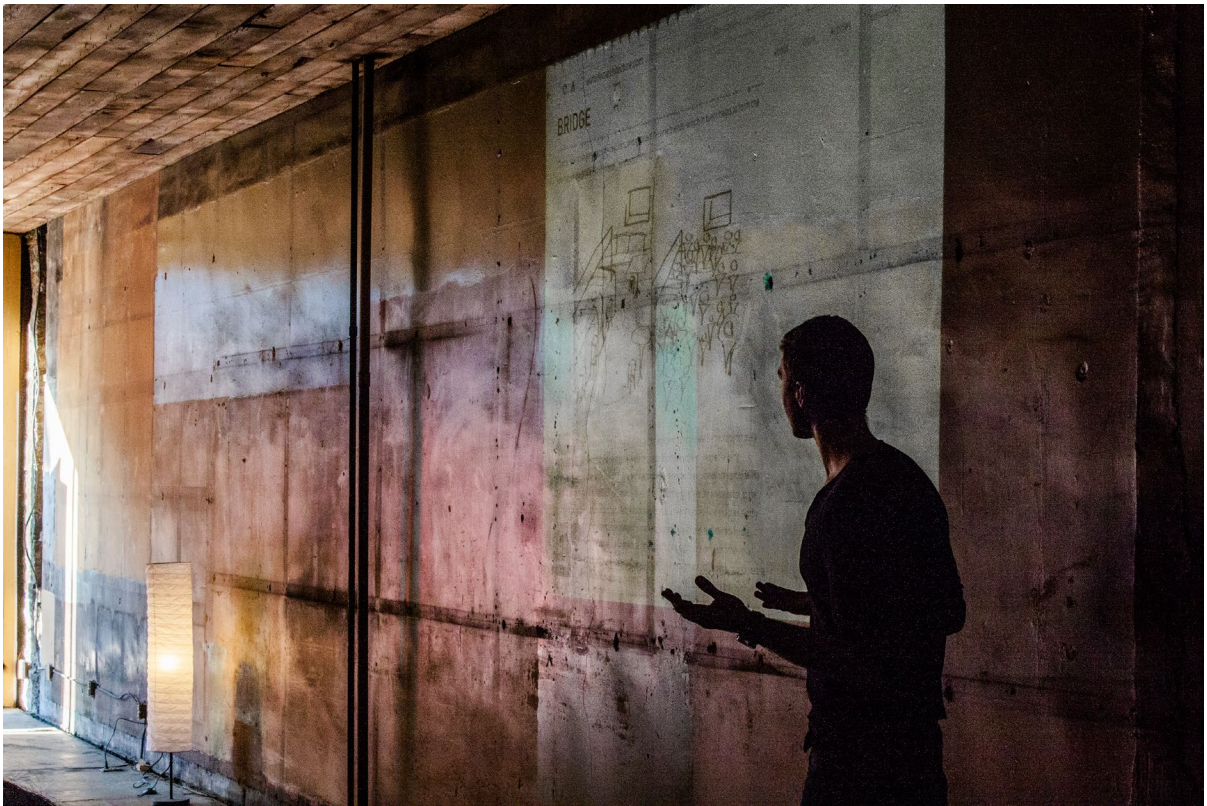


Plate 48: The informal event allowed presenters to engage an audience of their peers, sharing and discussing their personal work.

[2015-07-02]

3.1.1 Engi-Tecture + Creative Projects

July 18th - 26th 2014

Engi-Tecture was an art exhibition that exposed the creative pursuits of architects, engineers and students beyond the work of their respective professions. It was the first event at the BRIDGE Pop-Up Storefront at 60 Main Street. Filling the large space with activity was a daunting task, and the decision was made to limit the displays to the predominate wall near the entrance and the area defined by the existing column structure. Attracting visitors off the street during the weekday open hours proved challenging with the limited street presence afforded by the small, underutilized storefront window. The exhibit's opening and closing events, advertised through social media, were much more successful at attracting an audience. The PechaKucha Creative Projects event invited a series of presenters to share 20 slides of their creative endeavours. The exhibition, in combination with the presentations, created an inviting atmosphere to share ideas, opening a dialogue between presenters, contributors and an audience of peers, colleagues and the general public.

Coordinator:

Roksena Nikolova

Contributors:

Vikkie Chen

Coleen Even

Faris Faraj

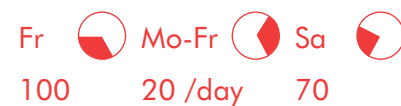
Zak Fish

Sarah Gunawan

“When we make things, we express our view of the world. The creative outcome may be painting, sculpture, illustration, printing, photography, music, dance, theatre, poetry, installation, inventions... The purpose is to create and to meet people who have an experience to share.”

– Roksena Nikolova as published in the Cambridge Times

Hours Open	4 hrs daily
Number of Visitors	270
Visitors from the Community	40
Set-Up Team	6
Display Surface Area	50 m ²
Linear Partitions	42 m
Used Floor Area	340 m ²
Website Page Views - Month of Event	5,000
Facebook Engaged Users - Month of Event	1,000
Cost	\$900
Revenue	\$700



Equipment:

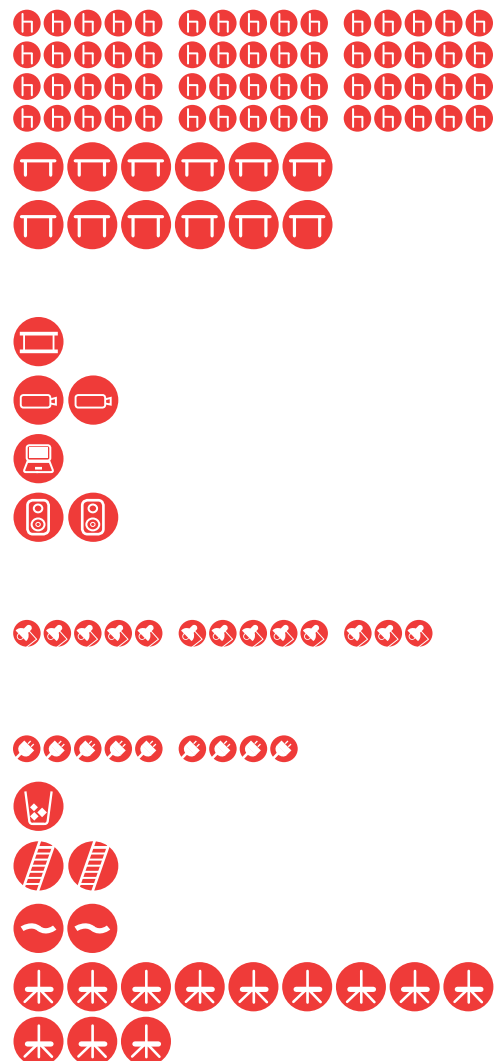
Chairs	60
Tables - 30" Height	6
Tables - 42" Height	6
Couches	0
Projection Screens	2
Projectors	2
Computers	2
Speakers	2
Christmas Lights	0
Clamp Lights	12
Floor Lights	0
Extension Cords	9
Trash Cans	1
Ladders	2
Fabric	20m ²
Easels	12

Donors:

Waterloo Architecture Student Association
 Society of Waterloo Architecture Graduates
 Graduate Student Association

Publications:

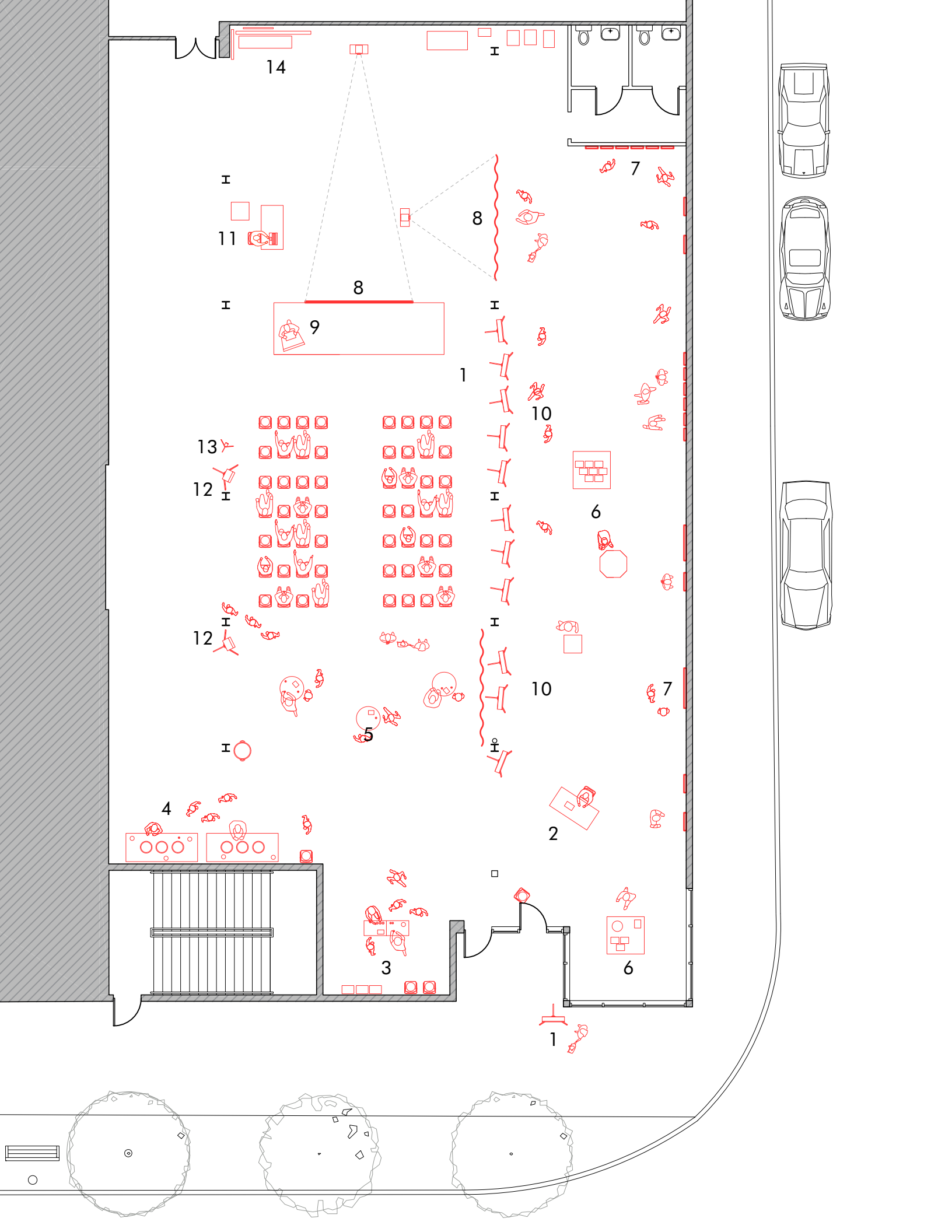
Cambridge Times
 Republished in the Waterloo Record



Legend

- 1 Sidewalk Sign
- 2 Reception Desk
- 3 Bar
- 4 Hors d'oeuvres
- 5 Standing Bar Tables
- 6 Object Displays
- 7 Wall Display
- 8 Rear Projection
- 9 Presenter's Podium
- 10 Art Easel Display
- 11 Display Presentation Equipment
- 12 Speakers
- 13 Video Camera
- 14 Storage

Figure 43: Engi-Tecture Exhibition +
Creative Projects PechaKucha Floor Plan
Scale: 1:150



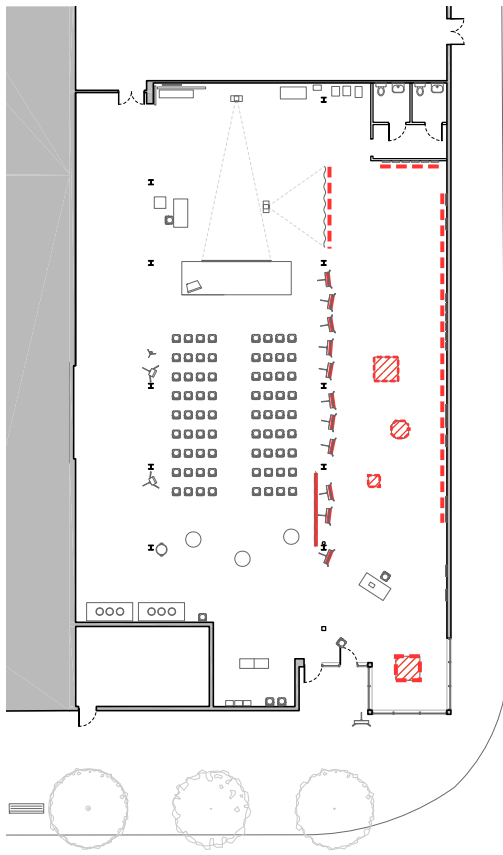


Figure 44: Display Surfaces and Partitions

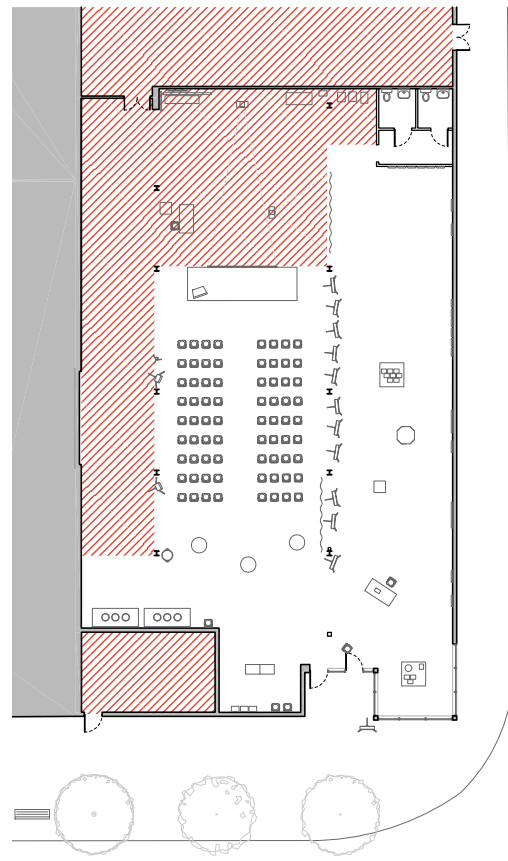


Figure 45: Private Space

- Partitions
- Display
- Display + Partition
- Table Display

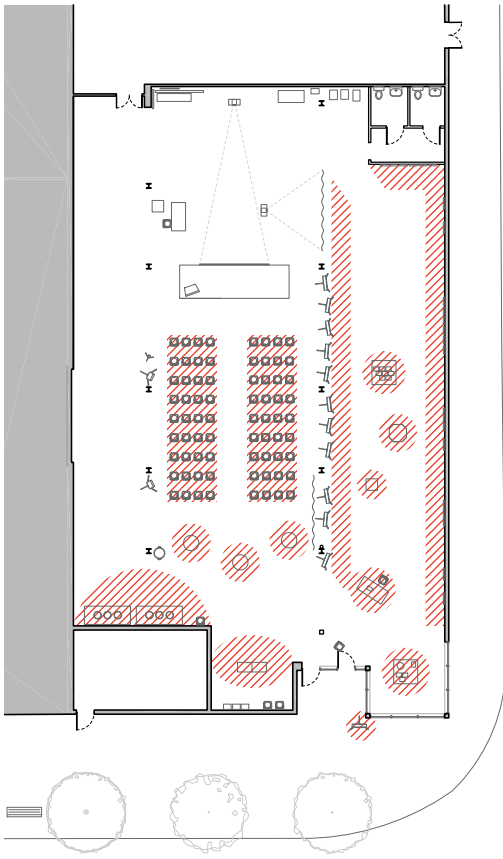


Figure 46: Activity Areas

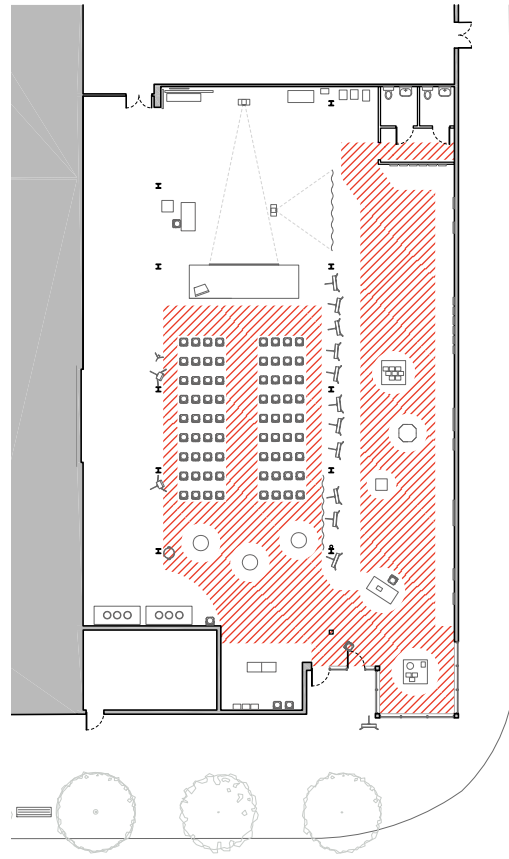


Figure 47: Circulation



Plate 49: Participants weaved between sculptural displays in the exhibition area lined with artwork hung on the walls and on easels. [2014-07-26]



Figure 48: Photograph taken by Ray Martin, for his article “Building a BRIDGE - architecture students open storefront” published on the front page of the Cambridge Times. [2014-07-25]



Plate 50: Mingling by the bar
before presentations.
[2014-07-26]



Plate 51: The diverse audience of students and community members refrained from sitting too close to the front, preferring instead to cluster near the back by the bar and refreshment tables.
[2014-07-26]



Plate 52: A projection screen suspended from the ceiling helped to divide the space into a smaller area for presentations. [2014-07-26]

3.1.2 A Night of Postcards - Cambridge

December 4th 2014









A Night of Postcards was imagined as a community art project to encourage the sharing of perspectives, thoughts, and memories of Cambridge. The mission was to develop a collection of drawings, writings, sketches and maps made by individual contributors to create a visual identity for the city. Blank postcards were distributed and collected at the Cambridge Centre for the Arts, the School of Architecture, Phidon Pens and at all Idea Exchange library and gallery branches. Submitted postcards covered with unique imagery, thoughts and perspectives were put on display for one evening, forming an exhibition of the collective identity of Cambridge. One hundred individuals were given a notebook to maintain and contribute their thoughts and experiences as a part of the followup *100 Notebook* event. Alongside the exhibition, third-year students worked on their *NEST* studio installations in the sectioned-off area where they had been working for the term, demonstrating the flexibility of the space and its ability to host multiple functions simultaneously. The event filled the empty building at 60 Main Street with a festive atmosphere on a cold winter evening.

Coordinators:

Piper Bernbaum
Sarah Gunawan

Contributors:

Kimberly Adamek
Zak Fish
Michael Kim
Karine Quigley
Prianka Smita

Hours Open	3 hrs	Th 
Number of Visitors	200	200
Visitors from the Community	80	 40% of visitors
Set-Up Team	8	
Display Surface Area	50 m ²	 100% compared to studied projects
Linear Partitions	60 m	 100% compared to studied projects
Used Floor Area	340 m ²	 75% compared to studied projects
Website Page Views - Month of Event	14,700	 100% compared to studied projects
Facebook Page Views - Month of Event	1,700	 55% of studied projects
Cost	\$900	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Revenue	\$600	\$ \$ \$ \$ \$ \$

Donors:

Phidon Pens

Society of Waterloo Architecture

Graduates

Publications:

CBC Radio

Snapd Cambridge

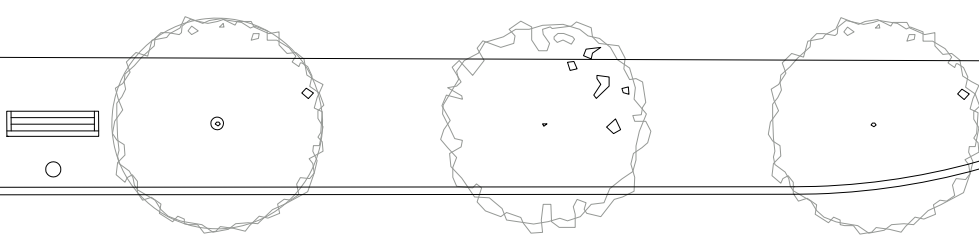
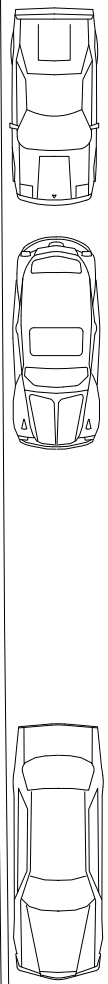
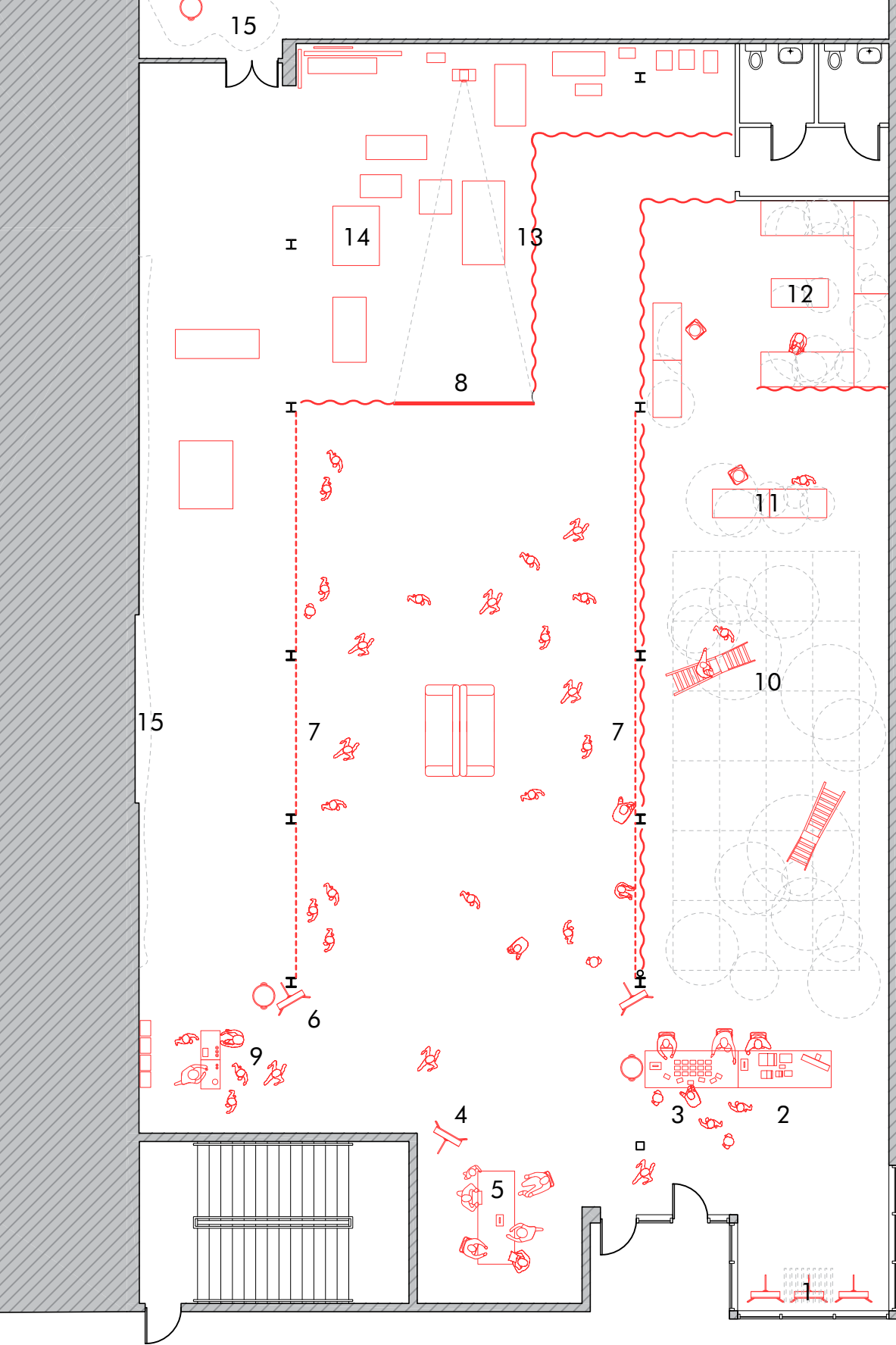
Equipment:

Chairs	7	
Tables - 30" Height	8	
Tables - 42" Height	6	
Couches	2	
Projection Screens	1	
Projectors	1	
Computers	2	
Speakers	2	
Christmas Lights	8	
Clamp Lights	30	
Floor Lights	0	
Extension Cords	14	
Trash Cans	3	
Ladders	2	
Fabric	200m ²	
Easels	6	
Display Posts	0	

Legend

- 1 Lightwave Window Display
- 2 Reception Desk and 100 Notebook Giveaway
- 3 Postcard Sales
- 4 Sponsor Display
- 5 Postcard Drawing Table
- 6 Exhibition Description
- 7 Postcard Display
- 8 Rear Projection Display
- 9 Bar
- 10 NEST Studio Installation in Progress
- 11 Workshop Table
- 12 NEST Studio Work Area
- 13 Partition Curtains
- 14 Storage
- 15 Roof Leak

Figure 49: A Night of Postcards - Cambridge Floor Plan
Scale: 1:150



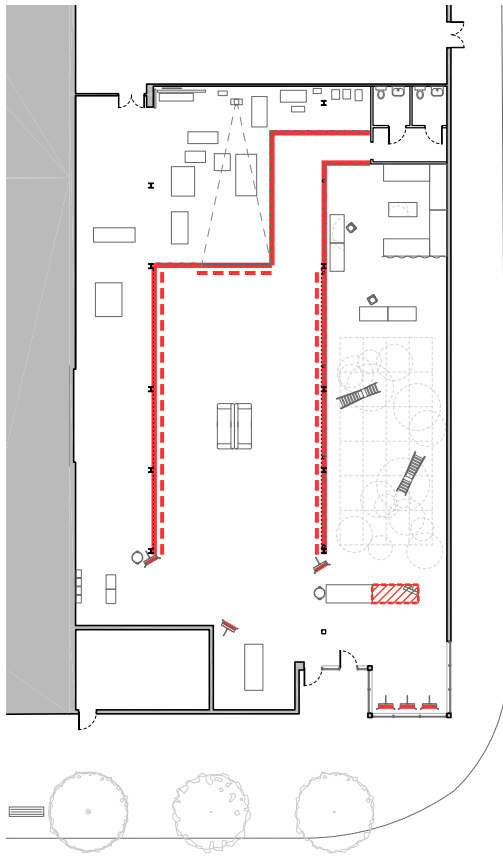


Figure 50: Display Surfaces and Partitions

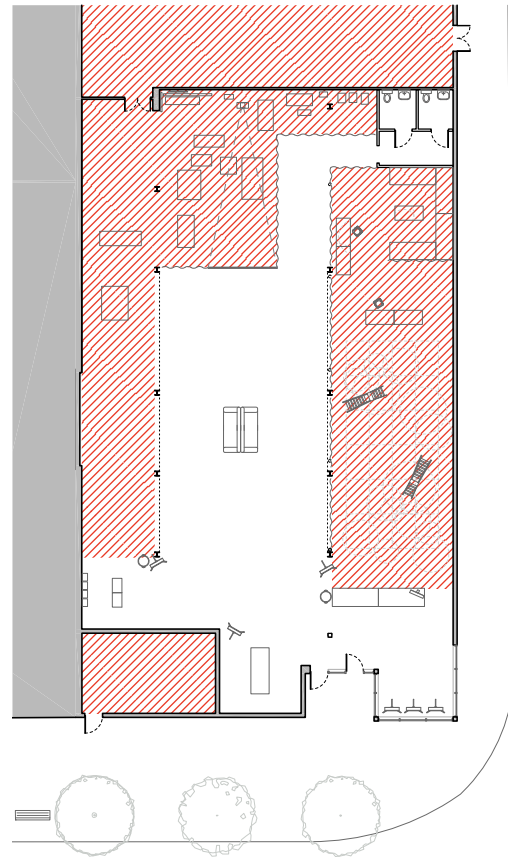


Figure 51: Private Space

- Partitions
- Display
- Display + Partition
- Table Display

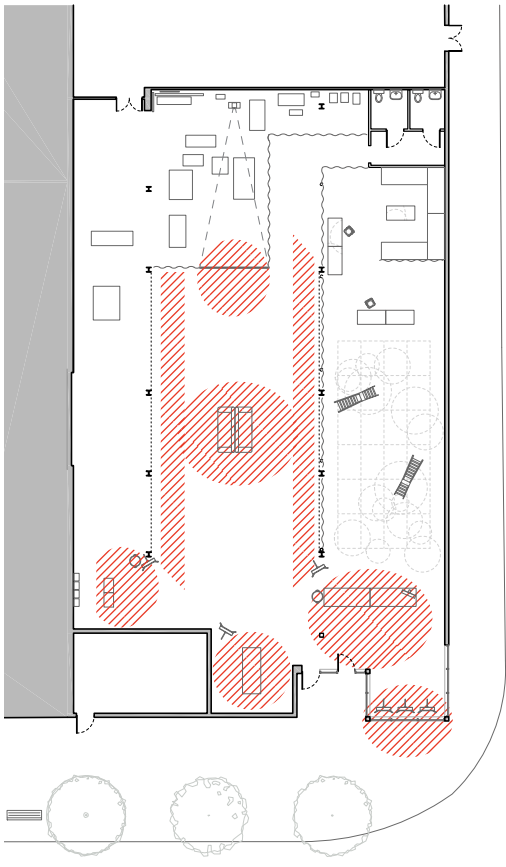


Figure 52: Activity Areas

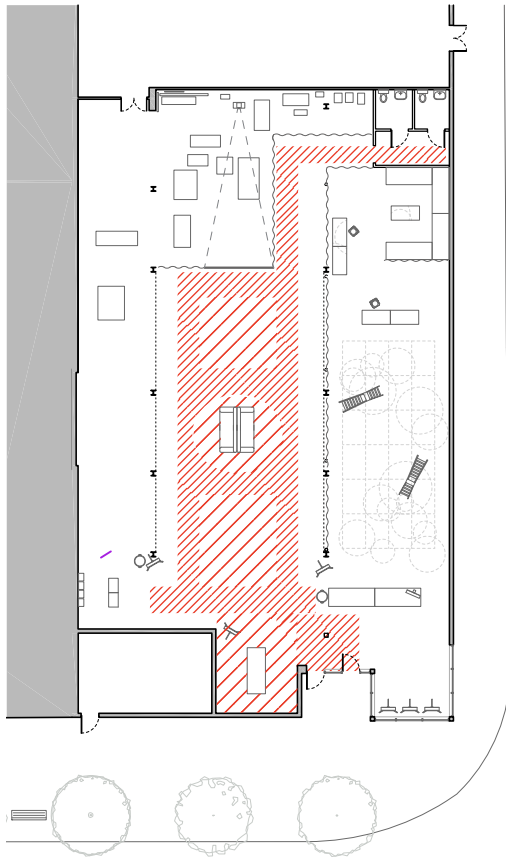


Figure 53: Circulation



Plate 53: Over 500 postcards were strung between columns displaying the drawings and delineating the space for the exhibition.

As published in *sanpd Cambridge*,
January 2015
[2014-12-04]



Plate 54: A table set up for drawing new postcards became a spot for mingling and sharing creative expression.

[2014-12-04]



Plate 55: The event had a strong showing of guests from the community. Visitors could flip over the postcards to reveal the contributor's name and a brief description about the artist. [2014-12-04]



Plate 56: The reception table set up in front of the entrance helped to partition the space, while greeting visitors and directing them to the exhibition. Copies of postcards submitted for the exhibition were sold, along with drink tickets for the bar. The station for distributing the 100 Notebooks that had been awarded to selected participants at times created a bottleneck in the small entryway as visitors poured into the storefront.
[2014-12-04]



Plate 57: This young postcard participant was thrilled to receive her 100 Notebook.
[2014-12-04]



Plate 58: Strings of Christmas lights and clamp lamps illuminated the event with a warm glow, avoiding use of the cold uninviting fluorescent lights.
As published in *sanpd Cambridge*,
January 2015
[2014-12-04]

3.1.3 100 Notebook Project

April 21st - 24th 2015









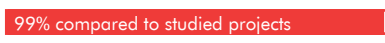

Echoing the *Night of Postcards* event, the *100 Notebook Project* exhibited an array of diverse notebooks completed by participants in the time between the two events. Every person who submitted a postcard to *A Night of Postcards - Cambridge* was eligible to be selected as one of the hundred participants. Each notebook offered different perspectives, expressions and explorations in a truly collaborative community project. The entire collection was imagined as the first addition to an ongoing library that would circulate throughout the community, growing each year with the continuation of the initiative. The storefront quickly filled with a diverse audience on the opening night as visitors methodically turned the pages of the notebooks. As the first event at the new BRIDGE storefront, it generated a phenomenal energy, enticing visitors off the street who could witness the new activity through the large window.

