

# **Incubating Creativity: Amplifying an Emerging Art Culture**

by

Lucas McDowell

Submitted in partial fulfilment of the requirements  
for the degree of Master of Architecture

at

Dalhousie University  
Halifax, Nova Scotia  
July 2018

© Copyright by Lucas McDowell, 2018

# CONTENTS

<b>Abstract</b> .....	iv
<b>Acknowledgements</b> .....	v
<b>Chapter 1: Introduction</b> .....	1
History of Moncton.....	1
A Hub City Without a Hub.....	4
Urban Sprawl.....	4
A Lack of Public Space and Connectivity .....	4
<b>Chapter 2: Site</b> .....	9
The Former Moncton High School.....	9
Site as a Hub .....	16
Existing Components: The Characters .....	18
Thesis Question.....	24
<b>Chapter 3: Program Development</b> .....	25
The Former Theatre.....	25
Precedence .....	27
LX Factory .....	27
cSpace King Edward .....	28
La SAT .....	29
An Emerging Art Culture.....	30
A Visual Arts Culture .....	30
A Performing Arts Culture .....	30
A Culinary Arts Culture .....	31
Festival Inspire .....	31
New Hub: The Art Incubator .....	33
Existing .....	34
Missing.....	35
Technology.....	36
Serving the Public.....	37
Serving the Artists.....	38
<b>Chapter 4: Design</b> .....	40
Methods of Operation .....	40

Hallways to Streets .....	40
Mobile Studios and Dynamic Space .....	40
Cutting Away .....	41
Building as Canvas .....	41
Design Steps .....	43
Unobstructed .....	44
Landscape Connection .....	51
New Circulation .....	61
Creative Inhabitation.....	80
Public Park .....	92
Future Development .....	97
<b>Chapter 5: Conclusion</b> .....	<b>99</b>
<b>References</b> .....	<b>106</b>

## **ABSTRACT**

At the heart of Moncton, New Brunswick lies an iconic building. The former Moncton High School is a place full of shared memories, history, and architectural character; however, it has laid dormant since its abandonment in 2012. The building has been riddled with controversy to this day, with several developers and investors attempts to revive the building into various condo developments, office spaces, and storage facilities being denied by the city.

This thesis explores ways of using architecture and urban design to engage the city of Moncton and highlights its emerging art culture as a catalyst for public activity. Through the adaptive reuse of the former Moncton High School, the project aims to create a new social hub at the city's core, providing a place for established and emerging artists to practice and perform, capable of generating new activity and filling a gap between adjacent sprawled areas of the city.

## **ACKNOWLEDGEMENTS**

Diogo Burnay and Jonathan Mandeville, your belief and trust allowed me to pursue a project that I am truly proud of. Your insight and constant encouragement were invaluable along the way.

David Burlock, Cheng Zhang, and all my classmates who helped me with this thesis, thank you for all the laughs that kept us sane during the many late nights.

Karen and Ray, your continued kindness and generosity has always made me feel at home, for which I am truly grateful.

Mom, Dad, and Jason, it goes without saying that this would not have been possible without you. Your endless love and support kept me going when I needed it most.

Alicia, my partner in crime. There are no words to describe the gratitude I feel for how patient and supportive you have been over the past few years. Thank you for everything.

## CHAPTER 1: INTRODUCTION

### History of Moncton

Moncton is the largest city in the province of New Brunswick and second only to Halifax NS in the Maritimes. The greater Moncton area which includes Moncton proper, Dieppe and Riverview has a population 145 000 (2016), located on the Petitcodiac River which runs into the Bay of Fundy and is the most geographically central city in the Maritimes, earning it the title of “The Hub City”.

Initially settled as “Le Coude” (The Elbow) after the 90-degree bend in the neighboring river in 1766, and later changed to “The Bend” by subsequent settlers, was primarily an agricultural settlement. The town became an essential transfer and rest station along the Westmorland Road, the main transport route between Halifax and St. John, upon its year-round opening in the late 1830's (Medjuck, 2007).

With access to the Bay of Fundy via the Petitcodiac River, wooden shipbuilding became the towns primary industry with a significant expansion to the riverfront in 1847



Moncton's riverfront (Vincent ,1899).



Moncton Railyard during the prime of its operation (Vincent, 1904), allowing the town to gradually acquire all the necessary amenities to grow the town and eventually incorporate to Moncton in 1855. Shortly thereafter, the growing popularity of the steam-powered ship ended the era of wooden ship-building, resulting in the crash of Moncton's economy. The city's depression was short-lived, as the Intercolonial Railway of Canada established its headquarters in the city in 1871, due to its geographic centrality, and allowed Moncton to prosper once again and gain its motto "Resurgo" meaning "I rise again" (Medjuck, 2007).

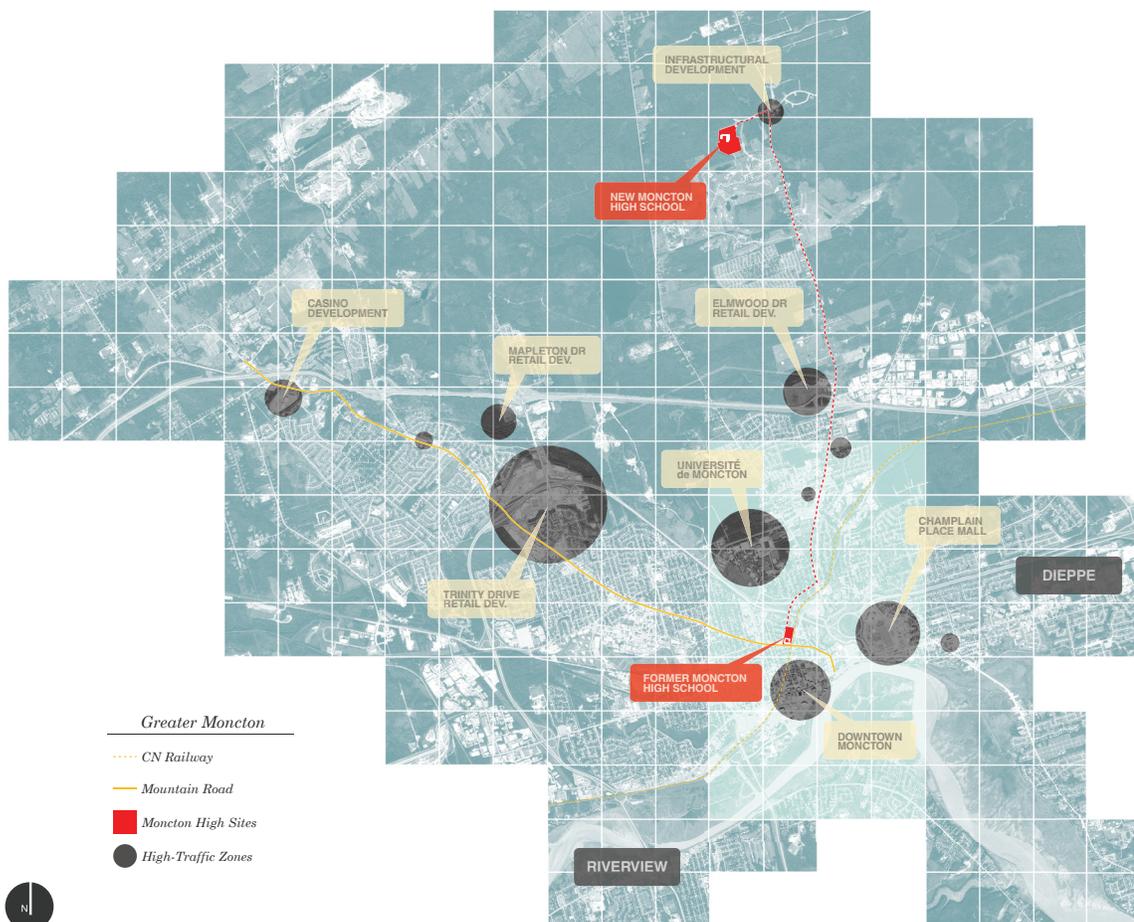
Due to the booming railway presence, Moncton grew rapidly during the 20th century, specifically with the



Aerial photo of the City of Moncton (Bing 2017).

emergence of the Canadian National Railway. CN Railway was the largest employer in the city during the 1950's with nearly 6000 workers, allowing various transport and storage companies to flourish and to have Moncton placed on the Trans Canada highway network (Regehr, 2002).

Economic hardship befell Moncton once again in the 80's with the closure of the CN and the Canadian Forces Base leaving thousands unemployed. The city would once again prove its motto true, with the rise of information technology during the mid-1990's, several telecommunication companies developed call centers to take advantage of the city's bilingual workforce, easily making up for the previous unemployment crisis (Medjuck, 2007).



Map depicting the Greater Moncton area, its highly traveled zones and the location of the Former Moncton High School and new Moncton High School.

Moncton has since continued to grow with extensive retail developments, large-scale performance and entertainment venues, two university campuses, an international airport, and has become Canada's first officially bilingual city.

### **A Hub City Without a Hub**

While the city of Moncton has surely dealt with many hardships, it has established itself as a Census Metropolitan Area and continues to grow at a mildly exponential rate; however, as almost all cities do, it has become a victim of severe urban sprawl.

### **Urban Sprawl**

During the 90's, several telecommunication companies developed their call centers in Moncton's downtown area (Medjuck, 2007). As time passed, these call centers have moved further and further away from the downtown core, opting for less expensive land opportunities and the same can be said for the extensive retail developments that have risen over the past 20 years. This sprawling nature causes other developments to build in these new areas with sub-urban neighborhoods filling in the spaces between, causing the cycle to begin anew and leaving the previous core to slowly lose density and activity. This process has resulted in a city with many high traffic pockets beyond walking distance from one another and has prevented Moncton from developing a dense urban core as a truly define hub.

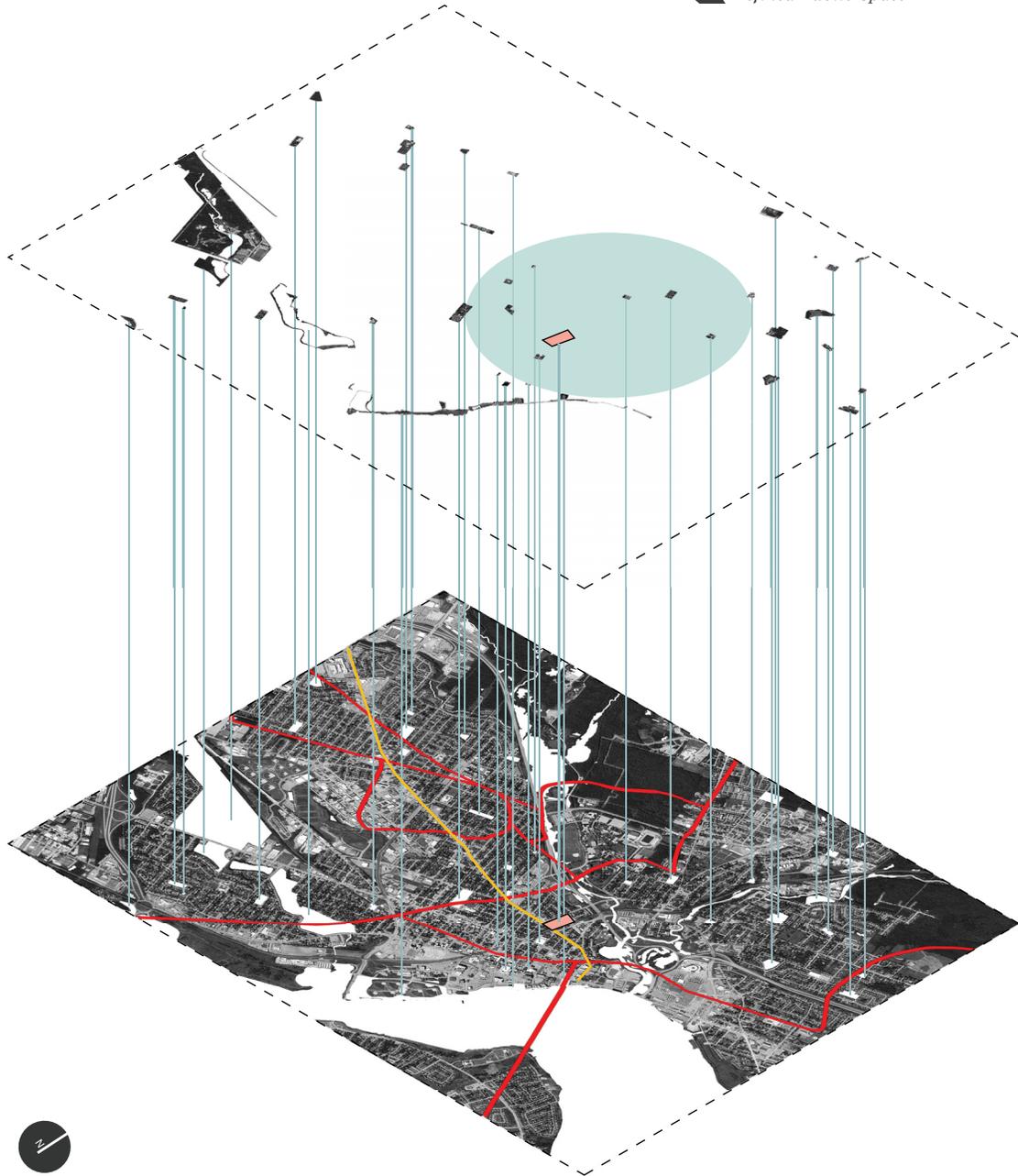
### **A Lack of Public Space and Connectivity**

The sprawled nature of Moncton is not what defines its quality, it is more rather the way in which the city deals with its sprawl. For instance, Copenhagen, like all cit-

# DESIGNATED PUBLIC SPACE + CONNECTIVITY

*City of Moncton*

-  *Public Transit*
-  *Mountain Road*
-  *Moncton High Site*
-  *City Center*
-  *Defined Public Space*



Comparing qualities of public spaces in Moncton and the lack of their interconnection.

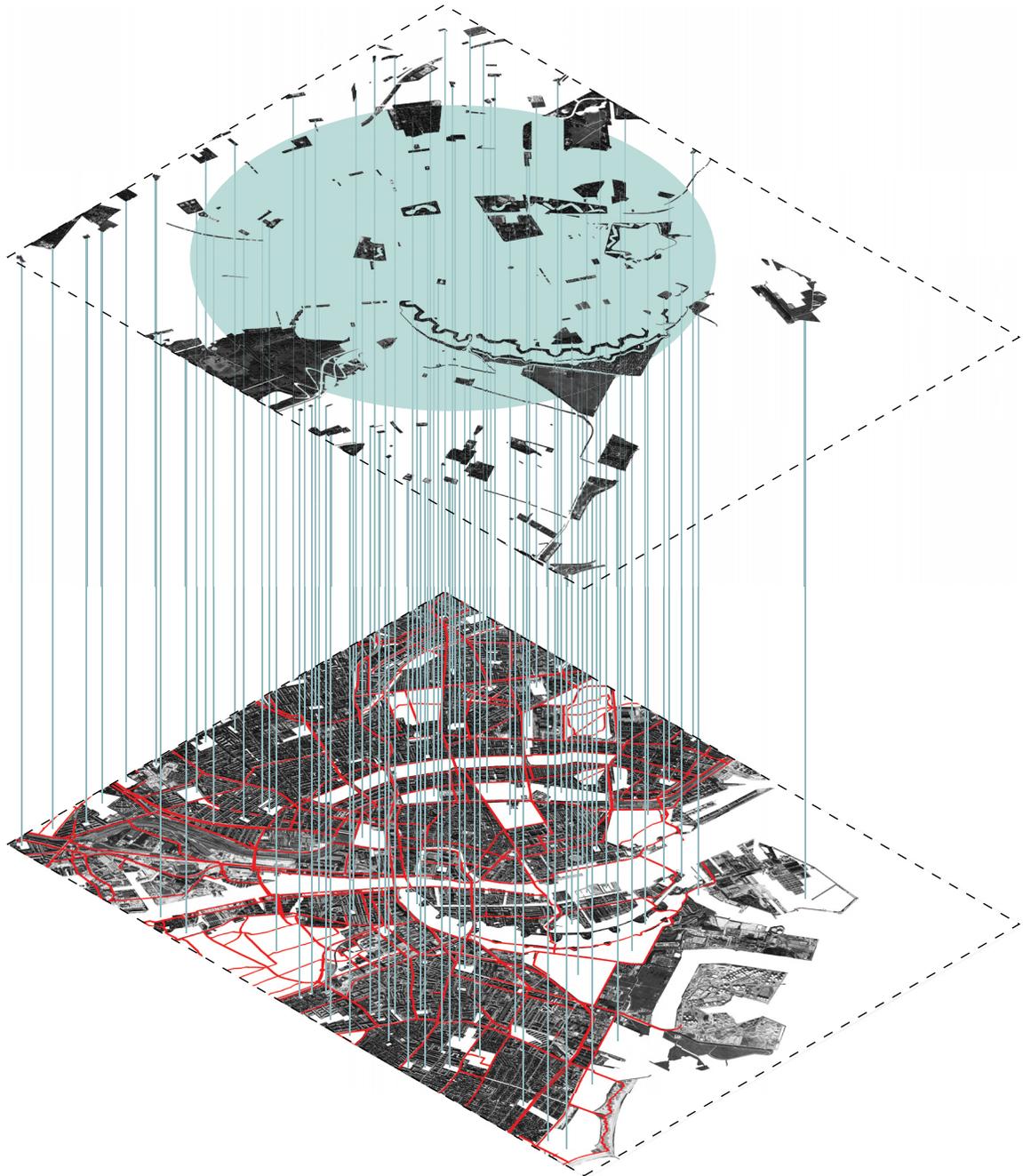
ies, has sprawled out due to lower costs of land, improved infrastructure, the rise in living standards, and population growth. Despite these issues, Copenhagen has developed many vibrant public spaces that engage their users placed amply throughout the city making it easier and more enjoyable to travel from point A to B. They have also put in an extensive system of bicycle routes that has given people a higher quality of life and a pride in their city. Beginning in 1962, the city removed parking from 18 city blocks and converted their 1.1 km main street into a pedestrian-only zone, where today foot traffic represents 80% of movement in the inner city. This has allowed pedestrian streets and their accompanying businesses to flourish. The network of car-free streets and squares in 2005 was nearly 100 000 km<sup>2</sup>, the bicycle lane network had grown to over 350 km and the number of café chairs throughout the inner city had surpassed 7000 (GEHL, 2015). Finally, the city architects of Copenhagen describe the city and its public space design as “pearls on a string”. The individual squares along the city’s main streets have their own design and are connected by simple pathways with uniquely textured surfaces (Otzen, 2014). Vancouver is a relatively positive Canadian example. Their use of the seawall as a sprawling public park and bicycle route that wraps the city and an efficient public transit system makes it possible to commute year-round without the use of a car.

Moncton’s lack of the above-mentioned features during the city’s development has made it next to impossible to get anywhere without a car or bus system. Much of the public space that exists is non-engaging and lack any sort of connectivity beyond a typical sidewalk. Greater Moncton has passed Halifax and grown to the number 1 commercial,

# DESIGNATED PUBLIC SPACE + CONNECTIVITY

*City of Copenhagen*

-  *Bike Routes*
-  *City Center*
-  *Defined Public Space*



Comparing qualities of public space in Copenhagen and their high level of interconnection.

industrial development hub in Atlantic Canada, with \$163.9 million spent on “non-residential building construction” in the area in the first half of 2017 alone (Jones, 2017); However, very little has gone into social infrastructure and public space. This is perhaps why Moncton has not been able to define a true heart or city core for itself, continuing to sprawl and would benefit greatly from an urban intervention that could define the qualities of social spaces to strive for and begin to pull some of its sprawled pieces together into a collective whole.

## CHAPTER 2: SITE

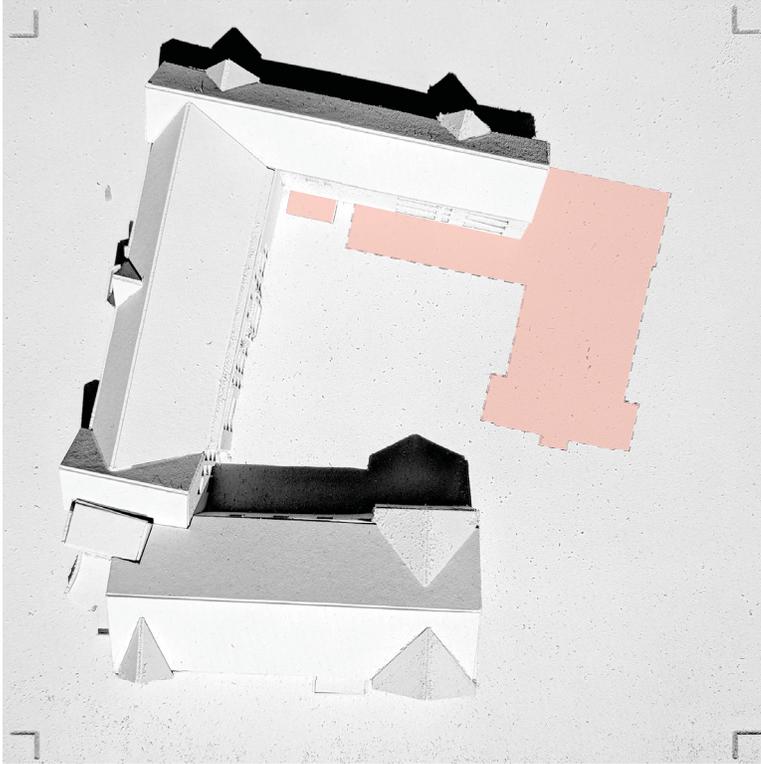
### The Former Moncton High School

Designed by Halifax architect Charles Fowler, the former Moncton High School is a 16 500 m<sup>2</sup> gothic revival style building constructed in 1935. The building evolved throughout the years with a substantial classroom wing and cafeteria addition in 1948 and a new gymnasium, archery range and changeroom extension in 1984 (GNB, 2017). The steel-framed, red and olive sandstone clad building is one of the oldest structures in the city of Moncton and currently lays vacant, untouched for the past 4 years. Deemed too expensive to repair, the building was abandoned in 2012 due to asbestos issues, and a new Moncton High school was built on the site of the Royal Oaks subdivision near the city limits approximately 10 km away.

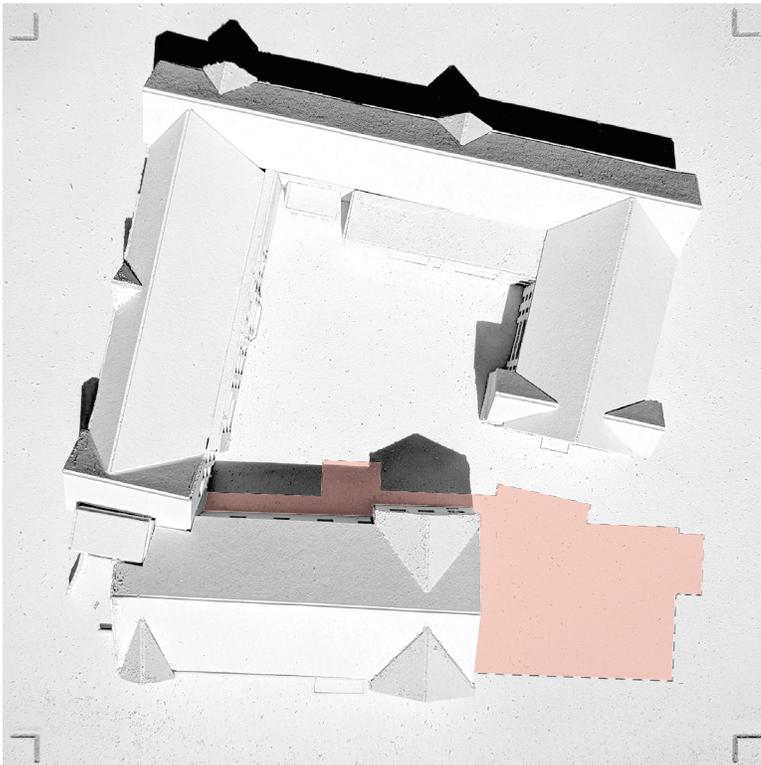


Former Moncton High School on the corner of Mountain rd. and Church st.

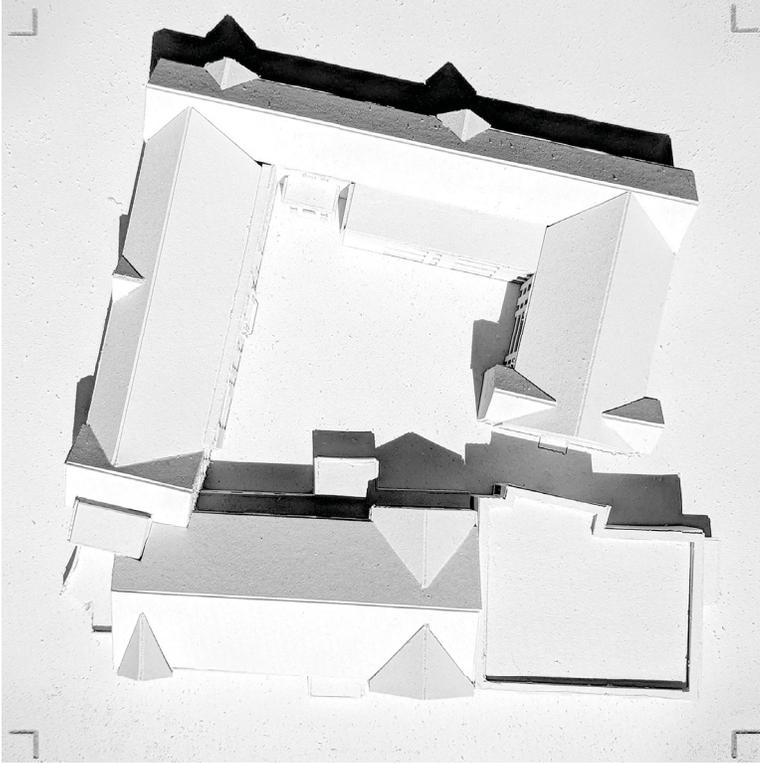
The proposal to move the high school in 2011 was met with great opposition by Moncton City Council; however, nearly a year later they accepted the proposal with the province covering \$12.8 million of the eventual \$30 million infrastructure costs for new roads, sewers, and water lines to service the new area (CBC News, 2012).



Model photo of the original building design in 1935.



Model photo of classroom wing and cafeteria addition in 1948.



Model photo of gymnasium and circulation addition in 1984.

The decision to move Moncton High School is a controversial topic to this day, with the tone shifting to what the future of the former high school should be. There have been proposals for demolition and new construction, repurposing into condos, library or cultural arts center. Unfortu-



Existing materiality of the building.



Diagram depicting various news articles regarding the controversy behind the Former Moncton High School since its vacancy in 2012.

nately, none of the above-mentioned ventures have gained any traction. The building's future is thus a politically fueled topic, with the shared memory of many, including myself, having attended high school in this iconic building, it would be a loss not to breathe new life into it.

Located on Mountain rd, the busiest street in the city which cuts through Moncton's entirety from east to west as well as being cornered by the old CN railway, the building is optimally placed with direct routes to most of the current high traffic zones within the city. The building is also centrally located to three of these zones, approximately 1 km away from Downtown, Champlain Mall, and Université de Moncton. With the former high school's unused 2.8-hectare site in the center of what is currently considered the downtown core, the Former Moncton High School is an ideal site to attempt to pull together the nearby sprawled areas and form a new defined hub for the city.

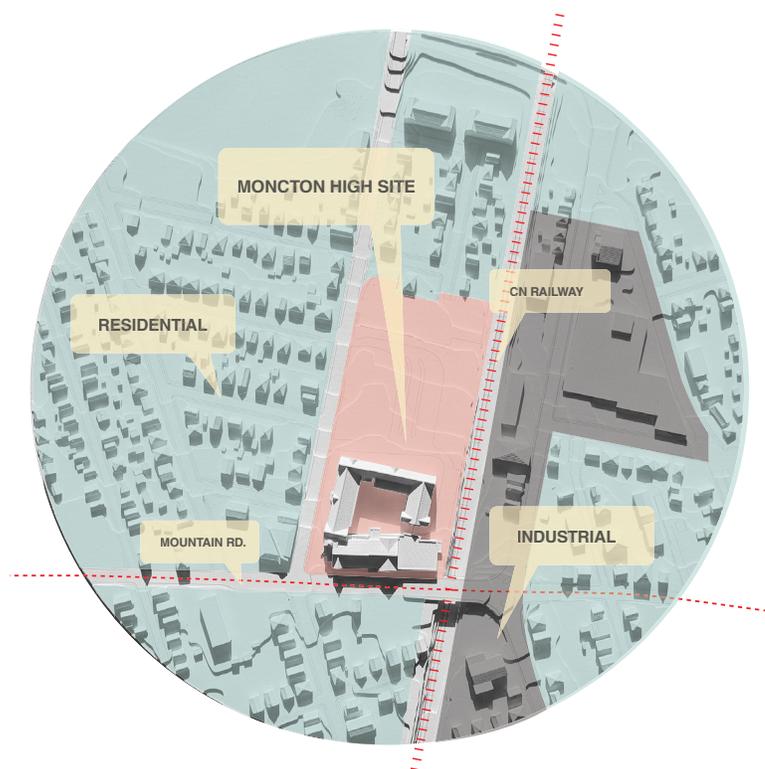
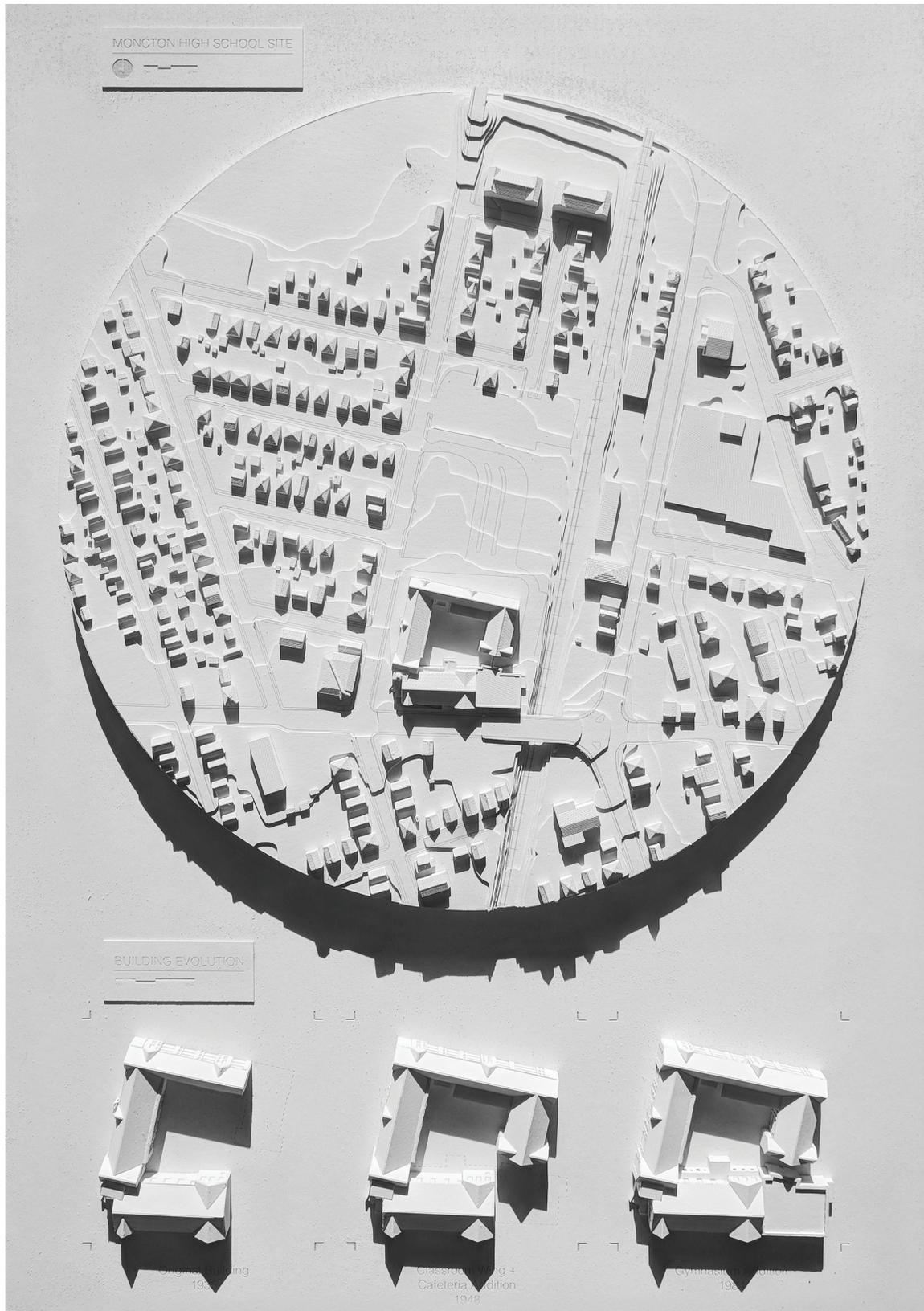
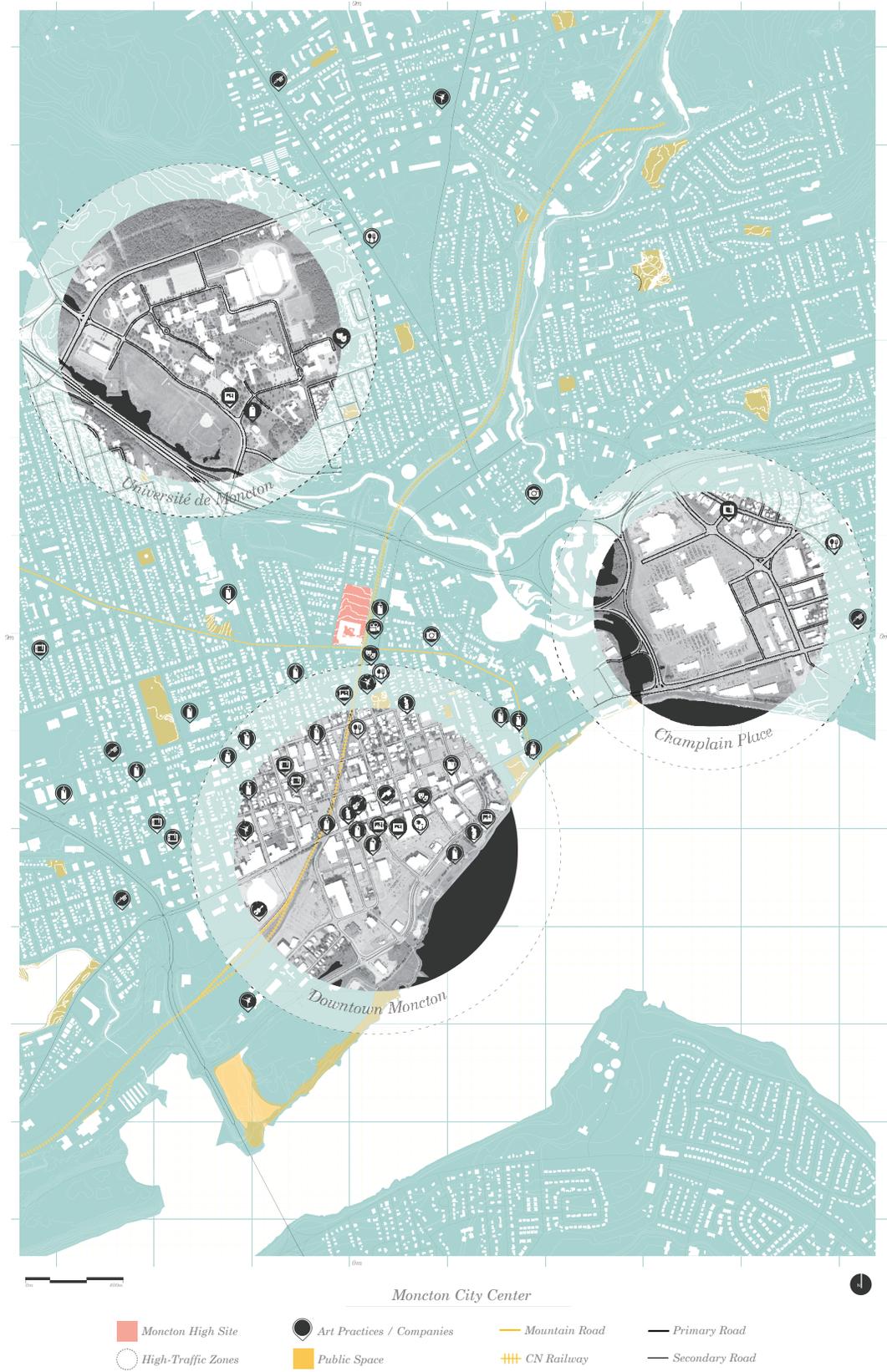


Diagram showing immediate urban context of site.



Site model showing the Former Moncton High School building on Mountain rd. cornered by the CN railway, as well as models showing the building's evolution from 1935 to 1984.



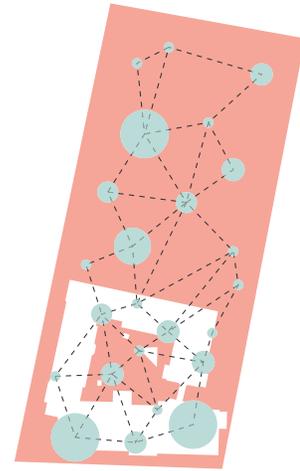
Map of Moncton City Center showing the Former Moncton High School site, the surrounding high traffic zones, and the various art related establishments in the area.

## Site as a Hub

In Zachary P. Neal's *Types of Hub Cities and Their Effects on Urban Creative Economies*, he defines 3 concepts of a hub city (Neal 2014, 207-212). While these concepts refer to cities, I believe it is useful to apply them to the Former Moncton High School site to show its capability of becoming a hub in several ways.

### *A Degree Hub*

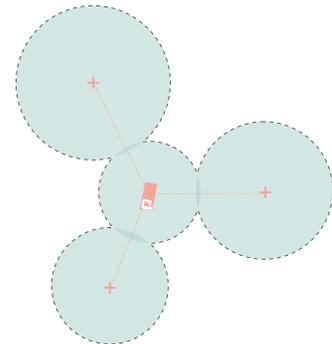
Is the extent to which it serves as a destination for people and its ability to capture interaction. By transforming the site into new social space within the city, it could house a variety of activities for the public at all hours of the day, specifically for art and creativity.



Site as a degree hub with a variety of activities occurring throughout.

### *A Betweenness Hub*

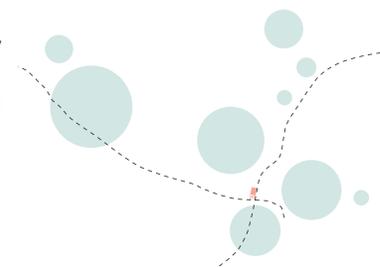
Lies between and links otherwise disconnected origins and destinations. Developing the Former Moncton High School site puts it within a 1km walking distance from Université de Moncton, Champlain Mall, and Downtown allowing all four areas to become an overall city core.



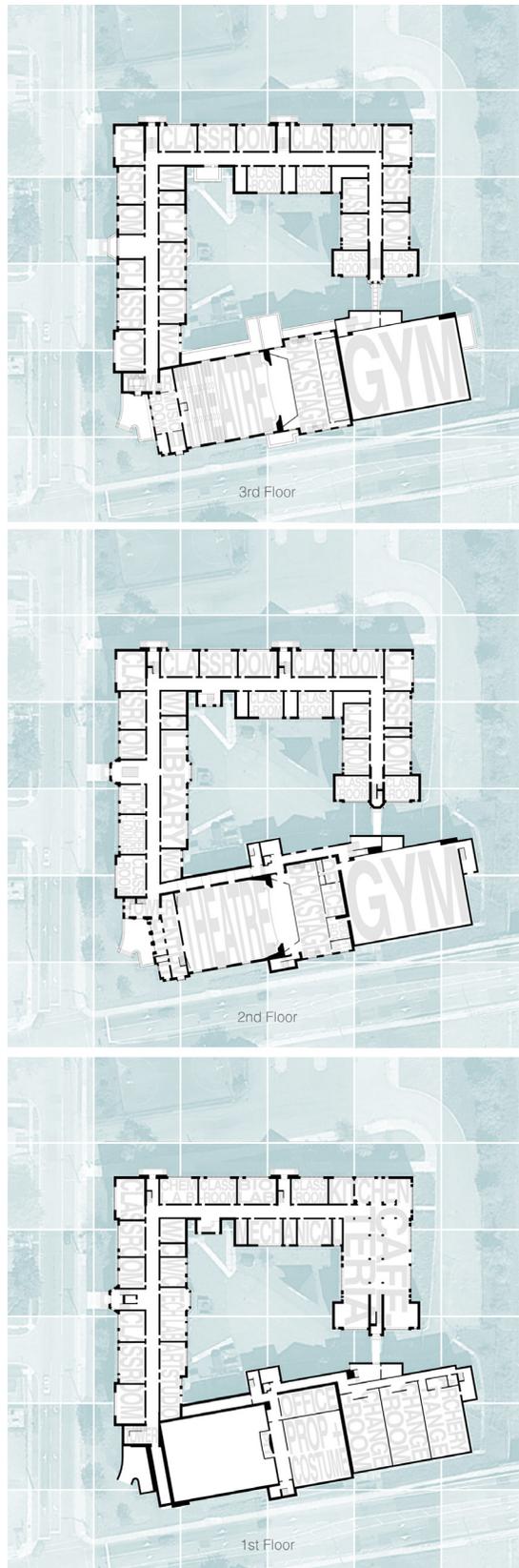
Site as a betweenness hub connecting nearby highly traveled areas.

### *A Closeness Hub*

Provides direct services to and from many other cities, or in the case of this thesis, connecting the site directly to several other developed regions of the city via Mountain rd. and the CN railway.



Site as a closeness hub on arteries of Mountain rd. and the CN railway leading to other high traffic areas of the city.



Existing floor plans of the Former Moncton High School showing the use of each room.



## Existing Components: The Characters

If the adaptive reuse of this building is to be successful we need to look beyond what Tim Edensor calls “Normative, regulatory modes of perception” and Imagine the building as more than a series of unused rooms and hallways, while taking into consideration what is precious and what is disposable (Edensor 205, 12-13). For instance, what if the immense abandoned building was perceived through the lens of Kevin Lynch’s Image of the City and looked at as a miniature city itself (Lynch 1960, 46-48). A series of paths in which people can move throughout, developing edges, boundaries, and breaks in their continuity. The creation of nodes strategically placed throughout the building like squares, junctions, and landmarks. In thinking about how to manipulate the former Moncton High site, I began to analyze the existing building with the ideas of Kevin Lynch and Tim Edensor in mind. In doing so, I have broken the site into 7 different components based on their unique characteristics, and potential to be reimagined as a network of new public spaces.

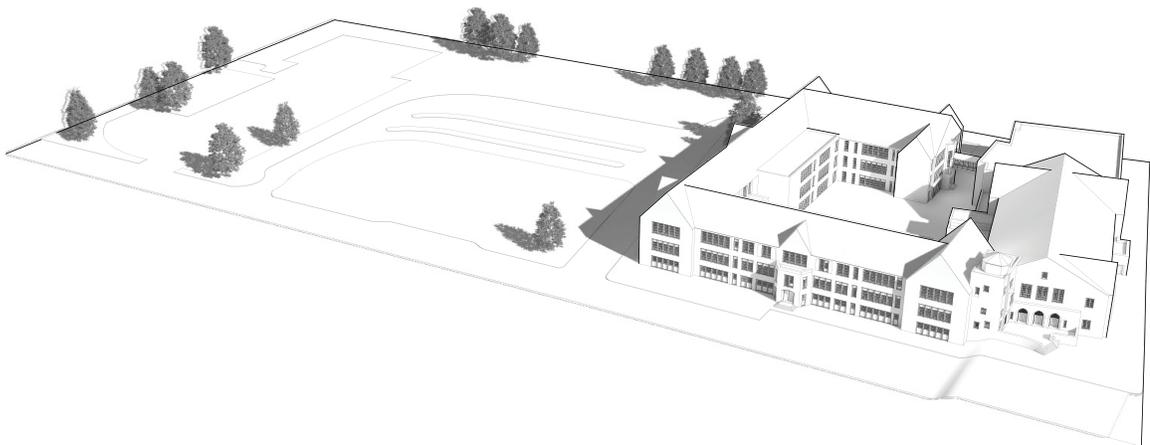


Diagram depicting the Former Moncton High School site that will be the canvas to test the thesis question.

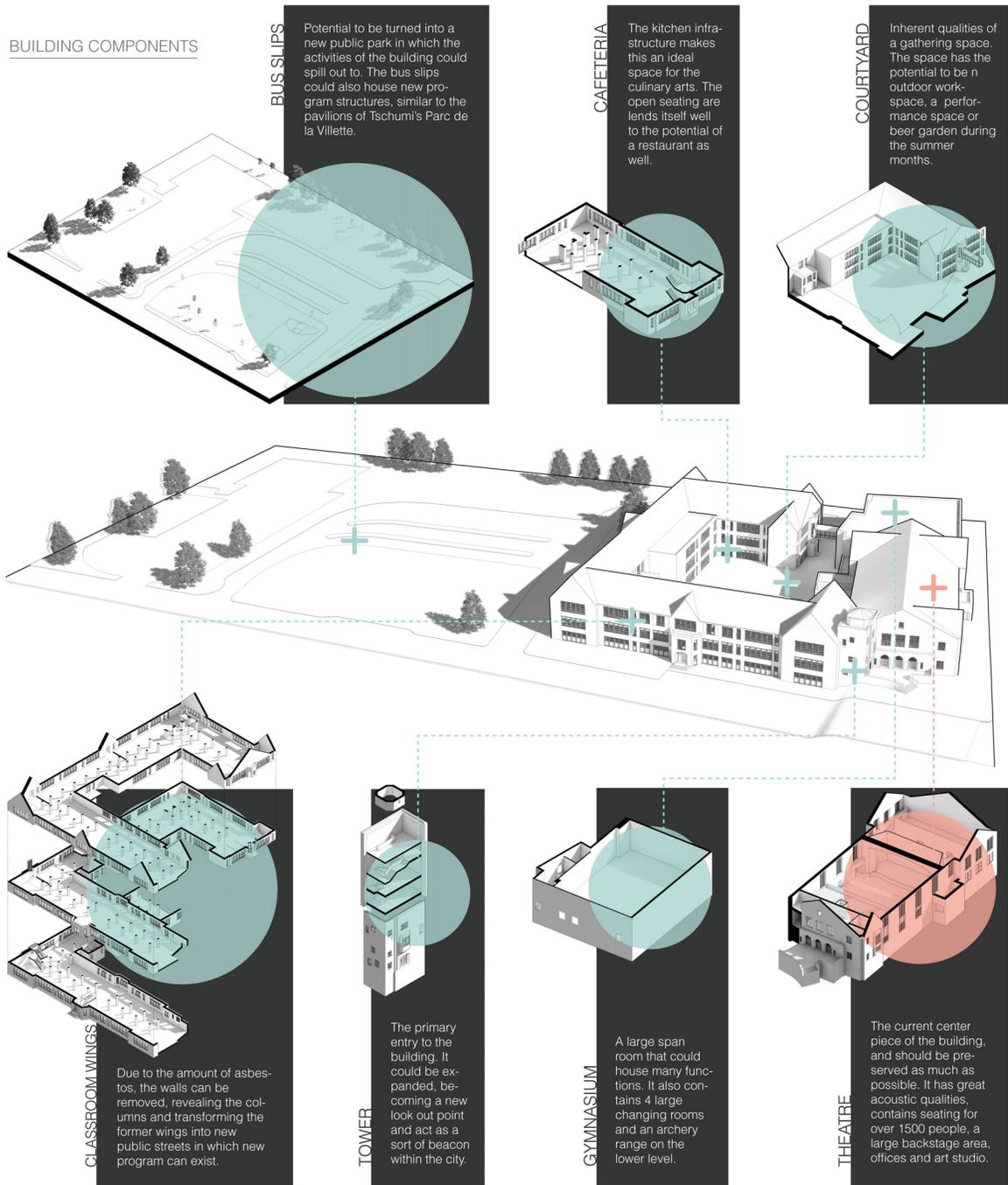
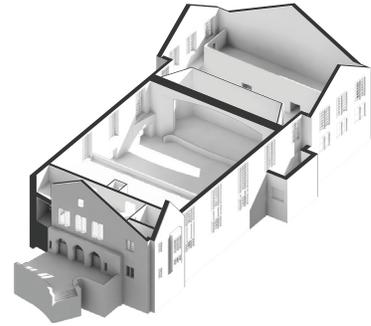


Diagram depicting the 7 different characters the building has been separated into that have the potential to be transformed into unique public spaces. These spaces will house program to make them more dynamic and cohesive with one another.

### ***The Theatre and Backstage***

The theatre is the current centerpiece of the building and should be preserved as much as possible. With its great acoustic qualities, seating for nearly 1500 people, a large backstage area, offices and art studio. The basement level has a large storage room for props and is directly connected to the changerooms that were completed as part of the 1984 expansion. As such, this building character offers great potential for a supplementary program to the proposed future public space. The interior of the theatre may need to be updated, i.e. the current wooden seats may need to be converted to something more comfortable that is more in-tuned to today's standards; however, the long-term success of the build will rely heavily on the theatre's preservation as it is a topic of great concern with the public.



Existing theatre with roof removed to show interior space.

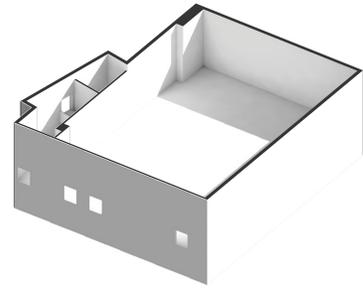


Theatre space during the school's operation.

### ***The Gymnasium***

The gymnasium is a large span, 3 story room with no current fenestration, essentially a large opaque structure

that has blocked the view between the courtyard and Mountain road, leaving a bottlenecked entry to the building's central gathering space. On the lower level, the 1984 addition contains 4 large changing rooms and an archery range. These rooms could be maintained or house a new program; however, the gymnasium could be removed and turned into an outdoor plaza and performance space, as it shares the backstage area with the theatre. This would reinstate a welcoming access point to the courtyard and increase the site's connection to its urban context.