Coordinators:

Piper Bernbaum
Sarah Gunawan

Contributors:

Kimberly Adamek
Kelsey Dawson
Zak Fish
Zoe Goodman
Elizabeth Lenny
Olivera Neskovic
Mayuri Paranthahan
Karine Quigley
Prianka Smita
Bianca Weeko Martin

Hours Open	15hrs over 3 days	Tu  We  Th 
Number of Visitors	260	180 30 50
Visitors from the Community	80	
Set-Up Team	12	
Display Surface Area	20 m ²	
Linear Partitions	0 m	
Used Floor Area	180 m ²	
Website Page Views - Month of Event	14,600	
Facebook Page Views - Month of Event	3,000	
Cost	\$500	\$ \$ \$ \$ \$
Revenue	\$650	\$ \$ \$ \$ \$ \$

Donors:

Phidon Pens
Leuchtturm 1917
Society of Waterloo Architecture
Graduates

Publications:

The Waterloo Record
Snapd Cambridge
Pen World Magazine

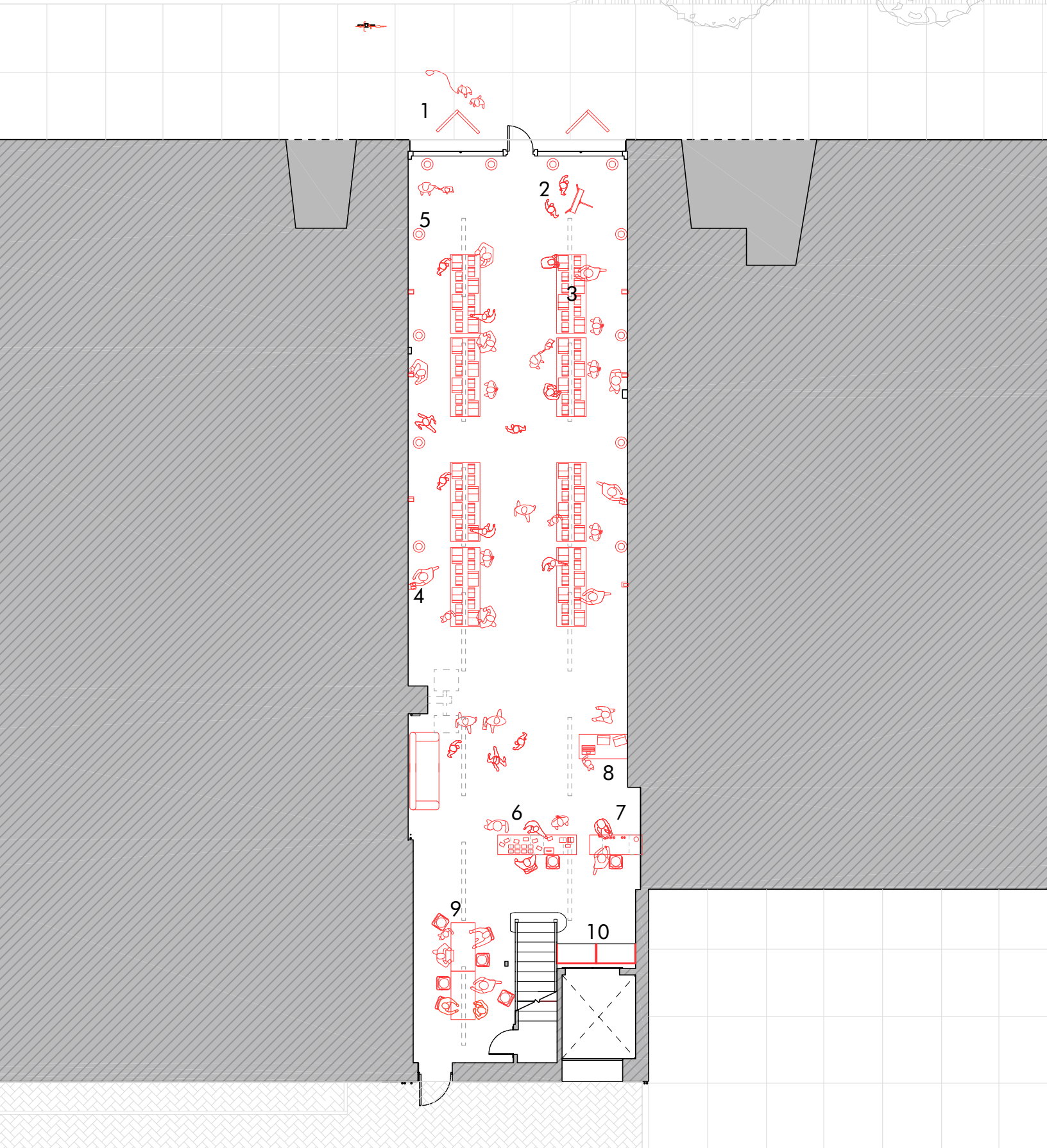
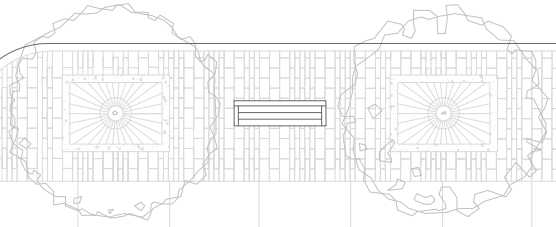
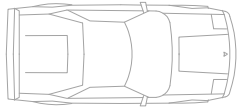
Equipment:

Chairs	7	
Tables - 30" Height	7	
Tables - 42" Height	2	
Couches	2	
Projection Screens	1	
Projectors	1	
Computers	2	
Speakers	2	
Christmas Lights	1	
Clamp Lights	29	
Floor Lights	10	
Extension Cords	10	
Trash Cans	1	
Ladders	1	
Fabric	10m ²	
Easels	2	
Display Posts	0	

Legend

- 1 Door Sign
- 2 Exhibition Description
- 3 Notebook Display Tables
- 4 Hanging Notebook Display
- 5 Floor Lamps
- 6 Merchandise Sales
- 7 Bar
- 8 DJ Table
- 9 Button Making Station
- 10 Storage

Figure 54: 100 Notebook Project Floor Plan
Scale: 1:150



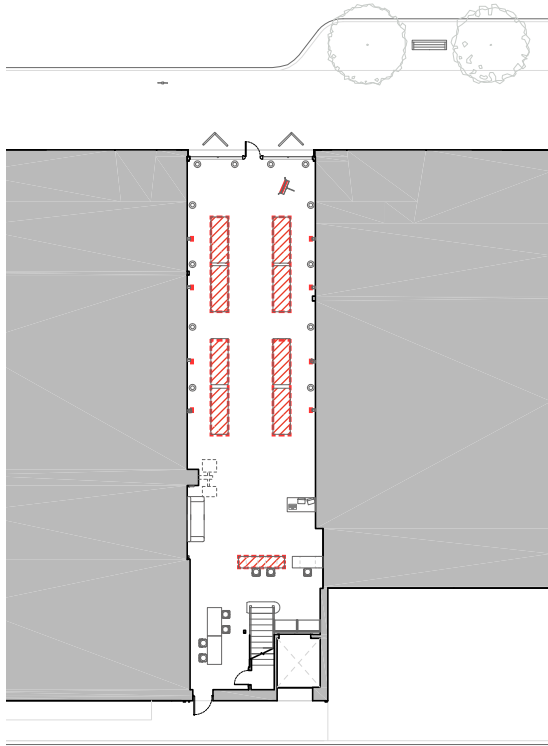


Figure 55: Display Surfaces and Partitions

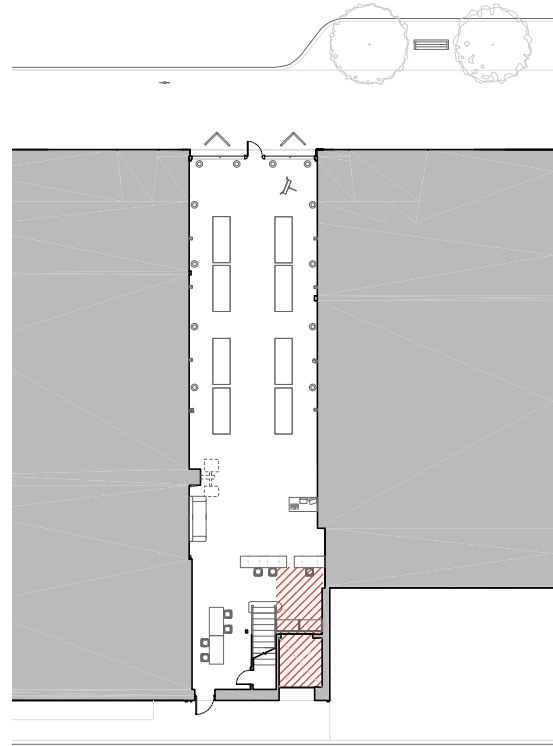


Figure 56: Private Space

- Partitions
- Display
- Display + Partition
- Table Display

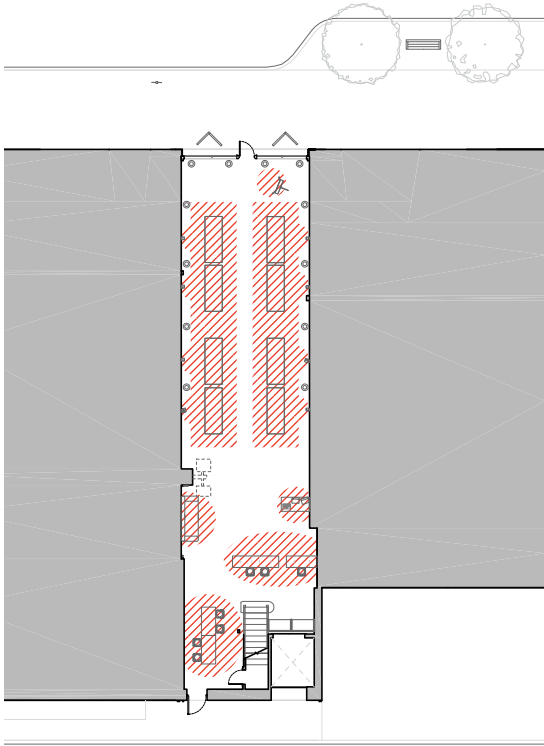


Figure 57: Activity Areas

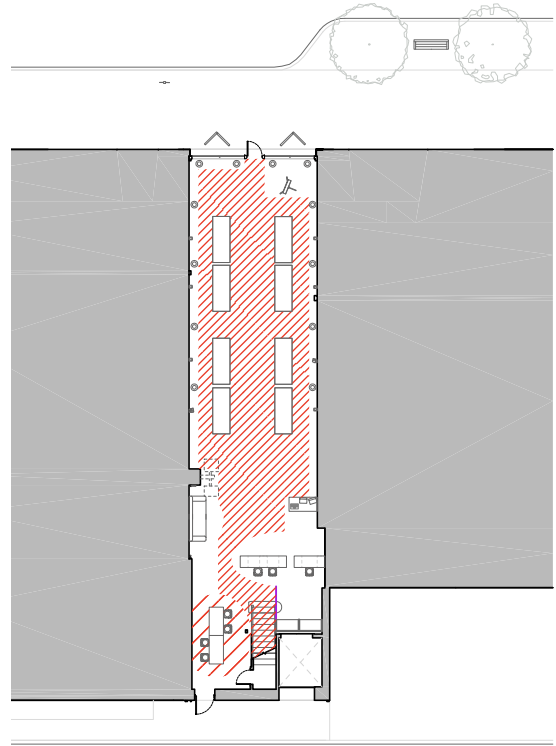


Figure 58: Circulation



“*100 Notebooks* was an ideal way to begin making use of the group’s physical presence in downtown Cambridge because it exemplifies so much of what BRIDGE is meant to be, starting with an aim to be as inclusive and transparent as possible. Everyone, including Waterloo Architecture students, faculty and staff, but also members of the community at large, is invited to get involved.”

“The end result looked like a remarkable success. I got there 15 minutes after the doors opened to find the place packed and buzzing with energy. A very diverse crowd pored over the notebooks on display on tables and the walls, page by page. Describing or summarizing the contents would be impossible. Let’s just say fascinating in range and variety, and heartening in terms of fresh creative energy.”

Excerpts from Martin DeGroot’s article *100 Notebooks Captures Creative Energy* published on April 24th 2015 in the Waterloo Region Record

Plate 59: “The inaugural event in the new storefront run by BRIDGE Waterloo Architecture” as published in the Waterloo Region Record. [2014-04-21]



Plate 60: Rows of standing-height tables lined the storefront for the 100 Notebook Project. [2014-04-21]



Plate 61: Button-making station where visitors could create badges from original sketches or copies of notebook pages.
[2014-04-21]



Plate 62: Notebooks were fastened to custom plywood tables, affordably made with sawhorse supports. Smaller notebooks were hung from boards offset from the crumbling walls.

Baldeep and Mano Duggal, owners of Phidon Pens, who proposed and sponsored the event.

[2014-04-21]

3.1.4 Rome Show

July 15th 2015

The *Rome Show* is an annual event from students at the School of Architecture, curated by the graduating class to exhibit the work from their term in Rome. Previous years' exhibitions had also found temporary homes in vacant storefronts on Main Street. The exhibition is intended to disseminate the sketches, projects, lessons and experiences from the Eternal City to the local community. Although similar in layout to the *100 Notebook Project*, the Rome Show had a completely different ambiance. Removing the damaged wall finishes and ceiling tiles revealed the building's raw structure, transforming the atmosphere. Simple coats of white paint along the original plaster wall helped to brighten the space, reflecting the light from the storefront window, while providing a clean background to frame the work.

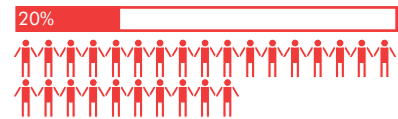
Coordinators:

Andrew Cole
Lea Koch
Sam Willman

Contributors:

Natalie Bellefleur
Evan Borochovitz
Glenn Comrie
Haneen Dalla-Ali
Zak Fish
Stephane Gaulin-Brown
Giles Hall
Evelyn Hoffman
Danika Irvine
Justin Lai
Eveline Lam
Jack Lipson
Kate Holbrook-Smith
Joel Picoway
Christina Robev

Hours Open	16hrs over 3 days
Number of Visitors	255
Visitors from the Community	50
Set-Up Team	27
Display Surface Area	42 m ²
Linear Partitions	3 m
Used Floor Area	160 m ²
Website Page Views - Month of Event	7,700
Facebook Page Views - Month of Event	1,700
Cost	\$900
Revenue	\$900



Contributors (continued):

Anne Sewell
Tony Shi
Lia Tramontini
Pavel Tsolov
Tristan Van Leur
Sam Vickars
Liwei Wang
Sheng Wu
Charles Ye

Donors:

Waterloo Architecture Student
Association
Frogpond Vineyards

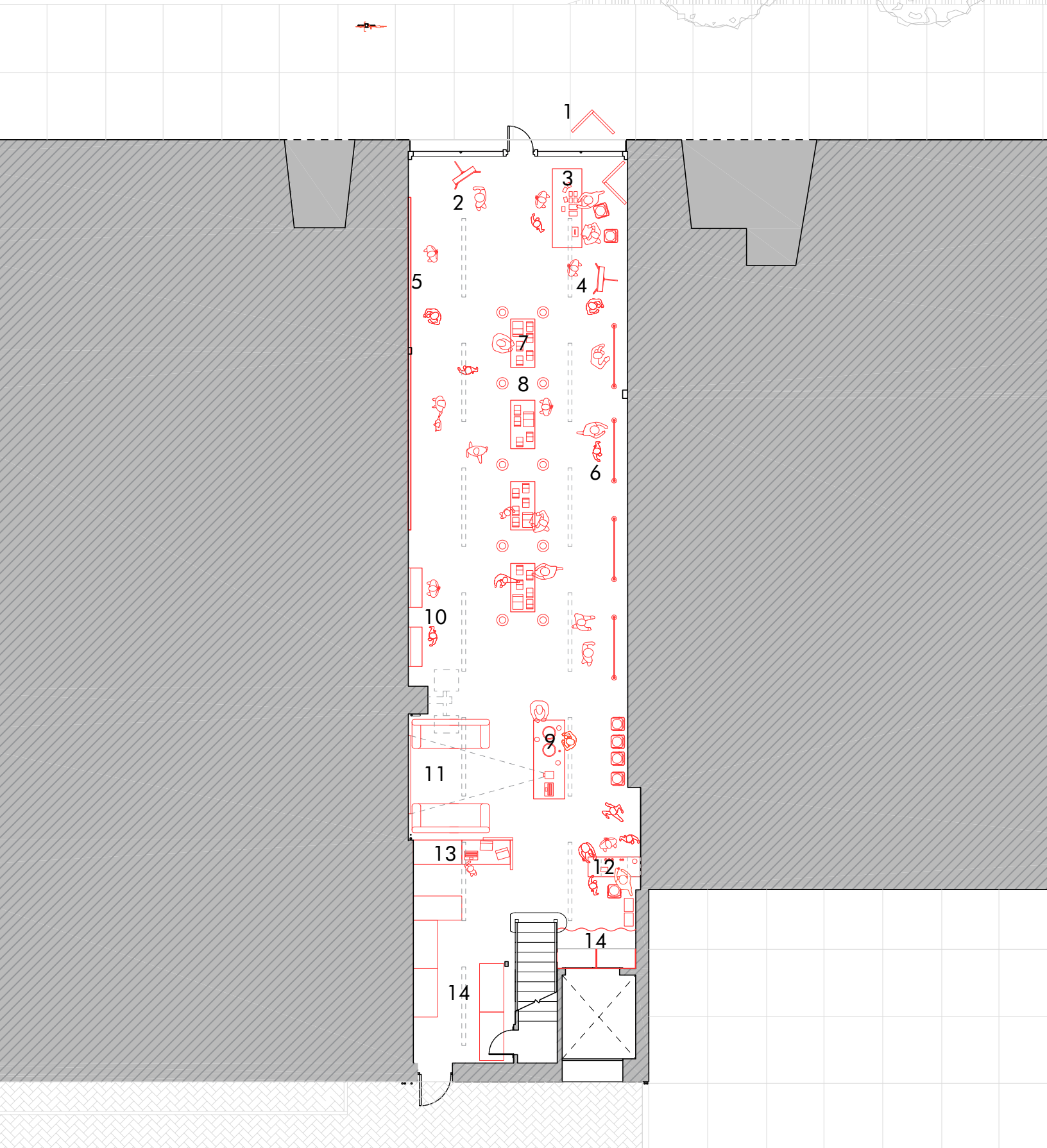
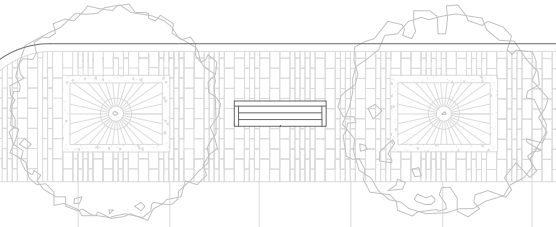
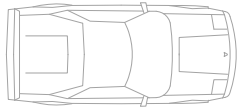
Equipment:

Chairs	7	
Tables - 30" Height	7	
Tables - 42" Height	2	
Couches	2	
Projection Screens	1	
Projectors	1	
Computers	2	
Speakers	2	
Christmas Lights	1	
Clamp Lights	29	
Floor Lights	10	
Extension Cords	10	
Trash Cans	1	
Ladders	1	
Fabric	10m ²	
Easels	2	
Display Posts	8	

Legend

- 1 Door Sign
- 2 Exhibition Description
- 3 Reception Table and Merchandise Sales
- 4 Easel Display
- 5 Wall Display
- 6 Drawing Display Posts
- 7 Notebook Display
- 8 Floor Lamps
- 9 Hors d'oeuvres
- 10 Drawing Display on Vertical Table Tops
- 11 Film Projection
- 12 Bar
- 13 DJ Table
- 14 Storage

Figure 59: Rome Show Floor Plan
Scale: 1:150



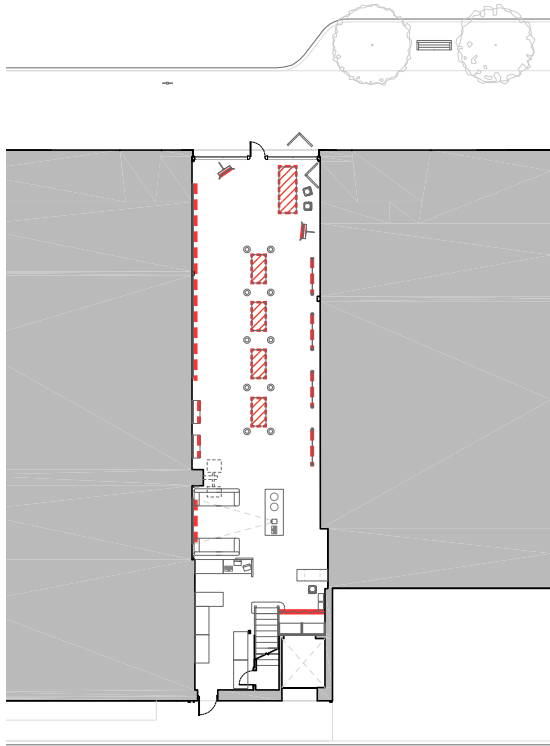


Figure 60: Display Surfaces and Partitions

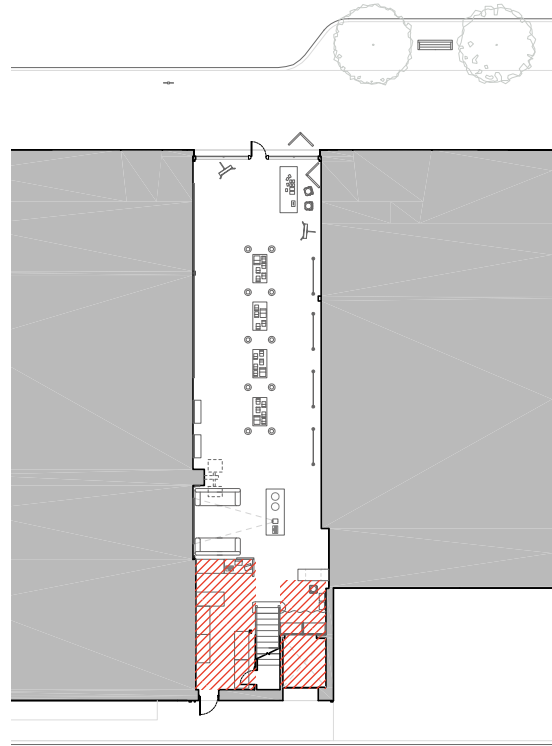


Figure 61: Private Space

- Partitions
- Display
- Display + Partition
- Table Display

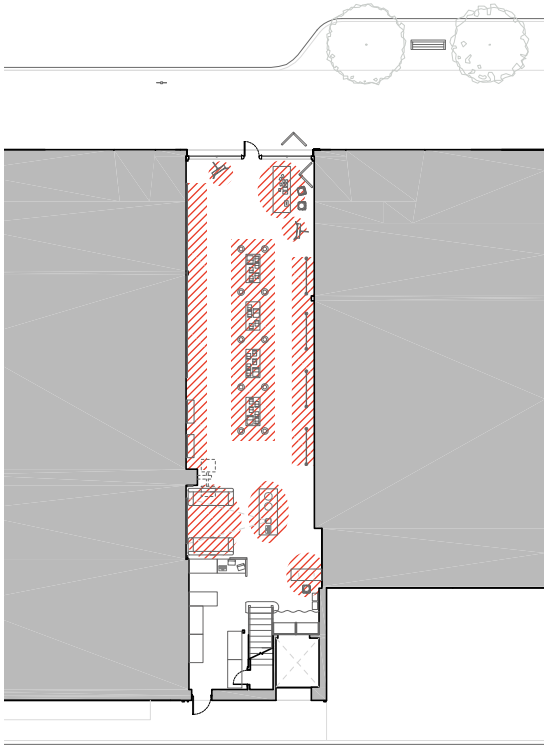


Figure 62: Activity Areas

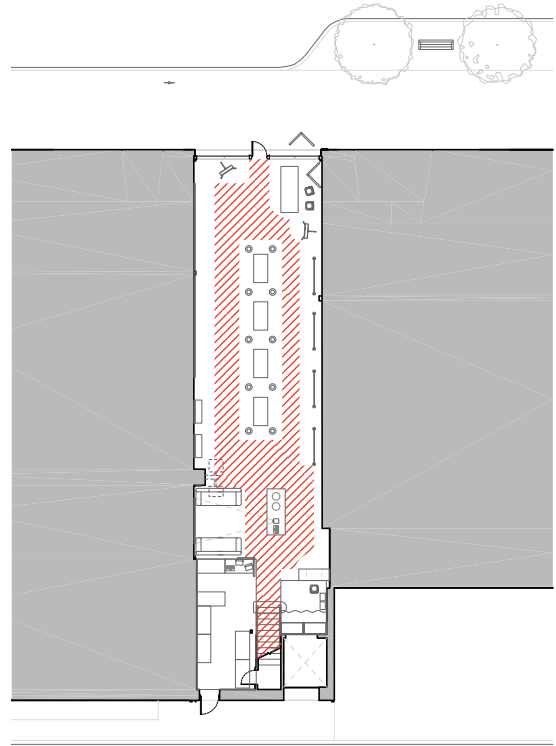


Figure 63: Circulation



Plate 63: Keeping the door open and having signs out front provide a street presence for temporary events. Announcing the occupation to citizens is important in reestablishing their perception of a once empty space, redefining their mental map of the city. [2014-07-16]



Plate 64: Film projections deep in the space were sheltered from the light of the storefront window.
[2014-07-16]



Plate 65: Supports were used to hang drawings in front of the freshly painted plaster wall, which proved challenging for mounting. [2014-07-16]



Plate 66: Simple strapping along the wall helped to frame and support printed drawings. [2014-07-16]



Plate 67: Items for sale at the front of the storefront helped to attract walk-in visitors.
[2014-07-16]



Plate 68: The bar was a magnet
for social activity.
[2014-07-16]



Plate 69: An island of tables delineated the exhibition on either side of the centrally located door.
[2014-07-16]



Plate 70: Shorter display tables necessitated books on display being picked up for a closer reading.
[2014-07-16]

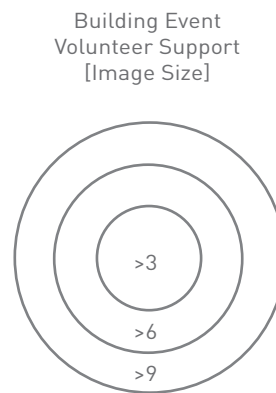
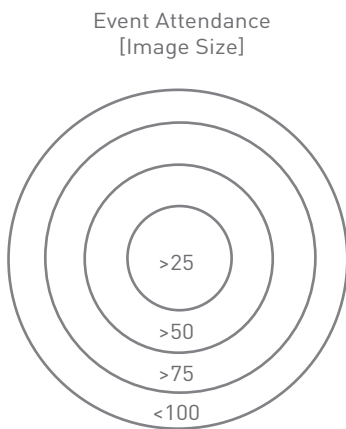
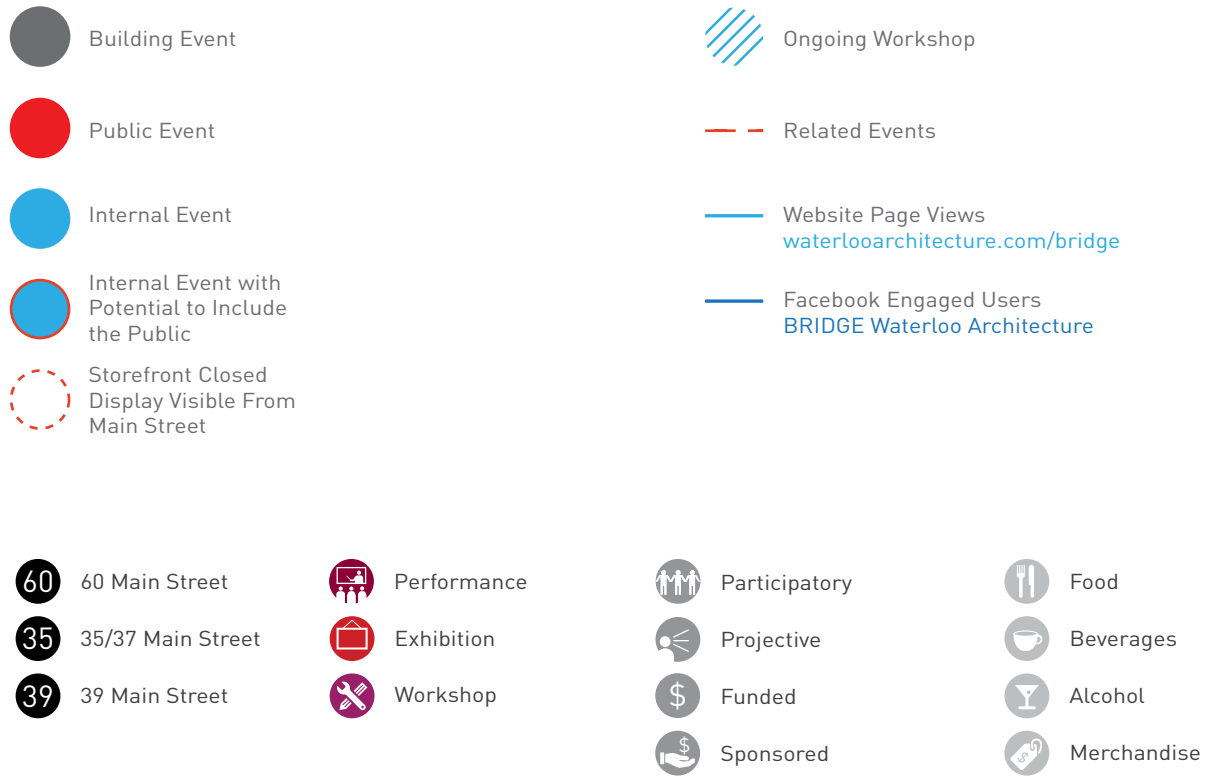
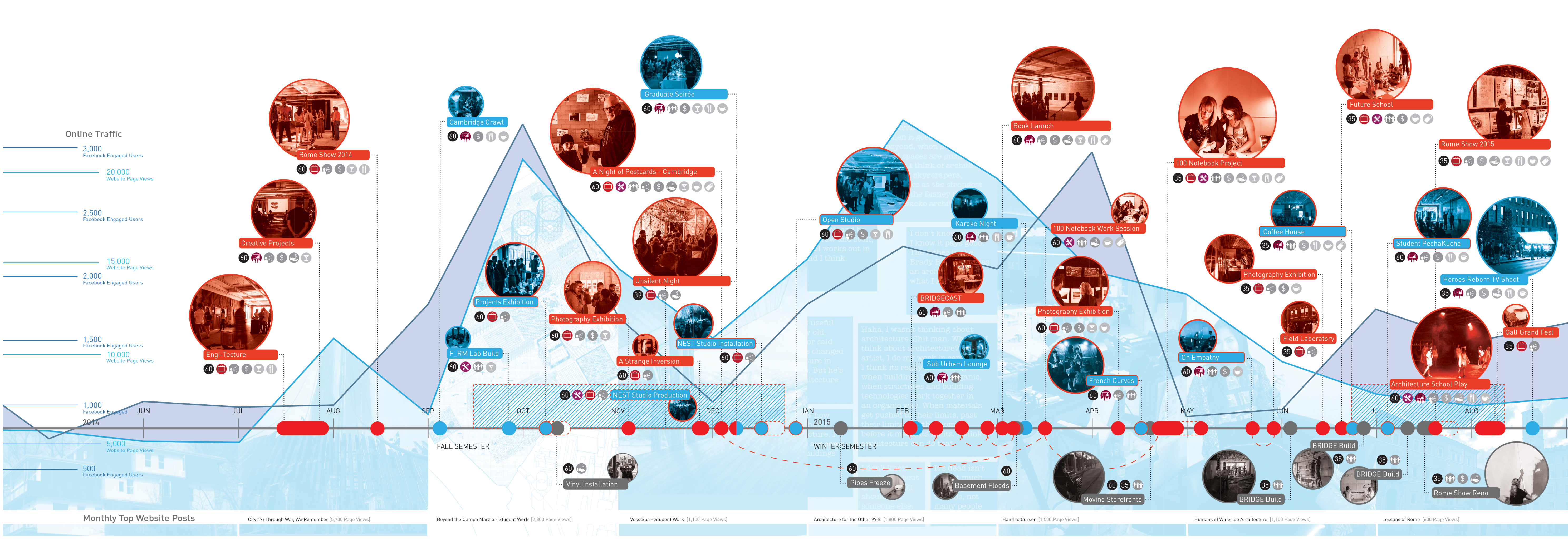
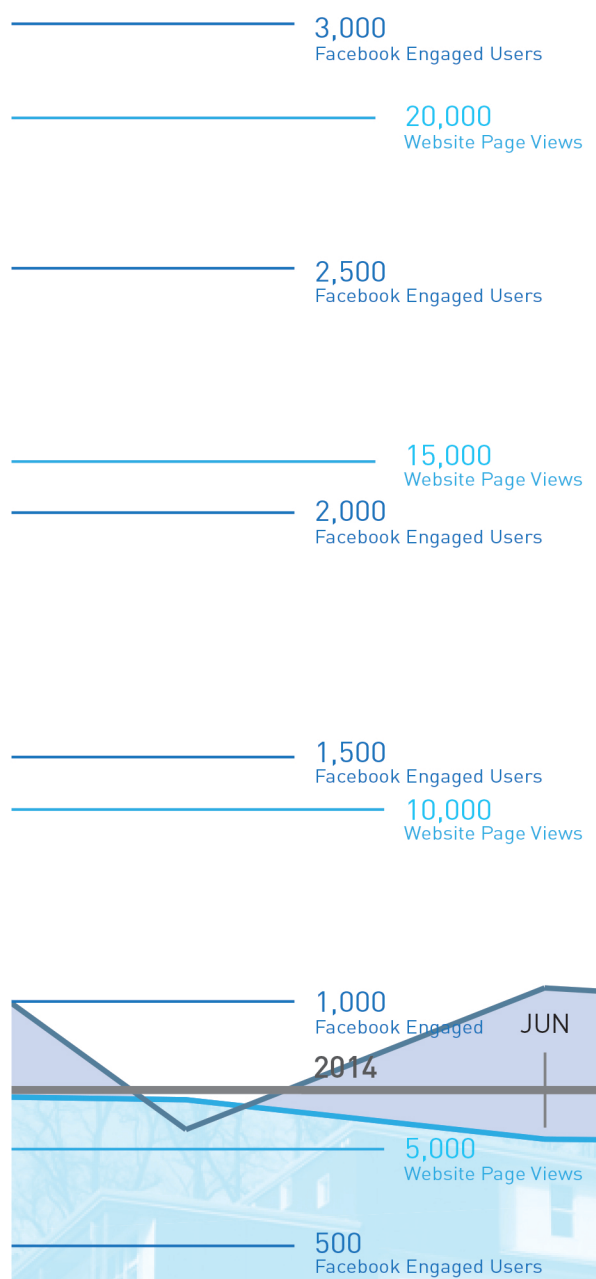