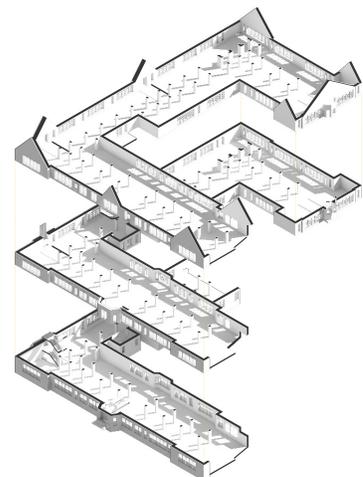
Existing gymnasium addition with roof removed to show interior space.



Existing Gymnasium addition and bottle necked entry to courtyard.

### ***The Classroom Wings***

Instead of a series of hallways and classrooms, the classroom wings could be cleared, removing all the asbestos-riddled walls, revealing the floor structure and unveiling the steel columns. This would create generous 18.5 m wide “public streets” upon which the public could walk through freely, interacting with one another and the various activities brought on by an introduced program.



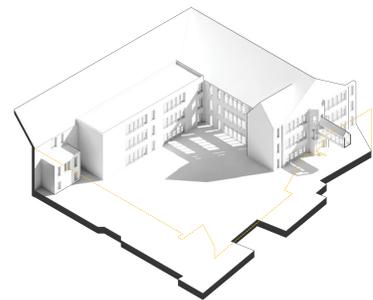
Existing classroom wings with interior walls removed to reveal structure.



Existing state of classroom wing hallways.

### ***The Courtyard***

The large surrounded courtyard at the center of the building has the inherent qualities of a gathering space, yet due to its level of enclosure, it currently lacks connection to its urban context. For the project to succeed as a new public space for the city, the courtyard will need to connect not only to Mountain road, but also to the site's former bus slips, and the adjacent residential area on church street. Perhaps new pathways that cut through the flanking classroom wings could connect it to the aforementioned areas and be used as an outdoor workspace or performance area, and as it is located next to the cafeteria, a beer garden during the summer months.



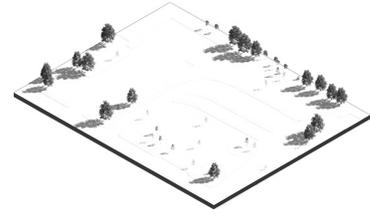
Existing courtyard with theatre and portion of classroom wing removed to reveal entire usable space.



Existing state of courtyard.

### ***The Bus Slips***

As a large open lot at the center of the city, the bus slips have a great potential to be transformed into a highly vibrant and complementary public park to the former Moncton High School building. The new public park could be an area upon which the activities of the building spill out to and could be housed within newly introduced structures, creating a similar experience to the pavilions of Bernard Tschumi's Parc de la Villette.



Existing bus slips, parking lot and small basketball court adjacent to building.



Existing state of the former bus slips.

### ***The Tower***

The tower was historically the primary entry to the building. It is important to preserve this component as it is the primary visual memory that many carry with them of the building's architectural figure. The 5 interior floor slabs could be opened up, allowing for more natural light to fill the interior space, but as this component holds much of the former high school's identity, its exterior should remain untouched.



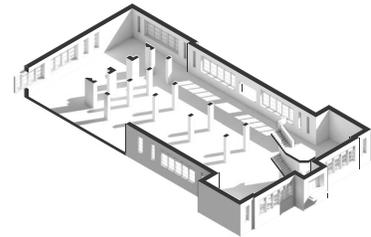
Existing tower entrance with facade removed to show stair core within.



Existing state of the Tower.

### ***The Cafeteria***

A restaurant or similar program always generates a substantial flow of public traffic, making it another ideal destination or landmark along the new public streets of the building. The existing kitchen infrastructure makes this an ideal space for any aspect of the culinary arts. The large open seating area coupled with its adjacency to the courtyard lends itself well to the potential of a restaurant or bar.



Existing cafeteria with upper floor removed to show interior space.

### **Thesis Question**

Can the former Moncton High school be transformed into a social hub for the city by building upon Moncton's growing art scene, and help to heal its current urban sprawl?

## CHAPTER 3: PROGRAM DEVELOPMENT

### The Former Theatre

Thanks to the school's theatre program, Moncton High has a rich history in the performing arts. During the former high school's operation, the theatre program, run by Mr. Michael McArdle, would put on elaborate plays that would regularly win awards and even had the Moncton High School drama program be chosen as one of ten top Canadian High Schools to perform on the international stage at the Edinburgh Fringe Festival (McArdle, Sims 2016). The building thus has all the necessary infrastructure to take the performing arts on as a program and likely be successful; however, the building is too large to solely house this as it's only tenant. While a theatre company could take advantage of the current space, alongside various standard programs such as office space, retail space, restaurants, and cafés, the building's appeal would likely fizzle out and fall in line with much of Moncton's current undefined-hub characteristics. The performing arts should exist alongside various artistic programs with which it would collaborate and flourish, allowing for more interesting and dynamic relationships between creative fields, the public, and the iconic building.

The performing arts rely heavily on the input of several other art forms to succeed, for instance: The writing of scripts, the design of sets and costumes, building those sets and costumes, composing the musical score, capturing the performance for advertisement or invitation purposes, and the need for audience refreshments between acts. The theatre also draws inspiration from novels, essays, music, paintings and other visual arts, even food and architectural atmosphere, so what if the building could be a place that

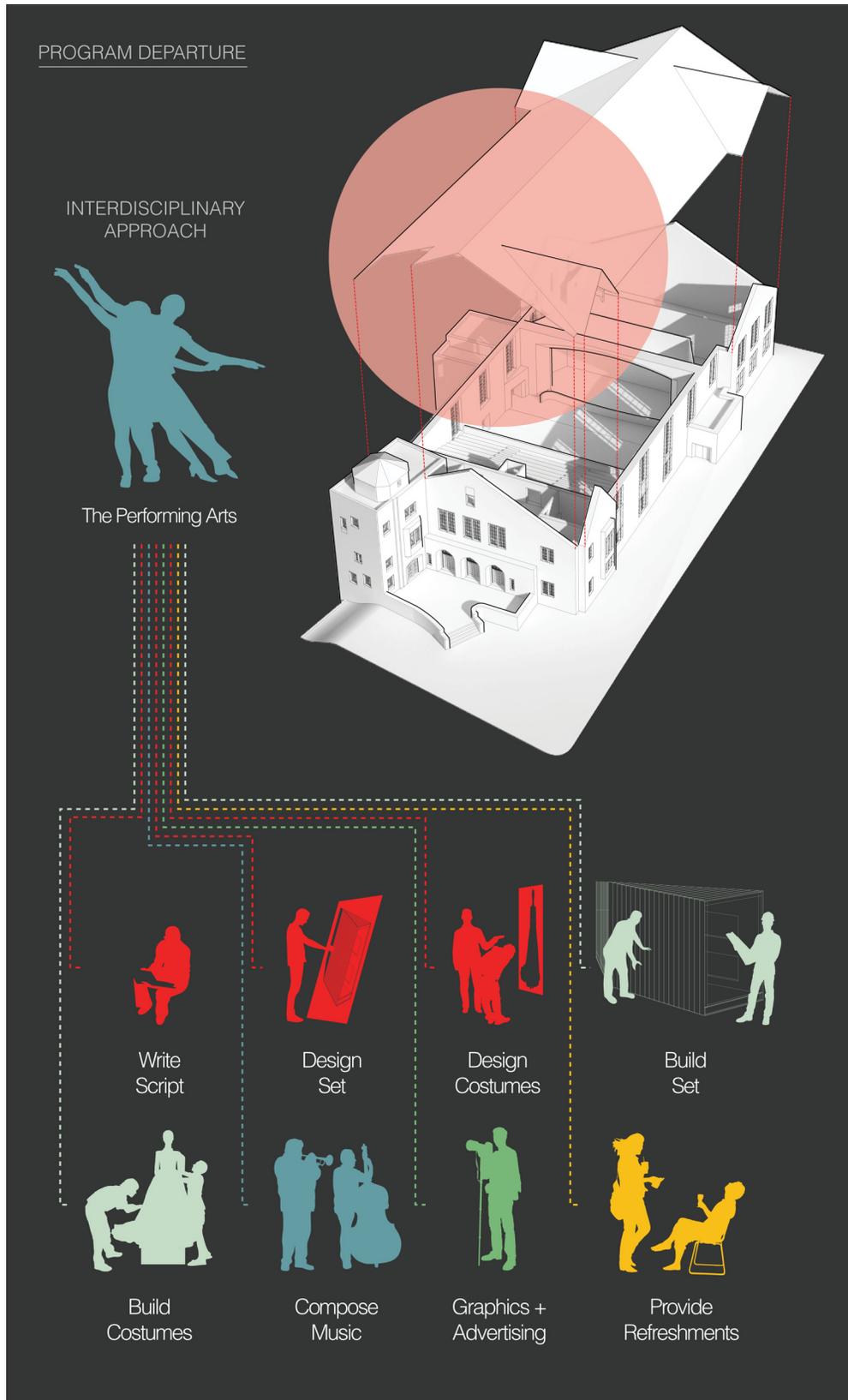


Diagram depicting the existing theatre and the many creative fields that collaborate to realize a theatre production.

houses these necessities for the theatre, as well as any other collaborative projects that could take place between them? Collaboration is necessary for many art forms, with an interdisciplinary approach yielding the best creative results (Vail, 2014). I am therefore proposing the former Moncton High School be transformed into a hub for all forms of creativity, an Art Incubator.

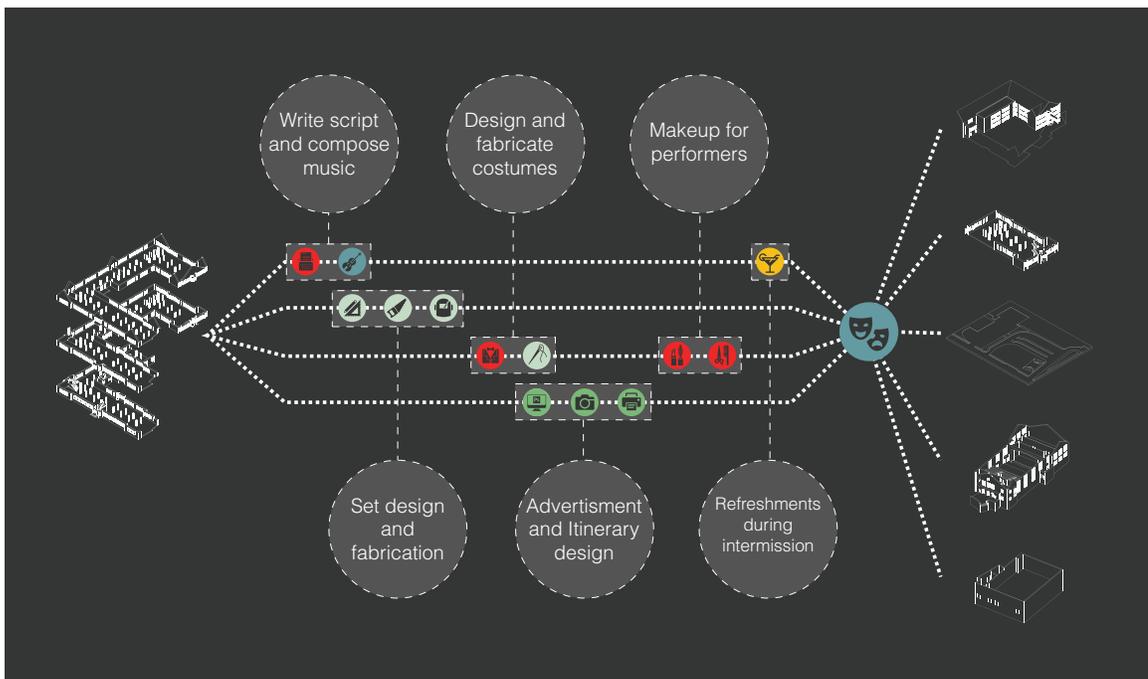


Diagram depicting the collaborative process for a theatre production, where within the building these art forms would originate, and where the final piece could be performed.

## Precedence

There exist many precedence projects for the proposed Art Incubator program of the Former Moncton High School that will be used as guides in the adaptive reuse design of the site.

## LX Factory

Lisbon's Lx Factory is an ideal example, sited on one of the most significant manufacturing complexes in the city's

history. Located on a 23.000 m<sup>2</sup> former industrial area, LX Factory is a creative hub occupied by various manufacturing and retail companies alongside a diverse set of creative industries such as fashion, publicity, communication, fine arts, architecture, music, food and more, attracting numerous visitors to be engaged in a series of dynamic activities (Barnaby, 2017). This creative hub is a true stage for “ideas and products in a place belonging to everyone, for everyone” (LX Factory, 2018).



LX Factory site map (Barnaby, 2017).



LX Factory Murals (Barnaby, 2017).

### **cSpace King Edward**

cSpace King Edward is a Canadian example of a similar endeavor. The former King Edward school in Calgary Alberta has been transformed into a collaborative workspace for different forms of art. The hallways have been turned into galleries, former classrooms have now become studio spaces, and a new addition to the building house a small theatre and recording space, all with the intent of pulling the community together and sharing their knowledge and creativity (cSpace King Edward, 2017).



cSpace hallway conversion to gallery space (Nyhoff, 2017).



cSpace conversion of former King Edward School (Nyhoff, 2017).

## La SAT

Established in 1996, la Société des Arts Technologiques is an interdisciplinary organization in Montreal dedicated to promoting the practice of art and technology. La SAT puts on several audio and visual shows every year inside of its large dome structure with amazing acoustics and 360° digital projectors and has brought a vibrancy not only to the immediate urban area but the city of Montreal as a whole (La SAT, 2010).



La SAT's outdoor seating area with the Satosphère in background (Roy, 2013).



Inside La SAT's Satosphère dome (Roy, 2013).

## An Emerging Art Culture

The next step is to test for the presence of an art culture and decide whether this is a program that Moncton would use.

## A Visual Arts Culture

Moncton is home to several art galleries and various design practices as well as many photography and cinematography studios. The city also has a large art school near the downtown area called McKenzie College.

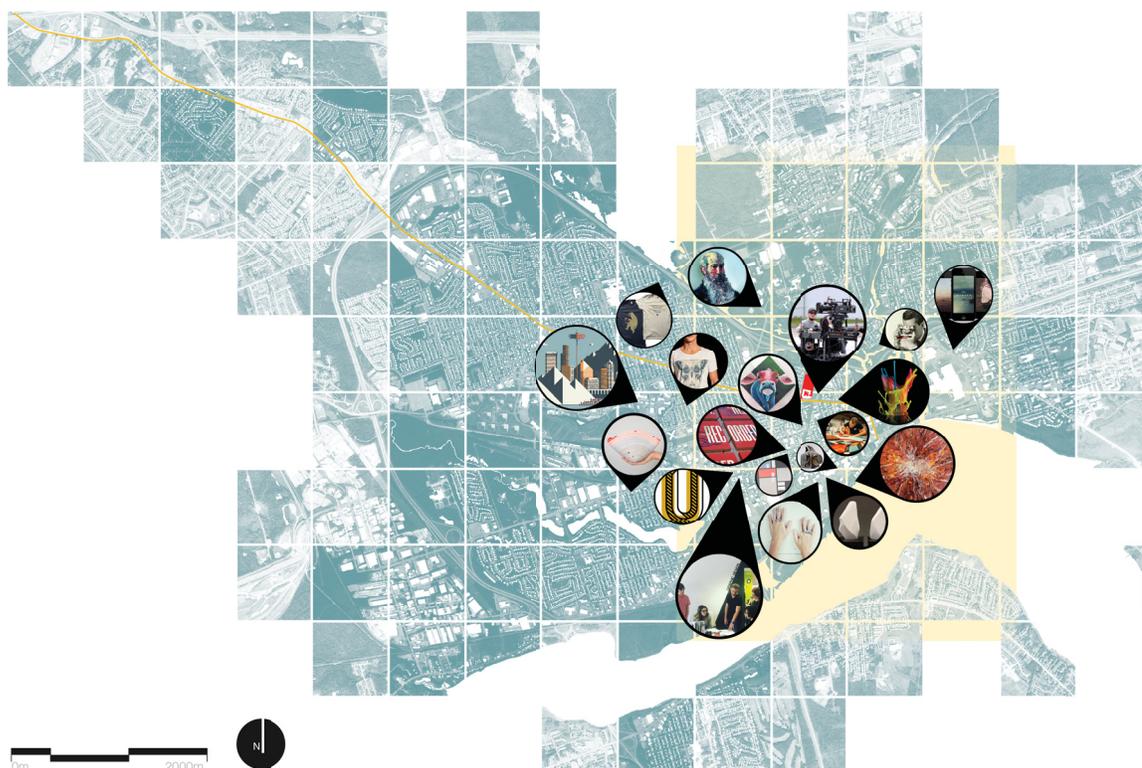


Diagram of visual arts practices and galleries within the Greater Moncton area.

## A Performing Arts Culture

Moncton is home to many small dance schools as well as The Atlantic Ballet. The city has a number of small theatre companies and 4 notable performance venues fre-

quented by many big-name acts such as The Rolling Stones, The Tragically Hip, and U2.

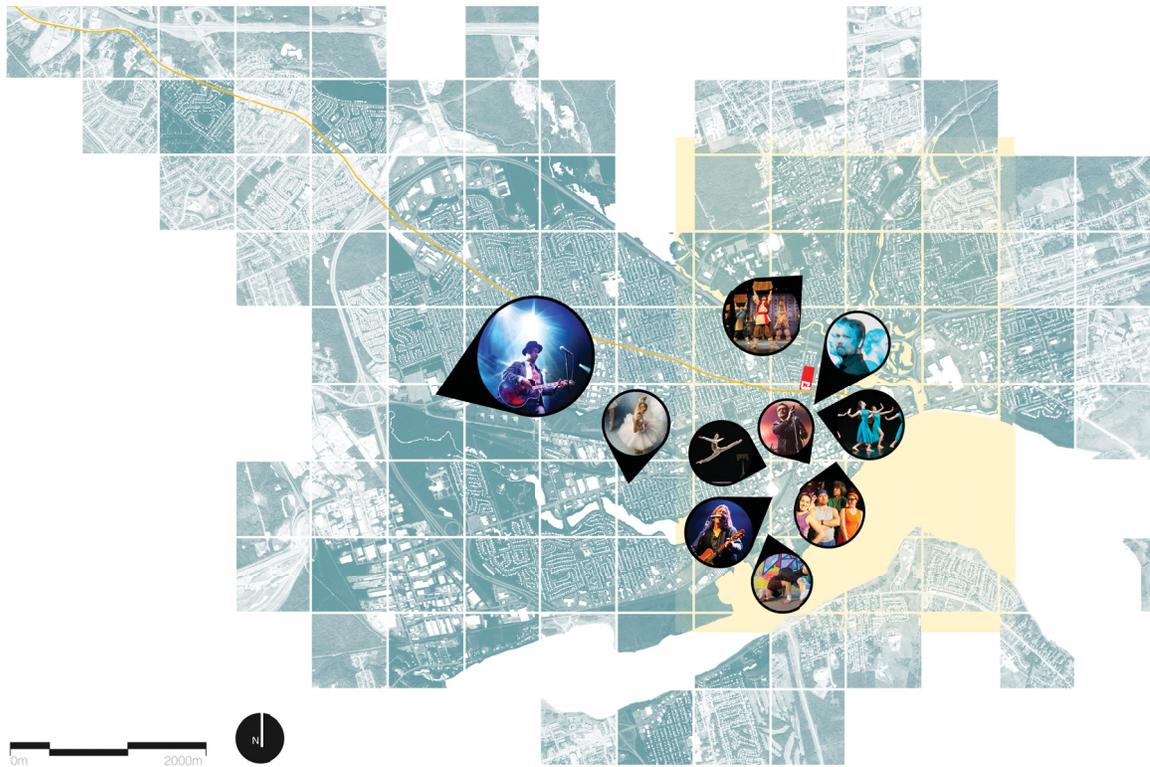


Diagram of performing arts practices and venues within the Greater Moncton area.

## A Culinary Arts Culture

Moncton has several restaurants and bistros practicing finer forms of craft cuisine as well as local breweries, wineries, and distilleries. The New Brunswick Community College located on Mountain rd. also offers a highly regarded culinary program.

## Festival Inspire

Every year, Moncton hosts an art festival where several artists are invited to produce murals, sculpture, performance art and more around the city. Most of the work becomes permanent afterward, allowing the festival to grow with each passing year.



With a present and growing art culture established, and with Moncton High School being centrally located to much of it, the iconic building could act as a Magnet for the creative presence to come together and form a new vibrant hub for the city.



Map depicting the former Moncton High School's centrality to the existing art culture within the city

## **New Hub: The Art Incubator**

In the event of an exhibition, artists need to provide artwork for the gallery, someone then needs to design and build the displays for those pieces, perhaps prints need to

be made of certain works for sale. The event may need catering and maybe a DJ is there to provide music and add to the exhibitions atmosphere.

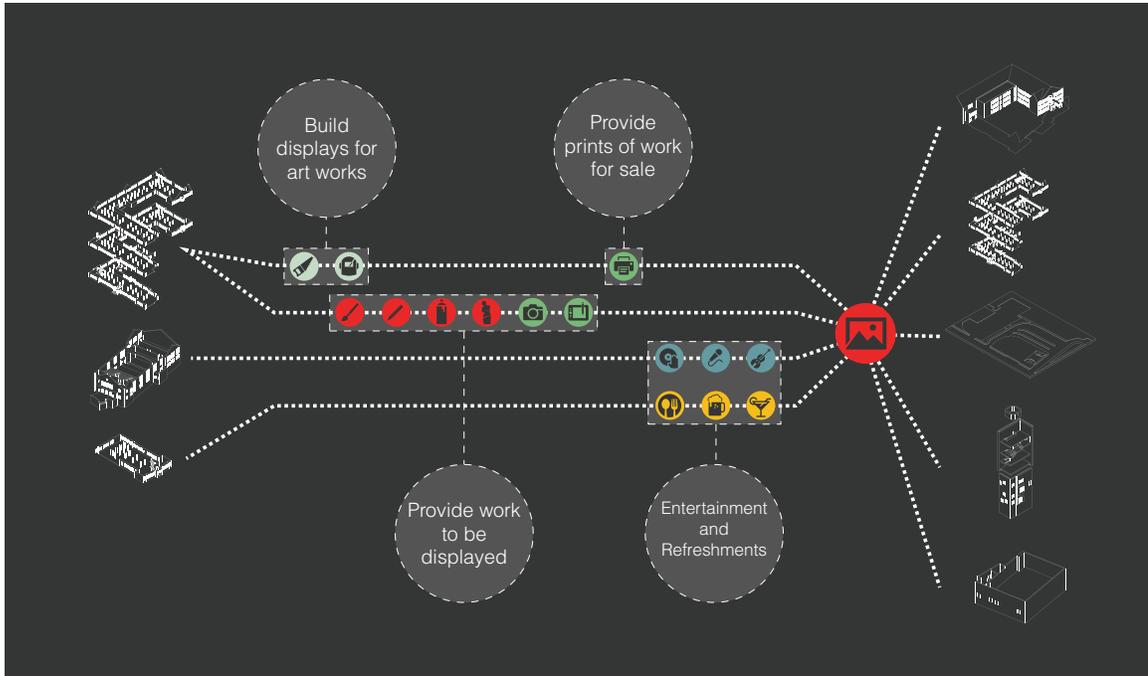


Diagram depicting the collaborative process for an exhibition

The new restaurant space is another example. What if the former cafeteria now became a residency restaurant for up and coming or renown chefs, a sort of temporary exhibition of their work. These chefs could prepare menus with ingredients provided by on-site gardeners, bakers, brew masters, etc. The cutlery and furniture could be manufactured by metal and woodworkers within the building and various visual and performing arts could be showcased in the dining area while adding the atmosphere of the experience.