Figure 64: Event Timeline Legend
Plate 71: [Foldout] Event Timeline



Online Traffic



Monthly Top Website Posts

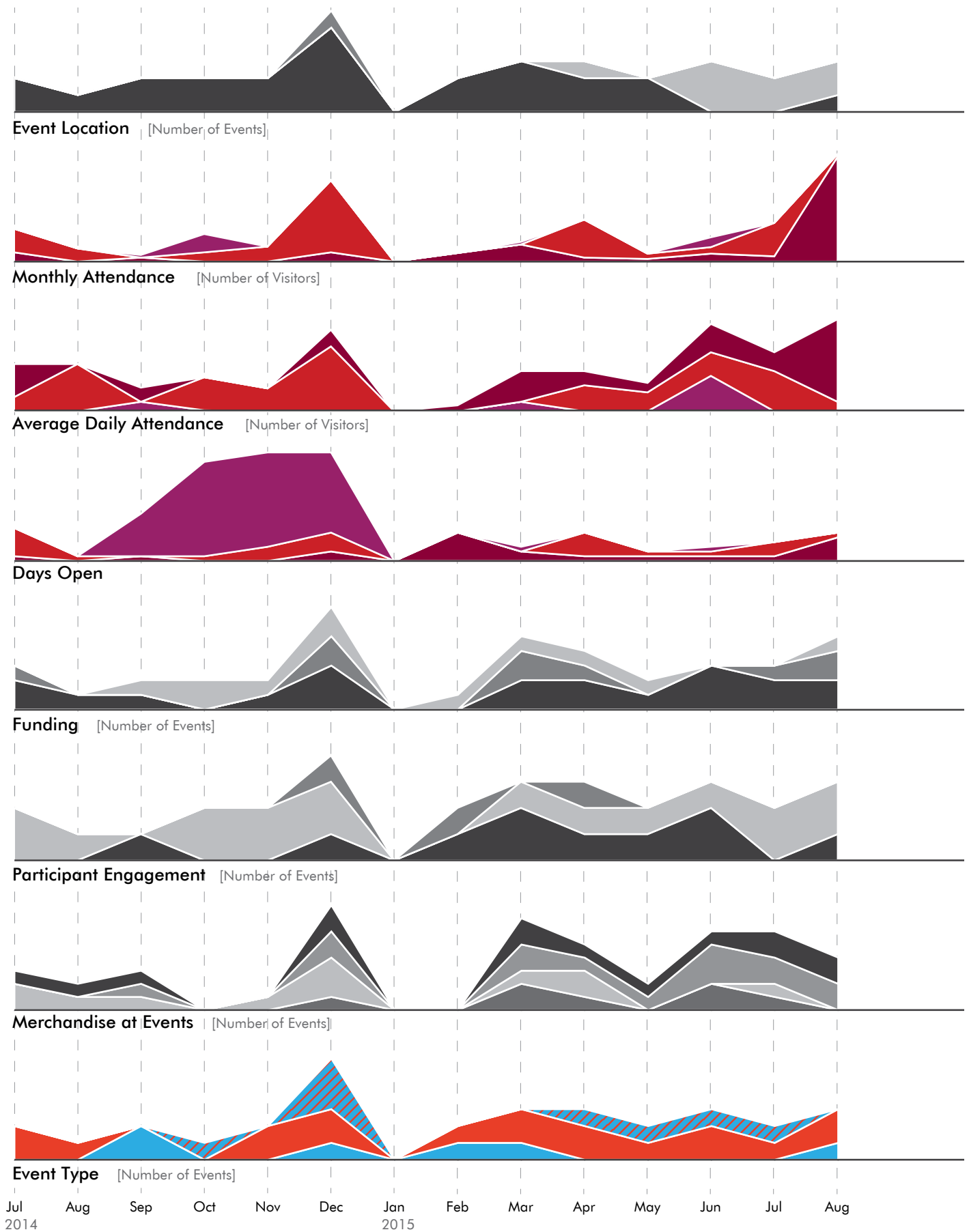
- City 17: Through War, We Remember [5,700 Page Views]
- Beyond the Campo Marzio - Student Work [2,800 Page Views]
- Voss Spa - Student Work [1,100 Page Views]
- Architecture for the Other 99% [1,800 Page Views]
- Hand to Cursor [1,500 Page Views]
- Humans of Waterloo Architecture [1,100 Page Views]
- Lessons of Rome [600 Page Views]

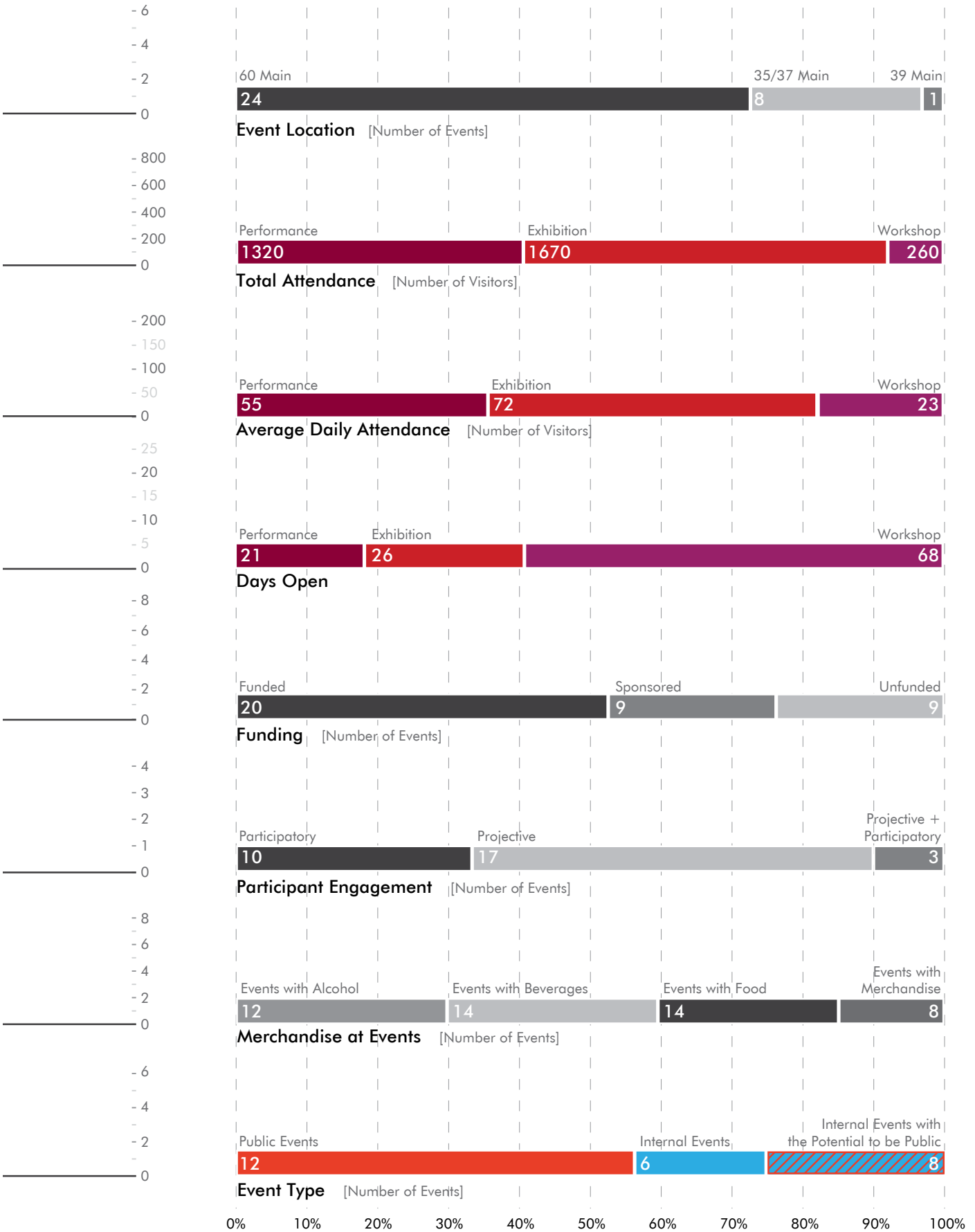
3.1.5 Unfolding Events

The 33 events on Main Street, from July 2014 to August 2015, attracted more than an estimated 3,000 visits from the public and students at the School of Architecture. The most activity was generated from exhibitions and performances, and when used as a workspace, it drew a constant stream of activity from returning participants. Opening nights for exhibitions and performances advertised to the public and scheduled to accommodate student participation typically drew over 100 guests, creating an energy from the crowds that transformed the space. The subsequent exhibition days had on average less than 30 visitors. It proved challenging to bring walk-in traffic into the storefront, with sidewalk displays and an open door needed to break the routines of passersby, who had grown accustomed to the building being vacant from years of inactivity. To engage the public in future, programs should establish recurring, related events at recognizable times: weekly, monthly etc., to establish a consistent presence, allowing the public to connect to the sporadic activity. The series of *A Night of Postcards*, *100 Notebook Project* workshop and follow-up exhibition were successful at creating a chain of events that built anticipation for the forthcoming activity.

More than half of the events were open to the public, although they were not always well advertised. Drawing an audience to each event required the posting of event details on multiple websites and social media platforms, contacting members of local community networks and publications, as well as the use of posters and storefront signage. A fifth of the events were for the internal school community, used for production and collaboration during working sessions, social student activities and university networking events. A quarter of the observed events initiated by students at the School of Architecture could have been opened to the public had they extended their opening hours and advertised the activities. The commitment to keep the storefront open for extended hours and to prepare advertisements in advance of events was often too much to ask of the small volunteer teams.

Figure 65: [Following Page]
Timeline Analysis





A third of events were unfunded, set up entirely with borrowed equipment or paid for by the event organizers. The rest of the activities received some form of financial support from the School of Architecture or the student organizations orchestrating the events. A quarter of these events were prepared far enough ahead of time to receive sponsorship or donations from local businesses, in addition to basic funding. Half the events offered food, beverages, alcohol or merchandise that were either given away to participants from the organizations who funded them or were used as fundraising tools to help cover the costs of the event. With a \$75 fee for the permit required to serve alcohol, only a few events were able to turn a marginal profit, while the vast majority of events cost more to produce than they generated in revenue, sponsorship and donations. Serving beverages, hors d'oeuvres and alcohol, although not financially rewarding, was a key part of the social spaces of the events, where visitors congregated around the bar and serving tables, sparking conversations and chance encounters. People clustered around furniture, couches, tables and displays, seeding discussions and allowing members of the creative sector and the general public to intermingle.

The energy from these activities gave new meaning to the vacant storefronts, having an impact, however small, on the urban landscape through their fleeting manifestations. While the sample size from these events is relatively small, the results parallel the findings from the Urban Pioneers study of temporary-use activity in Berlin.

The events at the storefront also generated a substantial amount of online activity and social media engagement, with the website averaging over 5,000 unique visitors and 1,000 engaged users on Facebook monthly. Despite the large online audience, there was often a disconnect between the digital activity and what was happening in the storefront, the website in its current state acting more as a blog or publishing platform than as a webpage to promote activities at the storefront. Although the constant flow of articles brought returning traffic to the website, events on Main Street were not always well advertised. In the year studied, only 27 percent of website visitors were

from the Waterloo Region, as 20 percent of traffic came from Toronto and 36 percent from international visitors. The BRIDGE Facebook page, despite having a smaller audience, was a much more successful platform for engaging visitors with the storefront, as it could be easily updated with the latest events and activities. Sixty percent of referrals to the BRIDGE website came from Facebook. Leveraging digital tools to engage the public will help to inform and generate a following of community members to participate in future events.

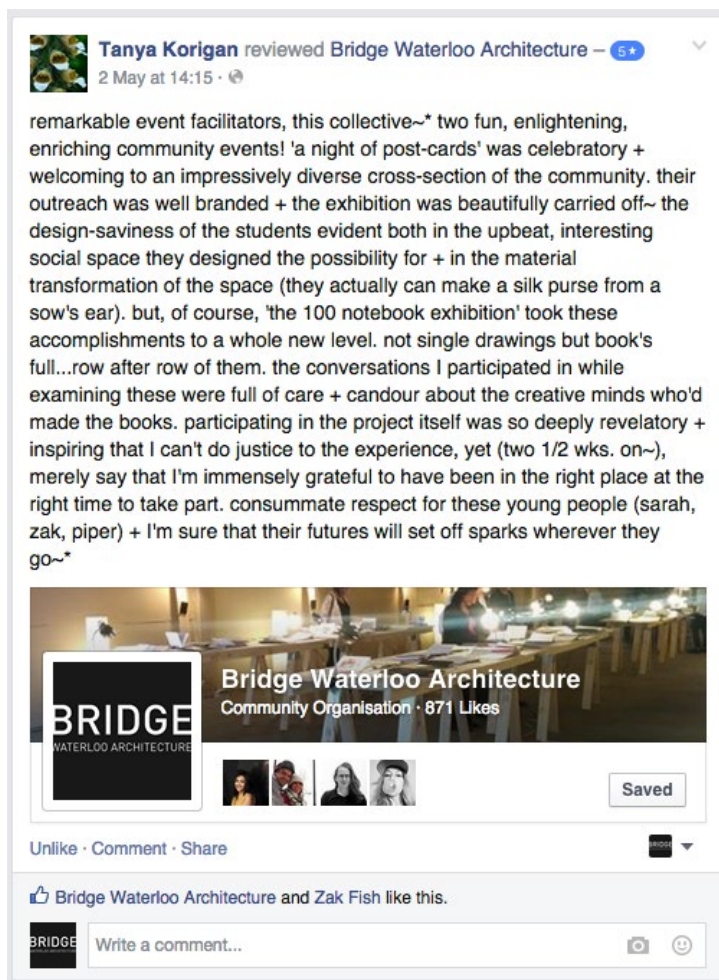


Figure 66: A community member's review on Facebook.





3.2 Praxis

Prototyping Administration

"To cause a public memory of a place that will again metamorphose and acquire still new and different meanings in the continually transforming urban landscape." ¹

3.2.1 Project Mission

.....

Defining the goals and ambitions of a project helps to examine the feasibility of a project in its desired location. The project concept helps convince siteowners, sponsors, public authorities and potential partners, while additionally clarifying the project direction in the minds of the organizers. The preliminary concept and mission of the project will describe the anticipated use of potential sites and the required steps to implement it.

BRIDGE Centre for Design + Architecture is an institution committed to the advancement of discourse surrounding Art, Design and Architecture in Cambridge.

BRIDGE was founded in 2012 in Cambridge, Ontario and is an initiative run by students from the University of Waterloo's School of Architecture. We maintain both a website, and a physical Centre of Architecture, located at 37 Main Street in Downtown Galt.

Our program of exhibitions, events, workshops and lectures creates an open and alternative platform to engage the community. BRIDGE facilitates dialogue between designers, artists, architects and citizens, allowing them to share their thoughts, ideas, experiments and work.

Through our physical and digital platforms, BRIDGE aims to connect the students of the school to the community, and the community to the global discourse of architecture, design and its continuing role in growing community and cities.

Plate 72: [Previous page]
Measuring 35/37 Main Street.
Photograph by Vikkie Chen
[2014-04-25]

¹ Hieke Pars and Iris Schutten, *Interfering: A Publication About Contextual Interventions in Public Space* (Rotterdam, The Hague: Hieke Pars, Architecture Studio de Ruimte, 2003), 10



Plate 73: Installing vinyls at 60
Main Street
[2014-10-17]

3.2.2 Project Team

.....

To implement any project, a highly motivated team is needed to bring the project mission to fruition. Members involved must be committed to the work and have realistic expectations of their commitment. Connections to the community, local agencies and organizations can share resources, volunteer networks and raise awareness for the project.

BRIDGE began as an open-student initiative, with a flat organizational structure. Volunteers for each project are self-organized and self-managed. Each new venture has its own dynamics, developed through incubation. As the initiative grew, with the needs to manage volunteer turnover, open a bank account, lease property and with the ambition to incorporate as a not-for-profit, I instituted an organizational hierarchy. Directors nominated themselves, or natural leaders emerged to take on roles and responsibilities for various ventures. As there is unpredictable interest in the different tasks, the Executive Directors are responsible for filling the gaps, ensuring the success of each venture, while managing the overarching administrative tasks.



Figure 67: 100 Notebook Project set-up team [2015-04-20]

“People have to find meaning in the work they are doing for us. We don’t try and define that, we want the individual to define it for themselves... We build relationships where people are at... coming from their needs, interests and values. A welcome environment and hospitality is far more important than a volunteer coordinator.”

- Joe Mancini, Founder of The Working Centre in Kitchener²

² Joe Mancini, (Founder of The Working Centre) from presentation to University of Waterloo Local Economic Development Class, September 23, 2014

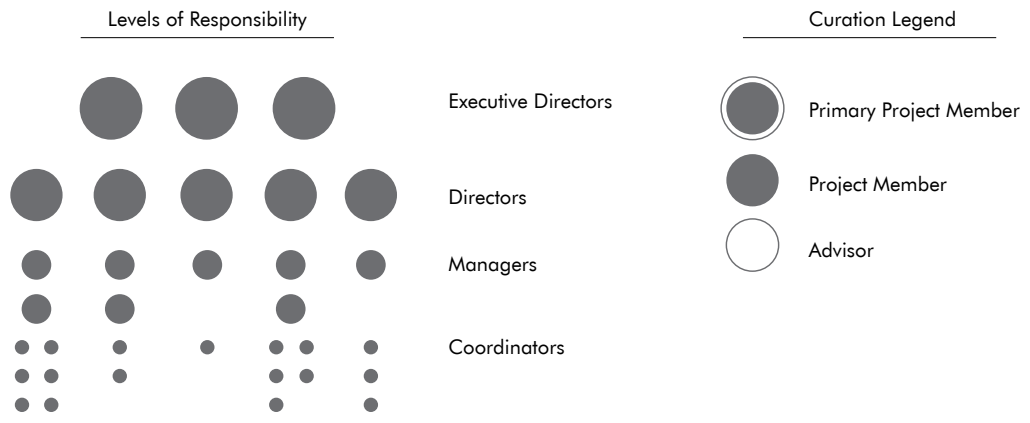
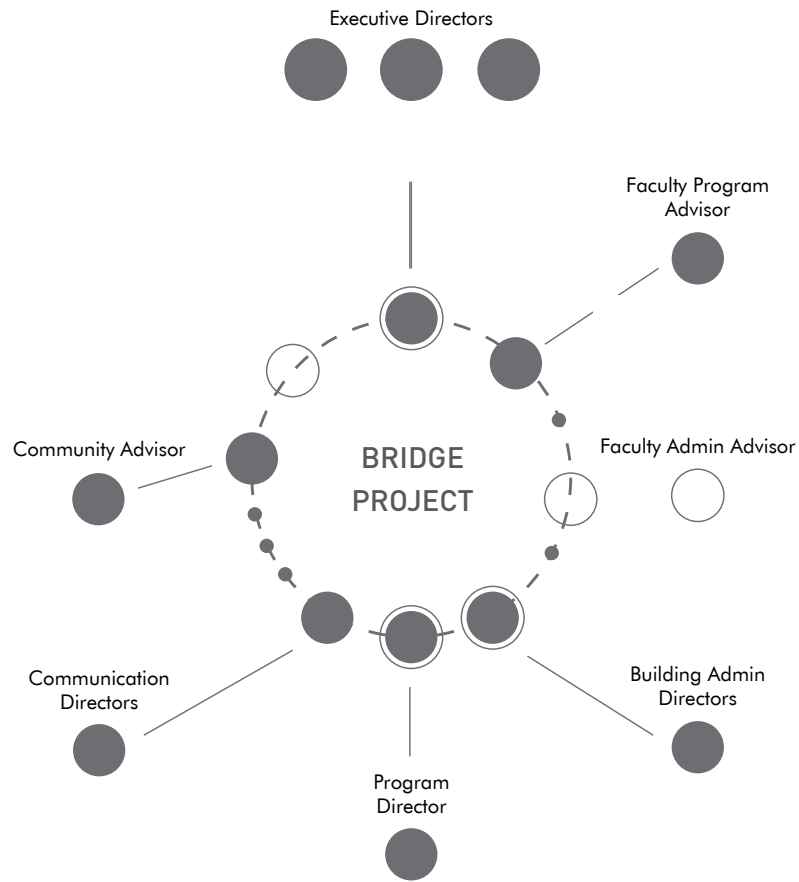


Figure 68: Organizational structure for projects organized by BRIDGE

3.2.3 Business Plan

A business plan provides a financial overview and development timeframe for the temporary-use project. It can be an indispensable tool when applying for funding or resources. A defined budget identifies the financial feasibility of the project. It should include expenses and revenue opportunities.

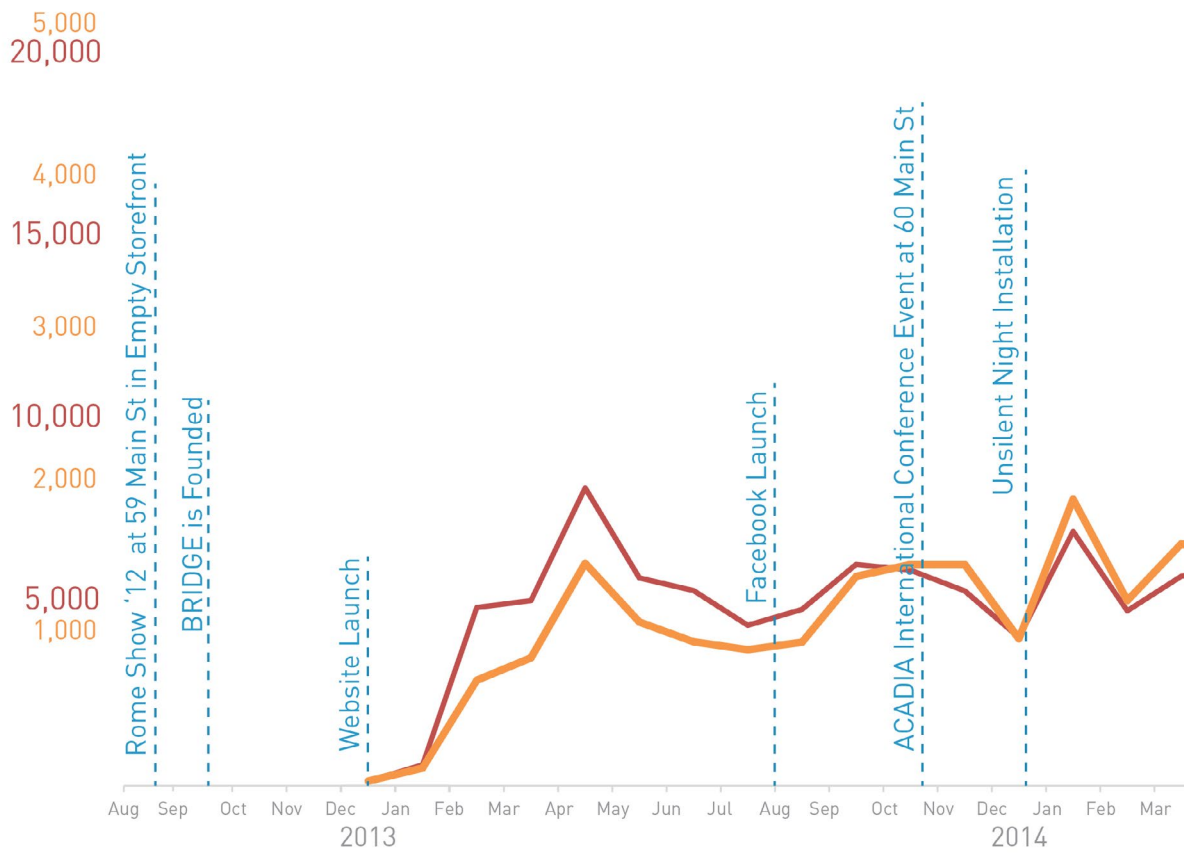
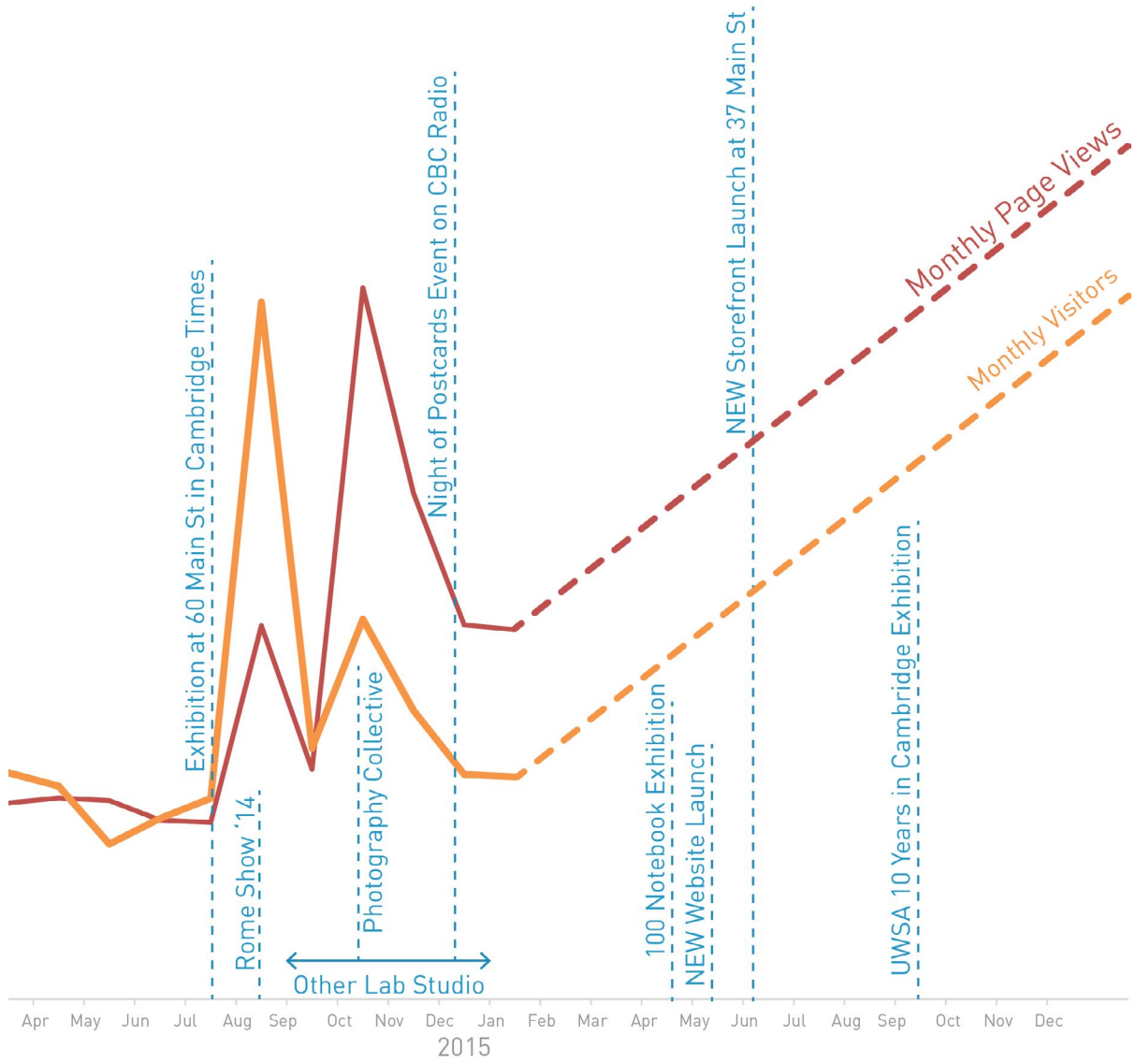


Figure 69: BRIDGE Milestones



3.2.4 Obtaining Legal Status

.....

Temporary-use projects are not exempt from regulation and must follow planning, building and taxation laws. To obtain legal status in Canada, projects can incorporate as a for-profit or cooperative business, nonprofit association, charitable organization or remain autonomous. There are many benefits to incorporating; however, there are also downsides, and some not-for-profit organizations chose to operate as informal associations. Unincorporated organizations avoid the financial costs and time associated with incorporation and have less legal requirements, including the filing of taxes. Unincorporated associations still must hold any funds received in a trust account. Should anything go wrong, the members of unincorporated groups are held personally liable, which is a major concern as they are not a legal entity and have no legal status apart from its members. Informal organizations may have challenges opening bank accounts, obtaining insurance and receiving donations, as only registered charities can issue tax receipts. Informal organizations cannot be sued, enter into contracts or hold property, which, therefore, must be held in the name of individual members acting as trustees.

Projects that wish to incorporate as a not-for-profit in Canada must register provincially or federally. Provincial incorporation is often enough, unless organizations wish to operate businesses in multiple provinces. In Ontario, organizations must first register their corporate name and complete an application that identifies the location, first directors, special provisions and purpose of the corporation. Subsequently, they must establish a constitution, adopting by-laws, establishing director's quorum, appointing officers, auditors and making financial arrangements. To register as a charity, organizations must not only meet the requirements for not-for-profit incorporation, but also meet the additional requirements of being charitable in law. The application process to incorporate as a not-for-profit charity is a significantly longer and more arduous process, but with the added benefit of being able to issue tax receipts to donors.

Once BRIDGE had established an organizational structure appointing directors, we began writing our constitution and obtaining a bank account that would eventually be necessary for incorporation. Simultaneously, the Government of Ontario is instituting the Ontario Not-for-Profit Corporations Act that updates the legal framework for not-for-profit corporations. As the law is awaiting the Legislative Assembly to pass a number of technical amendments, the act is not expected to be fully implemented until 2016. At that time, existing corporations will have to complete transitional paperwork. For these reasons, we decided to hold off incorporating BRIDGE until the new law has taken effect to reduce the administrative burden on our volunteers.

3.2.5 Contracts and Leases

.....

To secure spaces for temporary-use projects, formal written agreements can provide security for both property owners and temporary users. The objective is to balance property owners' profit-driven interests in the long-term development of their sites and temporary users needs for a certain level of commitment that allows them secure funding and investments required to organize events and projects. Temporary-use contracts can hold the place of a lease while allowing the landlord to specify short terms of notice should they find a profitable tenant at market price. In addition to defining the purpose of use, duration of occupation and the price of rent and cost of utilities, temporary-use contracts should regulate the tenant's responsibility for maintaining the property. The duration of the rental agreement is generally between three months to ten years, contingent on the marketability of the property. Subsequent agreements can elaborate on the eventual conversion of a property and the ability for lease extensions.

As the Executive Directors of BRIDGE, Tristan Van Leur, Michael Kim and I signed a one-year lease for the ground floor of 35/37 Main Street, Cambridge with Perimeter Development, effective April 19, 2015. In addition to a two-dollar annual rate in exchange for use of the property, the agreement states BRIDGE is responsible for a proportional share of electrical and heating costs and securing general liability insurance. Section 11 of our lease clearly states that should the landlord wish to demolish or substantially renovate the whole or major part of the building, or should the building be sold, the landlord has the right to terminate the lease by giving "60 clear days' written notice". As Perimeter's interests are currently focused on its other properties, it is intended that the lease be renewed should the student-led initiative prove to be a competent occupant and that a profitable tenant not materialize. It is hoped that as BRIDGE grows in this period, it will develop the resources to pay market rent or a proportional amount when Perimeter's interests resume development of the property.



Plate 74: Moving from the Pop-Up Storefront at 60 Main Street to our current home at 35/37 Main Street.
[2015-04-24]

3.2.6 Funding

.....

Public authorities often administer funding programs for which temporary-use, culturally-based programs can qualify. In addition, they can apply for local job centres and youth training programs to support employees. These programs are especially accessible in the summer months for hiring students and will often cover half of an employee’s salary. However, as the study of temporary-use projects in Berlin illustrated, almost 40 percent of projects did not receive government funding. The path to funding these projects then generally falls on corporate sponsorship, where a company provides support if the project aligns with its mandate or finds a way of raising its profile or improving its image. Sponsorship is not limited to monetary contributions but can also comprise technical assistance, in-kind donations, event organization, waiving of fees and business counseling. Foundations that award funds and project grants, like the Cambridge and North Dumfries Foundation, can provide support when their mandates have similar aims to that of the temporary-use projects.

Figure 70: BRIDGE sponsorship chart

SPONSOR BENEFIT	Presenting	Suspension Bridge	Draw Bridge	Cantilever Bridge	Footbridge	Friend
Amount (cash or in-kind)	\$50 000+	\$5000+	\$2500+	\$1000+	\$500+	\$100+
Name listed on website for one year						•
Name permanently listed on website	•	•	•	•	•	
Name permanently listed in storefront	•	•	•	•		
Tax-Receipt	•	•	•			
Logo and link on website	•	•	•			
Logo in newsletters	•	•				
Large name and logo on website and in storefront	•	•				
Speaking opportunity at the BRIDGE launch event	•					
Name on front door	•					
Special event sponsorship opportunity		\$2000+				
Presenting sponsor of a gallery show at the storefront						

BRIDGE began by developing a sponsorship package with donor levels to recognize individual and corporate contributions to the initiative. Each donor level received an increasing number of benefits, recognition on the BRIDGE website and eventually on a donor wall in the storefront. In-kind material donations were often the easiest for companies to donate, as they promote their own products and, while retail costs associated with the products may be high, the actual cost incurred by the donor may be significantly less. It was often found that sales associates readily approved in-kind donations, while financial contributions required a store owner's approval. Large corporations with head offices were significantly harder to deal with as it is challenging to get connected to the right individual with the authority to authorize donations. More success was found with smaller businesses with closer ties to the community.

Figure 71: BRIDGE Sponsorship levels



A Chartered Professional Accountant will review our financial reports annually to ensure fiscal responsibility.

In-Kind Donations Opportunities and Recognition

BRIDGE is pleased to recognize sponsors who provide in-kind services, materials, or technology. Sponsorship level is based on the value of the goods/services received.

Tax Receipt for Charitable Donations

Charitable donations are eligible for a tax receipt from the University of Waterloo.