## Existing

It is important to begin by loosely defining a set of

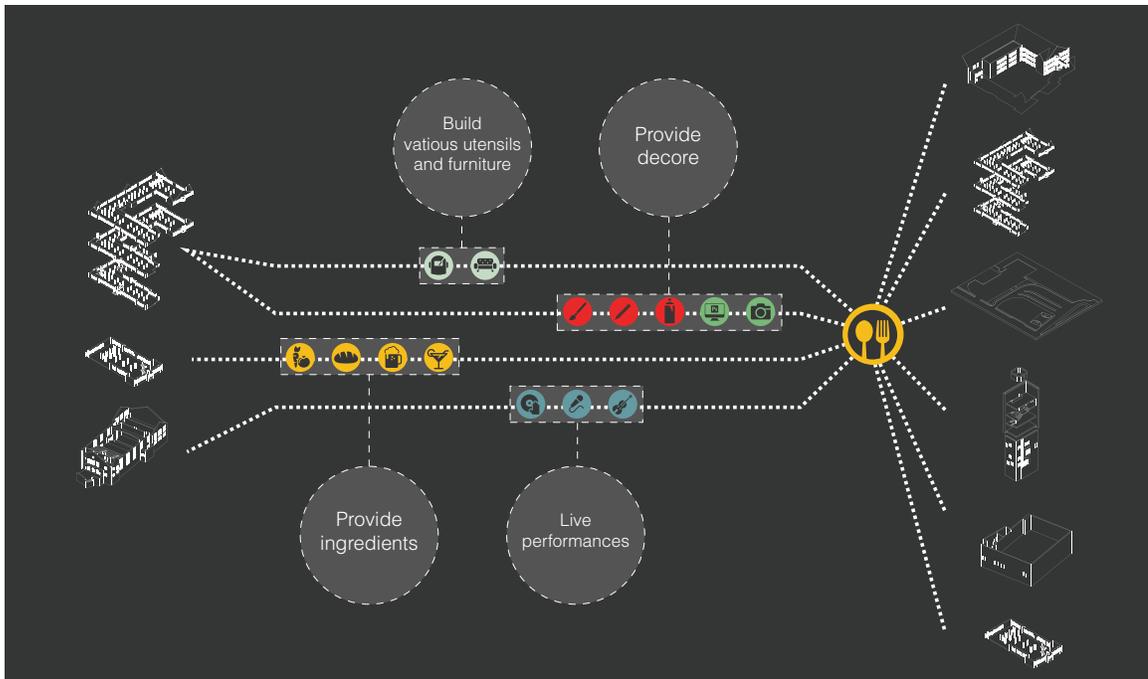


Diagram depicting the collaborative process for the building's restaurant

initial art forms that are slightly more obvious as “art” and currently exist within the city. The performing arts, such as dance, theatre, music, and broadcasting. The visual arts, traditional forms like drawing, painting, sculpting, and fashion as well as others like tattooing, barbering, makeup, and screen printing. The culinary arts, with the obvious restaurants and cafés, but also including gardeners, bakers and, brewmasters who could provide unique ingredients for them.

## Missing

It is also important to fill in the blanks that currently do not exist in Moncton's emerging art culture. While there certainly is a presence of graphic design, photography, and cinematography, the inclusion of other digital art forms is crucial to be relevant today. For instance, coders, app. developers and industrial designers produce art in digital

space. Some of those pieces then move on to be fabricated in the physical world, bringing forward the necessity of maker labs, fabrication spaces where the art of woodworking, metal crafting, textiles, and engineering can exist and collaborate with the other forms of creativity throughout the building, transforming ideas into physical things.

## Technology

Finally, the notion of the computer scientist as an artist. Technology has become instrumental in how much of today's art is produced. Take for instance the work of Philip Beesley, who creates incredible bionic art installations that react via sensors to the human touch (Beesley, 2017).



Photos of Philip Beesley's Aurora installation in the West Edmonton Mall (Rahn, 2013).

Or the work of Dr. Philippe Block and his use of parametric modeling to create thin brick dome-like structures that would have previously been impossible before the technological advancements of the computer.

Many artists and design practices rely heavily on grants to allow them to pursue their passion as employment. In 2015-16, The Canada Council for the Arts award



Photos of Philippe Block's Armadillo Vault in Venic and of Free-form Ctalan Vault in Zurich (Baan, 2016).

nearly \$145 000 000 in grants to over 2000 artists, of which the majority were involved in some form of interdisciplinary practice, or collaborative effort due to the multi-faceted approaches they take in accomplishing their projects, allowing them to explore or research a broader range of areas, or focus more critically on a single subject from various points of view and expertise (Canada Council for the Arts, 2017). If the Art Incubator can fully embody a collaborative and interdisciplinary practice in a truly public setting, the former Moncton High School could easily become the vibrant social hub that the city needs.

### **Serving the Public**

The Art Incubator will give the public a new space to go within the city core. It will offer a variety of food vendors, restaurants, coffee and beer breweries for the public to indulge in. It will provide retail outlets for design related industries and allow the artists of the incubator to sell their works on-site. The public will be able to take advantage of the potential services that the building could provide, such as the digital fabrication tools and machinery in the maker labs, or catering services provided by the culinary artists.

Dance, music, or theatre lessons taught by the performing artists could be offered as well. The public setting will also engage the people of the city with the artists and their work in an interactive gallery. The incubator will act as a prominent performance venue and event space at the heart of the city core.

### **Serving the Artists**

While the Art Incubator could provide a teaching component, offering classes in various arts as a means of engaging the public as well as providing a source of income, the adaptive reuse of the Former Moncton High School is not to become an art school. The program is more-so focused on giving a place for emerging and established artists to produce their work after they have completed their education. NSCAD in Halifax, NS is a prominent art school producing amazing artists and incredible works; however, after graduation the process of finding employment or space to practice where their work can be seen becomes difficult. The same can be said for McKenzie College, the art school in Moncton, thus The Art Incubator will aim to remedy this by providing a place for these emerging artists to practice in an enriched, interdisciplinary environment among other creators in hopes of achieving the best working spaces, that build the best artists who produce the best artwork.

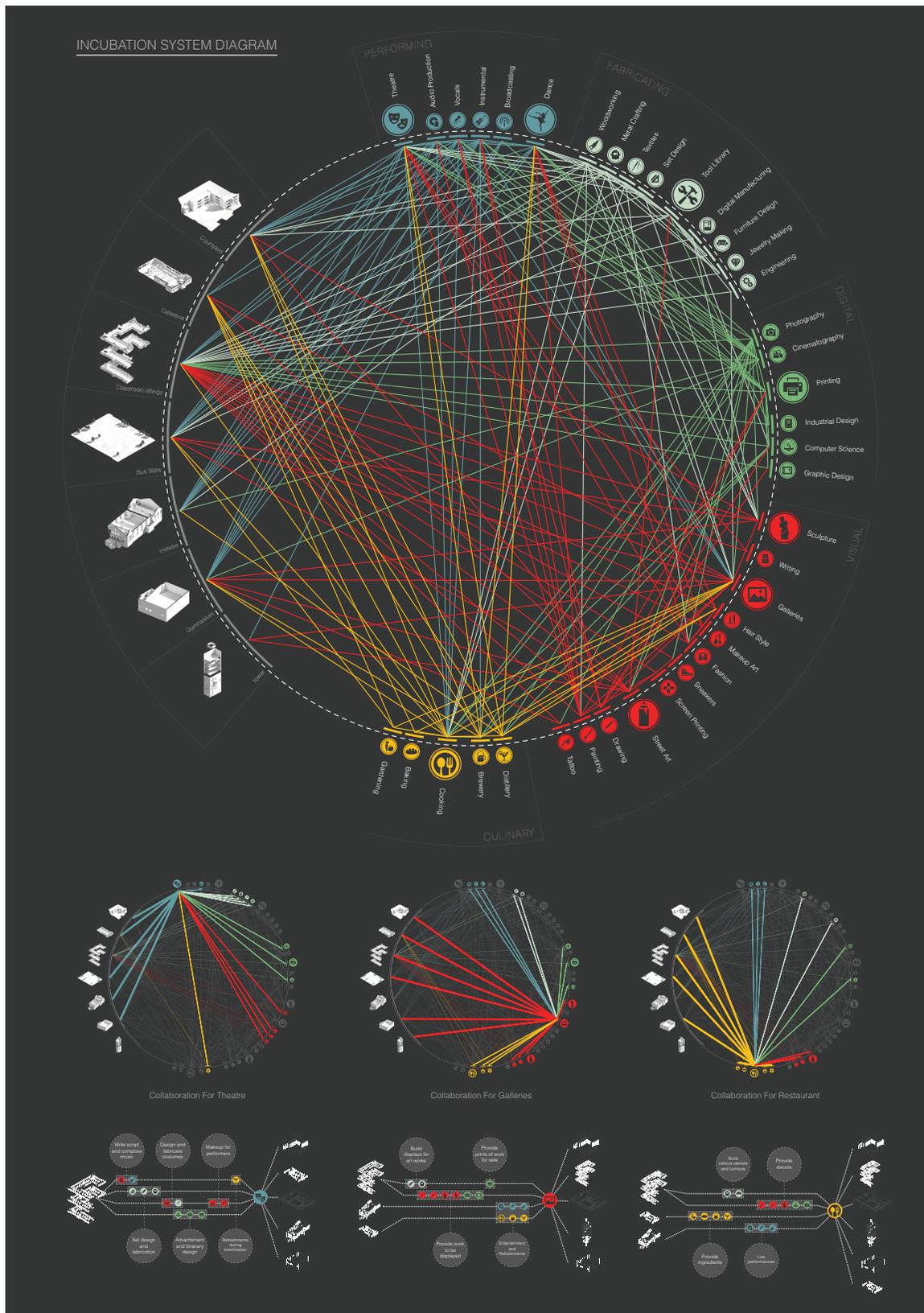


Diagram depicting the collaborative web between various art forms and within which building characters they could exist.

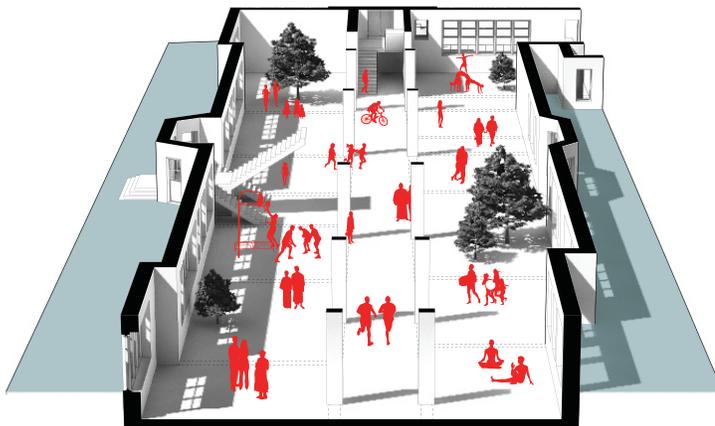
## CHAPTER 4: DESIGN

### Methods of Operation

The following methods will engage the initial design ideas that will be applied to the existing building to allow the public and the program to flow throughout the site.

### Hallways to Streets

Creating a generous free-plan by removing the existing walls in the classroom wings will allow for 'street-like' pathways that can be traveled through freely by the public, much like Stroget Square along Copenhagen's main artery and one of Europe's longest public streets.



Hallways to Streets

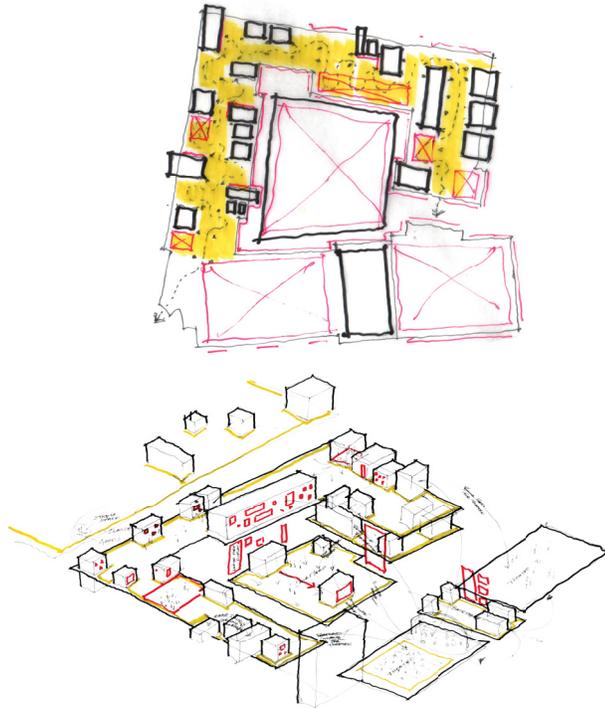


Stroget Square - Copenhagen

Diagram depicting a portion of the ground levels of the classroom wing with the interior walls removed and image of Stroget Square (Stange, 2018).

### Mobile Studios and Dynamic Space

Inspired by the dispersed program of the Donnelly Centre for Cellular and Biomolecular Research in Toronto, much of the program could exist within various studios occupying the newly created public streets as well. Building upon this precedence, these studios could also be mobile allowing artists to move their workspaces together when collaborating, or for the constant re-organization of floor plan layouts that could fit any desire.



Incubators and Dynamic Space



Donnelly Centre - Toronto

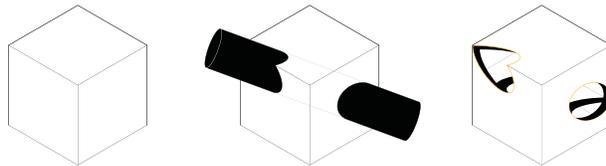
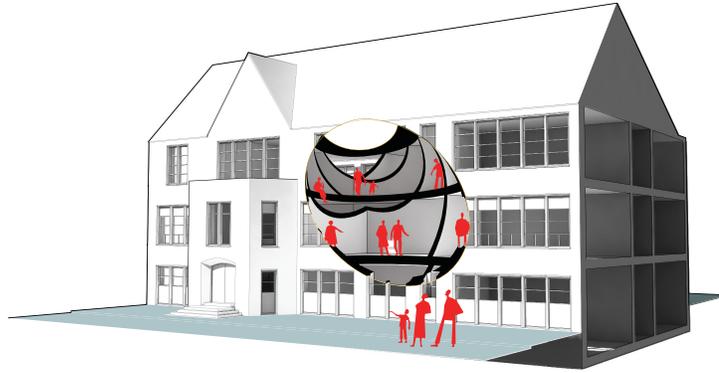
Sketches depicting initial thoughts on how program components could be modular, existing throughout the opened floor plan of the former classroom wings, and create dynamic in-between spaces as well as image of the Donnelly Centre (Donnelly Centre, 2018).

## Cutting Away

Looking to the work of Gordon Matta Clark, portions of the existing building could be cut through or removed to create new viewpoints. These void insertions not only change the way space is used but also the way it is perceived. If the building is to become more inviting, the removal of certain portions of the facade will be particularly important in determining how to stitch new pathways between the courtyard and the surrounding site of the building, expanding its public access.

## Building as Canvas

Shepard Fairey's monumental pieces greatly impact the viewer in an almost grandiose way. These murals increase public



Cutting Away



Conical Intersect -  
Gordon Matta Clark

Diagram depicting a portion of the Former Moncton High School combined with Gordon Matta Clark's Conical Intersect project (Gruyaert, 1975).

engagement with the previously blank building facades, but also symbiotically are enhanced by the textures, forms, and locations of these immense canvases. Along with housing the various performers and artists, the existing building could become a performer itself, with its skin displaying the work of the artists, making it more vibrant and helping to attract the public.



Building as Canvas



Mural in Lisbon -  
Shepard Fairey

Diagram depicting a portion of the existing building wrapped in a Shepard Fairey mural (Estiler, 2017).

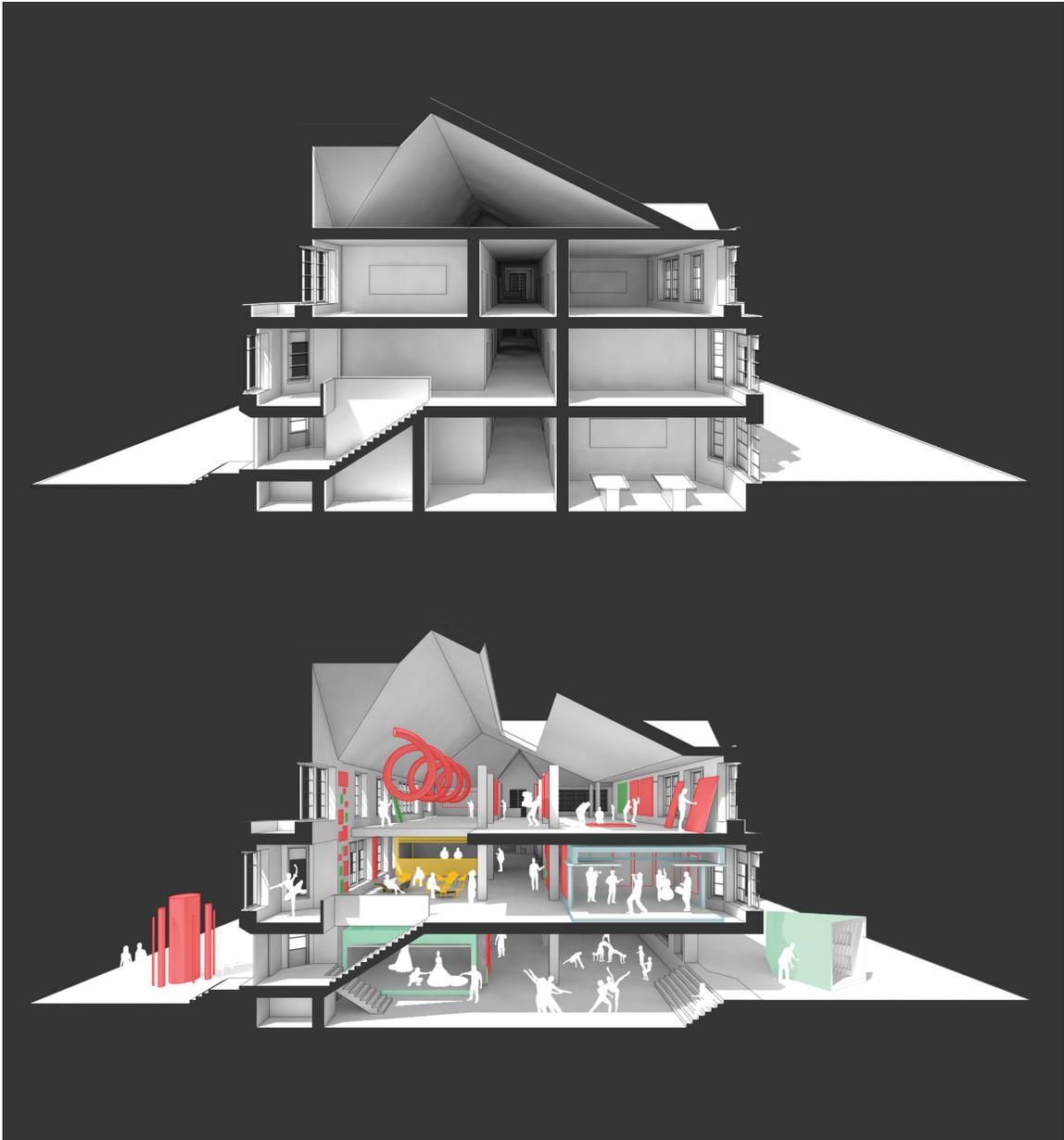
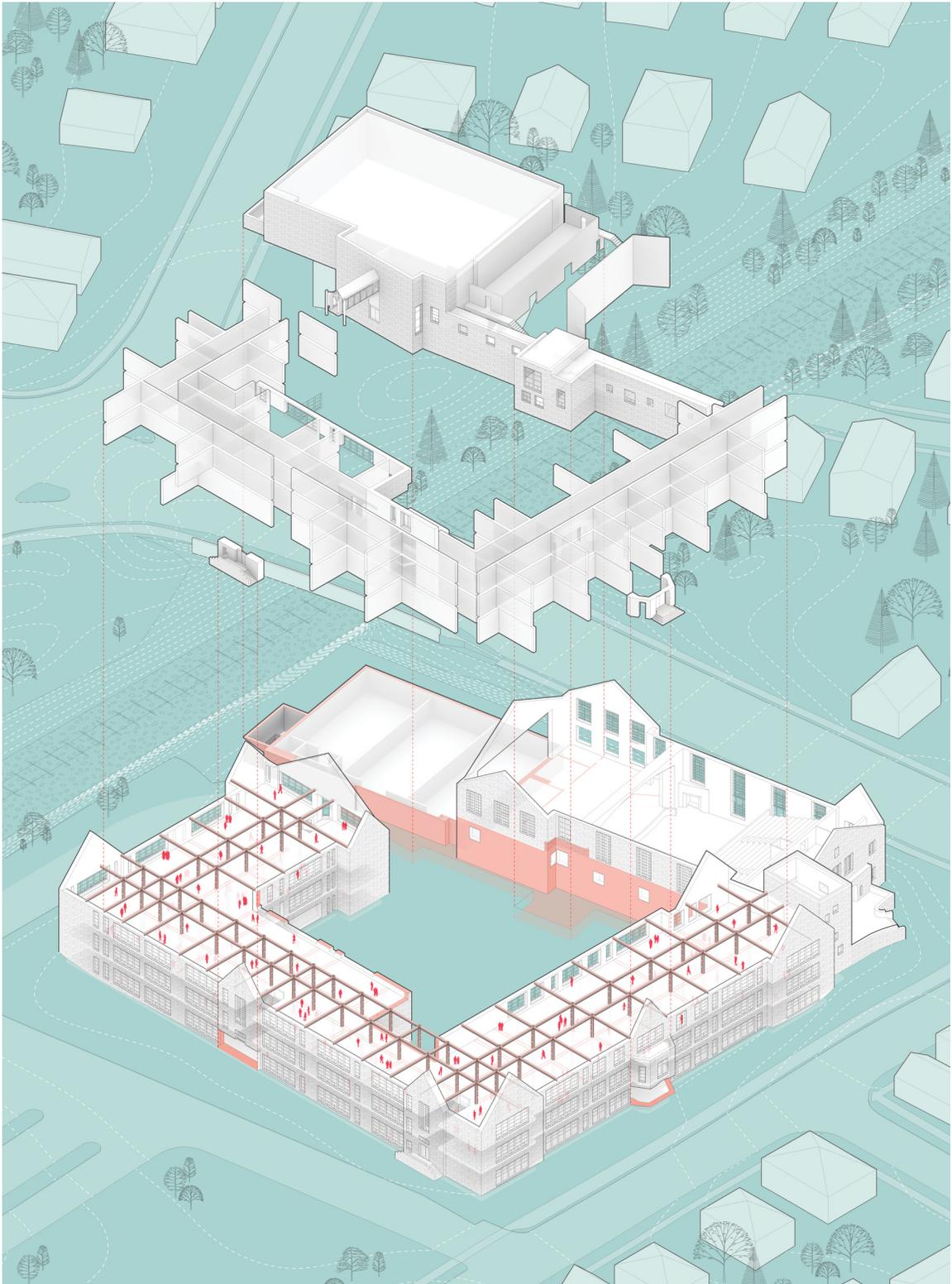


Diagram depicting the current state of the abandoned Former Moncton High School and the potential of the unused building with applied methods of operation.

## Design Steps

The design has been broken up into 5 steps that will deal with the removal of existing portions of the build, the shifting of the surrounding landscape, the introduction of new materials and structures, new the art studios, and the addition of a new public park.

## Unobstructed



Axonometric drawing showing removed components of building to open the courtyard and classroom wings to their surrounding urban context.

The design begins by opening the obstructed courtyard to establish a more inviting gathering area. To do so I have opted to remove the 1984 Gymnasium and various tacked-on additions that have been acquired over the years, creating a much wider view from Mountain road into the central space of the building. While these additions have adequately served their purpose over time, their tacked-on nature has taken away from the simple form of the original 1935 design, and unnecessarily cluttered or hidden the courtyard.



Diagram depicting accessibility to courtyard if gymnasium addition is removed.

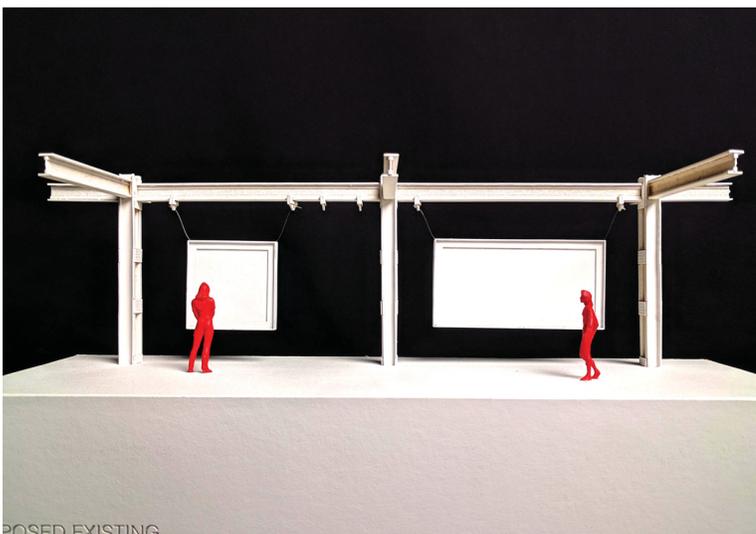
I have also chosen to cut two holes through the ground level of the classroom wings. One onto Church street to the neighboring residential community and the other onto the former bus loading zone.