Crowdfunding has quickly emerged as a form of alternative financing to raise money for projects and ventures for temporary-use activities. Traditional financing, in the form of loans from banks, is typically not accessible for start-up temporary-use actions, and crowdfunding offers the opportunity to raise monetary contributions from a large number of people, typically on the Internet from popular websites like Kickstarter and Indigogo. These digital platforms connect temporary-use actors and individuals who can financially support and contribute to the project. One billion dollars has been raised globally through crowdfunding as of 2011 and has grown to \$14 billion by 2014.³

Rewards-based funding models are the most successful where individuals receive merchandise, such as t-shirts or event tickets, in exchange for their donation. Motivation for contributor participation comes from the feeling of being at least partly responsible for the success of others' initiatives, striving to be a part of a communal social initiative and the physical rewards or merchandise from monetary contributions.⁴ In addition to raising funds, crowdfunding campaigns can raise awareness for initiatives and engage participants from the outset of a project.

³ John Tierney, "How Makerspaces Help Local Economies," *The Atlantic*, April 17, 2015

⁴ Andrea Ordanini, Lucia Miceli, Marta Pizzetti and A. Parasuraman, "Crowdfunding: Transforming Customers Into Investors Through Innovative Service Platforms" Bocconi University, Milan, Italy

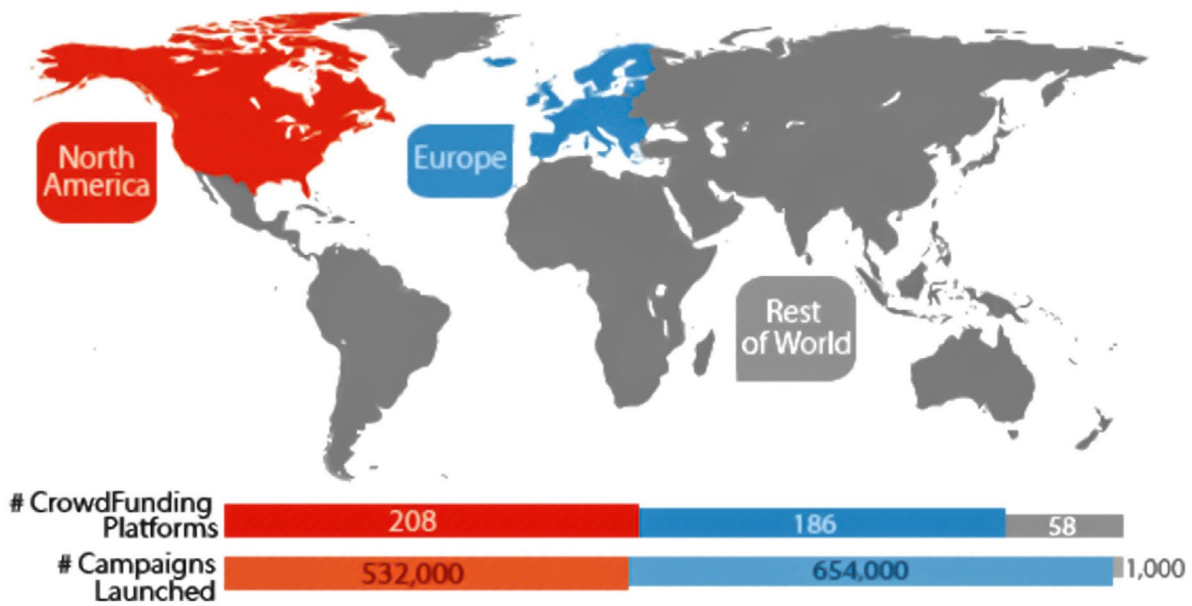


Figure 72: Crowdfunding activity in the world.
From: Money from the crowd. Seeding Factory.

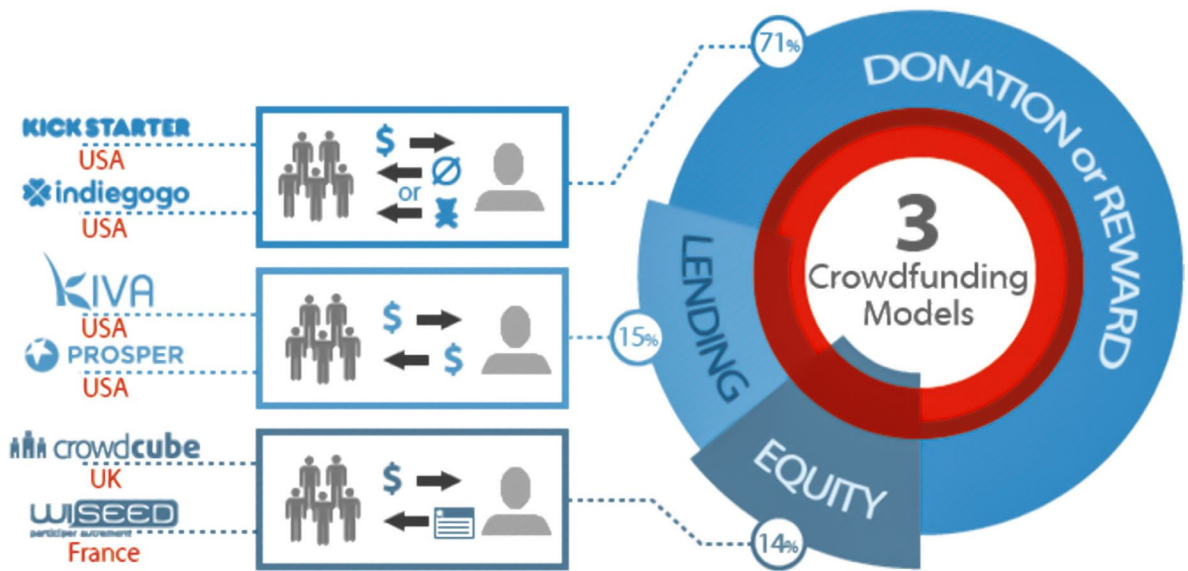


Figure 73: Crowdfunding models
From: Money from the crowd. Seeding Factory.

3.2.7 Leases and Permits

.....

Anchored in today’s culture of permits and licensing is the assumption that, only that which is explicitly permitted is not prohibited. This method of reasoning can significantly limit our imagined possibilities, causing users to avoid perceived potential conflicts unnecessarily. This restraint of behaviour places demands on spaces and their characters. The consequence is a need for flexible spaces that permits multiple possible uses that do not predetermine users’ actions.

Temporary-use projects are more viable when less mandatory licences and permits are required. Building permits are required for any projects that modify the structure of the property or change its use. To obtain planning and building permissions, one must submit detailed proposals, including architectural drawings. Applications for planning permissions can take a significant amount of time and can require expensive professional fees. For temporary-use projects, it is advisable to avoid measures that require planning and building permissions as they add a significant administrative effort to the project. Food, alcohol, vendor and noise permits may be required depending on the jurisdiction.

BRIDGE aims to make the maximum changes possible to the space to provide the greatest impact, without requiring building permits that would add an increased level of scrutiny to the century-old structure that our initiative can ill afford.

A temporary Vendor’s Permit is required in the Region of Waterloo for the sale of goods, wares, merchandise or services. A Refreshment Licence is also required for the sale of any food or drink items and must receive approval from the Municipal Public Health Department. For all the aforementioned permits, fees and an application are required three months in advance. The Regional Municipality of Waterloo offers reduced rates for nonprofit charitable organizations. (https://www.kitchener.ca/en/livinginkitchener/resources/Special_Event_Planning_Guide_with_Appendices.pdf) Food permits are additionally available through the University of Waterloo’s Federation of Students for fasttrack processing at the Region in a period of two weeks. The Alcohol Gaming Commission of Ontario

• (AGCO) offers Special Occasion Permits that cost \$75 and
• need to be applied for 30 days in advance of an event. Multiple-
• day events are permitted in the application; however, we were
• warned that our frequent applications may raise concerns at
• the ACGO and could result in strict penalties, including fines
• up to \$100,000 and being barred from ever applying for a
• permit again.(http://www.agco.on.ca/forms/en/1575_a.pdf)
• Following that discussion with the manager of the local Liquor
• Control Board of Ontario (LCBO) store, we limited alcohol
• sales and permit applications to our more major events.

3.2.8 Obstacles

.....

There are many hurdles temporary actors will have to overcome to see their projects completed. Temporary-use projects may not have the financial means or planning foresight in their spontaneous habitation to apply for required permits that can take months to process. Many actors may be forced to find alternative locations or solutions to avoid lengthy permit processes or gamble on being tolerated by local authorities.

Finding sites for action with owners willing to embrace the emerging temporary-use phenomena can be one of the biggest challenges. Owners fear temporary users may damage their property, scare away more profitable tenants or depreciate the value of their property. Temporary users must use the tools at their disposal, with a well-crafted project pitch to convince owners otherwise. Temporary use may still be prohibited, as the temporary users' rent, monetary or intangible benefits may be too far off the expense and administrative effort required to release the owners' property. Further challenges may arise if the investment required to bring derelict buildings to a useable state is beyond available resources. Safety for volunteers, workers and the public may also be a concern if the property is in an undesirable neighbourhood, especially when working or holding events at night.

Working on Main Street in downtown Cambridge proved to be highly rewarding but was sometimes difficult with the city's homeless and vulnerable populations that congregate downtown and at The Bridges Cambridge Shelter. While the people who took refuge from weather in our covered entrance at 60 Main Street, scavenging materials from our dumpster, or peering through the windows, were very respectful, their presence made some volunteers uncomfortable. Our attitude of patience and tolerance served us well when respectfully declining requests for money and food. The occasional offering of unsold soda and snacks was greatly appreciated.

Our biggest issue arose shortly after we moved into 35/37 Main Street, when renovation work was executed by temporary construction workers hired by our landlord. In the process of cleaning up from our *100 Notebook Exhibition*, it was



Plate 75: The city's homeless and vulnerable populations when treated with dignity and friendly greetings were respectful of temporary-use activities despite making some volunteers and participants uncomfortable. [2015-06-14]

• discovered that our large speakers, borrowed from the School
• of Architecture, had gone missing. When the construction
• crew leader was notified of their disappearance, his swift action
• quickly found the missing speakers in the back of a labourer's
• vehicle. The worker was immediately fired with no charges
• pressed but, unfortunately, some of our equipment was never
• recovered. Locking up valuables is an important lesson when
• unknown individuals have access to your site.

3.2.9 Leasehold Improvements

.....

Basic leasehold improvements can have an impact on the character of a damaged vacant property. Removing damaged finishes, painting walls and covering unsightly parts of a building can quickly transform a space. Temporary-use actors, who are not guaranteed a lease or a long-term commitment, should focus on improvements that require the least effort while having the largest impact.

The ongoing construction at 35/37 Main Street used a phased strategy for work, where renovation efforts were carried out in small, incremental steps that allowed the space to be used for activities and events throughout the process. While large groups of volunteers were often eager to get their hands dirty in a day of construction activity, project managers were essential to coordinating efforts, arranging for all tools to be in place when volunteers arrived and instructing the untrained labourers who needed clearly defined tasks and instructions. A waiver for all participants is required in order to protect project organizers in the event an accident should occur. It is important to ensure volunteers are comfortable with, and trained to use, any equipment. BRIDGE benefited from students having received WHMIS and WSIB training as a part of their education in the School of Architecture fabrication workshop.



Plate 76: Removing ceiling tiles to expose barn board drop ceiling.
[2015-06-06]



Plate 77: Removing ceiling tiles
at the back of the storefront.
[2015-06-06]



Plate 78: Ripping off the plywood wall covering and removing ceiling tiles under the light fixtures.
[2015-06-27]



Plate 79: Carefully removing
boards around the electrical
conduit.
[2015-06-27]

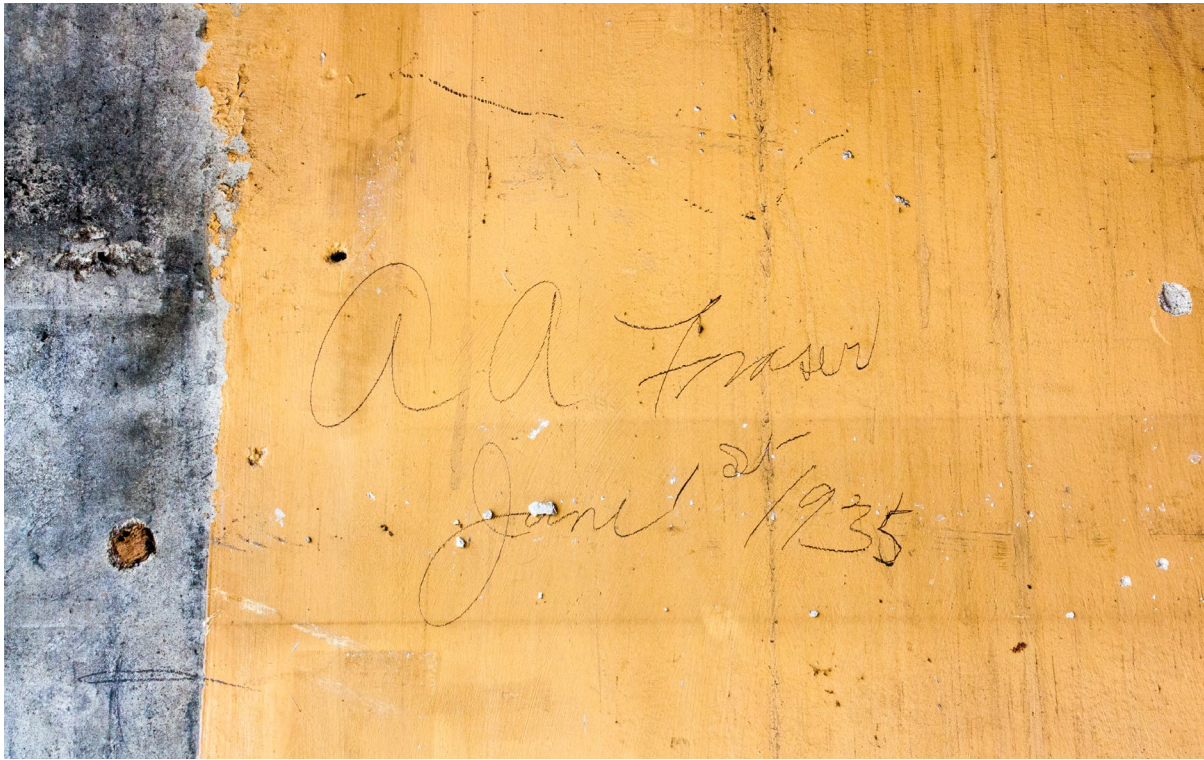


Plate 80: Signature from previous renovations.
[1935-06-25]



Plate 81: Demolishing the lath
and plaster wall covering.
[2015-07-05]



Plate 82: Painting the plaster wall.
[2015-07-15]



Plate 83: Installing strapping to
mount drawings.
[2015-07-15]





3.3 Performance

Prototyping Form

“At a time when the dynamism of images and information dominates everyday life, the traditional association of architecture with permanence and durability has become suspect.”¹

3.3.1 Framework

.....

“Architecture is Building-plus-value.” This equation is not simply the addition of unrelated elements... The identity named by this equation - the “is,” or “equals” - is enabled by the discursive axiology of tectonics. Tectonics expresses a uniquely architectural sense of necessity, binding together commodity, firmness, and delight (or economy, strength and beauty; or affect, effect, and reflection). While architects share a competent interest in structure or aesthetics with other professionals, the intelligence expressed in tectonics cannot be found outside the discipline. ²

Architecture traditionally begins with the survey that gives name to, and defines, space and the value of the land in a system of capital. Architecture, when understood in this context, is a method to add value. The vacant buildings on Main Street in Cambridge already possess an established architectural form of narrow-plan stone buildings originally constructed for the commercial activities at the city’s core. The structural bones of the architectural character still stand not significantly modified from their original form. What has changed are the structure’s program, use and occupation, altered through the addition and subtraction of partition walls, millwork, furnishings, plumbing, electrical wiring, paint and finishes. The architectural grain of the urban form in the downtown core and the care and craft of these historic buildings have allowed them to be repurposed and reused for over a century, while their big-box stepchildren in the surrounding suburban sprawl are erected and demolished as desires change. The central design challenge is thus not of urban form generation but a question of how to manipulate these existing forms by adding value through the facilitation of a new spatial landscape.

Toshihiko Suzuki’s drawing, depicted right, seeks to define “architectural furniture” that has an embedded mobility contradicting the static notion of architectural structure. Architectural furniture, or mobile architecture, is thus defined with the ability to divide space, providing functions that are easily modified. Mobile architecture’s lightness facilitates a transience and practicality that explores a growing range of possibilities in portable and demountable structures.

We need a certain level of infrastructure to engender action



FREE space



FREE ≠ PERMANENT

Need ability to move from space to space



How can we create a multifunctional architecture that can move between spaces to address their temporality?

Figure 74: Architecture for free space

Plate 84: [Previous] Illuminated Perforations

¹ Stan Allen, "Diagrams matter," *ANY: Architecture*, New York, no. 23, 1998, 16

² Wes Jones, "Can Tectonics Grasp Smoothness?," *Log*, Vol. 30, Winter 2014

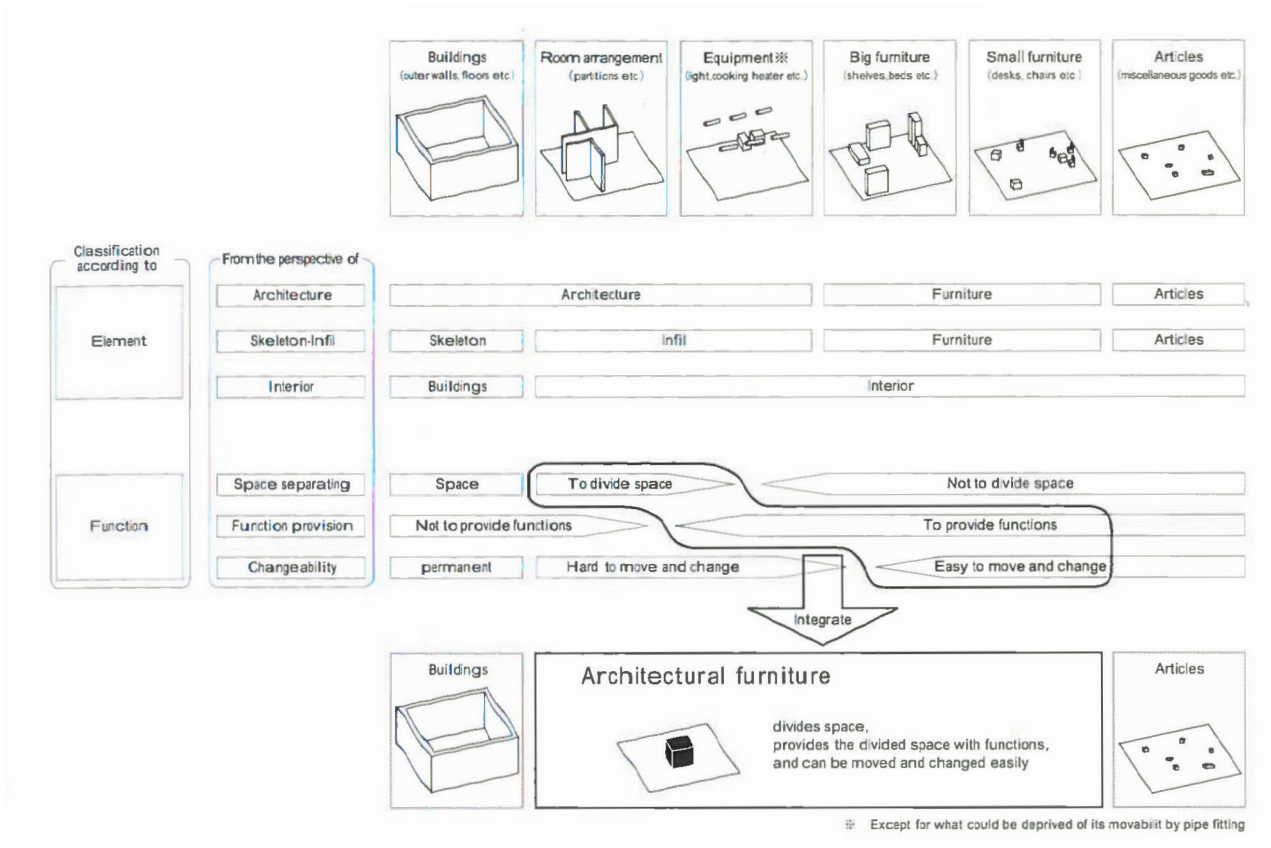


Figure 75: Interpretation of elements, and architectural furniture that define mobile architecture. From Toshihiko Suzuki, Atelier OPA, Mobile Architecture, 27

The requirement of mobility in the context of activating vacant storefronts became a primary driver in the project's design. The proposed prototype can be assembled with relative ease by a couple of unskilled volunteer labourers—light enough to be carried, large enough to partition the space, while being small enough to fit through the building's front door. Breaking the system down into smaller elements also allows for pieces to be built as needed, allowing individual fundraising for each piece, reflecting immediate spatial needs, while being a part of a larger branded identity. The proposed prototype aims to facilitate the activation of empty spaces, bridging from short- to mid-term occupancy, while creating a unique identity with the ability to adapt as users' needs and desires change.

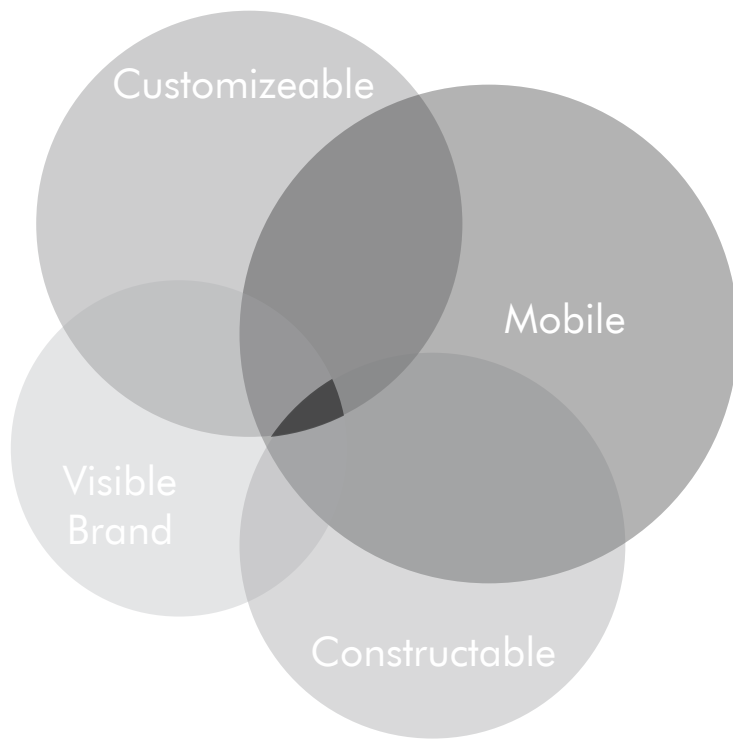


Figure 76: Intersection of Design Objectives
Figure 77: [Right] Design Objectives

Mobility

- Ability to occupy multiple storefronts
 - Transportable between spaces
 - Fit through door
 - Flat pack if possible
 - Break-down joinery
- Divides Space
- Provides Functions
 - Accommodates multiple programs
- Easy to move and change
 - Reconfigurable

Identity

- Gives new identity to found space
 - Impacts public perception
 - Visual impact from street
- Unifies disparate programs, furniture and equipment

Fabrication

- Affordable
 - Funding Strategy
 - Phased Construction
- Constructed with readily available materials
 - Built with accessible tools
- Assembled without skilled labour

Emerging from the overall framework is the catalyst. As the first portion of the structure to be constructed, its multifunctionality enables the activation of the vacant space, while the more specific needs are developed as assets and resources progress. The programs conducted at BRIDGE showed that a basic amount of furniture and equipment is needed to host activities, where the availability of equipment directly impacted the possibilities and outcomes of events. Tables, chairs, couches, projectors and mounting equipment gave function to the vacant spaces, serving as a catalyst for action. Constructed of multiple BOX components, the proposed catalyst is designed to meet these basic requirements, allowing a diverse range of activity to unfold around them. Comprised of multi-purpose storage boxes, they can partition the space, store, display, and exhibit work, while creating an identity for the space. The system constructs a scene for the underlying conditions to self organize as a framework for

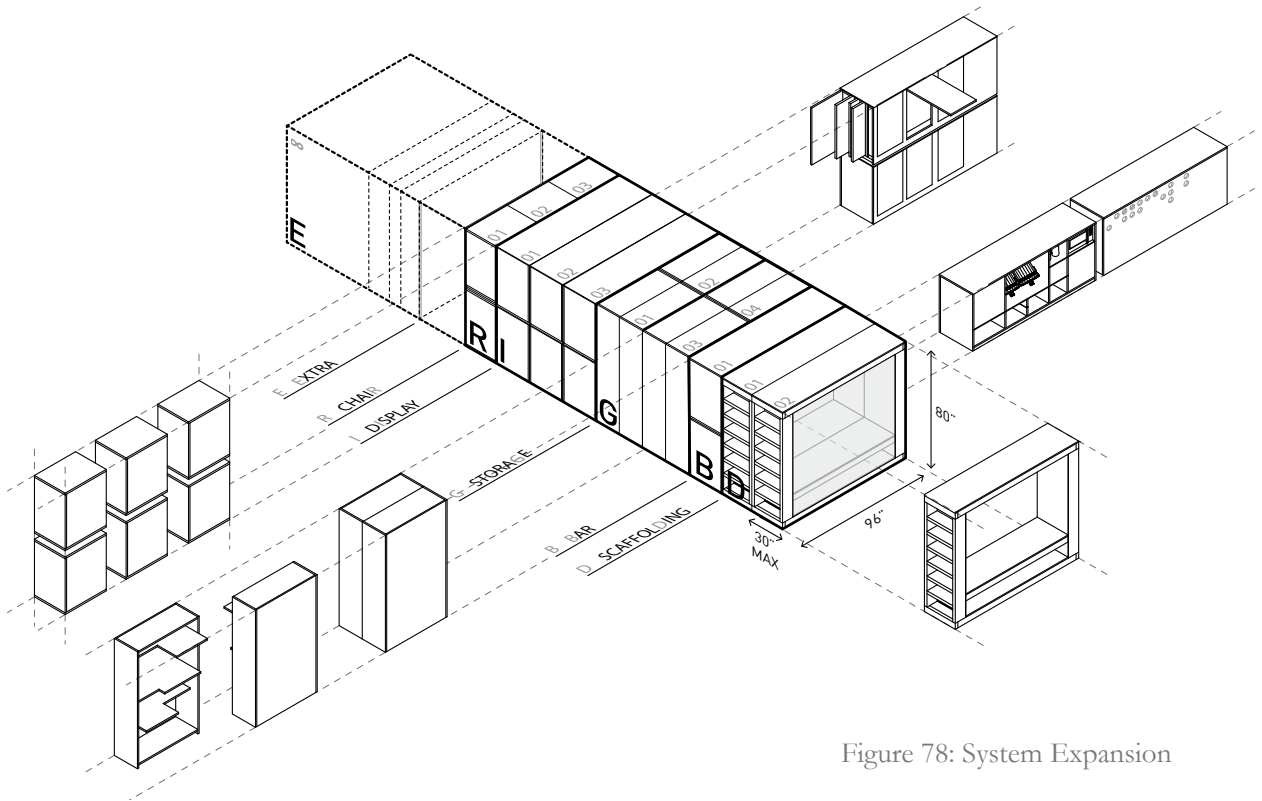


Figure 78: System Expansion

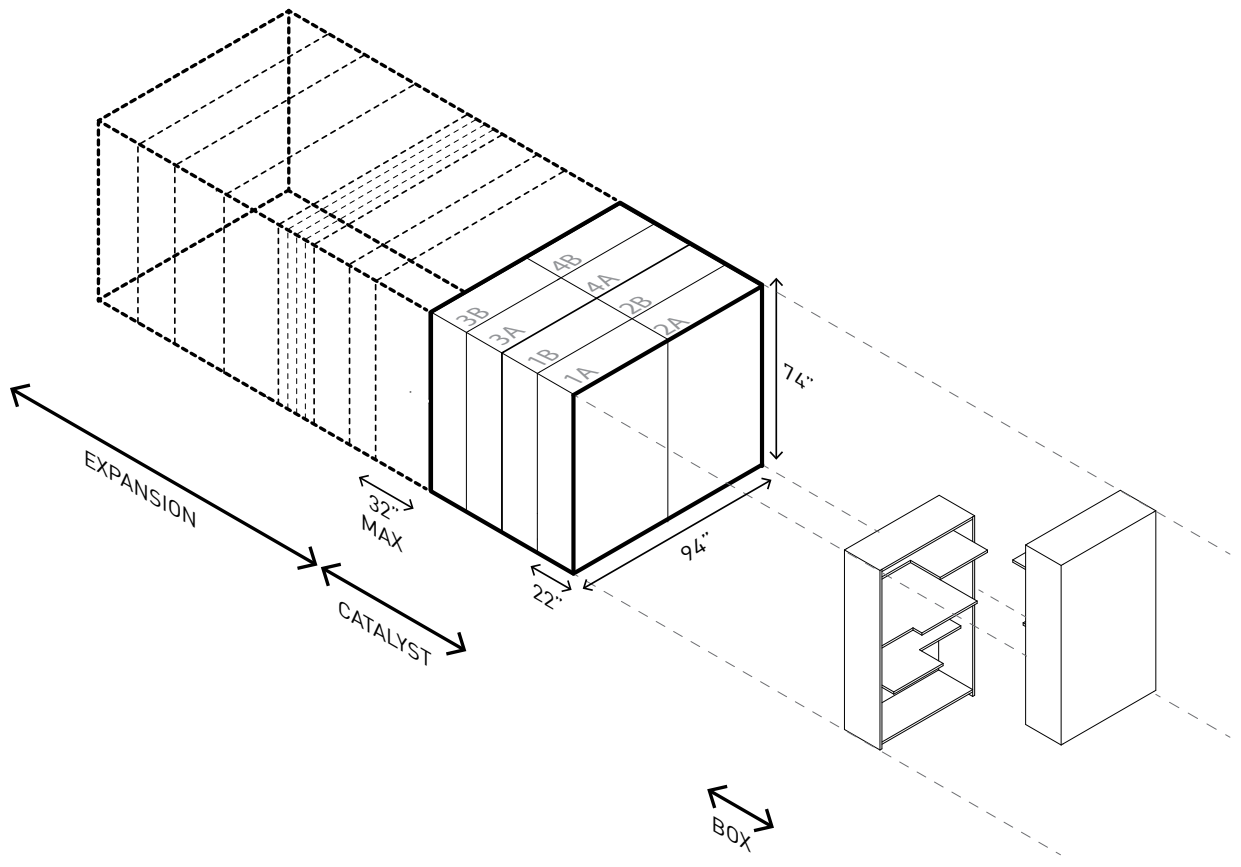


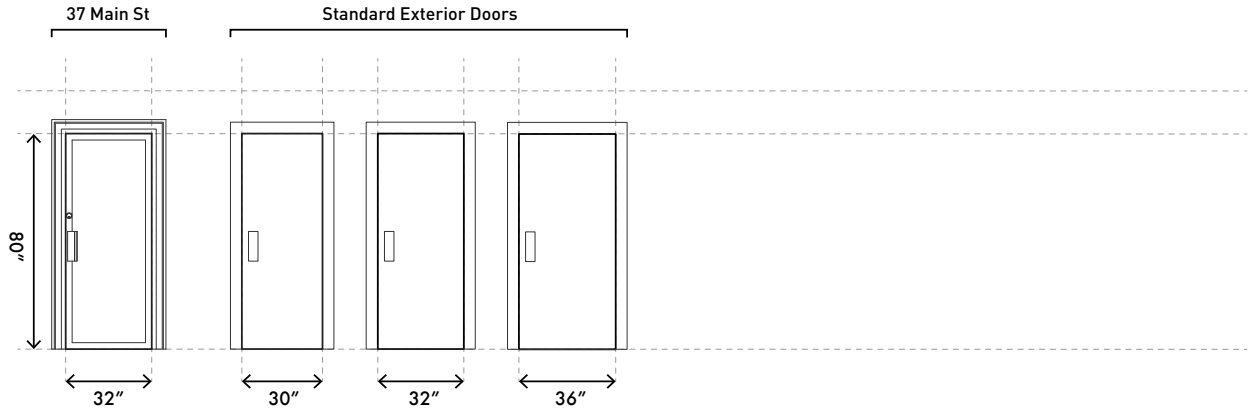
Figure 79: BOX Catalyst + Expansion

activation. The expansion of the system allows for additional elements to be constructed that are designed for specific uses that could include customized displays and equipment storage, a performance stage, DJ or musical equipment or a purpose-built bar and kitchenette. Designed within the overall framework, the disparate, customized expansion elements can aggregate into a consolidated form for storage and united identity.

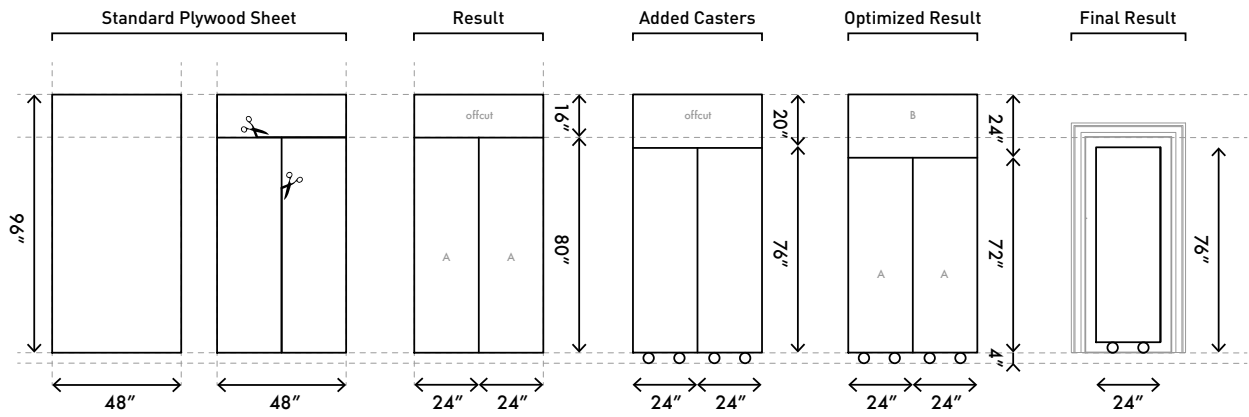
The proposed design seeks to create a blueprint for the fluctuating vacant space in Cambridge using the BRIDGE Centre for Architecture + Design at 35/37 Main Street as a testing ground for a toolkit that can be applied to multiple storefronts as a prototype of agency. Limiting the design to available off-the-shelf materials defined the projects 94" width. As most easily sourceable sheet goods come in 8' (96") lengths, a 94" framework accommodates a two-inch buffer for material processing or eight cuts with a standard 1/4" table saw blade. The building's front door, a standard 32" by 82", further defined the project's dimensions to allow mobile components to easily move inside and outside without disassembly. Material efficiency for the production further reduced the framework's height to 74" to allow for two-foot parts to be cut from vertically oriented 8' sheets. Using these dimensions, the boxes that compose the catalyst are constructed of two entire stock 4'x8' sheets with minimal waste. Additionally, these dimensional rules define a system for which units constructed of different materials and by different people can aggregate into a united system. This master plan for the space allows components to be built over time as available resources and needs change. The dimensional framework affords the disparate elements, each with their evolving identity and functions to aggregate together in a common form that can condense for storage, divide the space and expand as programming dictates.