The existing interior walls, riddled with asbestos will also be removed. This will allow for an open free-plan mak-

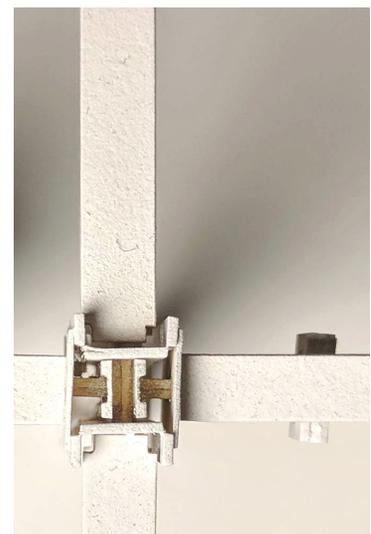


Diagram depicting accessibility to courtyard if cuts to former bus loading zone [left] and residential area [right] are added.

ing it more dynamic, and expose the existing riveted steel structure. The exposed columns have the potential to take on the new purpose of displaying various works composed by the artists of the building. Movable C-shaped brack-



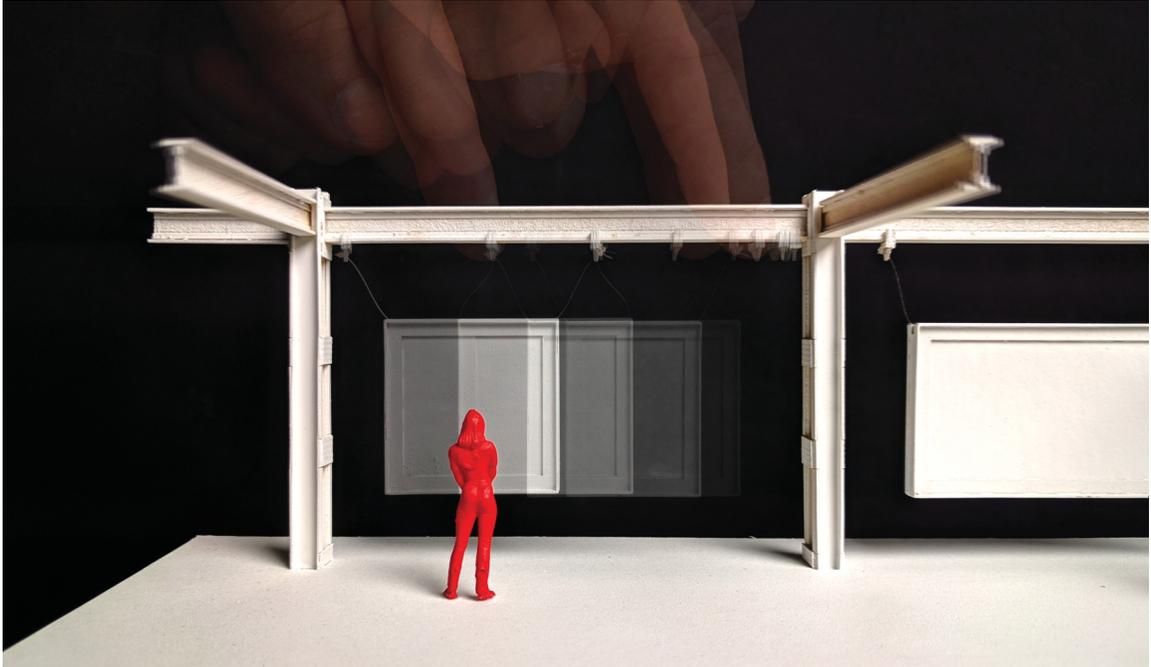
POSED EXISTING



Model photo of exposed steel structure with suspended art work and detail of riveted column.



Model photo of exposed steel structure and suspended installations.



Model photo of movable brackets for suspended art.

ets designed to hug the existing beams could be placed throughout the third floor to act as hangers for frames and sculptures.

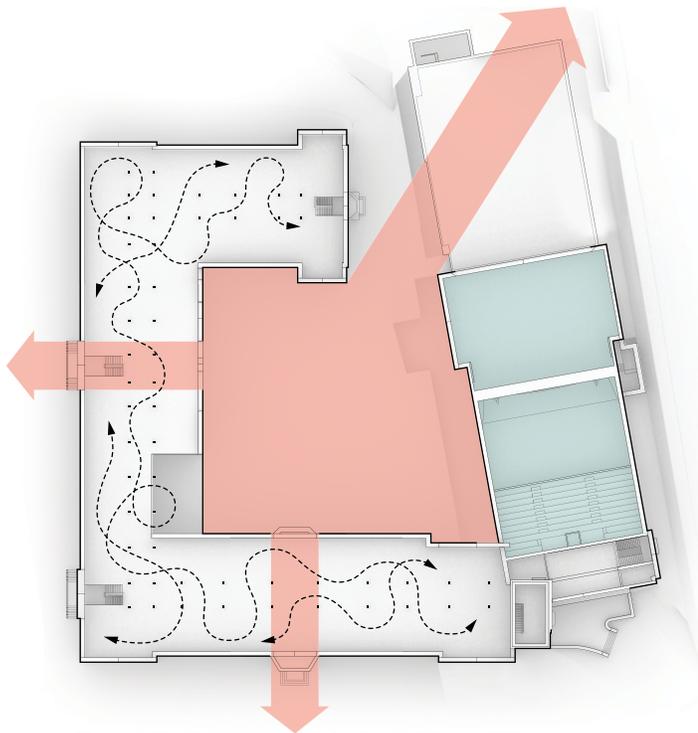


Diagram depicting all moves in the 'Unobstructed' design step.



Photo collage of exterior building elevations showing their materiality and the difference in sandstone tones from original building design in 1935 and additions over the years.

Courtyard Entry



South Elevation - 1935 and 1984



West Elevation - 1935



North Elevation A - 1935 and 1948



East Elevation - 1948



North Elevation B - 1948

Courtyard Entry

Photo collage of courtyard elevations showing their materiality and the difference in sandstone tones from original building design in 1935 and additions over the years.

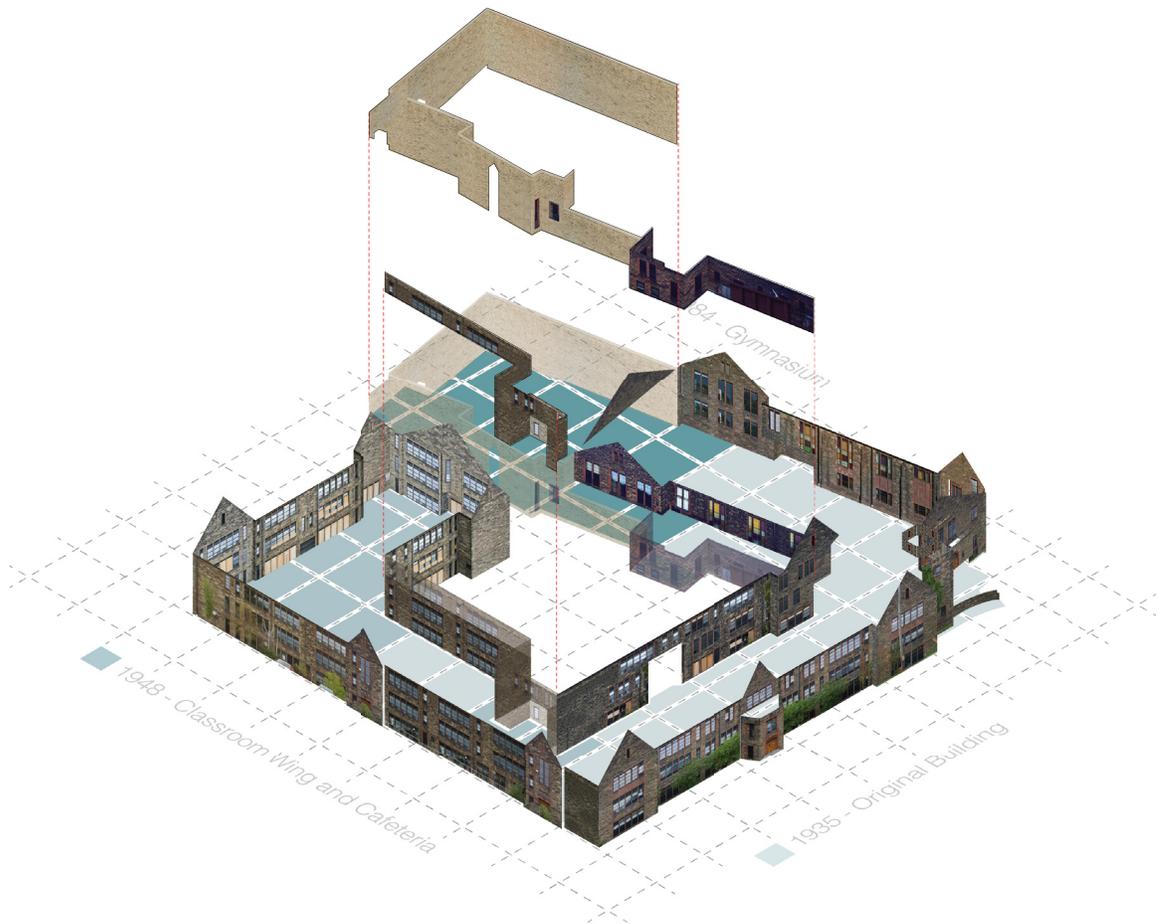
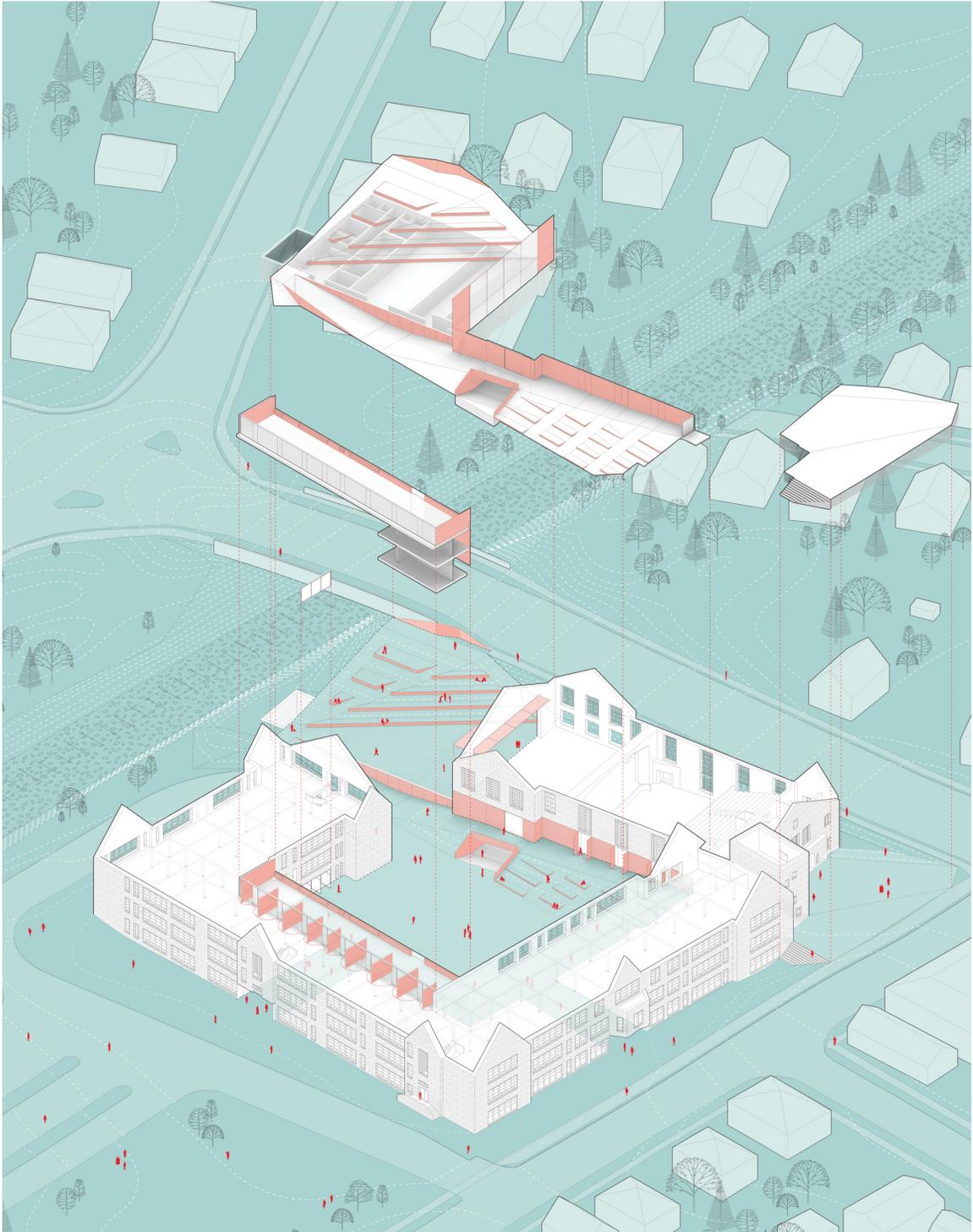


Photo collage of the existing building elevations, the time period of their construction and the sandstone to be removed and potentially reused at a later date somewhere within the project.

## Landscape Connection

With new sight lines established, the courtyard and the surrounding urban environment can now become one. To do so, the landscape will fill in the vacant footprints of the circulation addition and gymnasium creating a new outdoor plaza and performance space. The classroom wing paths will also be infilled with the landscape, creating a seamless transition between the site's urban exterior and the courtyard.



Axonometric drawing showing the addition of landscape components and the introduction of the black oxidized steel material which will infill the previously removed portions of the building.

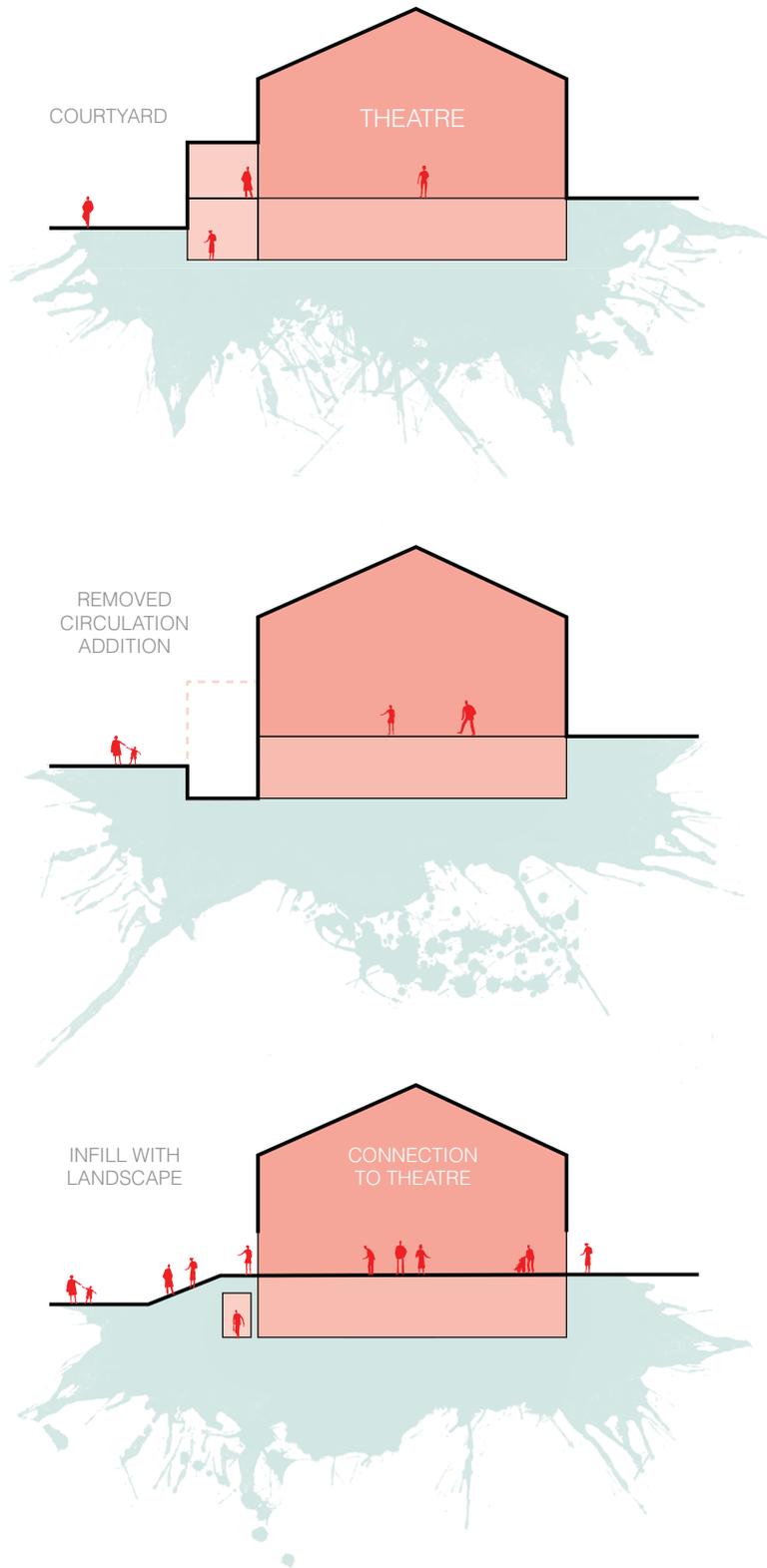
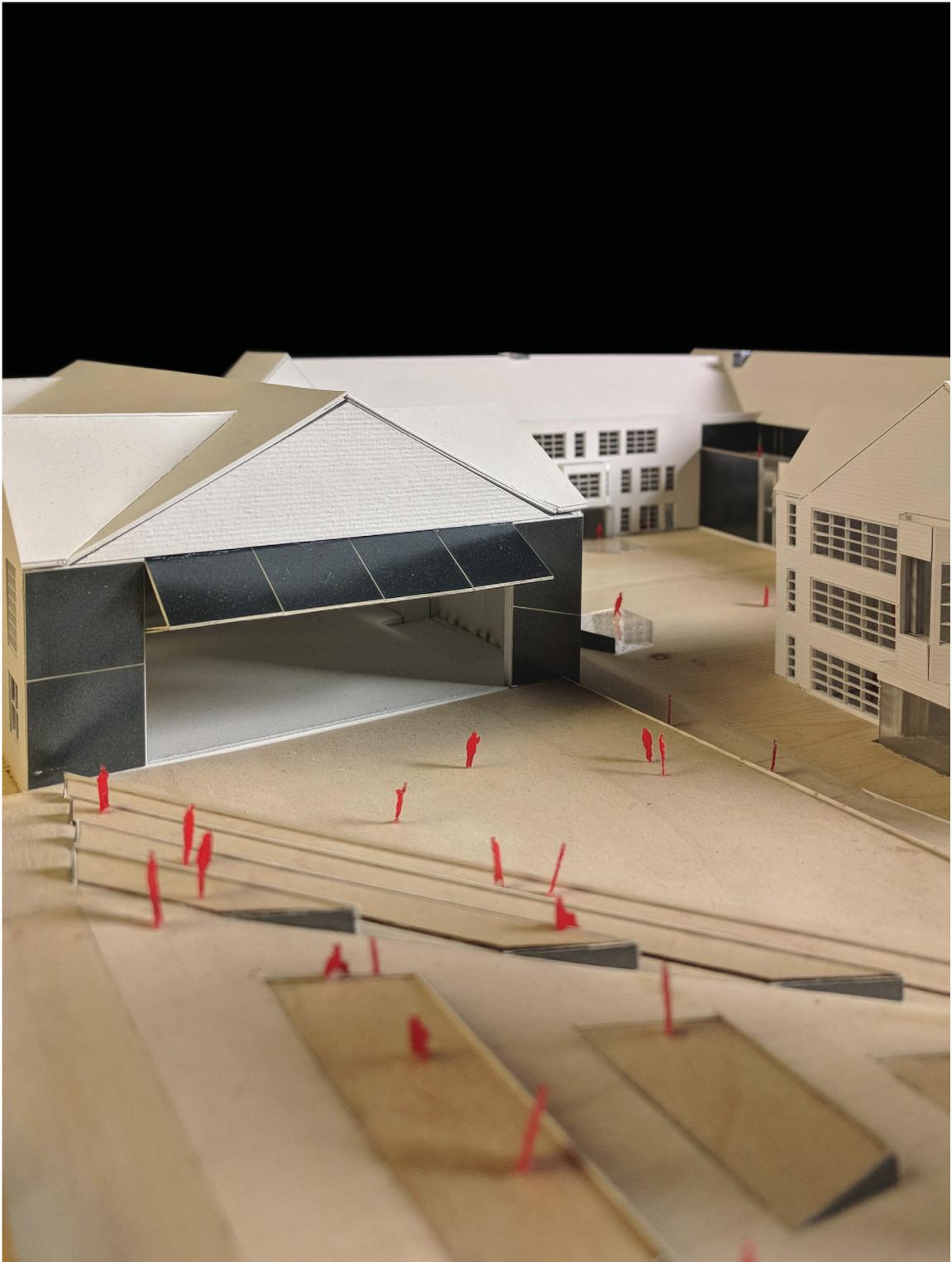


Diagram depicting how the landscape can help to connect components of the building to its urban context.



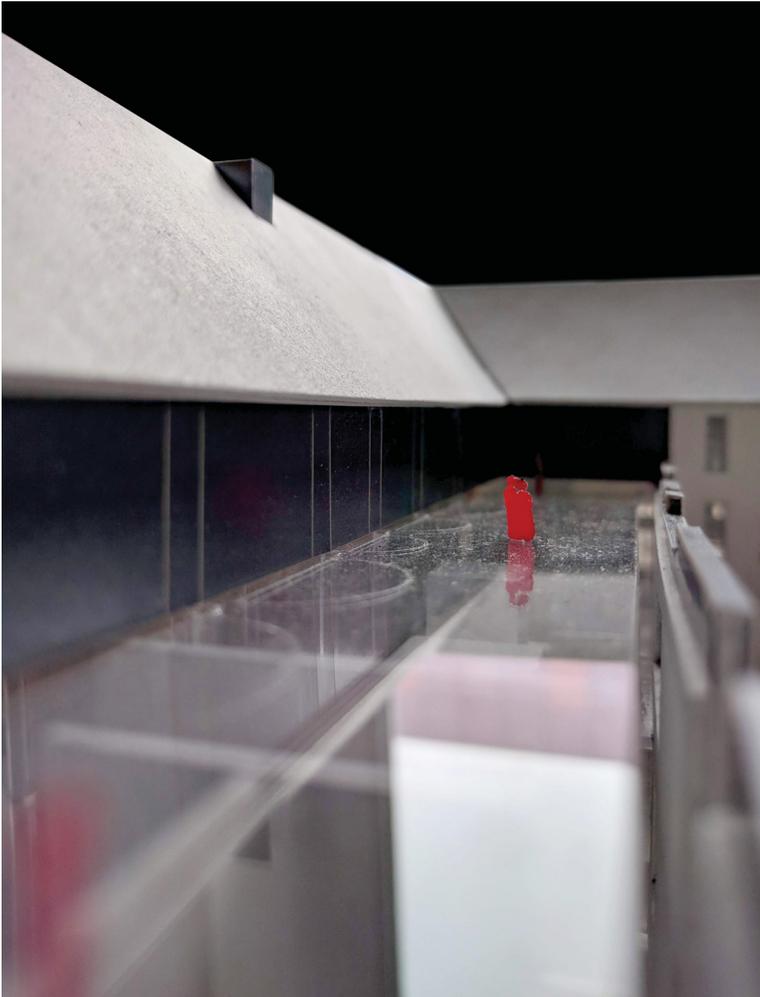
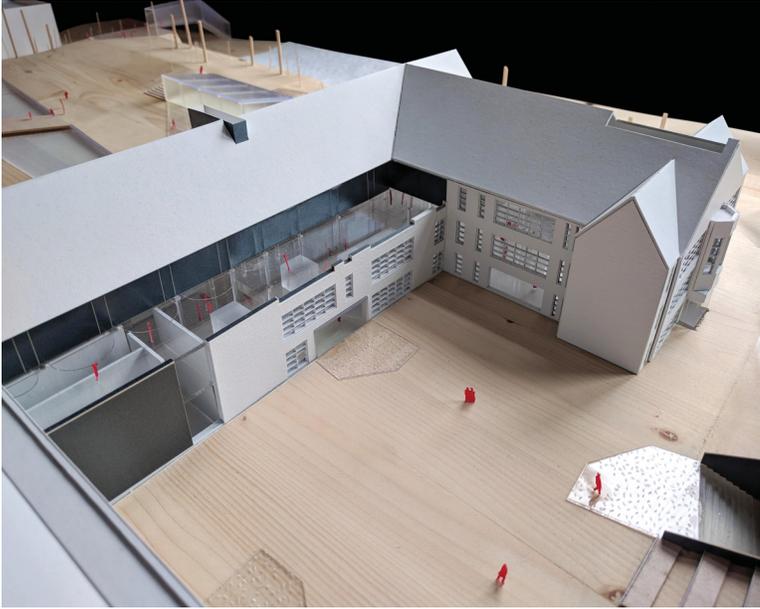
Model photo of new landscape with seating leading into outdoor performance space and plaza as well as large operable steel doors that open to the backstage area that will serve this new outdoor area.



Model photo of new landscape leading from plaza into the courtyard.



Model photo of new landscape with seating reaching up toward theatre from courtyard and stairway to lower level of theatre.



Model photos of 3rd floor outdoor area with operable steel panels to gain access to the interior space of the gallery.

Black oxidized steel panels will cap the facades where existing structures have been removed and will be operable where necessary to gain access to the theatre and third-floor gallery space. This newly introduced material will complement the old industrial nature of the sandstone skin and revealed steel riveted structure while providing a new modern finish.



Photo collage showing introduced black oxidized steel panels and doors with existing sandstone cladding and stained glass theatre windows.



Model photo showing potential uses of the introduced black oxidized steel cladding.

The new black oxidized steel cladding will maintain the memory of the building's past construction, much like the difference in sandstone tones from the building additions in 1948 and 1984, by casting the former footprints of the removed structures. The steel material can also be used as a canvas for murals or even perforated at certain location to reveal an image and allow light from within the building to pour out into the courtyard, plaza or other circulation areas of the site. The reflectivity of the steel will allow for images to be interpreted differently depending on how the light meets the material, similar to Bing Thom Architects' SAIT Polytechnic Parkade.



BTA's perforated cladding of the SAIT Parkade (Dan, 2011).



Model photo showing perforated steel in different lighting.

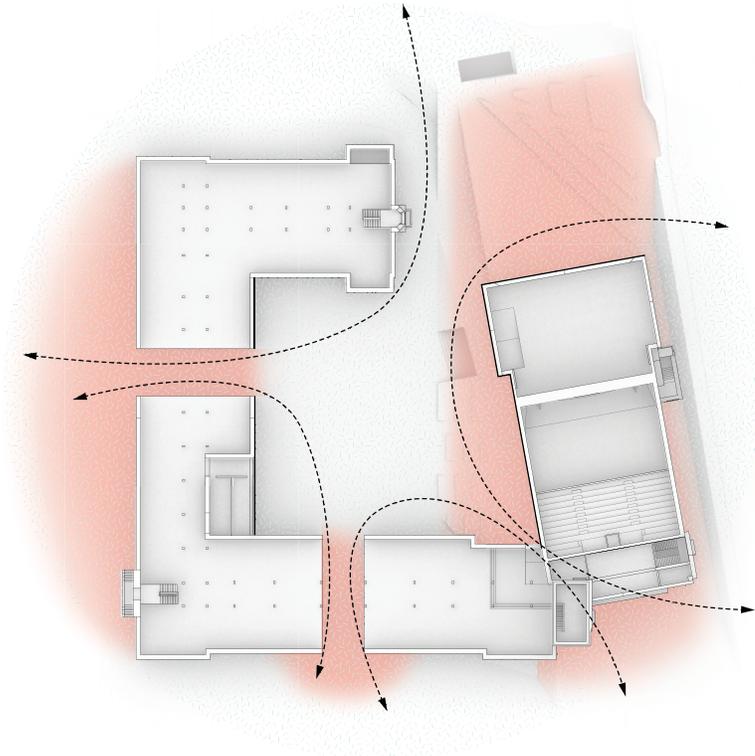
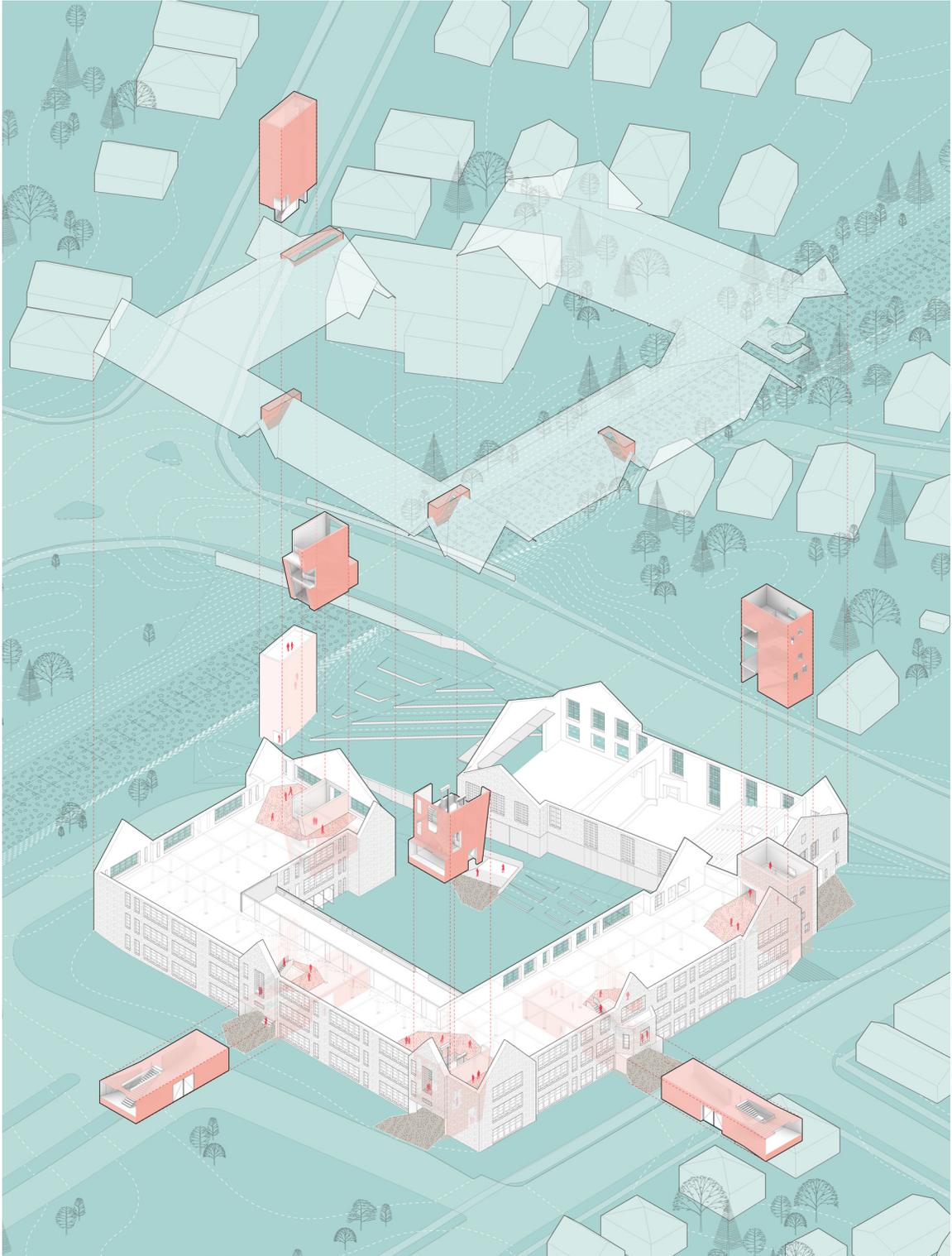


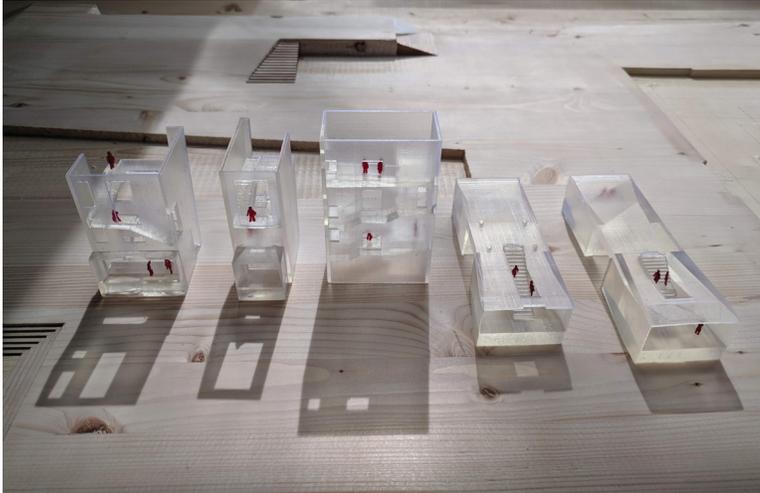
Diagram depicting all moves in the 'Landscape Connection' design step.

### **New Circulation**

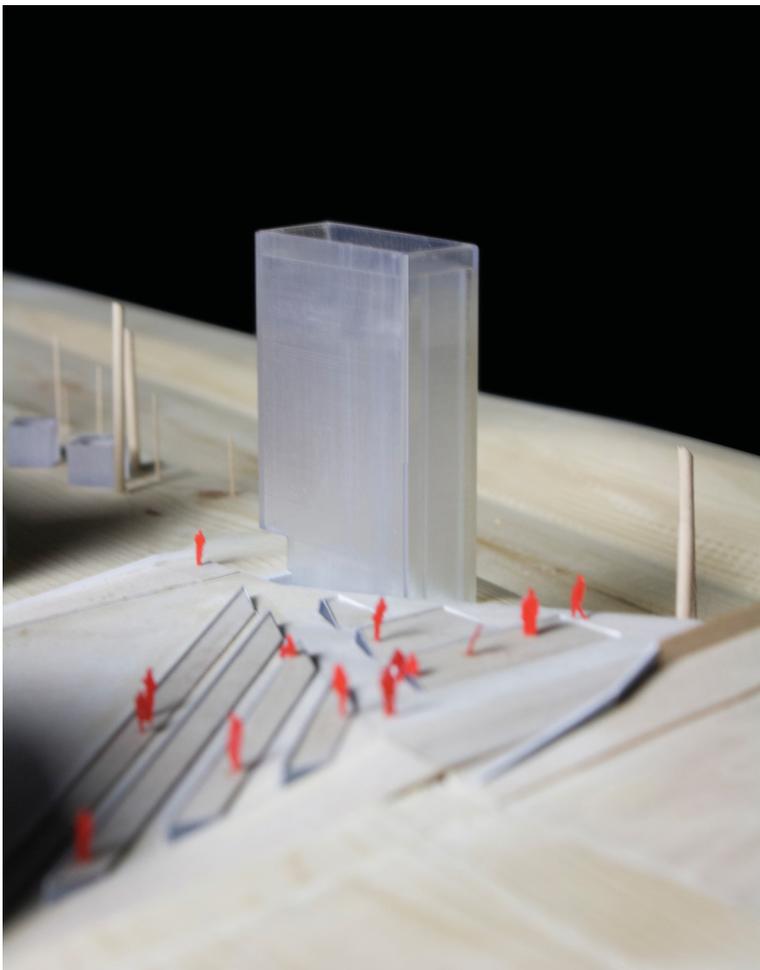
New connection will exist via more generous circulation cores placed throughout the building in respective areas of previous stairwells. These new cores will create more spacious pathways that both the inhabitants and portable studios can travel through. Five newly introduced cores will exist within the building. Three of these cores will be inserted vertically, carrying users up through the floors of the building, with one containing an elevator to carry the mobile workspaces as well. Two Horizontal cores will be placed within the previously cut openings through the ground floor of the classroom wings granting access to the courtyard. A sixth vertical core will exist outside the building flanking the new outdoor plaza and performance space, on the footprint of the stairwell that was a part of the gymnasium addition.



Axonometric drawing showing the addition of new circulation cores throughout the building.



Model photo of the 5 circulation cores that will exist inside the building abstracted to be transparent and reveal the stairways within.



Model photo of the beacon circulation core that will exist on the edge of the newly introduced plaza.

This core will continue to grant access to the lower level underneath the plaza, but will also reach up into the sky and act as a beacon, viewing tower and advertisement display, similar to that of OMA's Kunsthal in Rotterdam.

The interiors of the circulation cores will also be clad in black oxidized steel panels, signifying their addition. Each one will have a set of cables that run vertically, acting as a handrail for the stairs as well as displaying art. The exterior of the cores will be clad in translucent polycarbonate sheets, allowing any perforated images in the steel to faintly appear, and become object-like light boxes in the landscape similar to Steven Holl's Nelson-Atkins Museum of Art.



Holl's Nelson-Atkins Museum [left] (Ryan, 2008) and OMA's Kunsthal showing advertisement and viewing tower [right] (Werlemann, 1993).

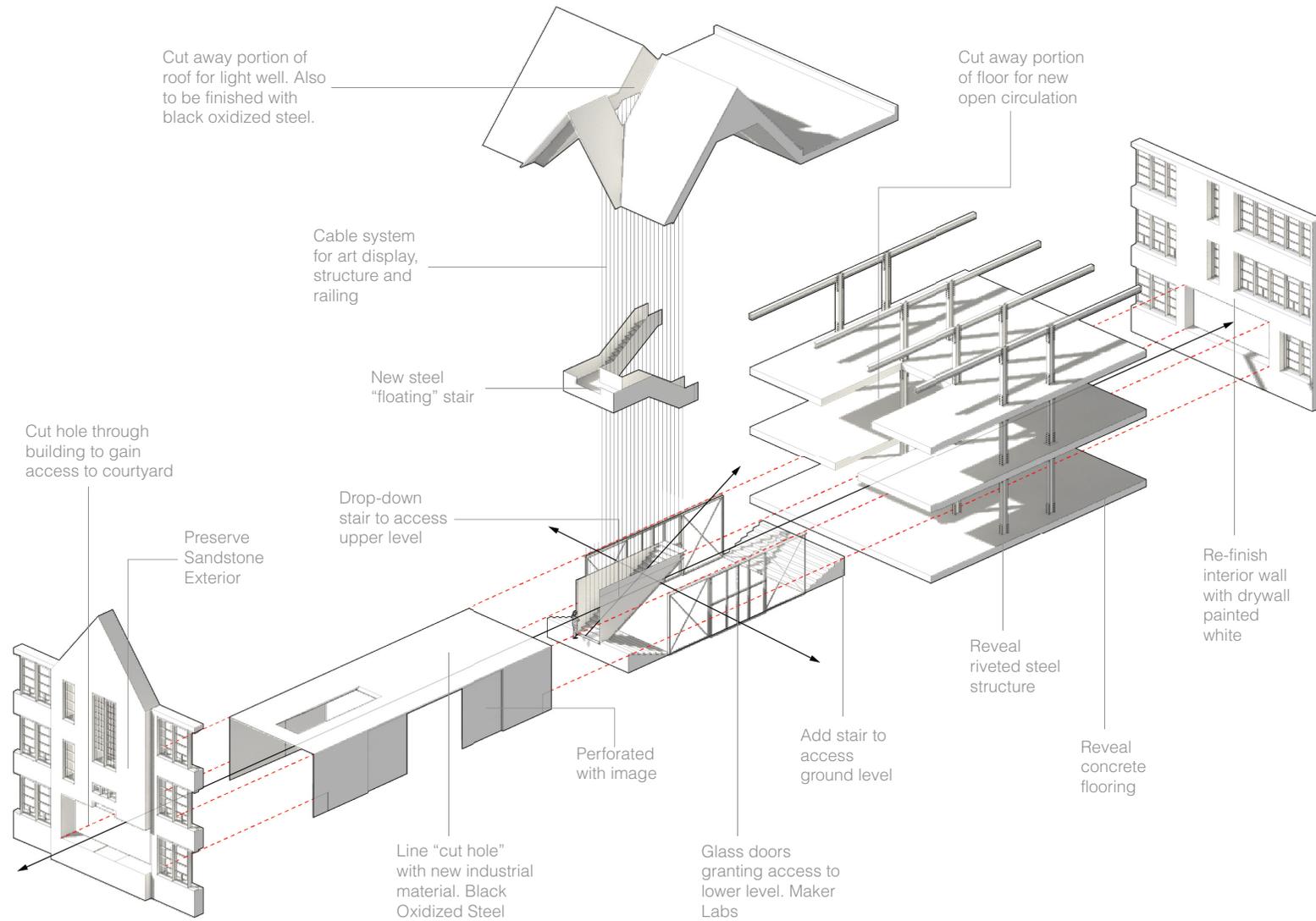
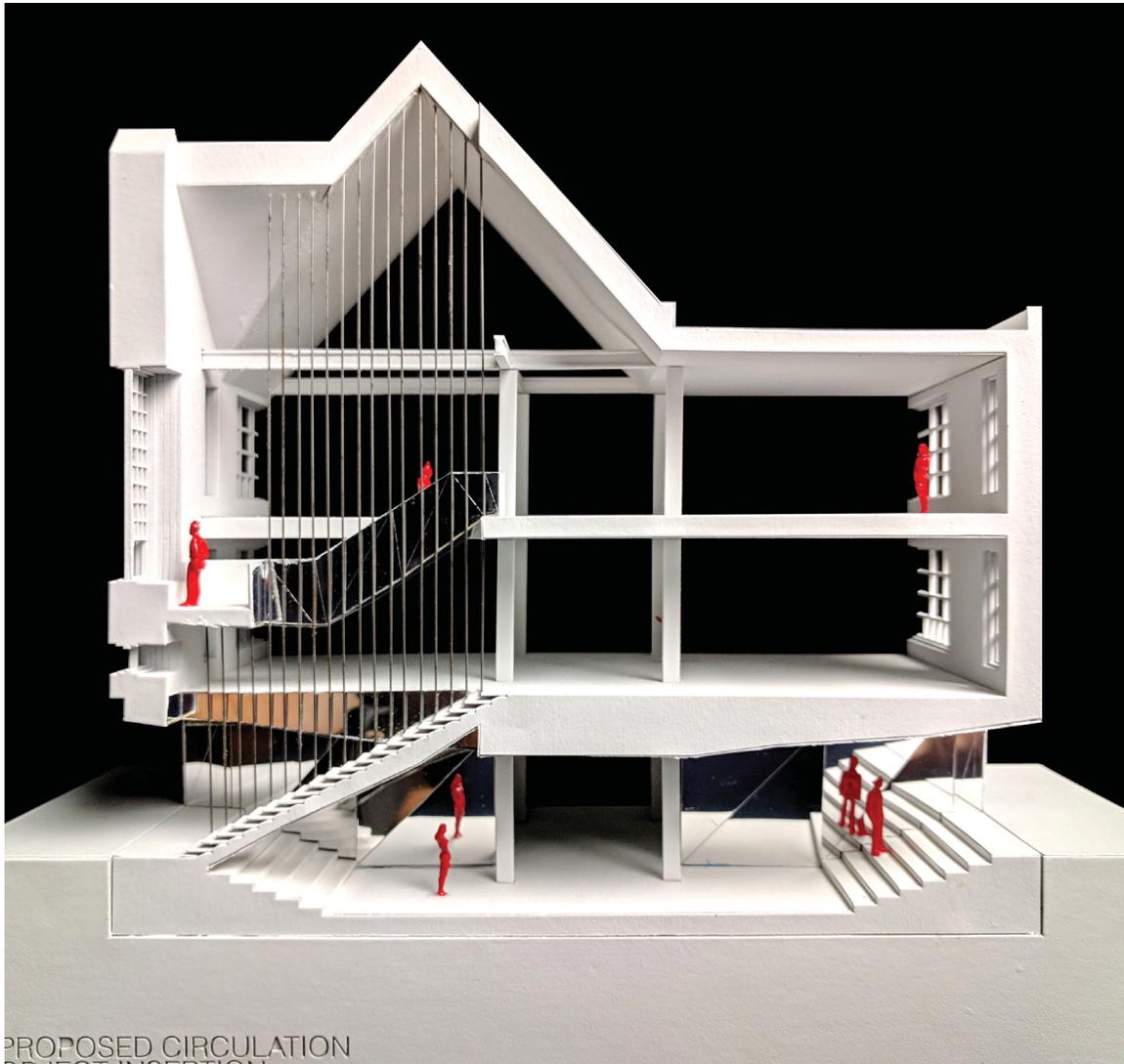


Diagram showing the assembly of a horizontal circulation core.



Renders of early horizontal circulation core design.



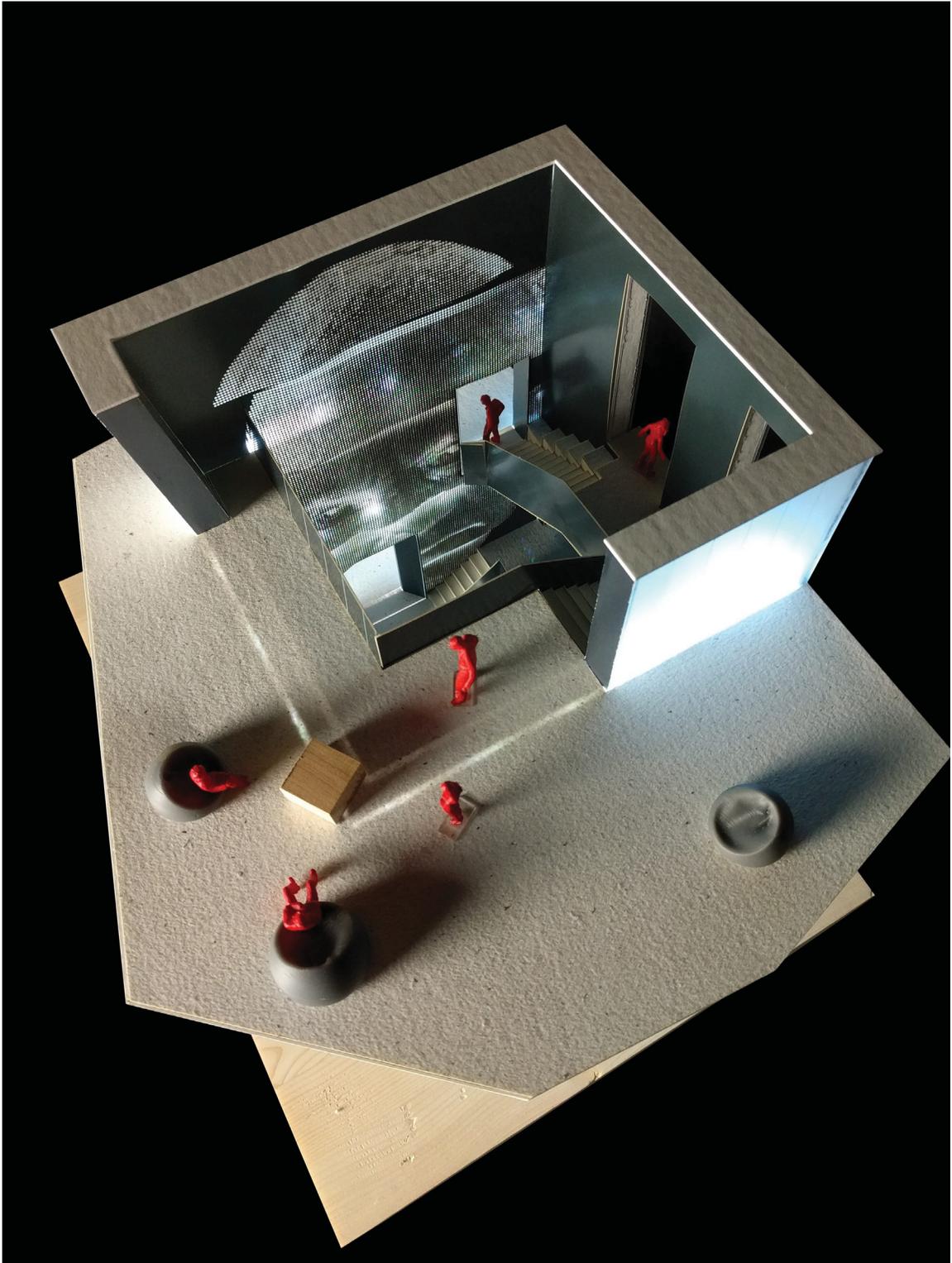
Model photos of early horizontal circulation core design experimenting with a mirrored material rather than black oxidized steel.



Model photo of core between courtyard and former bus slips.



Section model [1:100] photo of horizontal circulation core between the courtyard and former bus slips.



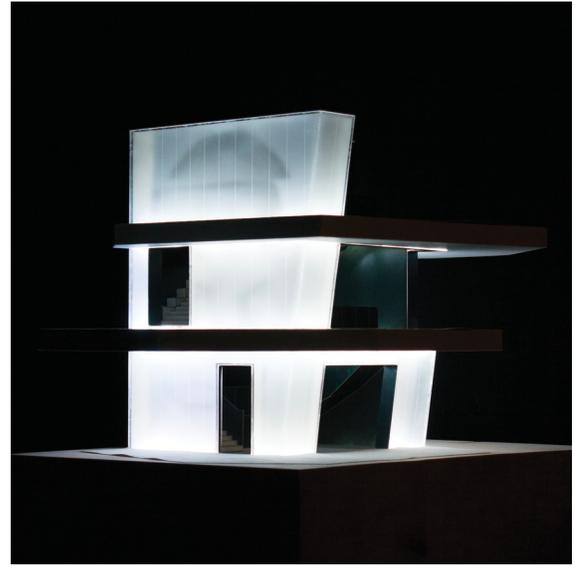
Model [1:50] photo of vertical circulation core and rubber concrete slabs.



Model photo of circulation core with interior perforated image appearing through the translucent polycarbonate exterior cladding during day.



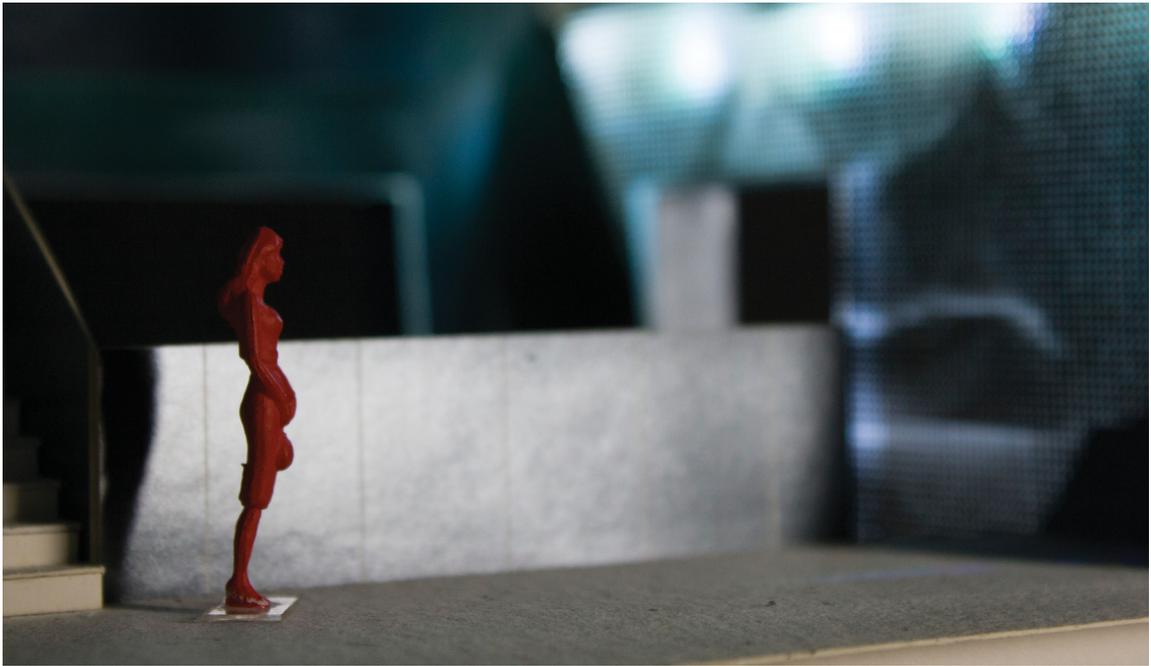
Model photo of glowing circulation core with interior perforated image appearing through the translucent polycarbonate exterior cladding during night.