Figure 80: [Right] Plywood sheet cut sizes

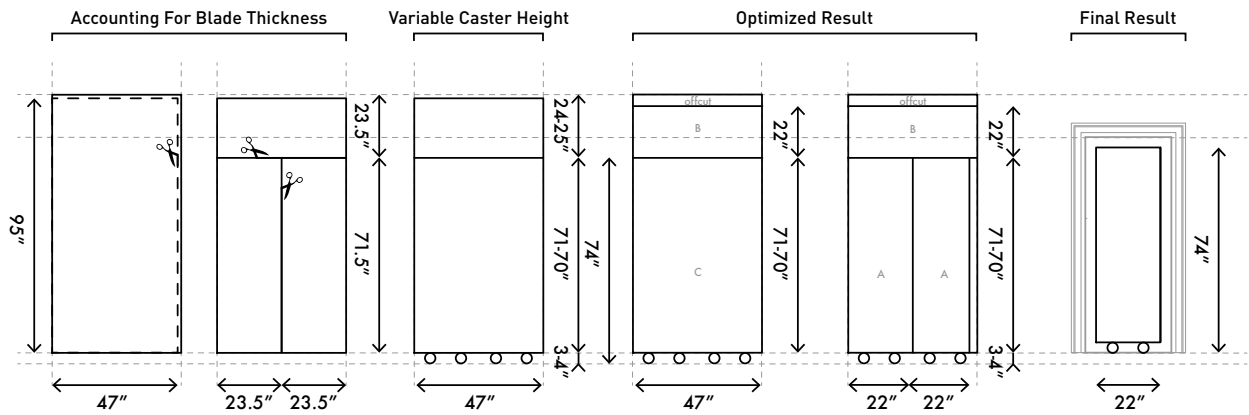
DOORS



CUT SHEETS



KERF FACTOR



3.3.2 Performance

.....

Observations from the temporary activities informed the programming of spatial components to facilitate future events. The temporary-use activities were heavily dependent on borrowed, donated and affordably bought furniture and equipment. This eclectic mix of found objects served the needs of the users but lacked a cohesive identity. The proposed design of multi-functional boxes aims to unify the disparate elements, providing storage for unused objects and an adaptive fastening system that allows for customized pieces to be built to suit individual needs. A pegboard inspired system of perforations allows for the collection and adaptation of found objects to suit users' needs, while affording a unified identity and organizational system to work within.

The BOXs have been specifically designed to accommodate basic functions for exhibition, workshop, presentation and performance as observed in the temporary-use activities. Tables were needed for serving, working and displays, chairs for seating and surfaces for mounting were essential for each event. Accommodating these basic requirements then allows for the space to evolve as needs, desires and available resources develop.

Program Requirements

- Partition and Divide Space
- Flexible Lighting

- Print Displays
- Physical Displays
- Projection Displays

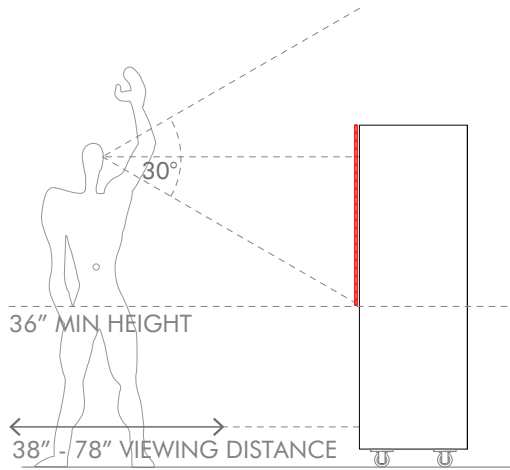
- Reception Desk
- Meeting Tables
- Working Tables
- Serving Tables
- Drink Bar

- Presentation Seating
- Lounge Seating

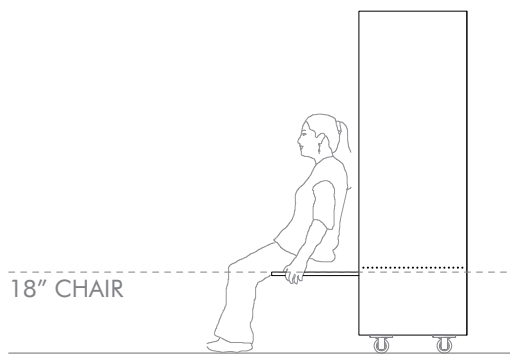
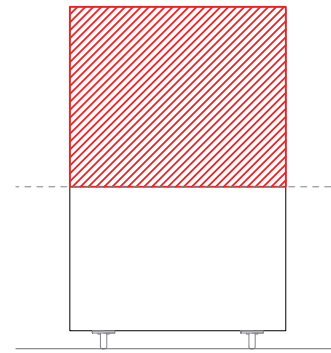
- Coat Storage
- Workshop Tool Storage
- Seating Storage
- Material Storage

- Trash Disposal

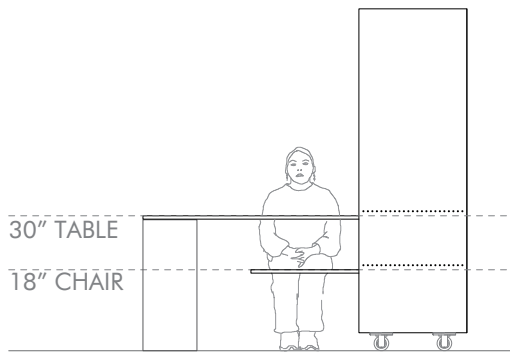
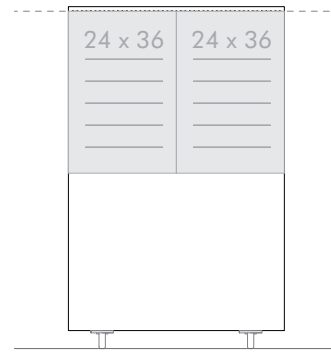
Figure 81: [Right] Program dimension requirements.



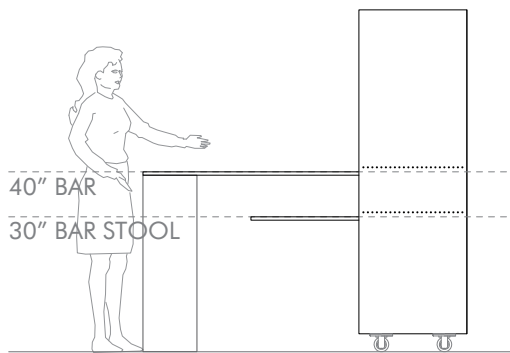
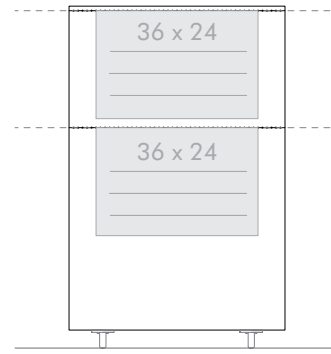
VISUAL DISPLAY



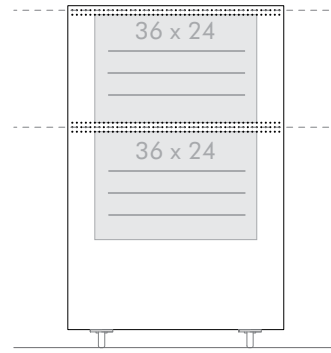
CHAIR



TABLE



BAR



Perforations added for variable mounting height

Partition:

The BOXs first serve to partition the space, an essential function needed to create new programmatic areas within the existing building's shell. Designed with casters that can be fastened to the bottom, each BOX can be wheeled around to quickly change the spatial configurations of vacant buildings. Each BOX rests on supports to hold it in place when stationary and to prevent it from being knocked over. Lifting the BOX from the end raises the supports off the ground, shifting the weight to the casters, allowing them to be moved within a space. The slotted perforations can accommodate hooks to hang coats and personal items. Coat racks proved especially important for winter events and on rainy days, as the unconditioned vacant buildings quickly heat up with a group of people.

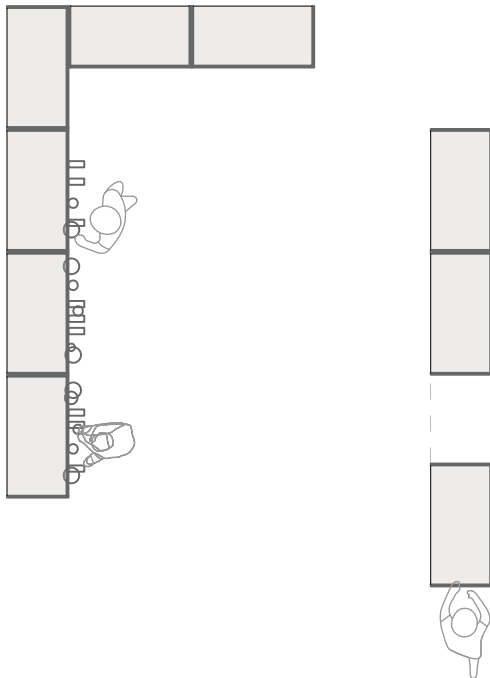


Figure 82: Partition possibilities 1:75

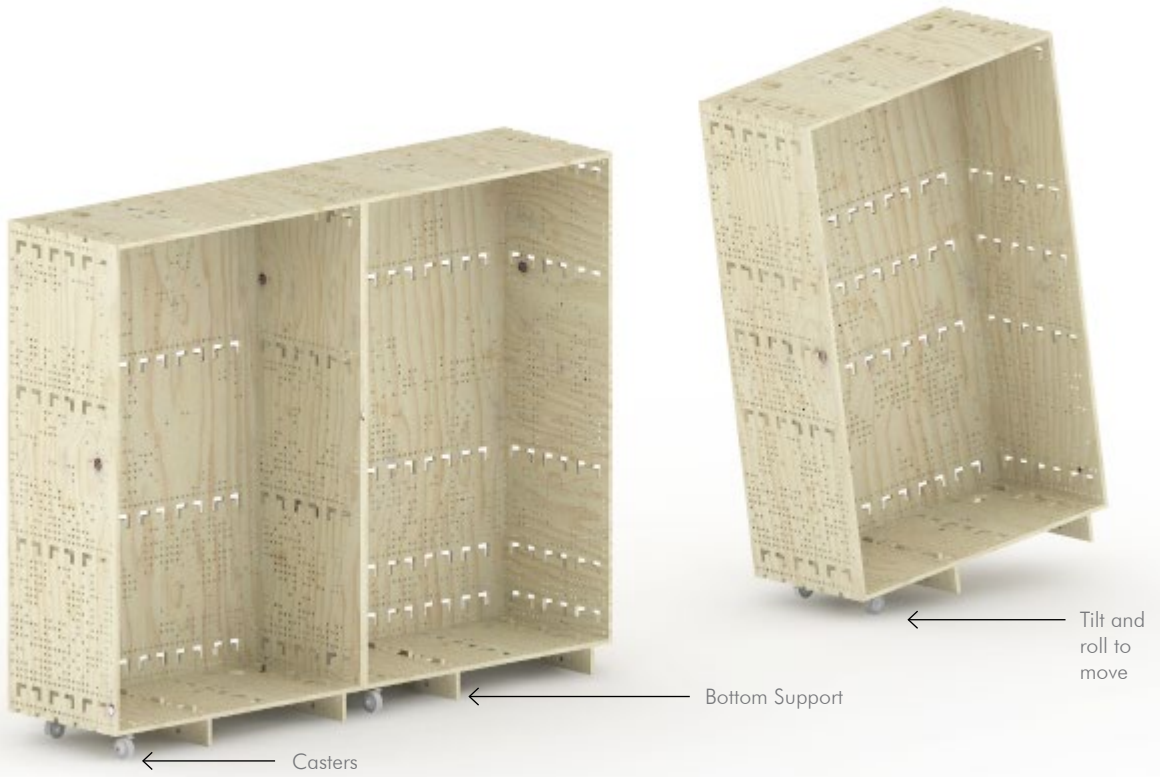


Figure 83: BOX Partitions

Chairs and Tables:

Smaller support boxes, to display objects, for storage and to support tabletops, are designed to fit within the BOX. Tabletops milled on the CNC incorporate notched detailing on the ends to slot into the BOX perforations. Paired with affordable folding chairs purchased from IKEA, basic functions of the space are provided for meetings and working. Designed in two dimensions, the smaller support boxes are built to be 30” and 42” tall to accommodate both sitting and standing tables.

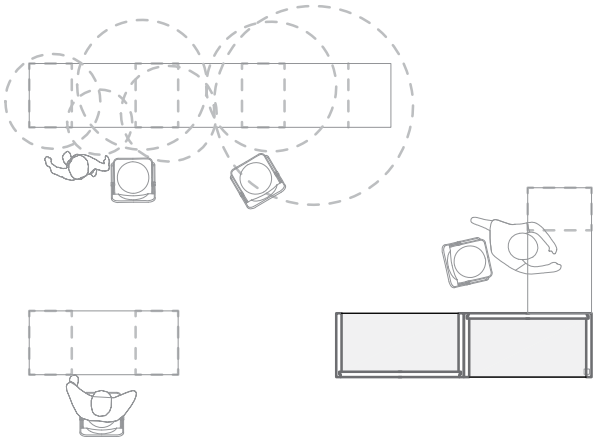


Figure 84: Table configuration possibilities 1:75



Figure 85: Table Top and Storage



Figure 86: Folding chair and support box storage

Projection:

Projection BOXs are fabricated with larger perforations to accommodate the lens of projectors to shine through the box. Standard BOX units can also accommodate projectors, supported on shelves, with the open side facing the direction of the projection. Notched beams or rods running between BOX units can support screens for projection if a wall is unavailable.

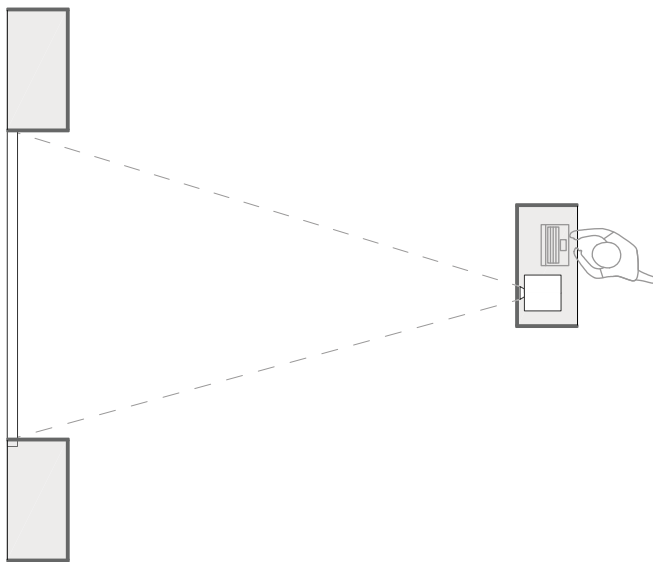


Figure 87: Projection possibilities 1:75



Figure 88: Projection BOX



Figure 89: Standard BOX used for projection

Drawing Display:

Drawings for displays and presentations were needed at all studied exhibition events. As the walls in found spaces come in various states of repair, they can't always be used to mount work, requiring a mounting system to be incorporated into the design of the partition devices to create opportunities for exhibitions and sharing of work. The perforations in the plywood allow nails to peg in and support drawings mounted with magnets. Distributing the perforations across the surface allow users to mount various sizes of drawings in multiple configurations. Displays are best viewed at eye level, no lower than three feet from the ground, but perforations all over the BOX allow users to completely cover the surface, giving it a new identity.

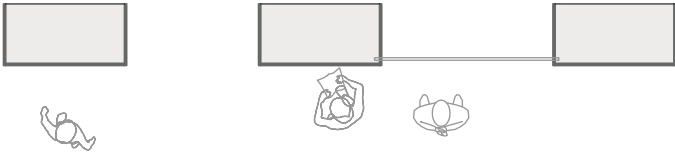


Figure 90: Display possibilities 1:75



Figure 91: Drawing displays

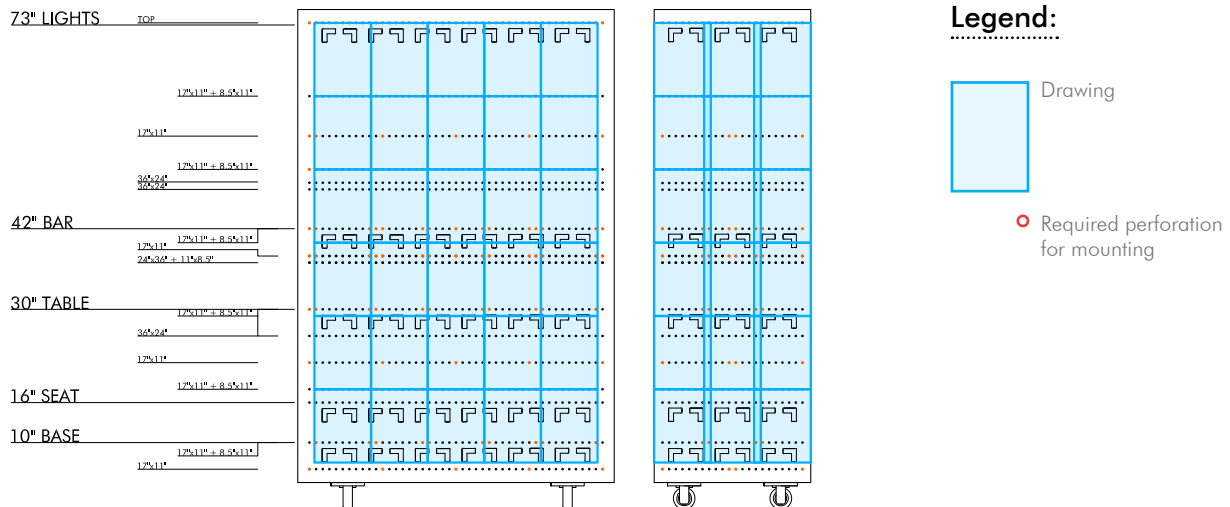


Figure 92: 8.5'' x 11'' Drawing Layout

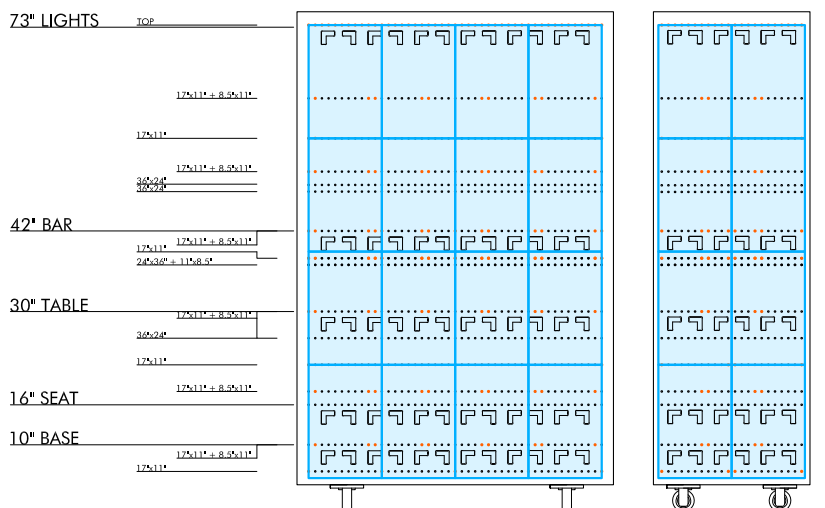


Figure 93: 11'' x 17'' Drawing Layout

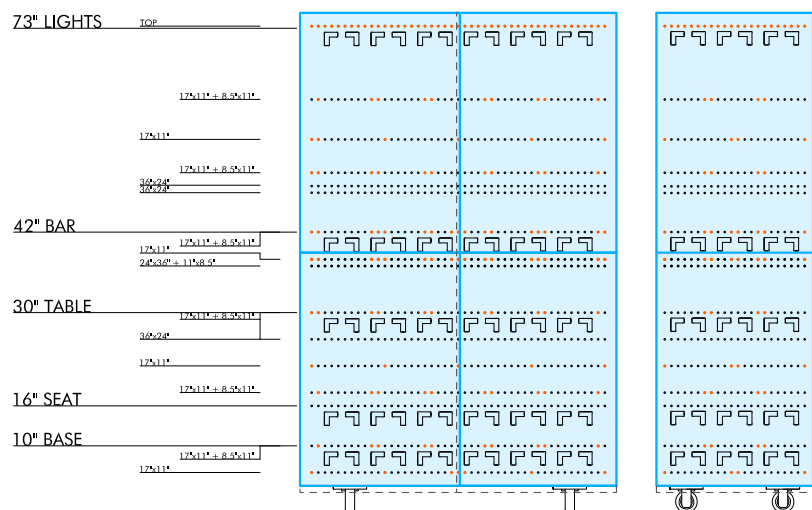


Figure 94: 24'' x 36'' Drawing Layout

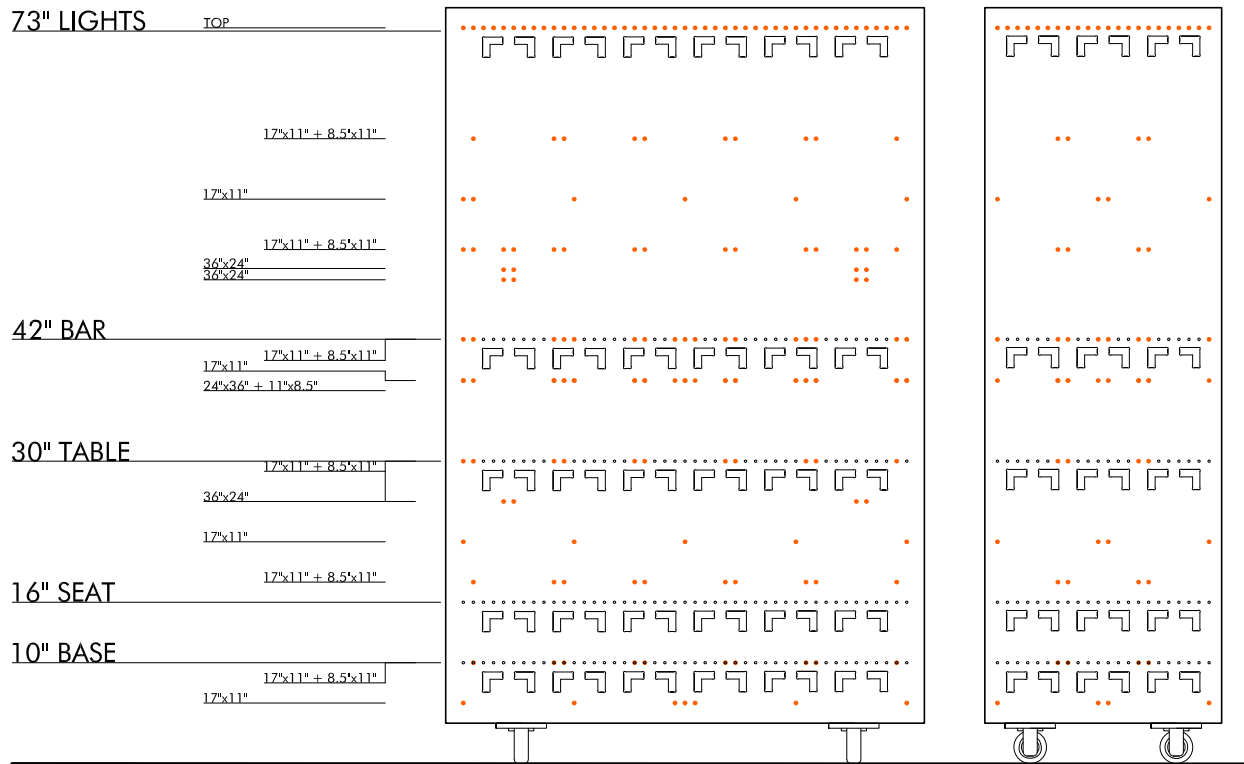


Figure 95: Required perforations for mounting various drawing sizes

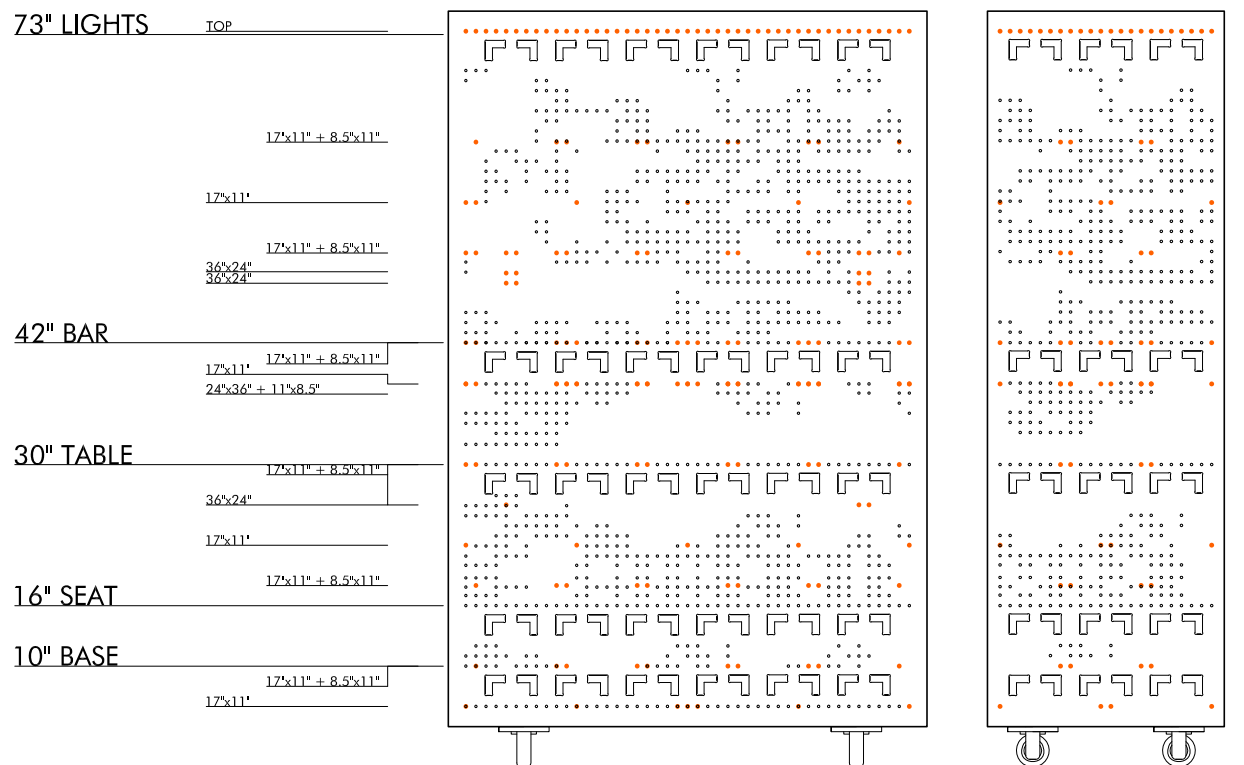


Figure 96: Required perforations overlaid on pattern

Bar:

More than half of the observed events offered refreshments and required a bar to serve them. Coolers filled with ice, that are easily bought or borrowed, were used to serve drinks, and the BOX depth has been designed to accommodate them. As water might not be available at some venues, water jugs can be bought, stored and served using the system. Microwaves and other kitchen appliances can also be stored using the BOX system, with their electrical cables feeding through larger perforations at the top and bottom of the BOX. Housing these items within the BOXs then allows floating bar-height tables to be arranged as serving and spatial needs dictate.

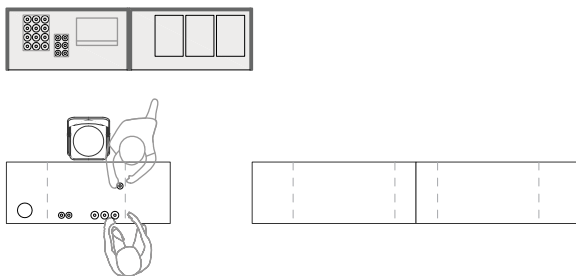
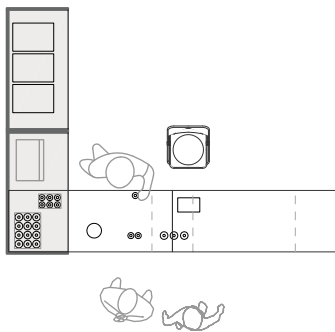


Figure 97: Potential bar layouts 1:75

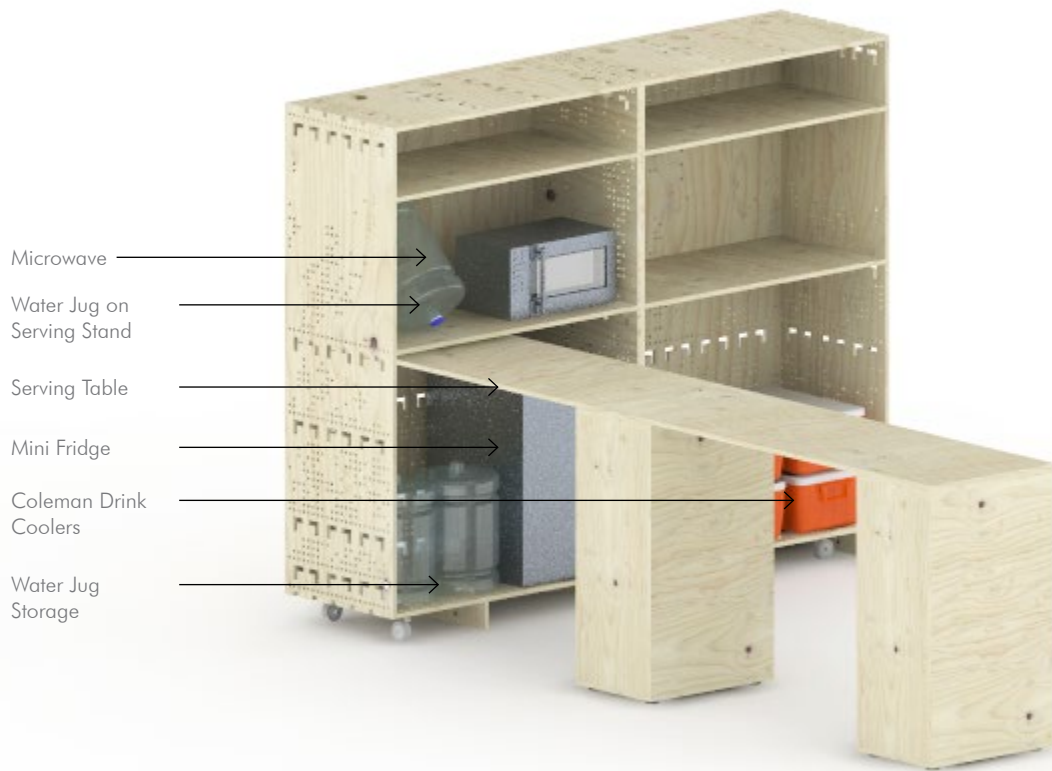


Figure 98: Potential bar configurations

Relax:

Turned on their back and lifted off the ground with supports that notch into the slots, the BOX system can be filled with foam, pillows and mattresses to be used for lounging and relaxing. Three-dimensional forms can be cut out of the foam using the CNC or with traditional tools opening up a wide range of possibilities for the BOX system to be reinterpreted.