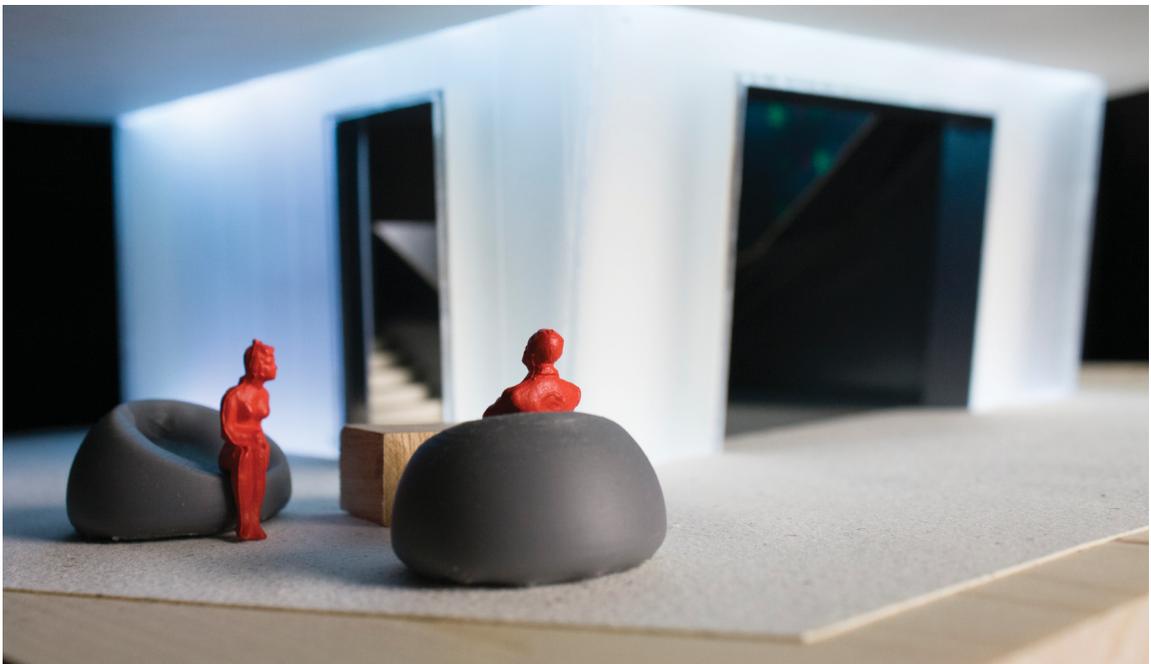
Model photos of circulation core's light box exterior and steel clad interior, as well as openings to each floor of the building.



Model photo of circulation core stairs and perforated steel interior cladding.



Model photo of a circulation core's entry from exterior of the building.



Model photo of a circulation core meeting the first floor of the building.



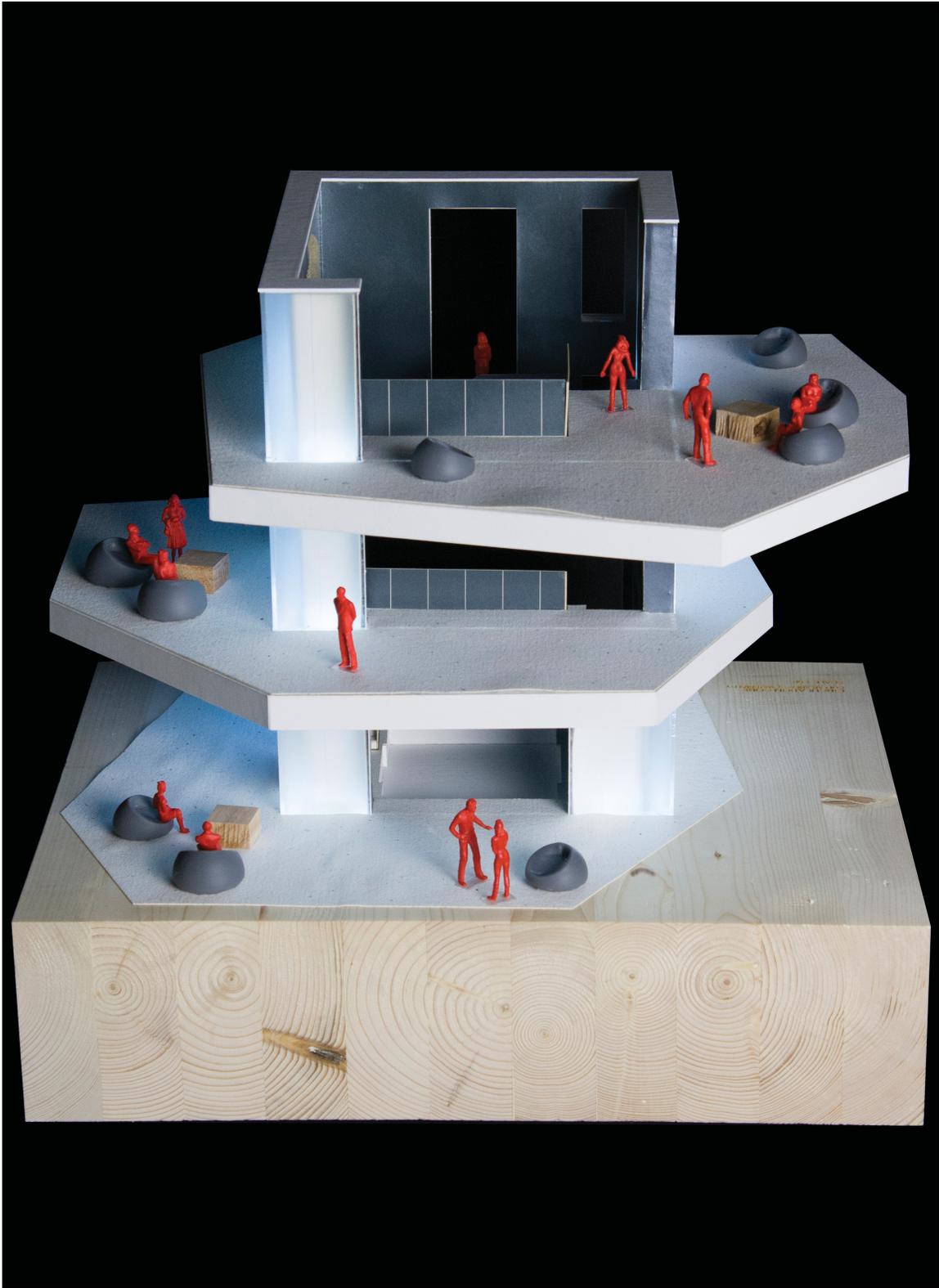
Model photo of a circulation core's landing on second floor.



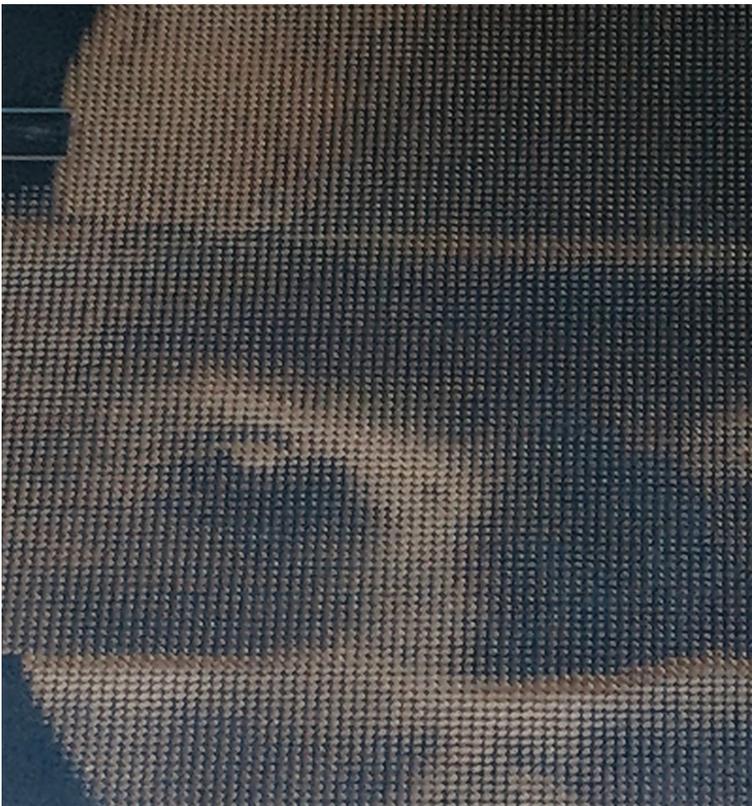
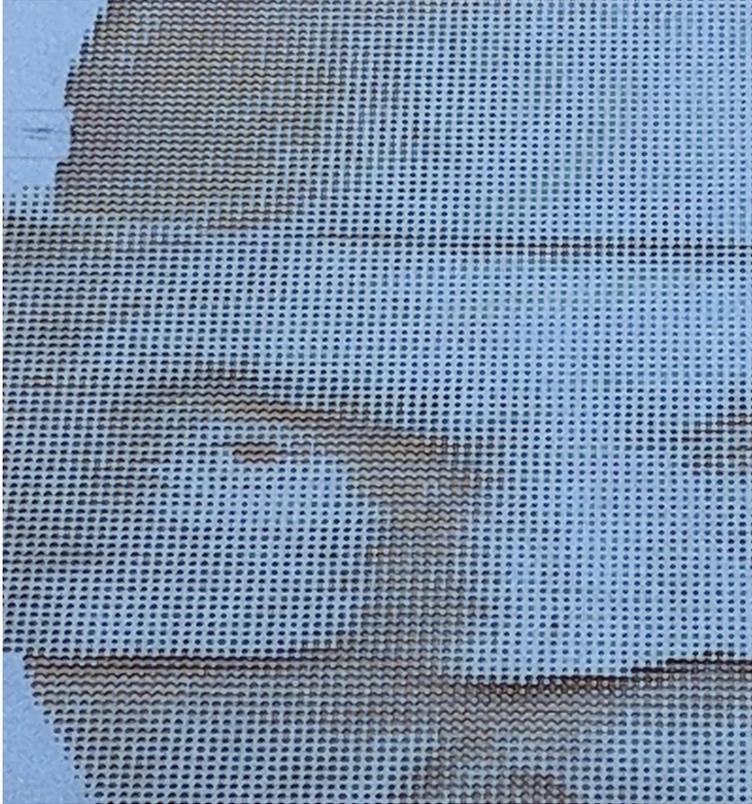
Model photo of a circulation core's entry to access third floor.



Model photo of vertical circulation core showing opening at the center where a cargo elevator will exist to carry mobile studios between the three floors of the building.



Model photo of vertical circulation core showing the rubber concrete slabs that spill out onto each floor and become rest spaces between areas populated by incubator units or other program.



Model photos showing interior perforated steel cladding of circulation core reacting to different lighting arrangements.

To blur the lines between interior and exterior the cores spill out onto each new level with a polyurethane concrete mixture that is soft and flexible yet weather resistant. These soft spaces will act as resting points for the public and artist alike between workspaces throughout the building.



Rubber concrete mixture (Naito, 2013).

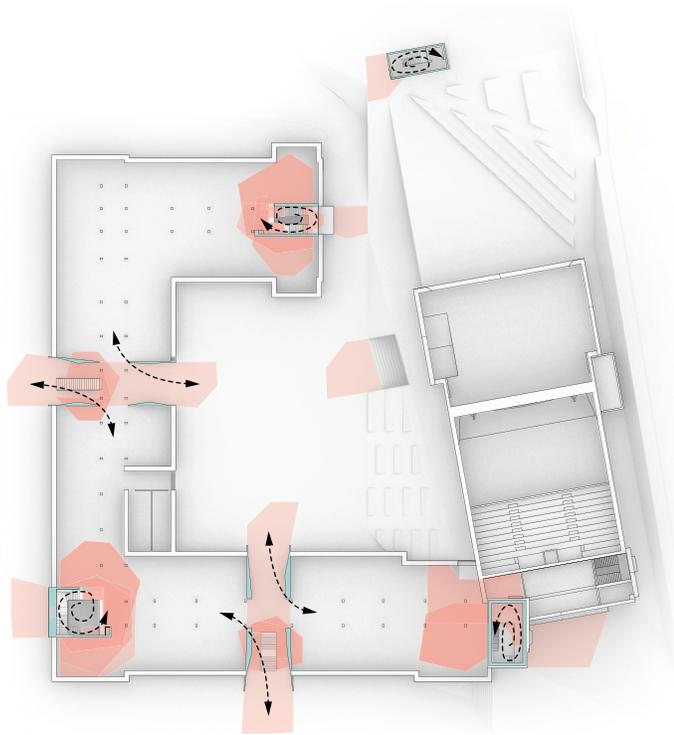
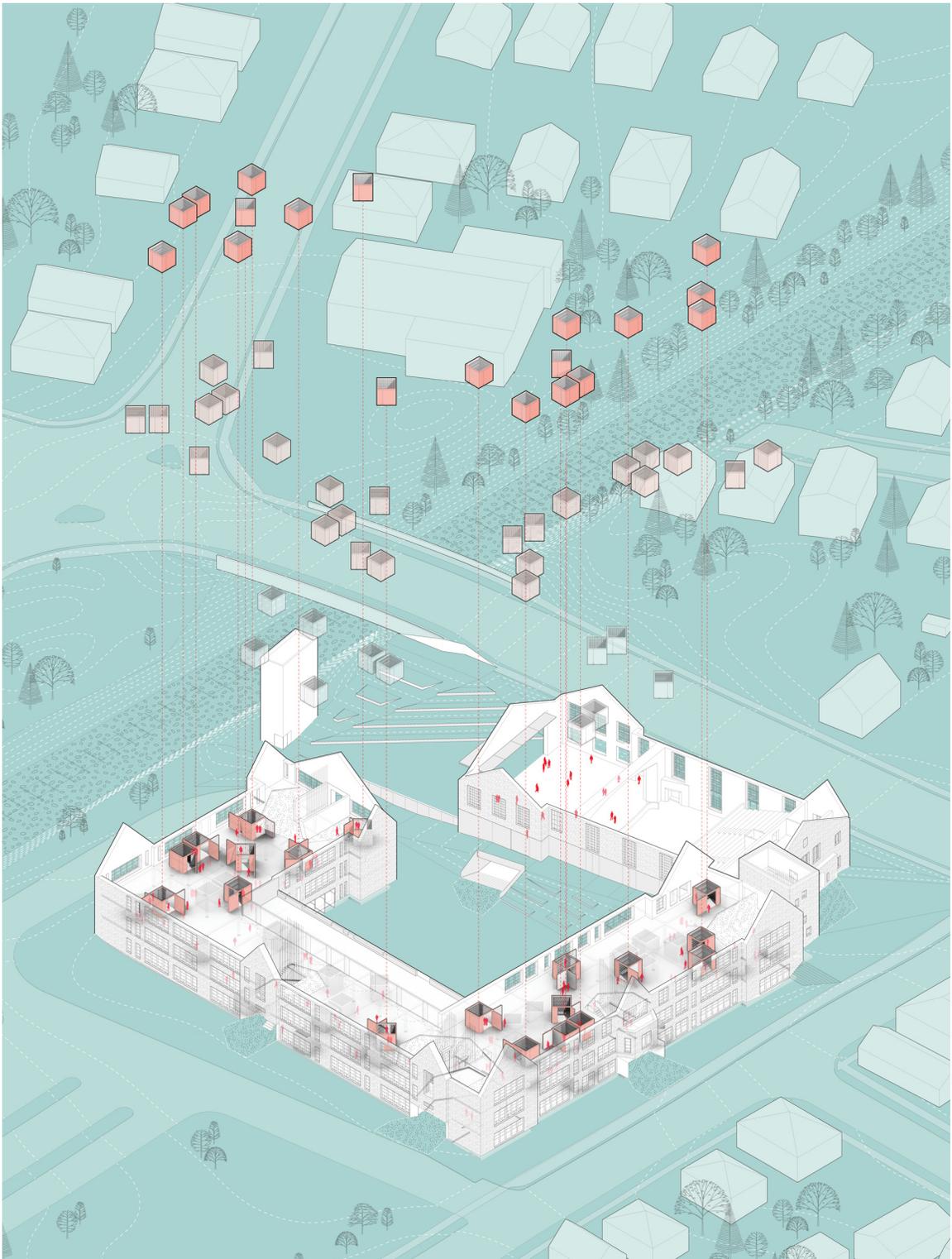


Diagram depicting all moves in the 'New Circulation' design step.

### **Creative Inhabitation**

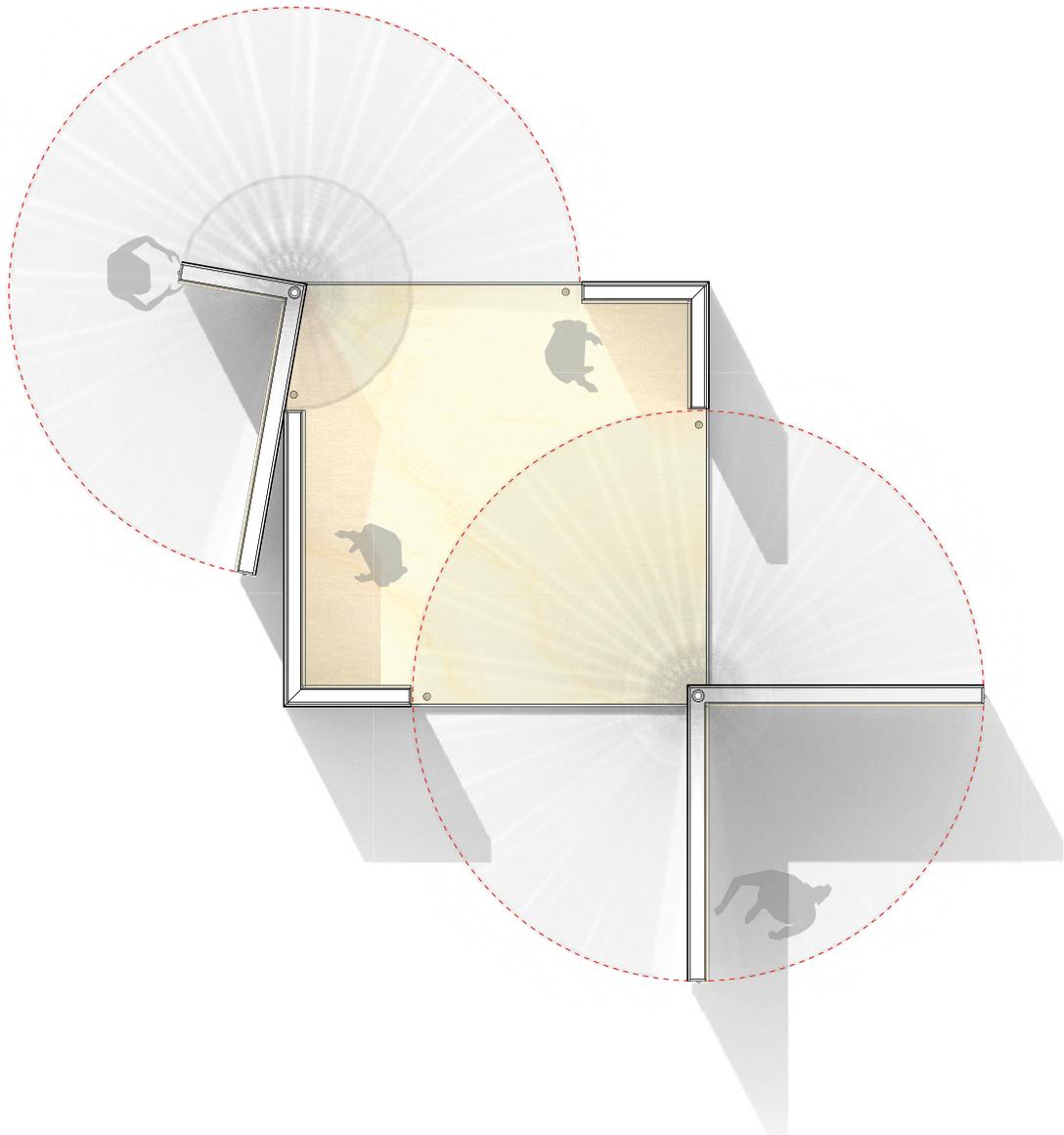
Early in the project, the strong emphasis on how to encourage collaboration led to the idea of mobile workspaces. Design studios in the form of incubator units will populate the newly sculpted landscape of the building. The established free-plan will allow these units to exist virtually anywhere, being configured to any collaborative opportunity that may arise.

Designed around the maximum capacity of an extra large pallet jack and the ability to move at a moment's no-

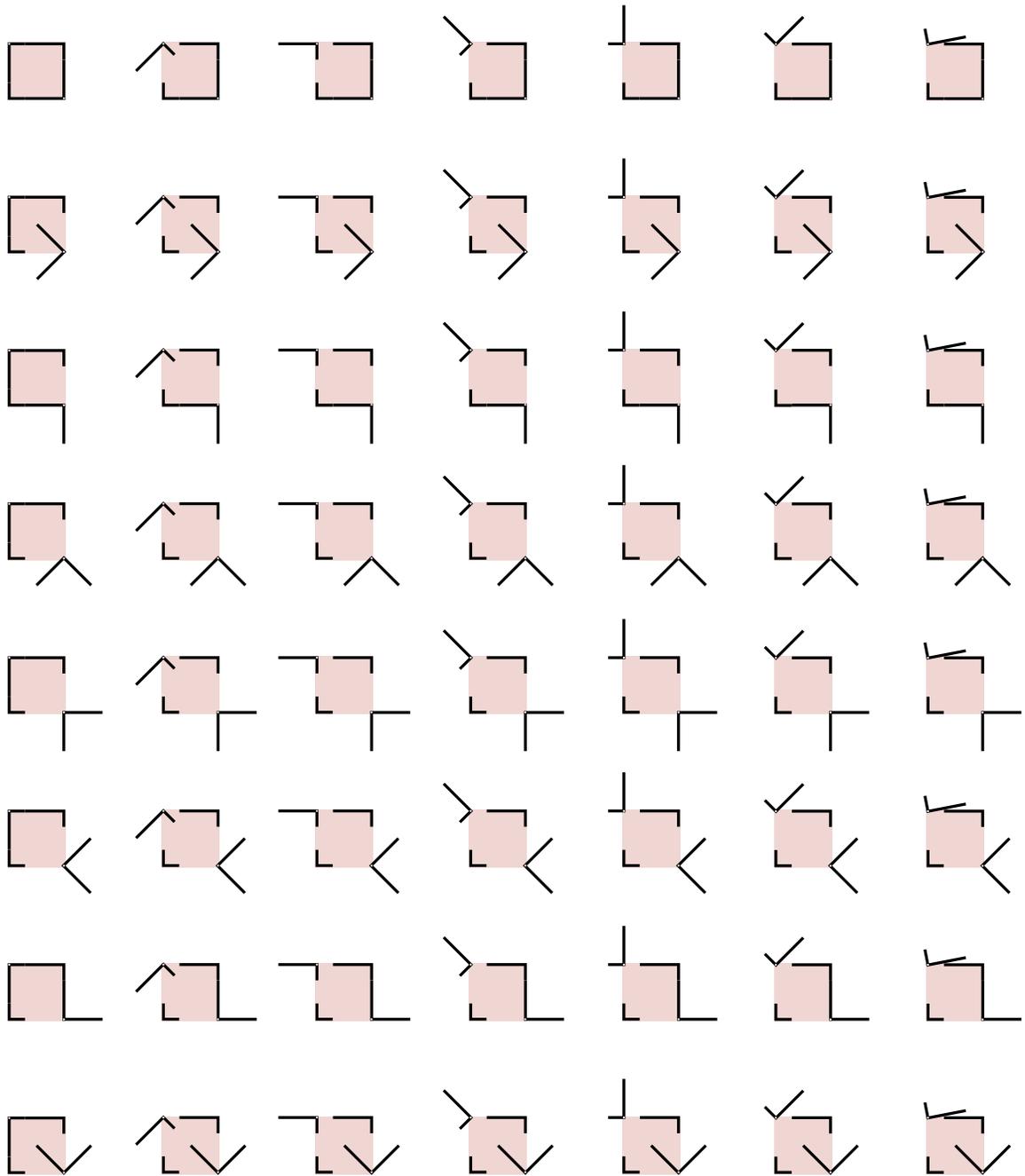


Axonometric drawing showing the layers of incubator units that will populate the site alongside the public.