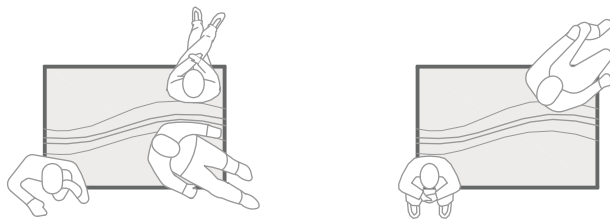


Figure 99: Potential lounge layouts 1:75

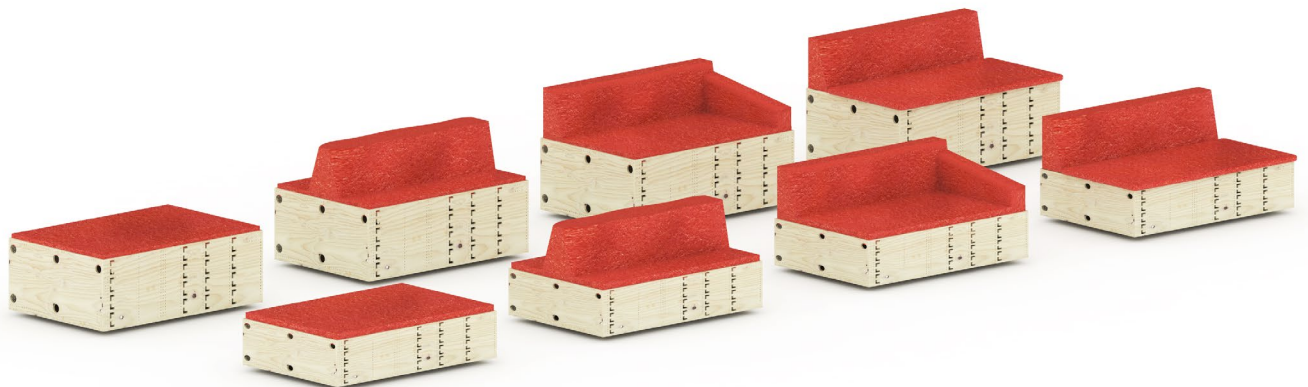
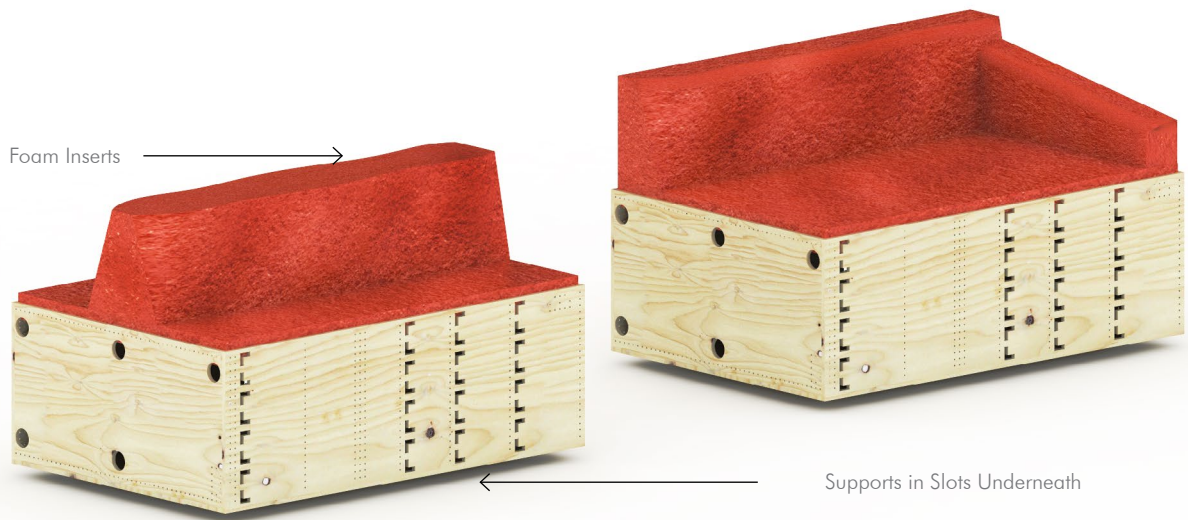


Figure 100: Foam filled BOX in Relax Configuration

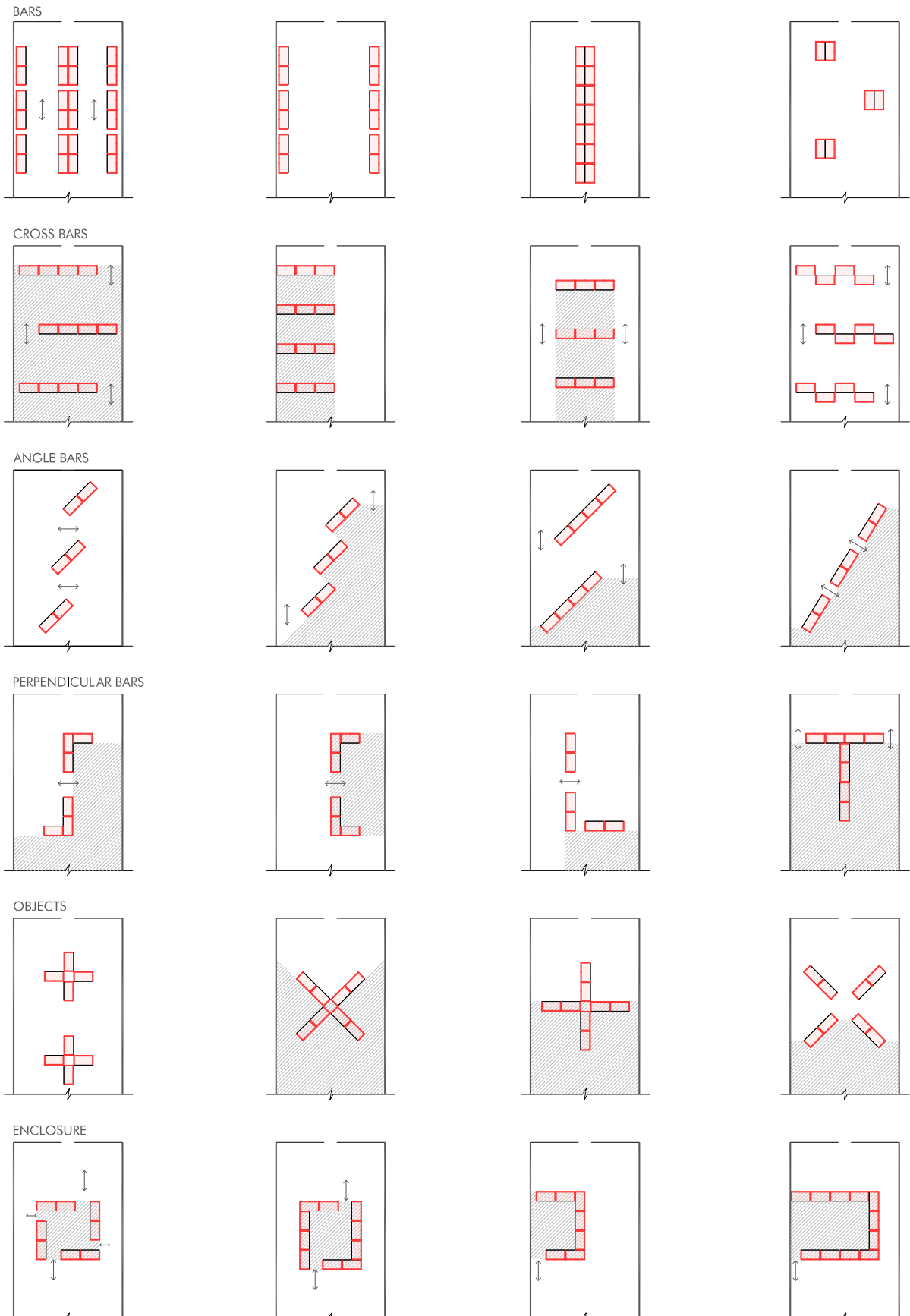
Tactics:

A tactic is a way of operating without a proper place and so depends on time. Tactics rely on seized opportunities, on cleverly chosen moments, and on the rapidity of movements that can change the organization of a space. Tactics are a form of every-day creativity.³

Each BOX, designed to accommodate different functions, when combined with multiple units offer an infinite number of spatial configurations. When paired in groups of two or three, they form eight- and twelve-foot walls, impacting the feel and function of a space. The bar, perpendicular and cross configurations define a spatial language with which users are able to choreograph the space to suit their needs. These spatial operations can create public display walls, open areas, corridors and private enclosures delineating new forms from the building's void.

³ Margaret Crawford, *Every Day Urbanism* (New York: The Moncelli Press, 1999), 4

Figure 101: Spatial tactics in an 800 sq ft space



Spatial Impact:

Each BOX has an effect on the space in a building, and understanding its impact helps to describe its use in a given space. At four-feet wide, two-feet deep and six-feet tall, each box has a zone of influence of roughly 100 square feet. Coupled together, they add up to fill a spatial area of increasing size. As a collective, the BOXs accommodate a variety of building sizes and can aggregate together for storage.



Figure 102: BOX storage in aggregation

100 sq ft

200 sq ft

400 sq ft

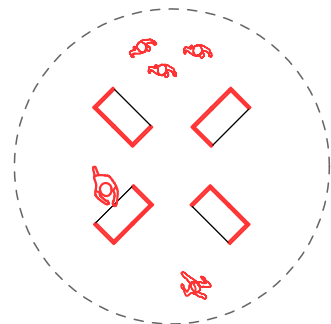
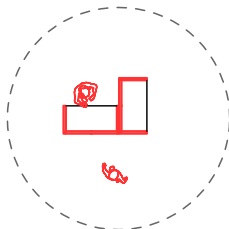
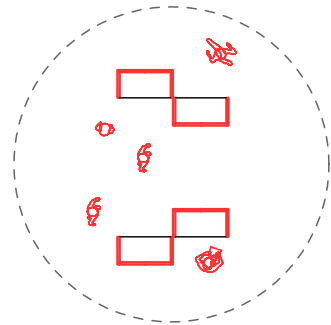
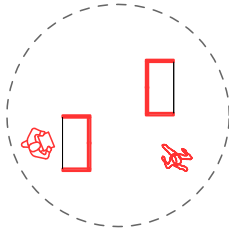
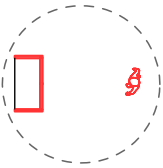
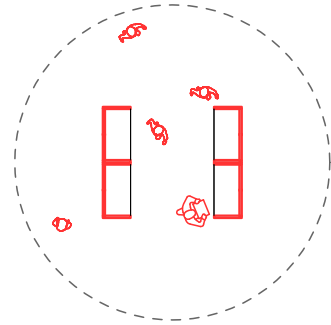
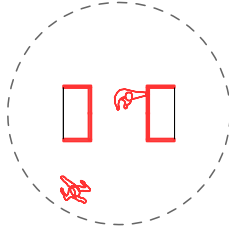
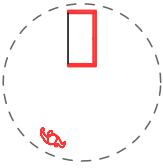
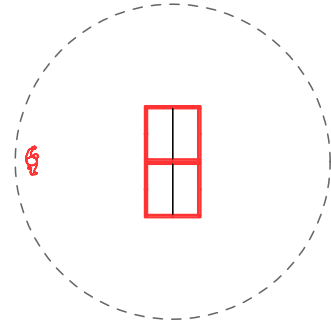
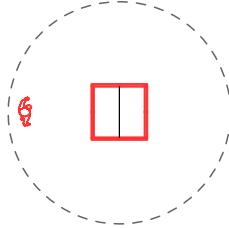
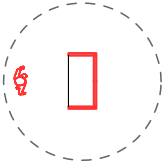
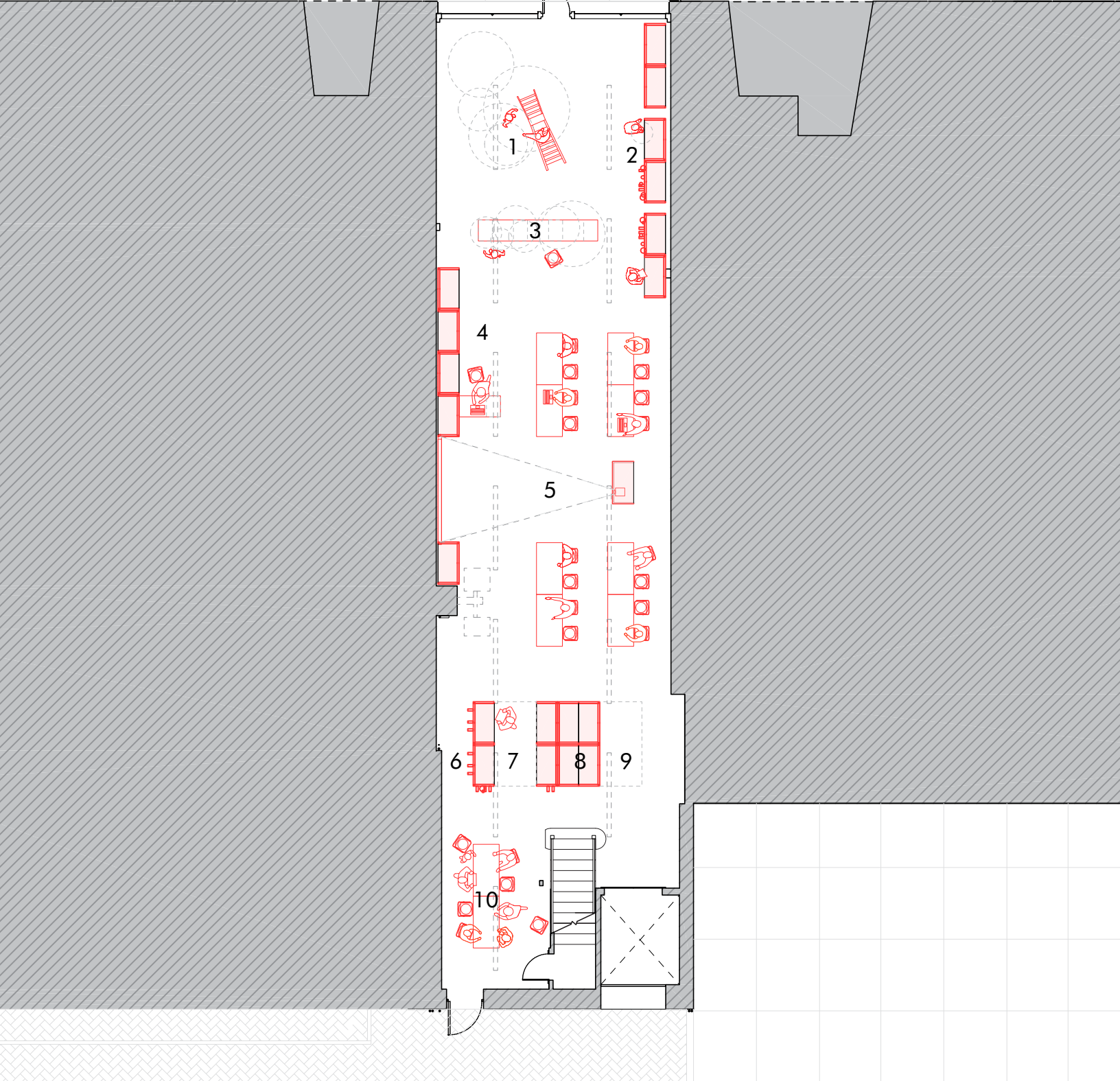
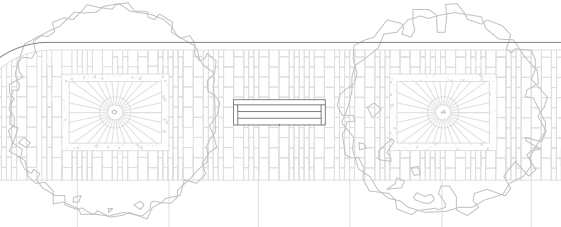
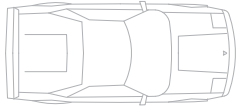


Figure 103: Zone of influence

Legend

- 1 Exhibition Installation
- 2 Tool and Equipment Access
- 3 Workshop Table
- 4 Display and Storage
- 5 Workshop Presentation
- 6 Coat Hangers
- 7 Equipment Storage Access
- 8 Chair and Equipment Storage
- 9 Area to Accommodate System Expansion
- 10 Meeting/Group Work Tables

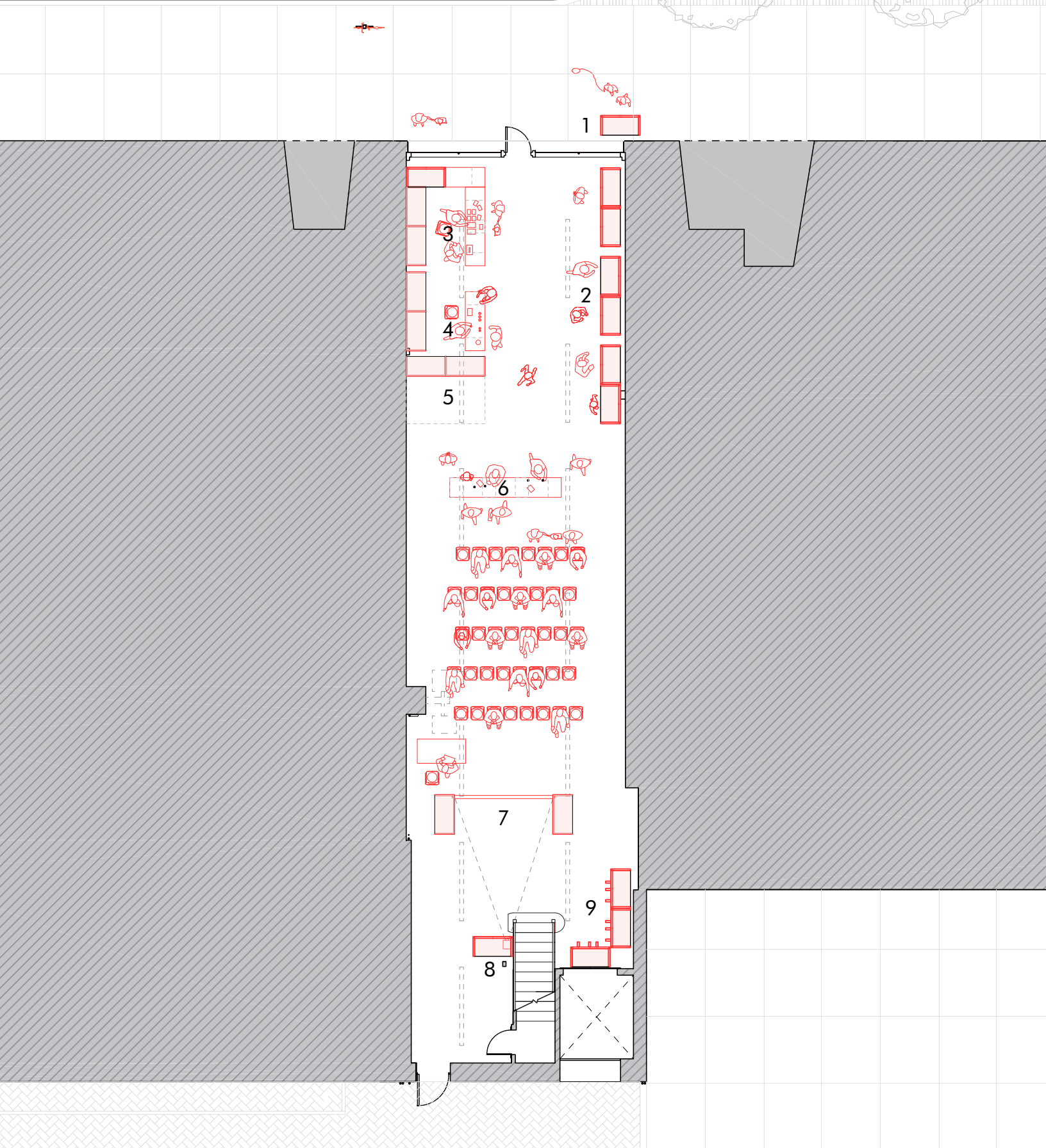
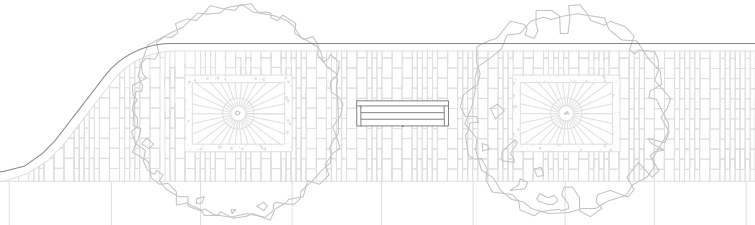
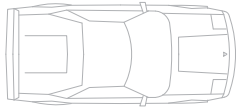
Figure 104: Potential Workshop Floor Plan
Scale: 1:150



Legend

- 1 Sidewalk Display
- 2 Exhibition Display
- 3 Reception Desk and Merchandise Sales
- 4 Bar
- 5 Area to Accommodate System Expansion
- 6 Hors d'oeuvres
- 7 Rear Projection Screen
- 8 Projection BOX
- 9 Coat Hangers

Figure 105: Potential Presentation Floor Plan
Scale: 1:150



Legend

- 1 Projection Display
- 2 Poster Display
- 3 Object Display
- 4 Hors d'oeuvres
- 5 Bar and Reception Desk
- 6 Area to Accommodate System Expansion
- 7 Coat Hangers
- 8 Exhibition Display

Figure 106: Potential Exhibition Floor Plan
Scale: 1:150

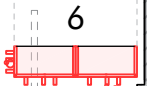
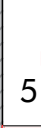
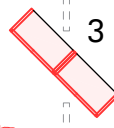
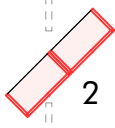
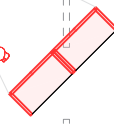
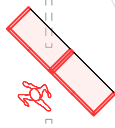
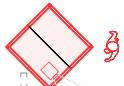
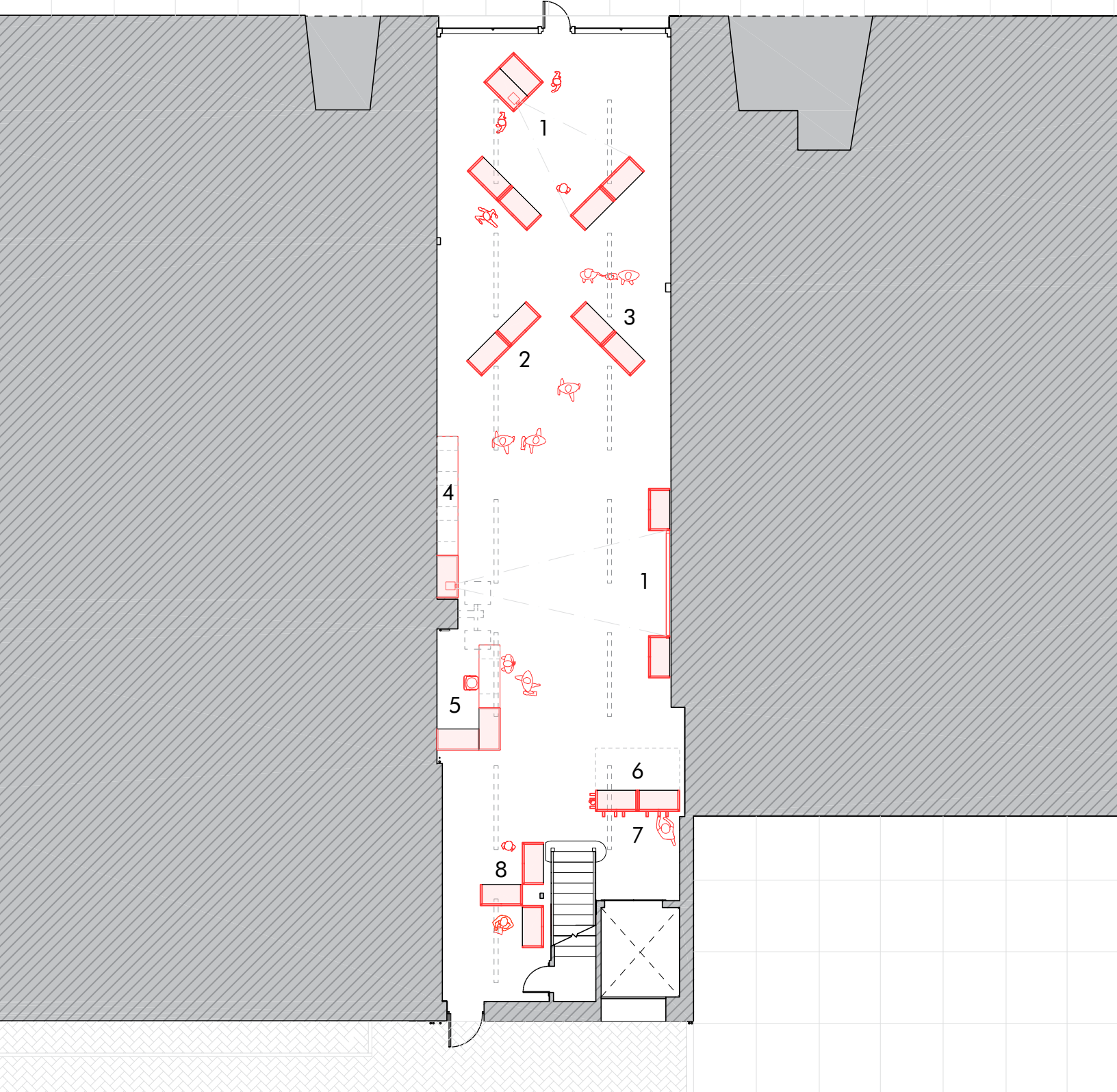
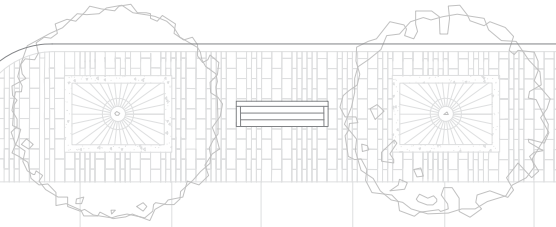
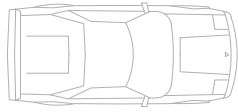




Figure 107: Potential Presentation Configuration



Figure 108: Potential Exhibition Configuration

3.3.3 Fabrication

.....

The fabrication strategy emerged from the desire to construct and test the prototype in the University of Waterloo's Architecture workshop. Plywood was selected for the readily available tools to process it, its structural capacity, dimensional stability and relative affordability for its surface area coverage. Plywood design has seen a tremendous amount of innovation since the first 4'x8' sheets entered North American production in 1928. (How Products are Made: An Illustrated Guide to Product Manufacturing, Volume 4, page 379) Three-quarter-inch Baltic birch plywood with two finished sides was selected as a high-end plywood product. The strength of the multiple plies and the lack of voids in the layers offer a more stable material for half-lap cuts. It can be bought off-the-shelf in standard dimensions in lumber yards across the continent and is easily milled on computer numerical control (CNC) machines, allowing end-to-end component design using accessible computer-aided design (CAD) software. Parts are easily profiled on the three axis machines, which are becoming increasingly common in maker spaces and traditional fabrication workshops.

Open-source making has also grown in popularity recently, where designers offer open-source models that can be constructed by makers for free or nominal fees. OpenDesk offers a model of open-source making, providing the designs of products from designers that can be downloaded and constructed by hobbyists. They also offer the option to have the products built for you, ordered from a local fabricator within their global network of CNC equipped makers. Models, like OpenDesk's open making, offers significant economic, social and environmental benefits. Local, decentralised making re-establishes manufacturing back into the heart and culture of local communities, feeding the growing maker economy.

Fabricating the prototype with standard methods on the CNC and using common off-the-shelf hardware offers a fabrication strategy that could be constructed and replicated in other cities like Cambridge that face similar issues of urban vacancy. The open-source design of the furniture offers users to adapt and build their own designs, appealing to the maker culture, which has this ethos embedded in it.



Figure 109: From left - 3/4" Asian plywood, 3/4" Baltic birch plywood, 1/4" construction-grade plywood



Figure 110: Plywood delivery



Desk
by: Joni Steiner & Nick Ierodiaconou



Standing Desk
by: Joni Steiner & Nick Ierodiaconou



Olivia Desk
by: Joni Steiner



Slim Desk
by: Joni Steiner & Nick Ierodiaconou



Breakout Table
by: Joni Steiner & Josh Worley



Meeting
by: David & Joni Steiner



Figure 111: Open Desks' network of CNC-equipped fabricators produce open-source products from their growing collaboration with international designers.

3.3.4 Customization through Perforation

.....

Architecture needs mechanisms that allow it to become connected to culture. It achieves this by continually capturing the forces that shape society as material to work with. Architecture's materiality is therefore a composite one, made up of visible forces (structural, functional, physical) as well as invisible forces (cultural, political temporal). Architecture progresses through new concepts that connect with these forces, manifesting itself in new aesthetic compositions and affects. Ornament is the by-product of this process, through which architectural material is organized to transmit unique affects.⁷

Participants in the studied BRIDGE events often brought their own equipment to the space to facilitate their activities. This raises the question, how do you give identity to mobile architecture, furniture and ready-made elements in a found space? The BOX perforations are designed to facilitate some of these objects, where the pattern of perforations defines a unifying brand. The perforations are inspired by, and designed to, accommodate pegboard accessories that can be bought off-the-shelf. The standardization of 1/4" perforations on a 1" grid that comprise traditional pegboard allow for users to bring a variety of accessories to suit their needs. The BOX is designed to accommodate the collection and manipulation of found objects, to facilitate their use and to ground the eclectic combination of elements, defining space and a collective identity.

As the vacant form in the urban fabric creates an opportunity, the absence of material creates possibilities at a shifted scale. The voids in the panels sit still, hollow, empty—activated by the movement of the viewer, the passing of light and movement perceived through the threshold of milled holes. The apertures await activation—the tension between nut and bolt, the slotting of wood and the friction of the plies. The perforated structure implies use, activated through movement and response, imagination and reinterpretation.

The size of the perforations define different functions. The 1/4" perforations accommodate traditional pegboard functions, 3" diameter holes allow for electrical conduit and large objects to pass through, and the "L" slots afford larger objects to be

iden-ti-ty noun

1. "Identity must be continuously assumed and immediately called into question."⁴
2. "Every citizen has had long associations with some part of his city, and his image is soaked in memories and meanings."⁵
3. "To cause a public memory of a place that will again metamorphose and acquire still new and different meanings in the continually transforming urban landscape."⁶

⁴ Rem Koolhaas, *SMLXL*, 76

⁵ Kevin Lynch, *The Image of the City*, 1

⁶ Hieke, Pars and Iris Schutzen, *Interfering: A Publication About Contextual Interventions in Public Space*, 10

⁷ Farshid Moussavi and Michael Kubo, eds., *The Function of Ornament* (Barcelona: Cambridge, Mass.: Actar; Harvard University, Graduate School of Design, 2006), 3



Plate 85: Sliding a shelf into place on the illuminated BOX.

custom designed and milled on the CNC. The location of the perforations create zones of use and define a pattern for implied action that predicts future use, while allowing users to bring their own ideas and inventions to transform the space.

The patterning of the pegboard allows the perforations to form an image, adding character and identity to each BOX. Created using a script to derive the pattern from an image, the BOXs could be constructed for different organizations in different cities using imagery to reflect their brand and identity. For the storefront on Main Street, the pattern was derived from the movement of the Grand River under the city's bridges. Capturing the rhythm from the flow of the water, the image creates a pattern abstract enough to add character to the BOX, while being able to fade to the background when the focus shifts to participants' use of the space and added functions.

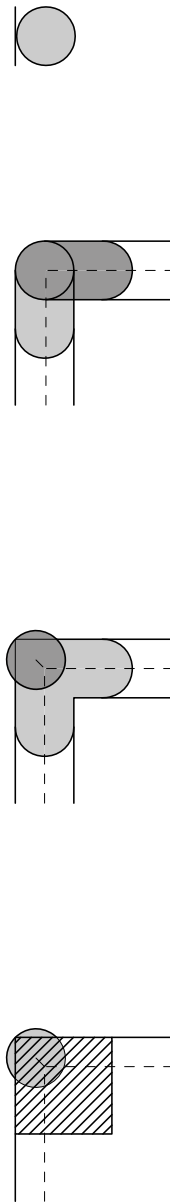


Figure 112: To accommodate the rounding of inside corners cut on the CNC, a perforation is added to the corners, to remove the excess material, creating flush points of contact in the “L” slots.



Figure 113: Aesop East Hampton, New York, by NADAAA



Figure 114: Kitchen pegs
Photograph by Amanda Prior
for Inside Out magazine



Figure 115: Kerf Board by Kerf Design, Seattle



Figure 116: Parkhill Bridge Facing North

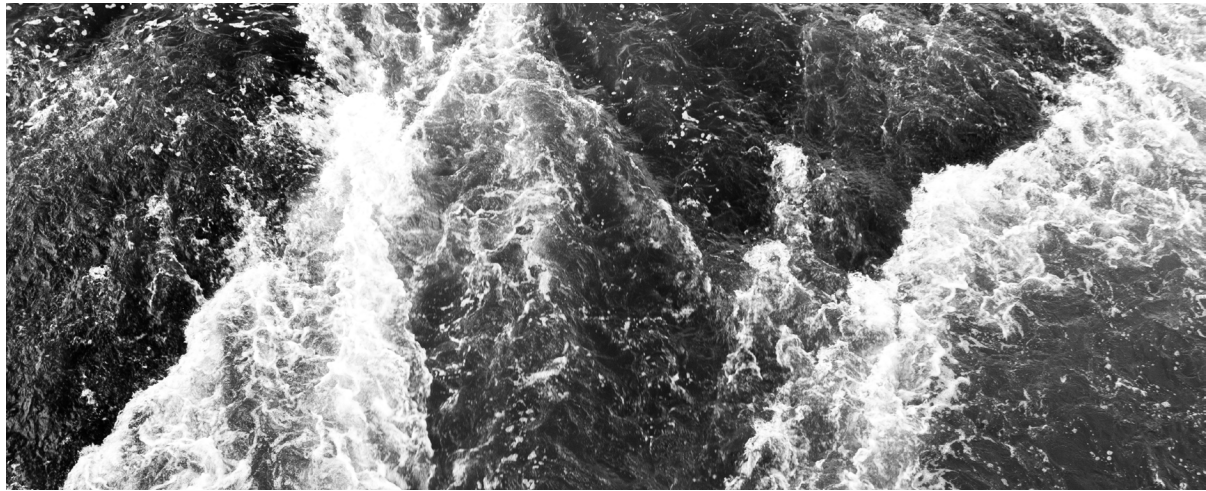


Figure 117: Water movement under Parkhill Bridge

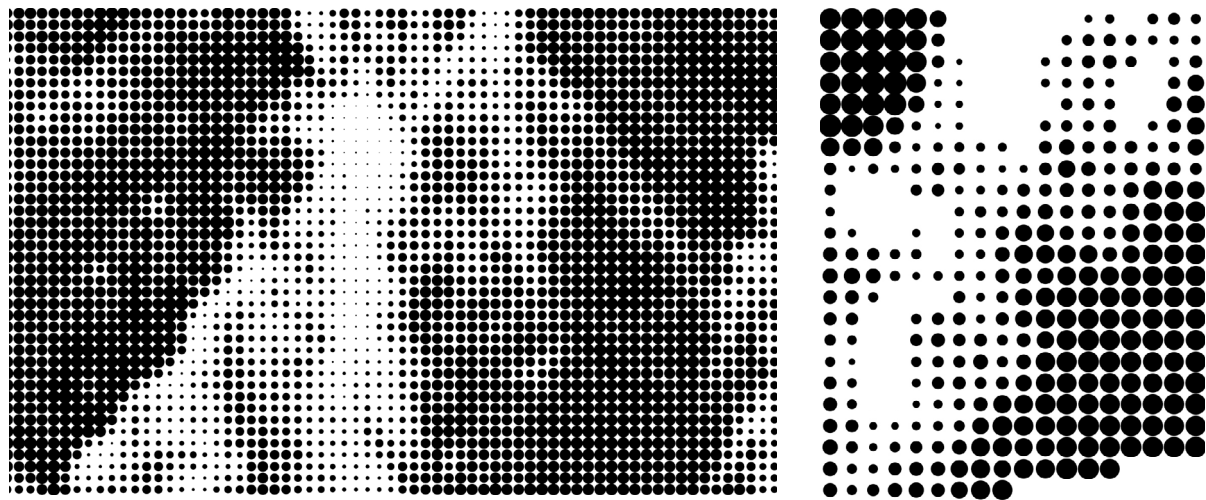


Figure 118: Water movement halftone reographic



Figure 119: Main Street Bridge Facing North



Figure 120: Water movement under Main Street Bridge

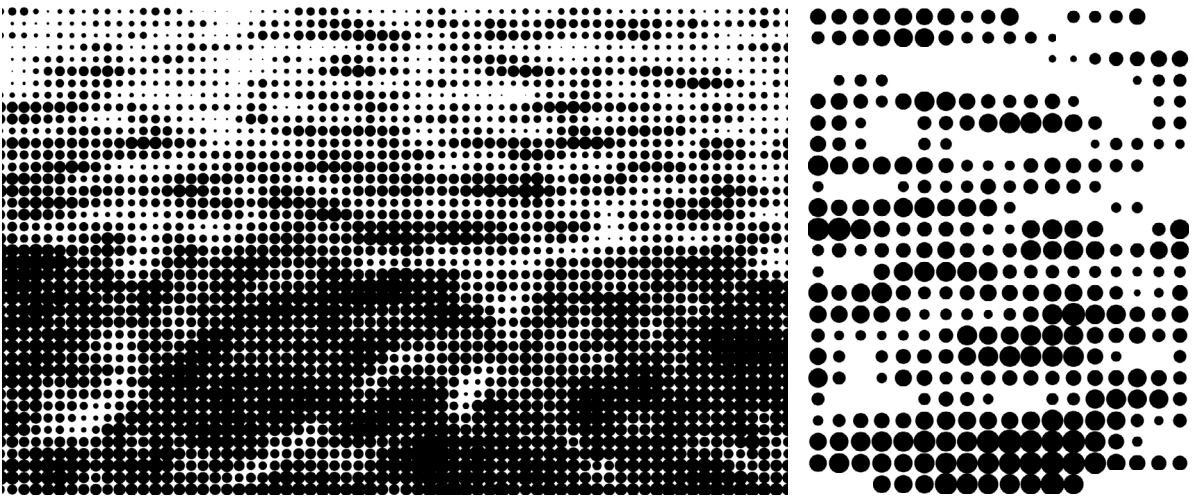
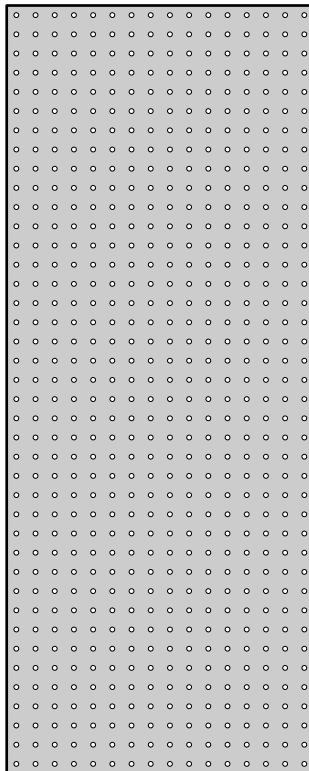
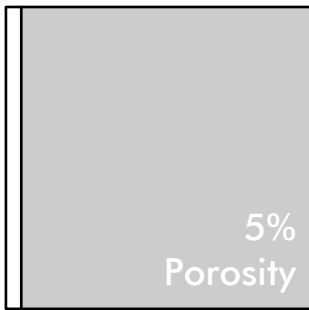


Figure 121: Water movement halftone regraphic

[S] Small

Holes: 1/4" Ø
Spacing: 1" O.C.

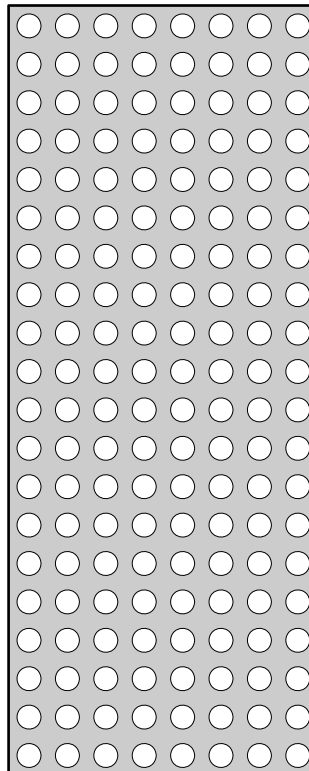
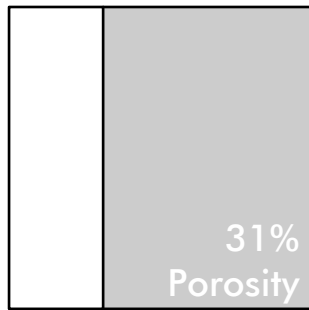
Use:
Standard Pegboard
Accessories



[M] Medium

Holes: 1 1/4" Ø
Spacing: 3" O.C.

Use:
Supports rods
Power Cord Fits Through



[L] Large

Holes: 3" Ø
Spacing: 4" O.C.

Use:
Passthrough of large
objects (power bars, wine
bottles)

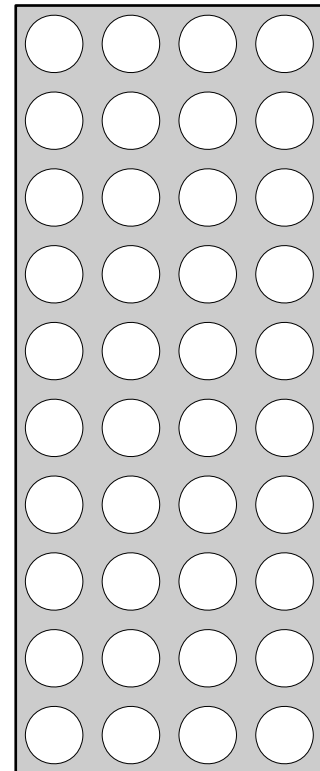
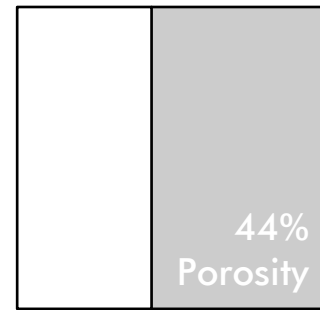


Figure 122: Perforation functions

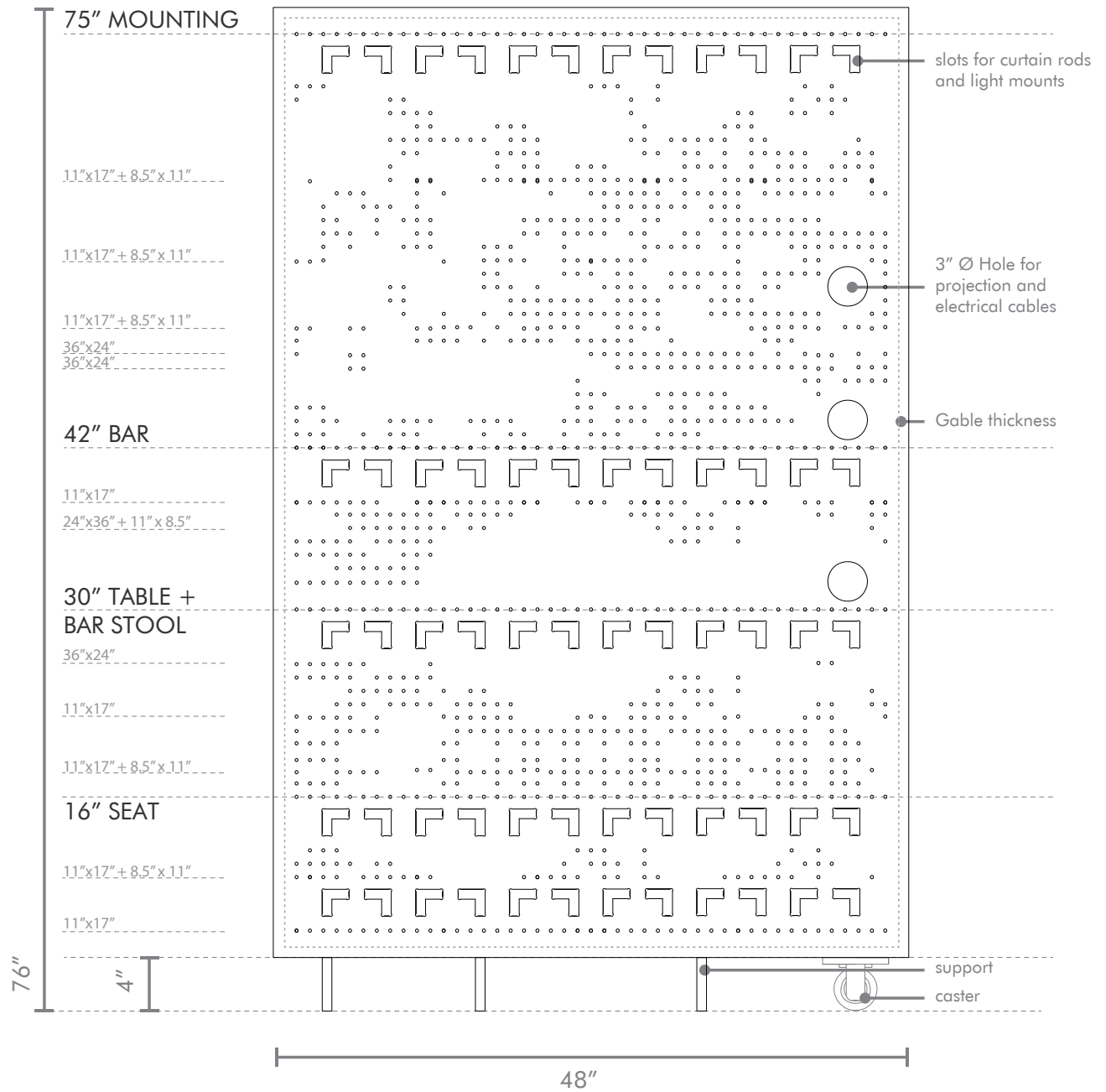


Figure 123: BOX functions

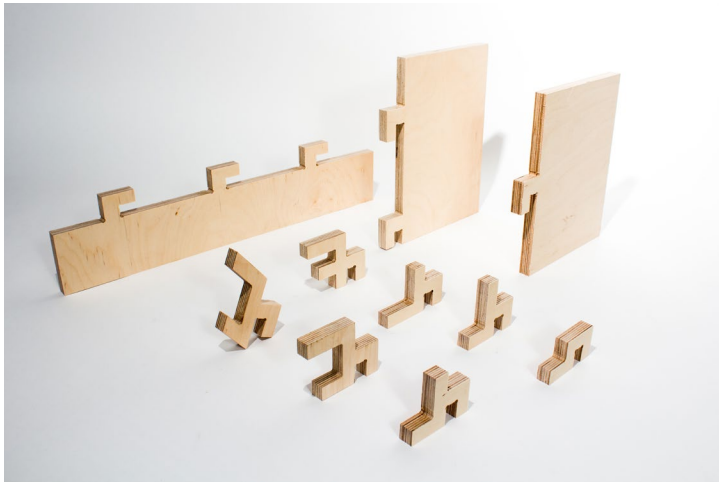


Plate 86: The slot system allows for a variety of custom-made parts to hook onto the BOX.

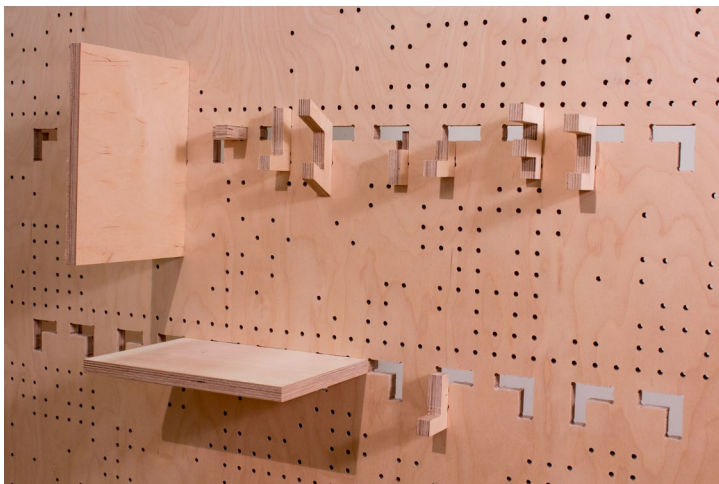


Plate 87: Parts can hook into the slots in multiple orientations to accommodate an array of uses.

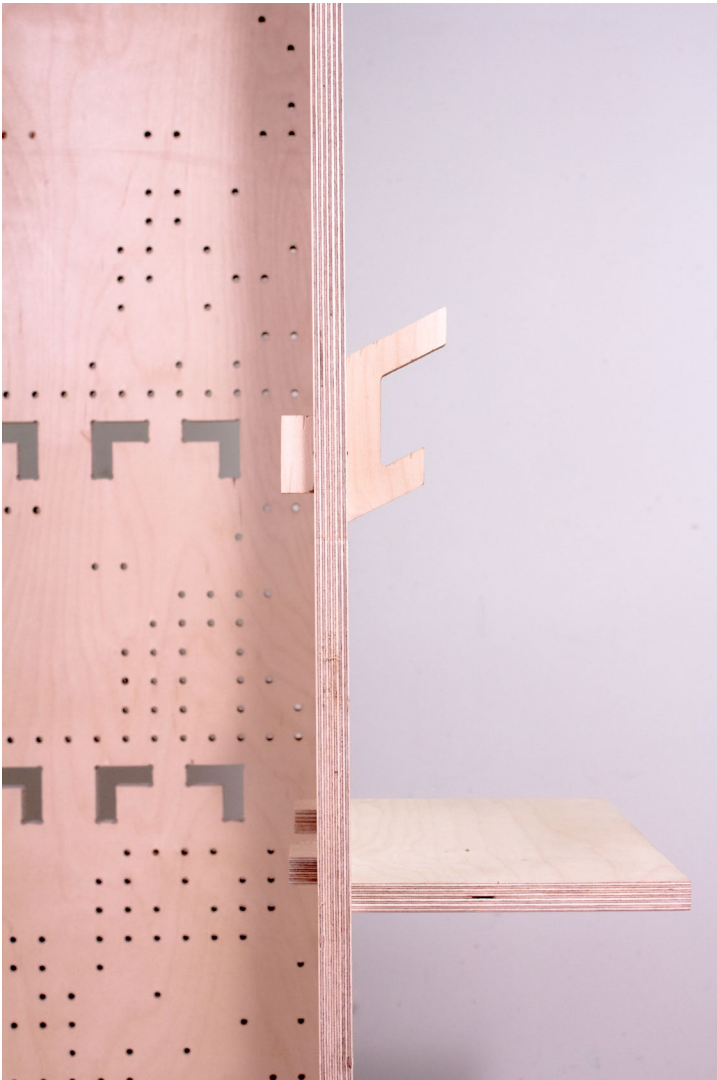


Plate 88: Accessories are held in place through friction in the slotted system.



Plate 89: The perforations have been designed to work with various off-the-shelf accessories.



Plate 90: Drawings mounted with magnets and nails that rest in the perforations.



Plate 91: Eye bolts through the perforations can support rods and hangers.



Plate 92: Bungee cords to hold objects in place.



Plate 93: Clamp lights can attach to top-mounted hooks with their cables snaking through the perforations in the BOX.

3.3.5 Assembly

.....

As a moveable structure that can be mounted and disassembled easily for storage and transportation, incorporating knock-down joinery was an integral part of the design. Knock-down joints, while potentially complicated to manufacture, are designed to be assembled easily by novice users normally using only screw drivers, Allen keys, mallets or other basic tools. They commonly consist of cam-locks or cross dowels, installed in adjacent parts, that are brought together and secured by turning the fastener. This method of joinery is frequently used in flat-pack furniture that packages the pre-cut components with the necessary hardware popularized in mass-production business models like Ikea. For hobbyists and makers, these fasteners can be purchased at hardware stores. A range of fasteners were experimented with in multiple joint tests, including commonly accessible cable ties and nuts and bolts. In an attempt to produce a glue-free, fastener-free system that would not require tools to assemble, a custom-designed, friction-fit joint was developed for the prototype. The aim was to produce a method of assembly where parts cut on the CNC could be easily assembled by a couple of unskilled volunteers. The outer frame was designed to use these joints, while the back panel uses a rabbeted construction that slides through a recess in the assembly, commonly used in case construction.

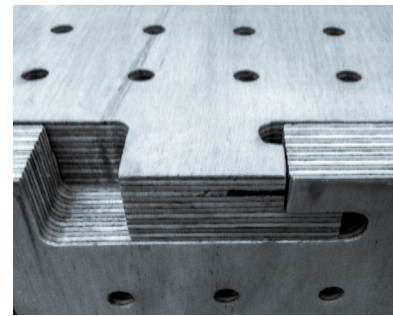


Plate 94: Interlocking friction fit-joint

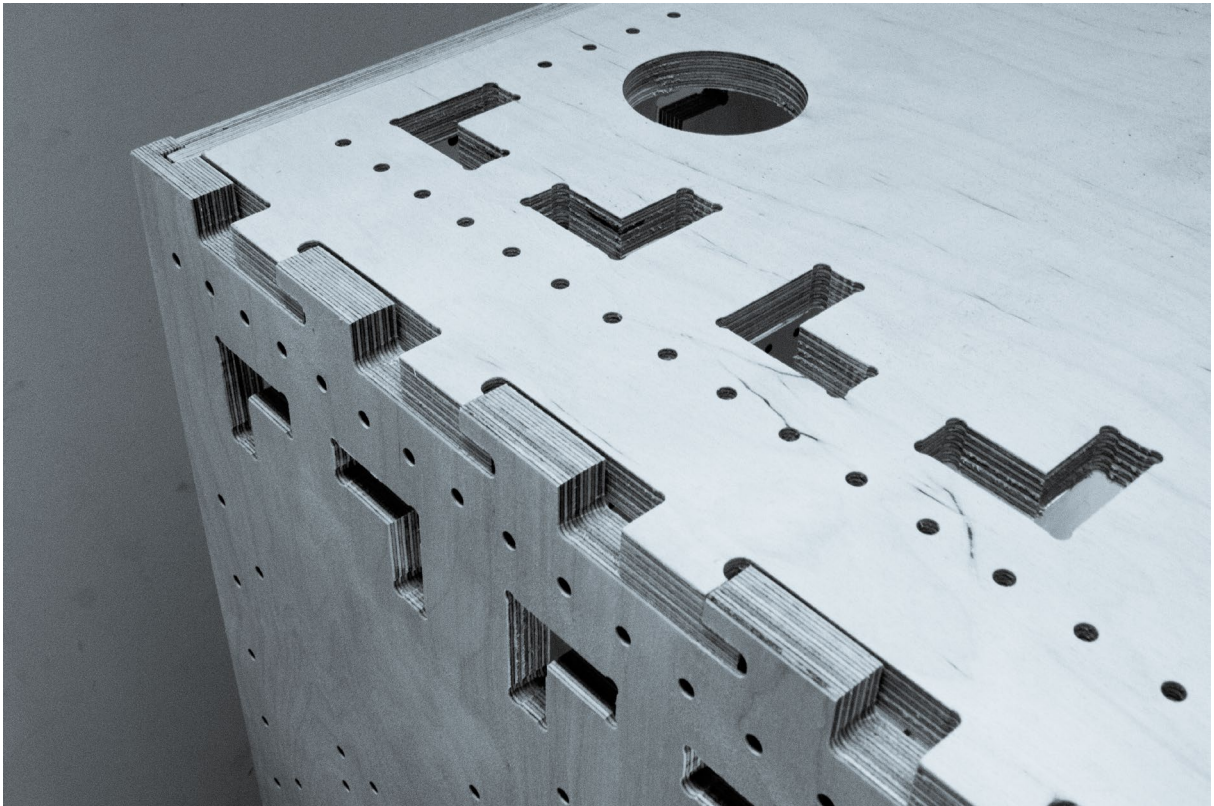


Plate 95: Top corner detail

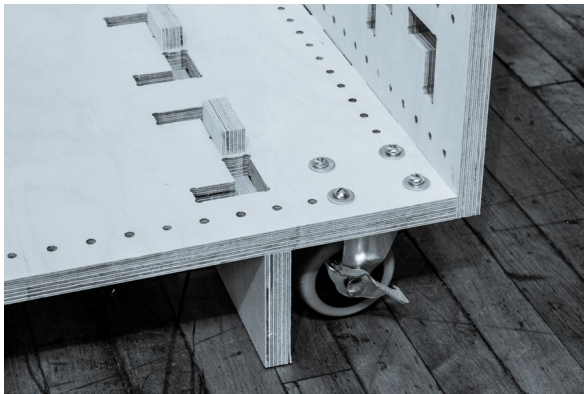


Plate 97: Caster fastened through the 1/4" perforations

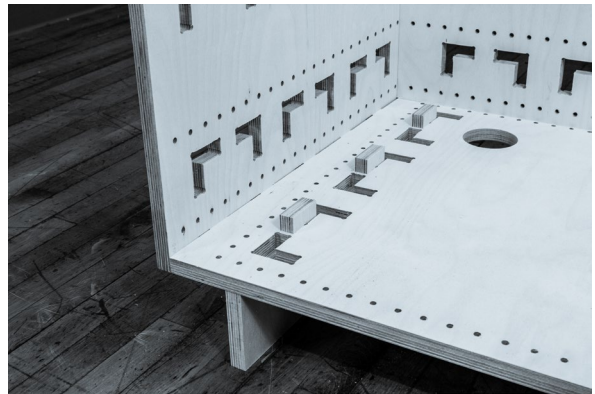


Plate 96: Bottom corner detail

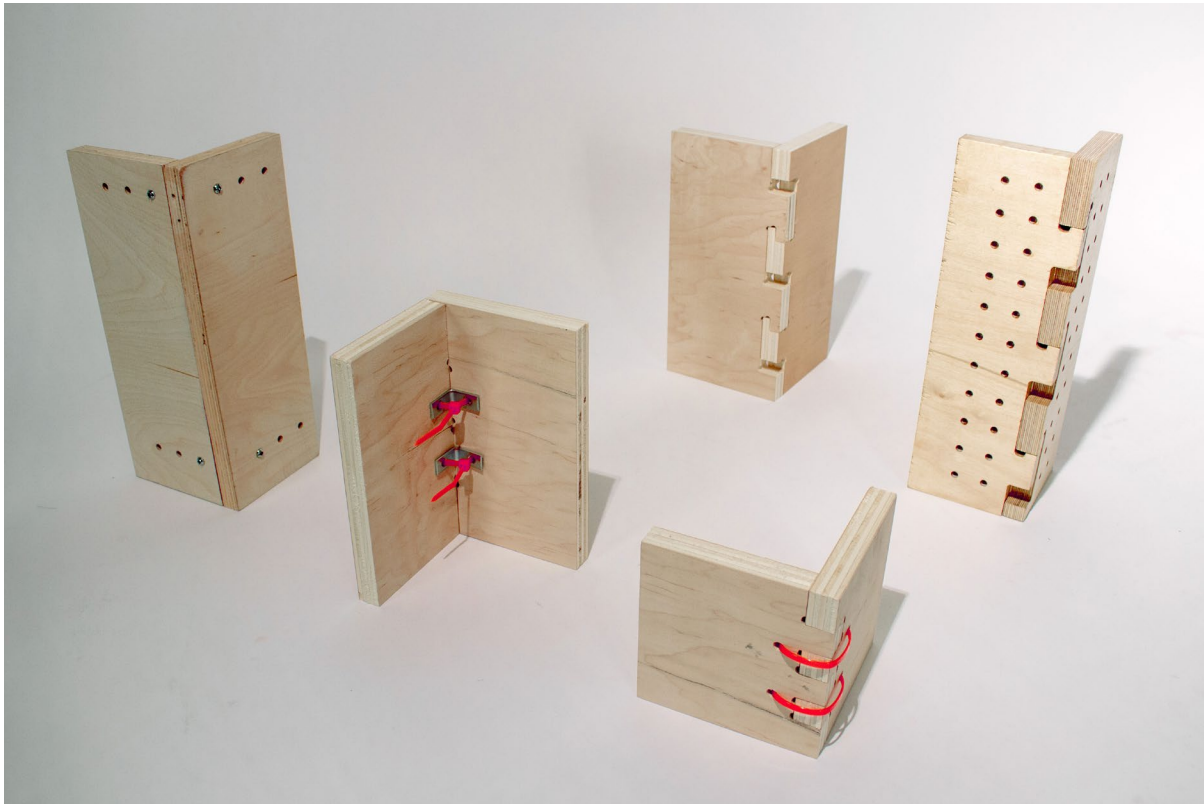


Plate 98: Knock-down joinery tests.

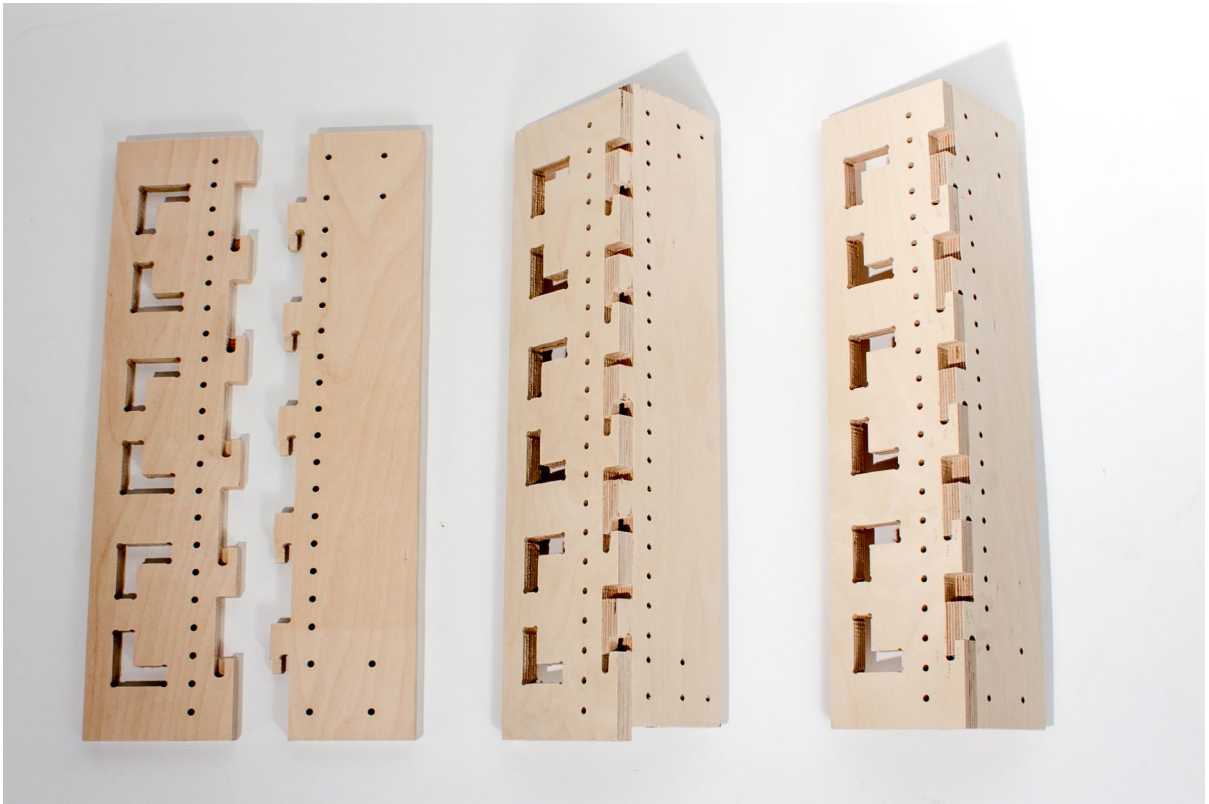


Plate 99: Interlocking corner detail slides into place.

3.3.6 Production

.....

The design was envisioned to be cut completely on the CNC, having the parts drawn, milled and assembled without tools, however, the realities of production were not without their challenges. The extremely high tolerances required for friction-fit joints proved very challenging on the finicky machine, which had a two percent margin of error that needed to be accounted for on each axis. Each joint was measured within 0.005" of tolerance to achieve a tight fit, which proved challenging with the machines inaccuracy and the sheets of plywood that varied up to .015" in thickness. As the prototype was scaled up from the 1/2 scale 1'x2'x3' box to the full scale 2'x4'x6' box, the stress on the joints magnified significantly, allowing for increased racking and movement in the frame. This level of tolerance would be achievable in professional manufacturing facilities with industrial grade tools, however, as imagined for an accessible system that could be constructed by hobbyists in maker spaces, this could be a major hurdle and would require further iterations of the corner joint fastening system.

Using a method of fixed pins drilled into the spoil board enabled the parts to be rotated, allowing for the 6' parts to be cut on the 4' CNC bed. This technique could be used in other maker facilities with smaller CNC beds to accommodate the milling of larger parts. Cutting deep into the spoil board with a down-cut, flat-end mill bit reduced tearout on the parts, however, the bottom face of the plywood was not cut as cleanly as the top. For future iterations, if built on non-industrial grade machines, it is important to consider that there will be a clean and rough cut face on the material. In this prototype, the clean-cut faces of the parts are all outward facing, leaving the rougher side to the interior of the box. The full-scale prototype required five hours of milling time on the machine and a couple of days of post-process finishing. Cutting the parts on industrial grade machines would reduce the cutting time and produce cleaner cuts, dramatically reducing the effort required to sand and finish the parts.

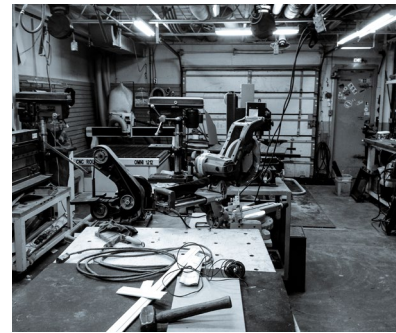


Figure 124: Kwartzlab is a not-for-profit community maker space in Kitchener. It is run by its members who only pay \$50 a month for access to their innovative community and equipment (including a CNC depicted far left).

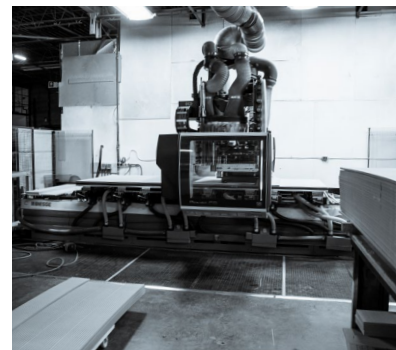


Figure 125: Five Axis Industrial CNC milling perforated acoustic panels in pegboard like pattern at Millworks Custom Manufacturing (2001) Inc. in Toronto.

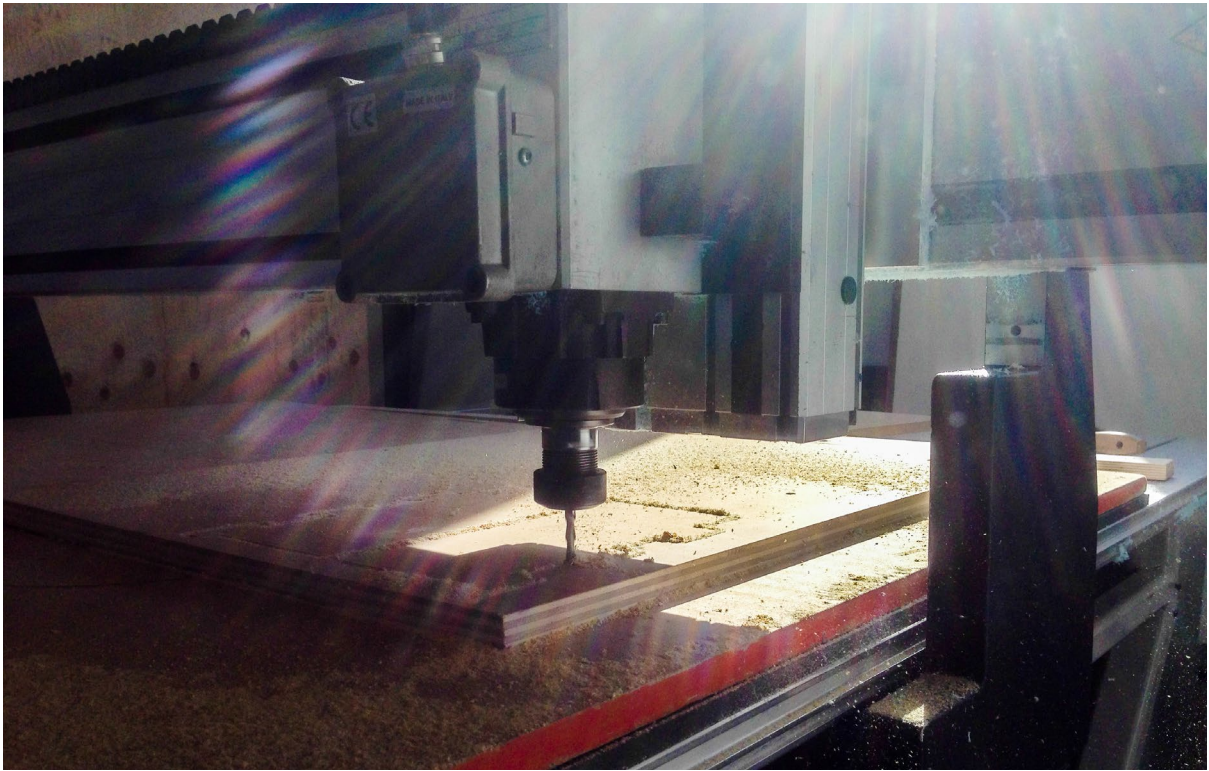


Figure 126: Milling joint tests on the CNC.

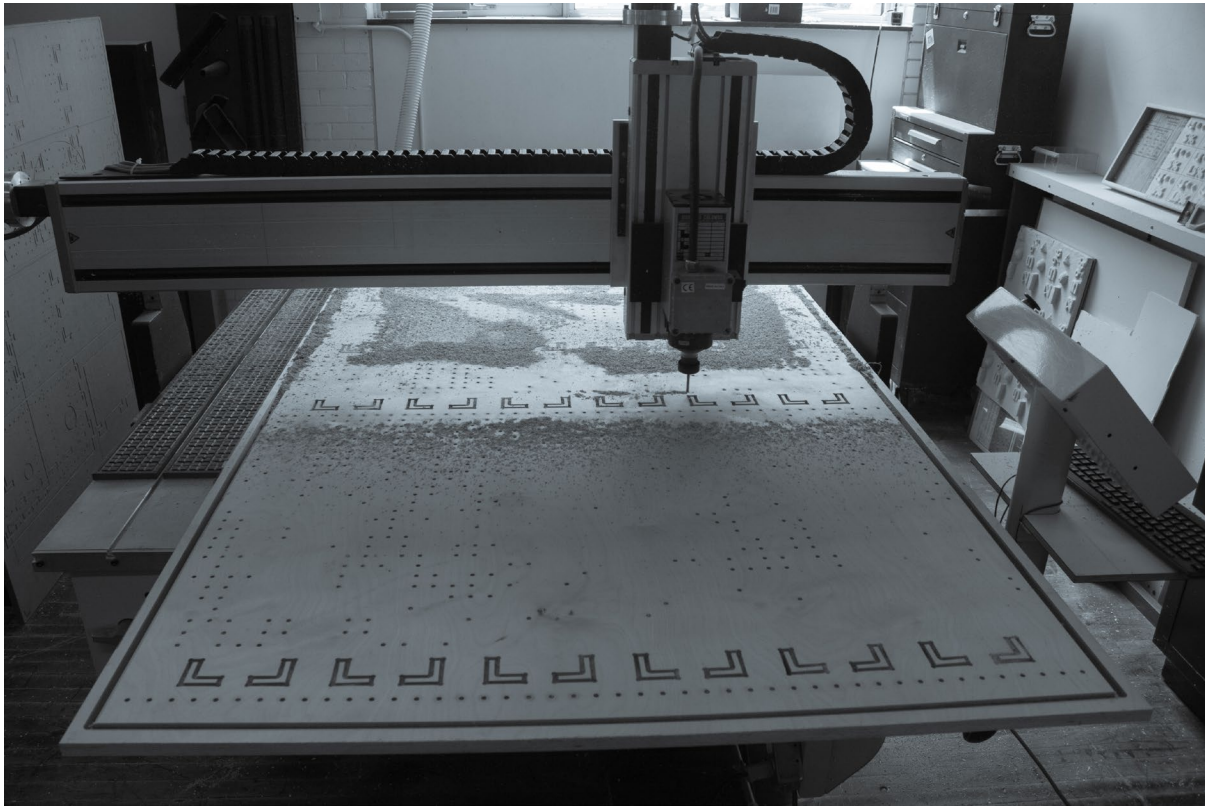


Figure 127: Milling back panel after rotating the part around fixed pegs on the CNC bed.

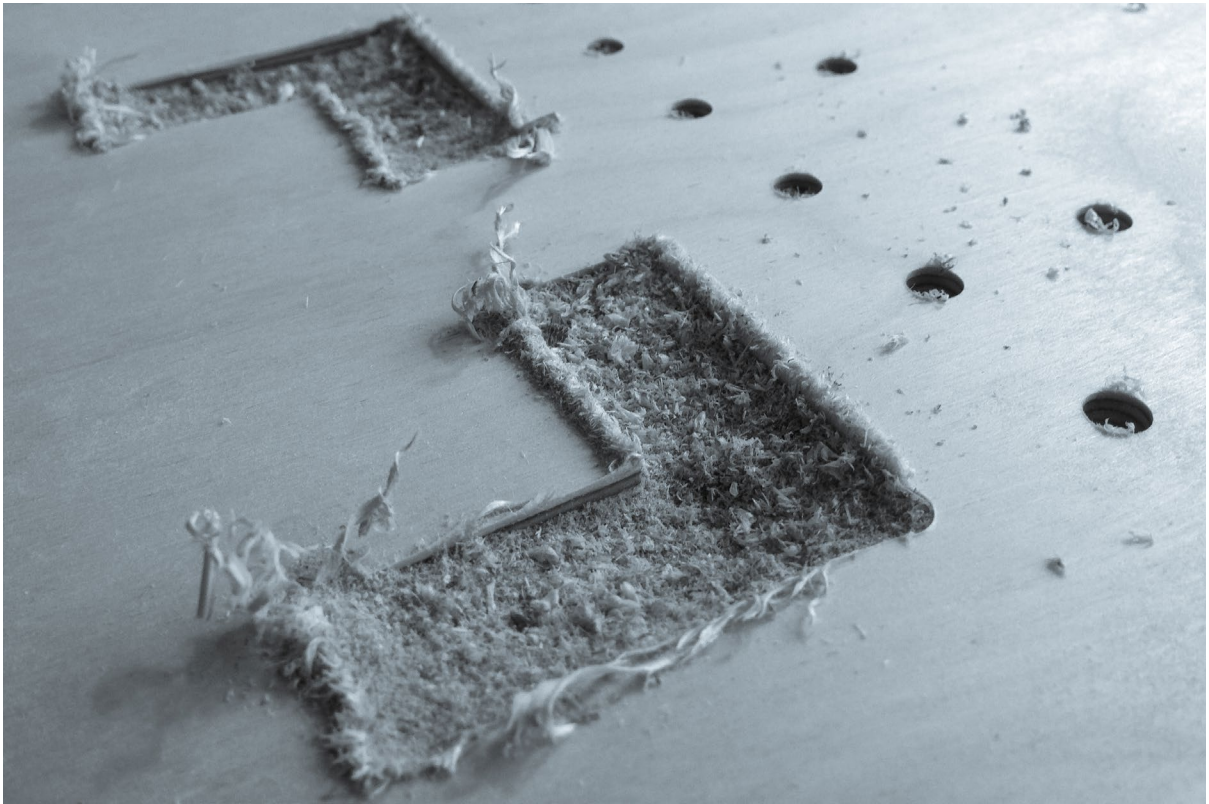


Figure 129: Back panel cut with 1/4" up cut flat end mill as the down cut tool was broken. See below. The up cut tool significantly increased tear out on top face.

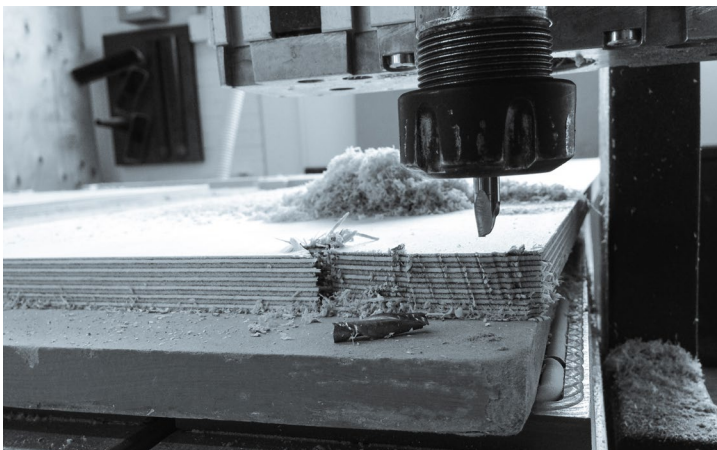


Figure 128: Production error that broke the 1/4" down cut flat end mill bit.



Figure 130: Smoke from the flat end mill bit drilled into the spoil board for pins to enable rotation of the 6' parts. Future parts used a drill bit to prevent this.

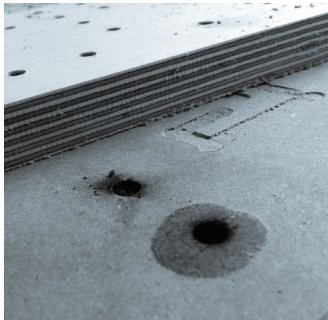


Figure 131: Cut part + spoil board with water used to put out flame.

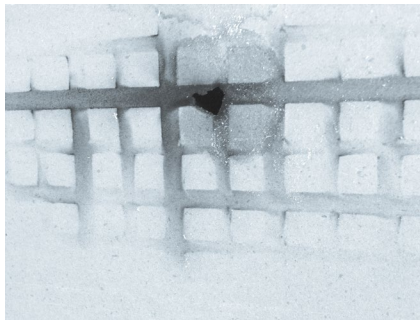


Figure 132: Back of burnt spoil board.



Figure 133: Resulting part bottom.

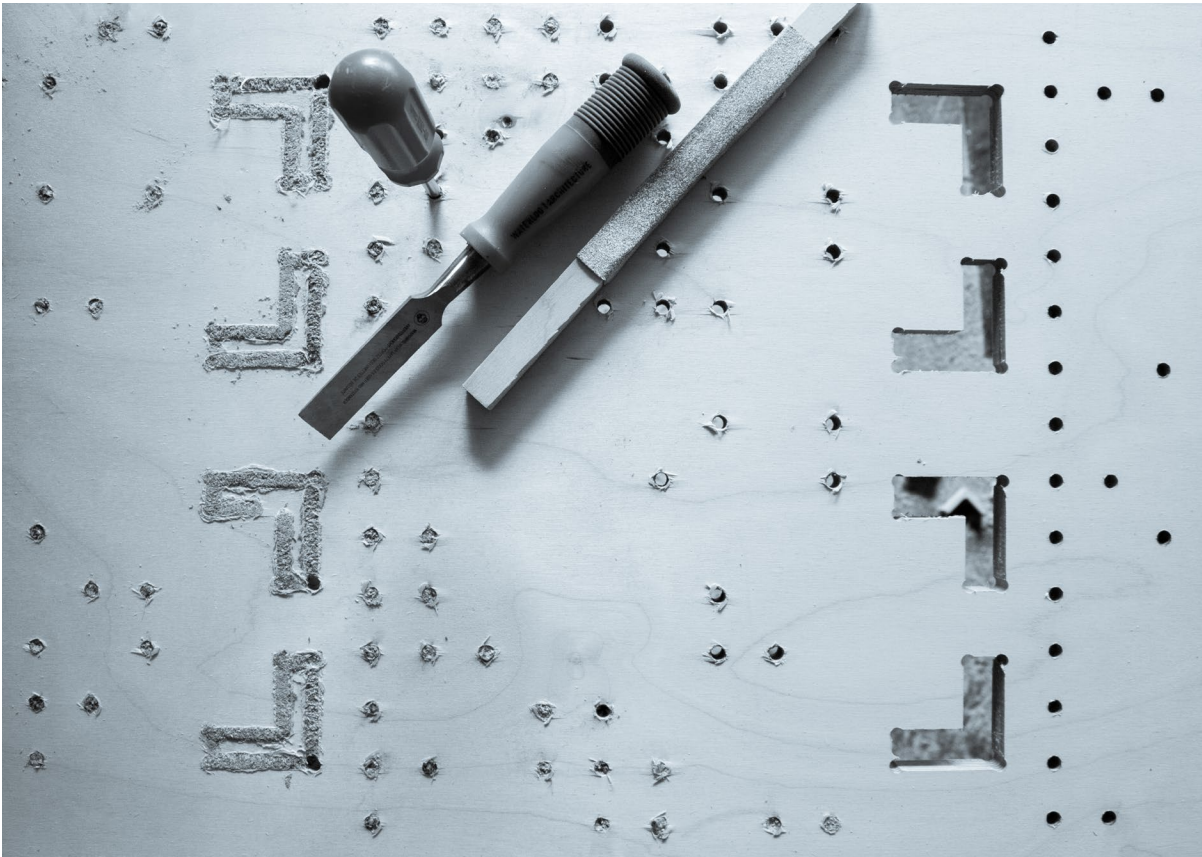


Figure 134:

- Screwdriver for dislodging sawdust from perforations
- Chisel to remove tabs on slots that prevented cut parts from dislodging during milling
- Sandpaper stick for interior sanding

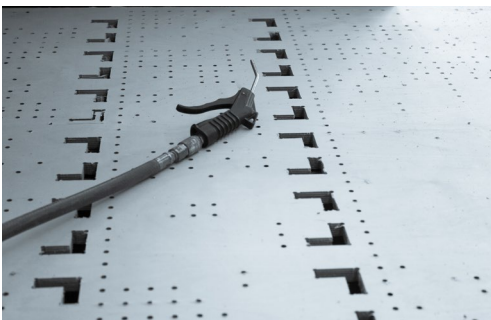


Figure 135: Removing debris with an air compressor proved to be faster and easier than the screwdriver.

3.3.7 Prototype

.....

The first prototype served to establish the proof of concept. The perforations and joints worked successfully, although the CNC cut parts with large tolerances produced weaker joints than desired, allowing for significant racking in the full-scale frame. The parts of the full-scale BOX were also quite heavy and cumbersome, challenging the limits of what one individual can construct and move on their own. In this respect, the original size of the half-scale prototype was much more successful, and future iterations of the design could be imagined as constructed of the smaller, more manageable BOXs stacked on top of each other, fastened together using the perforation system.

While it is possible to construct more of the BOXs as designed with minor technical improvements, assembling a full set would require a considerable effort. An alternative method of production needs investigation, as constructing the boxes in maker shops with CNC tools at the community level would be an onerous task. Outsourcing production to traditional manufacturers in the region could prove more successful and would allow for the use of alternate materials. As a model for mobile architecture that can be constructed and customized with tools available to the maker movement, the fabricated prototypes represent the first iterations towards a product that can activate vacant buildings by supporting a range of activities identified in programs developed with BRIDGE.



Plate 100: BOX Prototype



Plate 101: Half-Scale Prototype

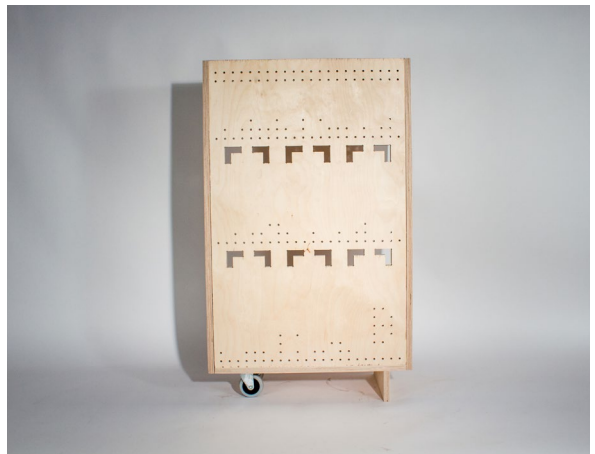
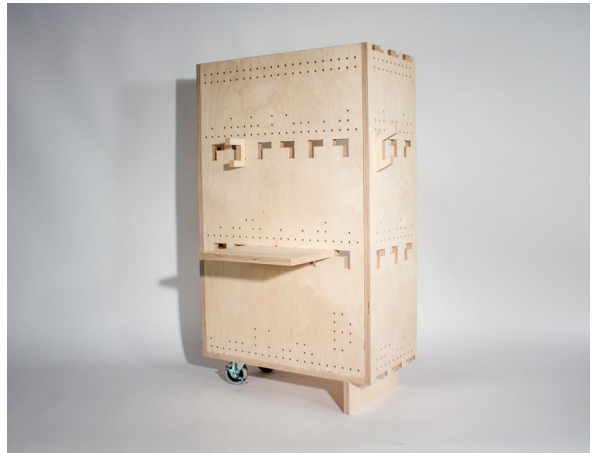
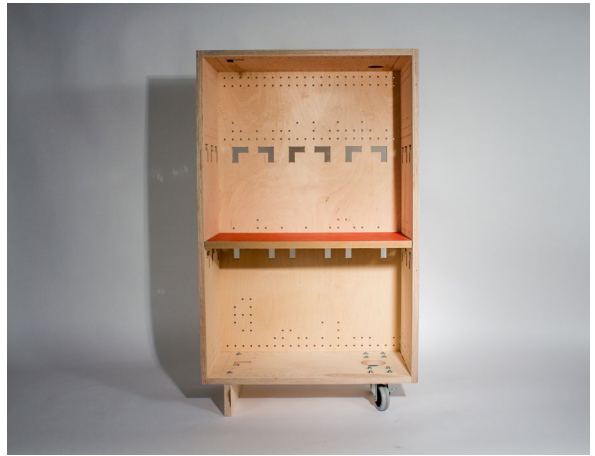
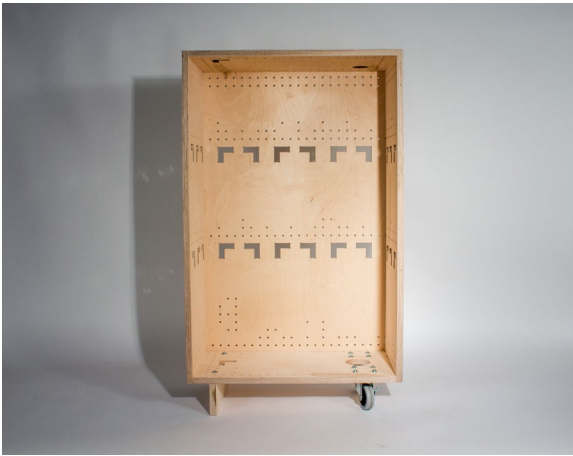


Plate 102: Half-Scale Prototype



Plate 103: Half-scale and full-scale prototype

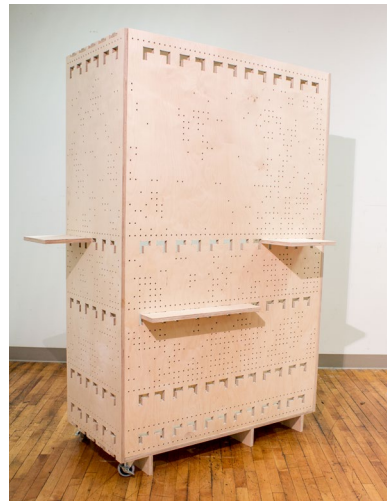
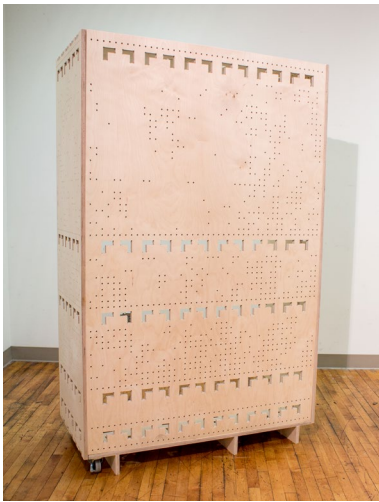
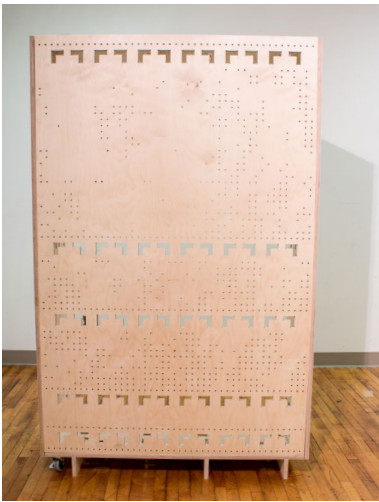
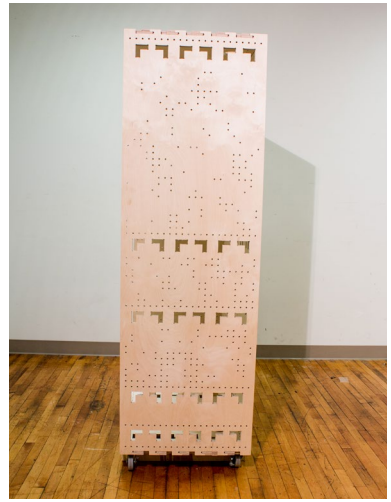
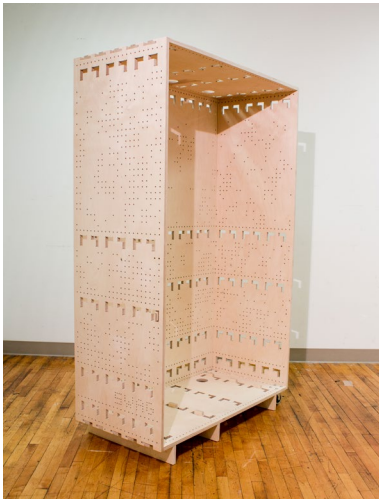


Plate 104: Full-scale prototype



Plate 105: Moving the BOX



Plate 106: Illuminated BOX

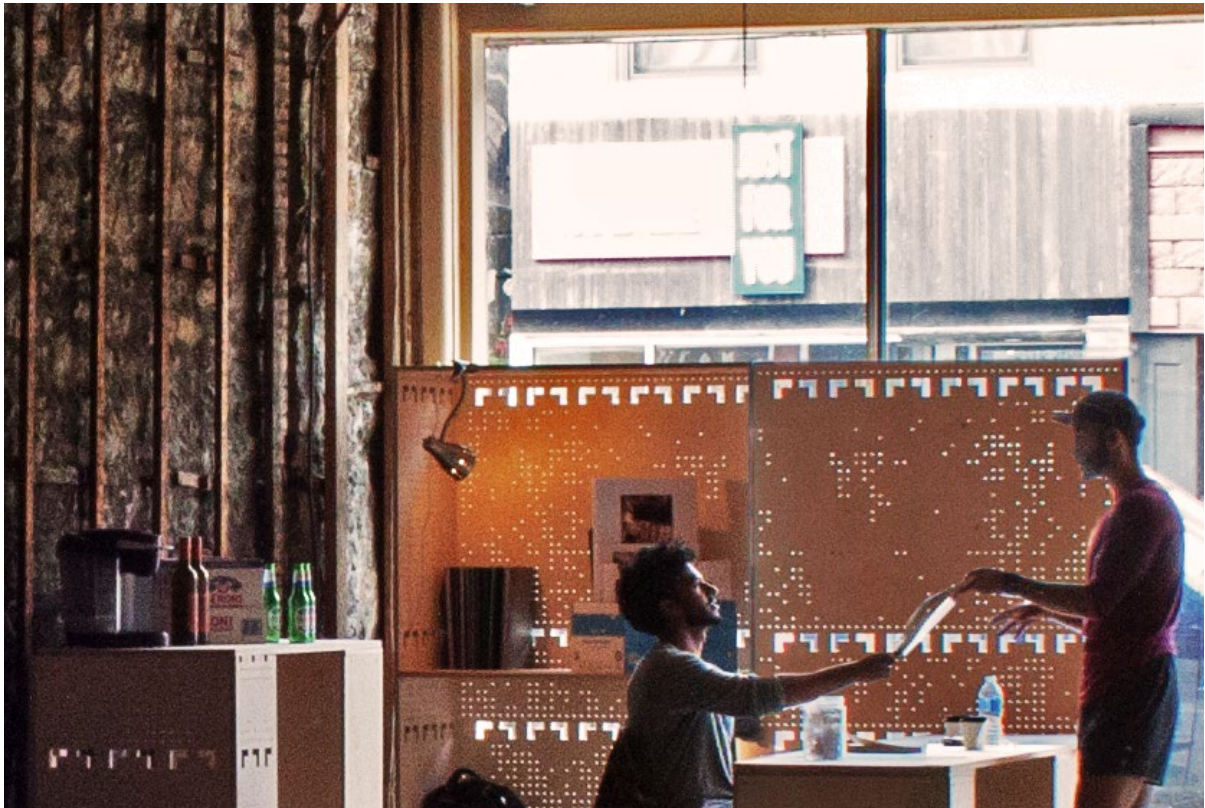
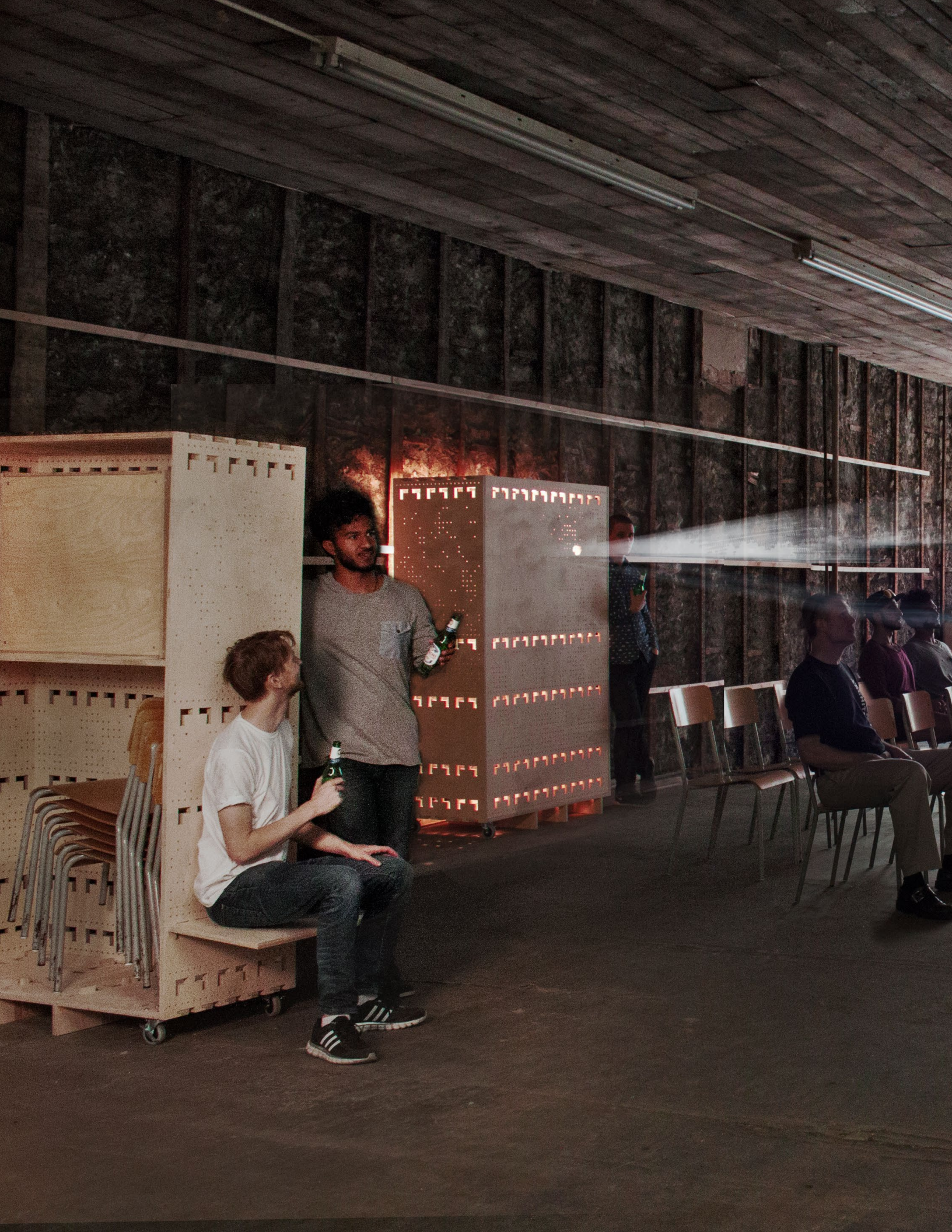


Plate 107: Bar BOX



Plate 108: Presentation BOX
Photograph by Prianka Smita.

Plate 109: [Following] The
BRIDGE Storefront animated
with the BOX prototype.





Epilogue

“Whatever space and time mean, place and occasion mean more”¹





The storefront at 35/37 Main Street has once more become a part of the city's fabric, the activity within visible to passersby. The sporadic occupation and accompanying gradual improvement have replaced the void of activity in years past. Occupying one storefront, or even all eight vacant storefronts on the block, will not change the city. The downtown is too depressed from the city's dependence on a struggling manufacturing economy and the adverse effects of suburban sprawl. What can emerge is an opportunity to reclaim the city's absent space for productive community use.

As Cambridge redefines itself to adjust to changes in the evolving economic landscape, it needs to act on its economic development strategy to compete for talent in the region to attract the growing creative sector. The creative class, as described by Florida, seeks the stimulation of "street-level culture" in dynamic cities that may include a "teeming blend of cafes, sidewalk musicians, and small galleries and bistros, where it is hard to draw the line between participant and observer, or between creativity and its creators." (Florida 2002, 166) Cambridge's handsome, historic and walkable downtowns possess the potential to attract this demographic, but as Vinodrai et al. establish in their economic development report, the region lacks the physical space for creation and networking to suit their needs. For creative, self-supporting start-up entrepreneurial ventures, this space can be carved out of the vacant buildings. The maker culture tends to turn its back on traditional, sterile corporate environments, preferring rough, dirty, spaces they can make their own. Vacant buildings offer spaces in which makers can work freely and alter in the process of production.

Experiments in programming events for BRIDGE identified several model activities needed by the sector: working space for production and assembly; space to exhibit, share and display work; as well as a place for presentations, meetings and networking. With these needs in mind, a physical prototype that can be built upon in successive iterations was designed to serve as a mobile device to enable multi-functional activity within found spaces.

Plate 110: [Previous] Main Street Bridge and the historic Galt Post Office.

so far *phrase of far*

1. "to a certain limited extent
2. (of a trend that seems likely to continue) up to this time"²

¹ Aldo Van Eyck, as quoted in Nabeel Hamdi, *The Spacemaker's Guide to Big Change: Design and Improvisation in Development Practice* (Milton Park, Abingdon, Oxon; New York: Routledge, 2014), 17

² "so far," Google Dictionary

It is not easy to break the routine of daily life in the city, and it takes a significant amount of time, effort and resources to transform vacant buildings into usable spaces. Mobile architecture has the potential to aid actors, reducing the investment required to set up for activities, while facilitating new and unforeseen programs and uses of vacant space. The prototype can be made available digitally to a network of makers who can, in turn, produce their own mobile structures, iterating the design in the process. Striking a balance between an affordable apparatus, which can accommodate multiple uses, while positively impacting people's perception of space, is not without its challenges. Designed with the goals of production, the BOX prototype required a tremendous amount of work to turn the digital models into full-scale products. Although makerspaces are quickly emerging, production capacities are still far off the traditional manufacturing economies of scale. Producing mobile architecture with a do-it-yourself mentality is possible only through the generosity of volunteers and supporters who are invested in the course of action. The reliability, availability and strength of volunteers constantly fluctuate, challenging the abilities of social enterprises to coordinate large efforts and meet all legal regulations and obligations.

Temporary actors need support as their ambitions are hard to achieve on their own. In this approach, the role of the architect and urban practitioner shifts from their predominant position as service providers to champions of the urban laboratory, empowering citizens in their 'right to the city.' The architect adapts as a 'curator,' 'choreographer', or 'theatrical director' creating opportunities for spontaneous activity. It involves the development of networks, recruiting actors (on a potentially volunteer basis), building projects around found conditions, the skills of individuals skills or potential markets as spatial entrepreneurs with a do-it-yourself, experimental process.

³ Markus Miessen, *Did Someone Say Participate?: An Atlas of Spatial Practice*, 287

A recalibration of the image of the architect has to be undertaken in order for these new kinds of practice to emerge.³

These actions are made possible by underlying economic conditions and the willingness and financial support of property owners to release their buildings to temporary actors for little or no financial reimbursement. Property owners instead receive intangible benefits, where temporary actors and members of the community build culture, which the developers' commodify through gradual gentrification. There are many opportunities for the exploitation of actors or property owners in these activities, and all involved must be cognizant of the shifting conditions and factors that affect their vested interests. Striking a balance in the situation where everyone benefits serves actors, property owners, and public authorities, improving the urban community.

The activity conducted by BRIDGE in the past year serves as a prototype for how future programs can be modeled. The initiative has been carried by the energy of the volunteers, but to go further, full-time workers are needed to build on the momentum from each event. Additional support can link the disparate activities into a collective action to establish and promote a recurring program in which the community can engage and that it can use as a model. Promotion and coordination of events proved a constant struggle, and additional human resources are needed to further develop initiatives beyond one-off events. Many hurdles face temporary-use actors, who can be stifled by the bureaucratic permit-and-authorization process while being dependent on the willingness of property owners. Changes in policy to accommodate temporary uses can further encourage this activity to support the creation of street-level culture.

Temporary use does not exclude traditional long-term planning as the focus shifts from urban design to urban use. Top-down approaches, however, need to promote spontaneous visions to engage waiting lands as the idealized images of permanence emerge over time. New approaches need to be able

to be implemented through a flexible phasing of development, where open timeframes and tactical approaches can respond to changing conditions. Existing structures are essential resources, transforming ready-made, found environments through perception and change of use. Founded in collaborative activities, temporary uses proceed through smaller projects, many of which will be momentary but may have a cumulative impact over time. Top-down policies should be permissive, enabling activism and community enterprise through a lightly regulated environment. Cities can assist by providing databases of vacant properties, making land, buildings or small start-up finance available, encouraging the establishment of intermediary organizations and supporting networking, marketing and promotion of ephemeral events.

The emerging phenomenon of short-term, pop-up, ephemeral activities is becoming a feature in urban life, blurring the lines between permanence and performance as people enjoy the immediacy of the temporary. Temporary, transitory activities empower individuals and afford them space in our controlled capitalist society. The design for a better future should adopt iterative, successive and cumulative activities to complement the completed, permanent vision of urban development.

The ever-changing, incomplete, temporary phenomena are a part of the cityscape. They give people the power to affect, manipulate, and adapt the city they live in to better suit their needs, empowering citizens to act after decades of declining civic engagement. Knowing one's neighbors is a desirable attribute. Waving across the street to the local musician and a friendly conversation with a Main Street shop owner are the products of meeting at community events, bringing networks together to build social capital. These actions do not solve the city's macroeconomic issues, but by engaging temporary-use activities to fill the void of vacant space, Cambridge shifts, slightly, from the suburban sprawl of the Fourth City to an urban environment in the fourth dimension, embracing ephemeral action as a way to empower a city built by communities.

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