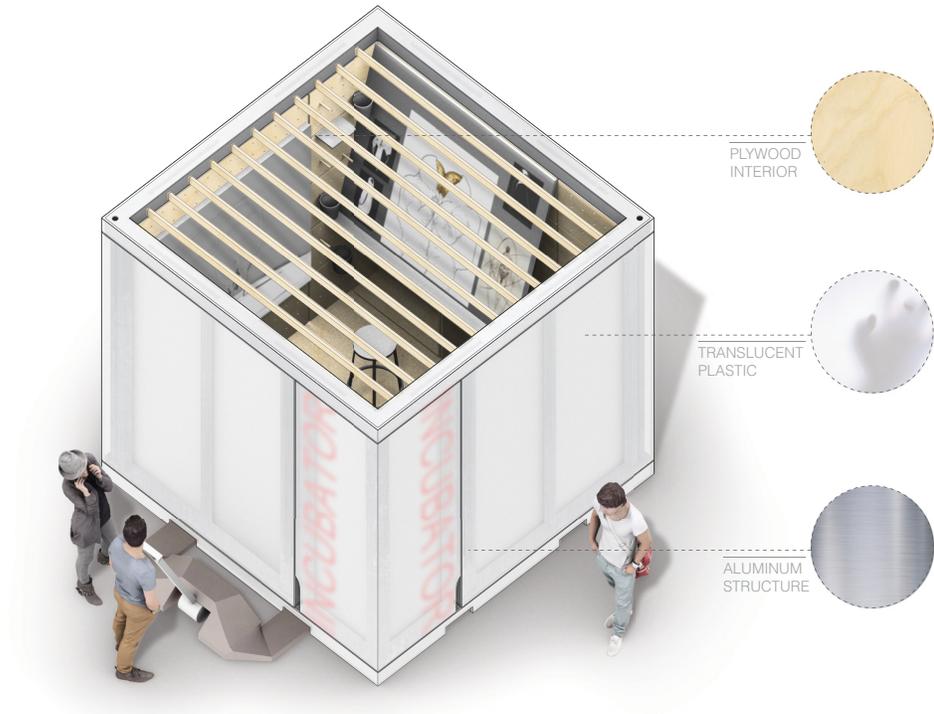
tice, the 3 by 3-meter unit can expand via its rotating walls allowing robust workspaces either on its own or in combination with other incubators. The units will consist of an aluminum structure to be rigid yet lightweight and will be clad with 20mm translucent polycarbonate sheets for durability and to further minimize the overall unit's weight.



Incubator unit plan showing the range of the wall swings [259° left and 360° right].



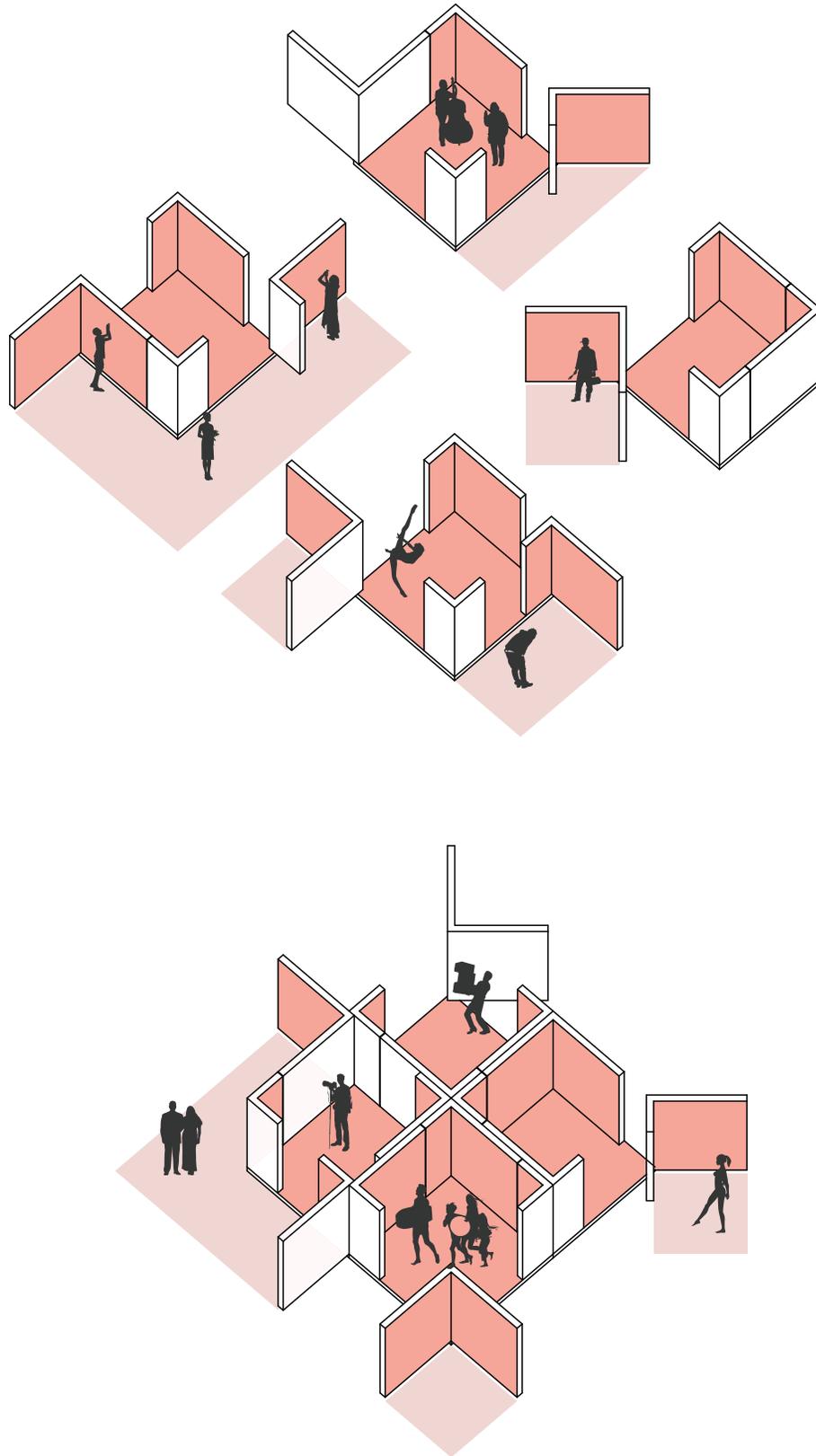
Matrix of potential individual unit configurations.



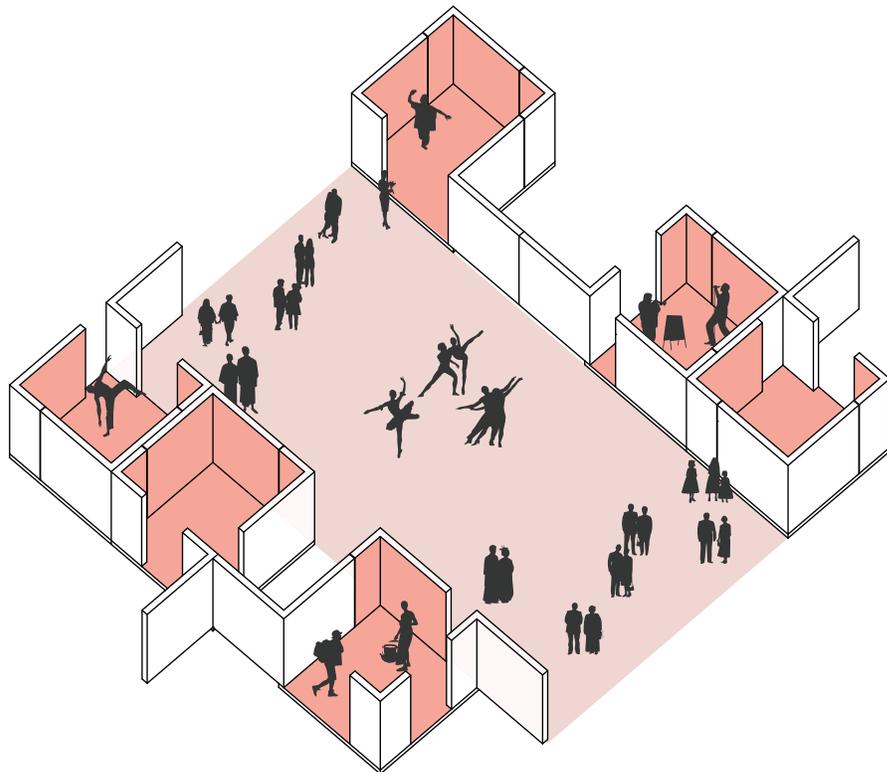
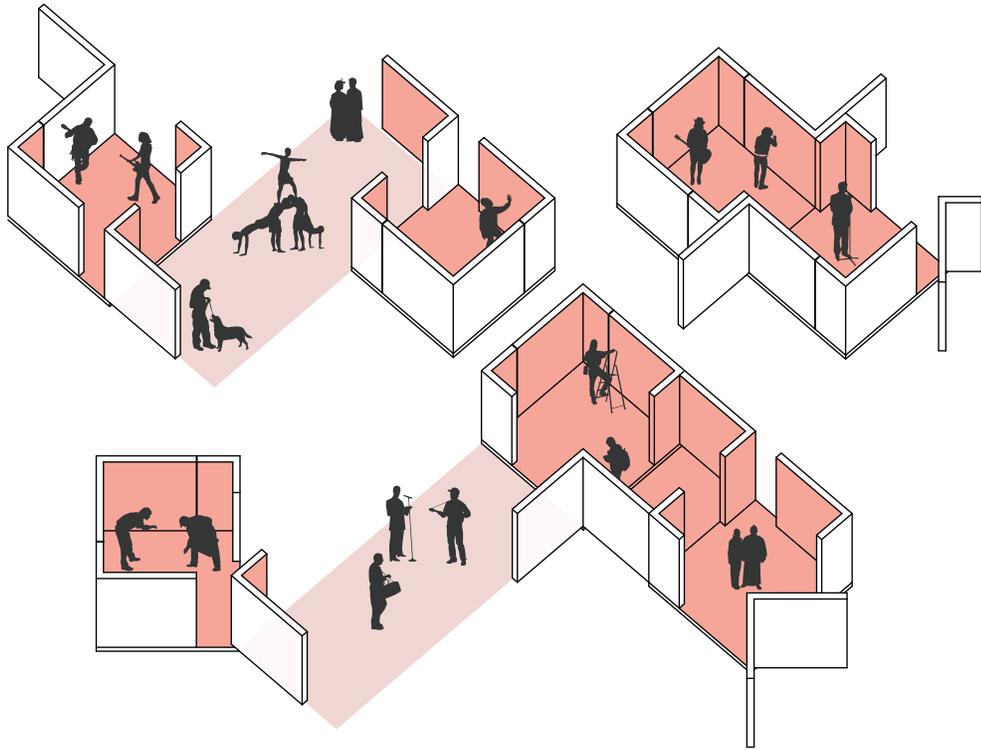
Closed incubator unit and its materiality.



Opened incubator unit and its potential inhabitation.



Diagrams depicting potential incubator unit combinations and expansions. Independent [Top], Clustered [Bottom].



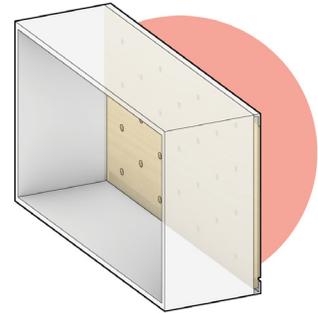
Diagrams depicting potential incubator unit combinations and expansions. Combined [Top], Space Divider [Bottom].

The interior wood panels of each unit are designed to accept a variety of different storage and function modules, customizable to each artist's needs.

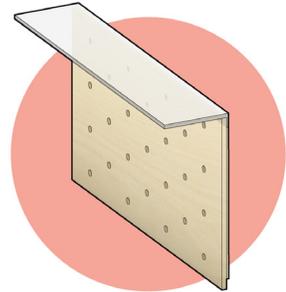


Changeable text on units to represent the artists' identity

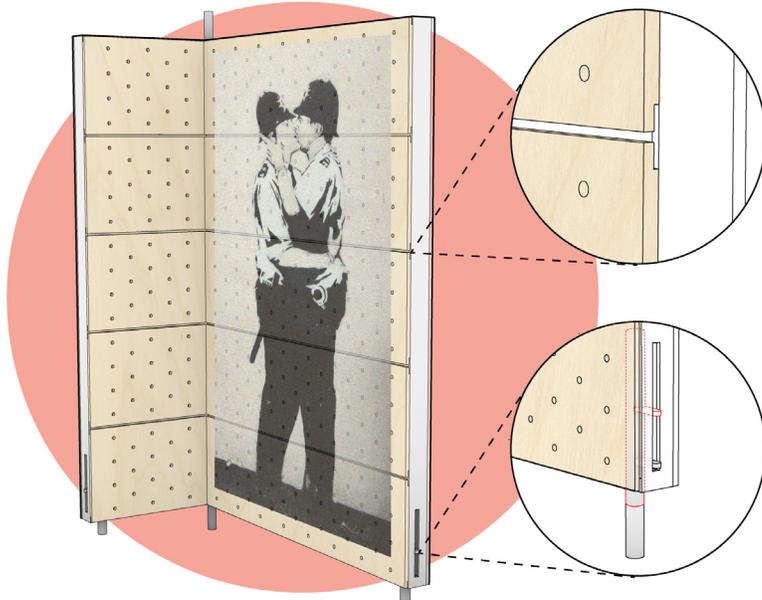
Pivoting unit walls.



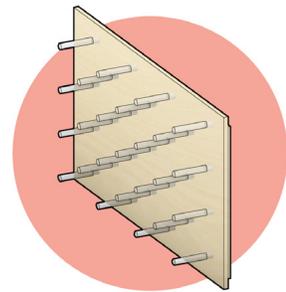
Storage



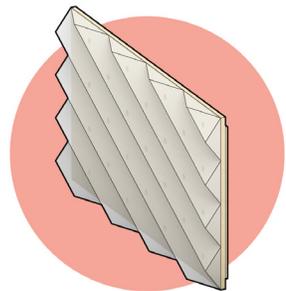
Table



Pivoting unit walls showing detail for shelving inserts of interior cladding, possible modular attachments as well as door lock and support.



Pegs



Sound Damping

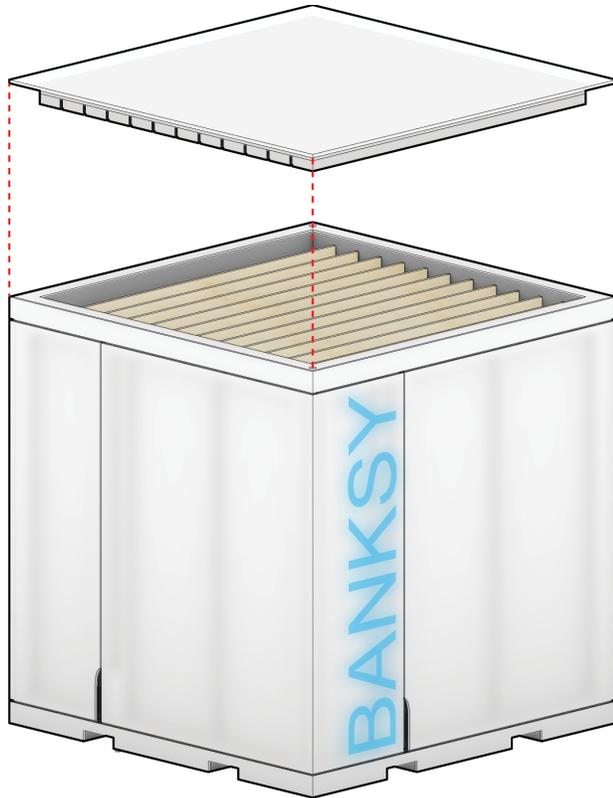
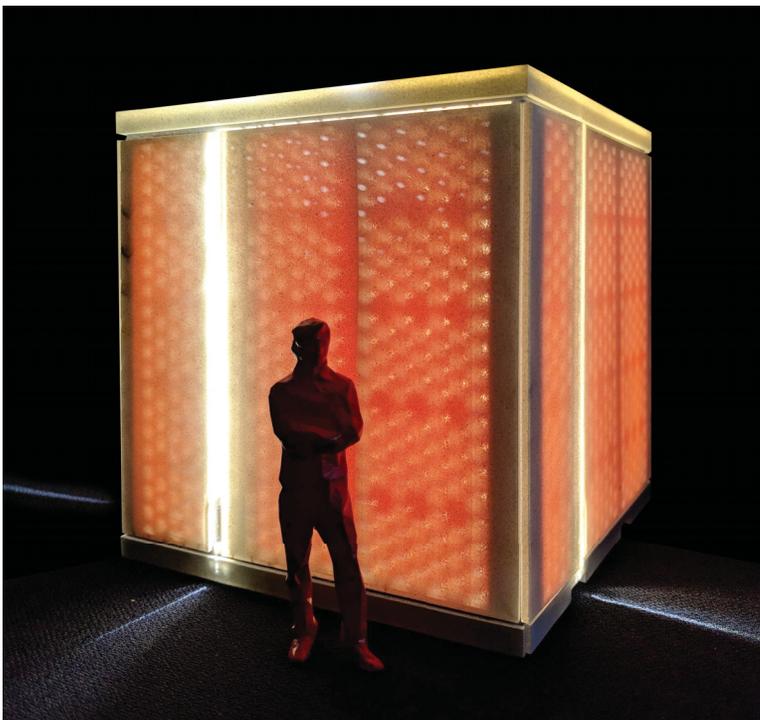
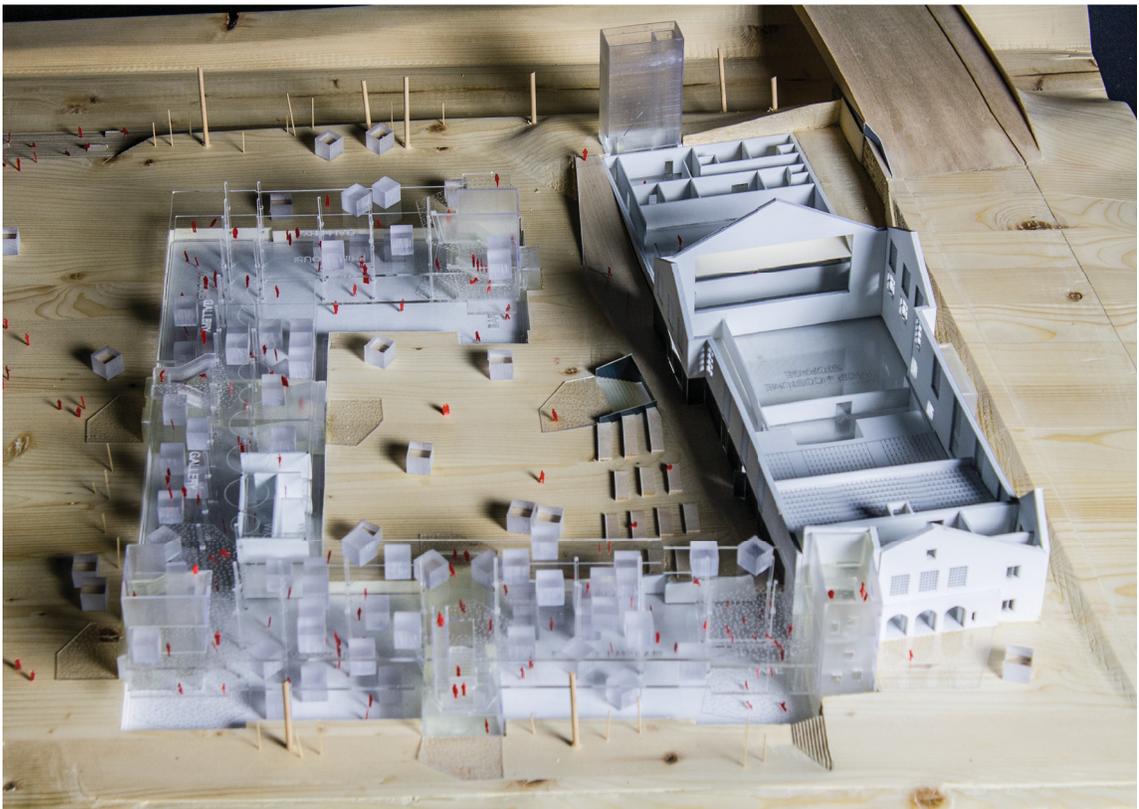


Diagram showing roof attachment for outdoor or soundproofing purposes.



Model [1:25] photo of incubator unit with light passing through materials.



Model [1:200] photo showing final building design and with skin removed to reveal the 5 interior circulation cores as well as the inhabitation of public, artists and incubators throughout the site.



Panorama model photos showing early inhabitation of former classroom wing hallways with incubator units and creative activity.

Alongside the mobile incubator units, some large-scale equipment will need to exist within more permanently programmed areas. This will happen primarily on the ground floor of the building for the existing infrastructure and ease of access. A workshop will house tools for metal and wood-working. A digital manufacturing lab will house CNC machines, 3d printers, and other digital fabrication tools. An electronic lab will carry various wiring and assembly tools while the print house will hold a number of printers and screen printing tools. A kitchen and brewery/bar will take advantage of the former cafeteria's existing infrastructure and the old archery range underneath the new plaza will be converted into recording studios. The theatre will remain the

figurehead of the building and be maintained as much as possible besides upgrading the seats, and the backstage area if needed.

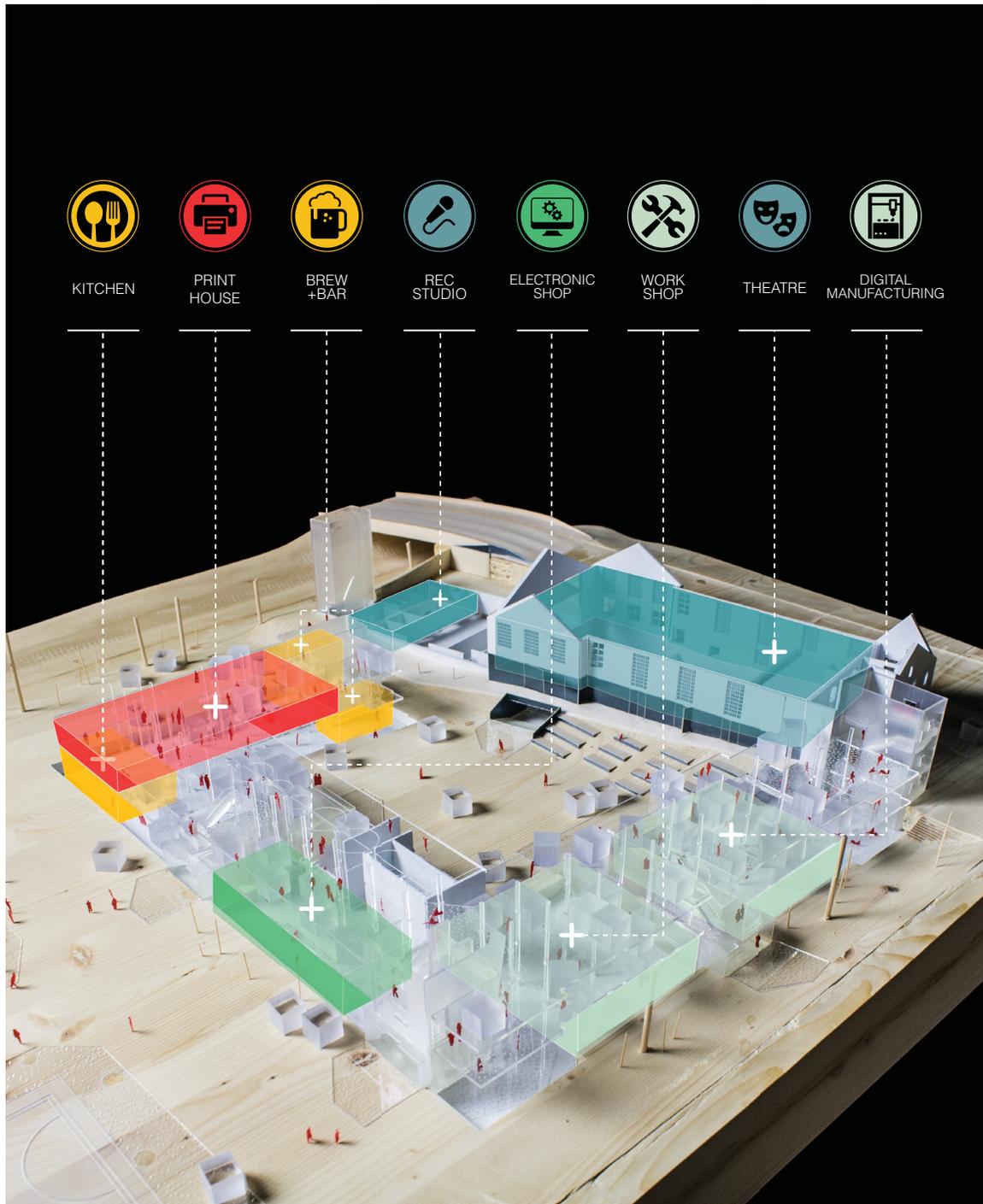
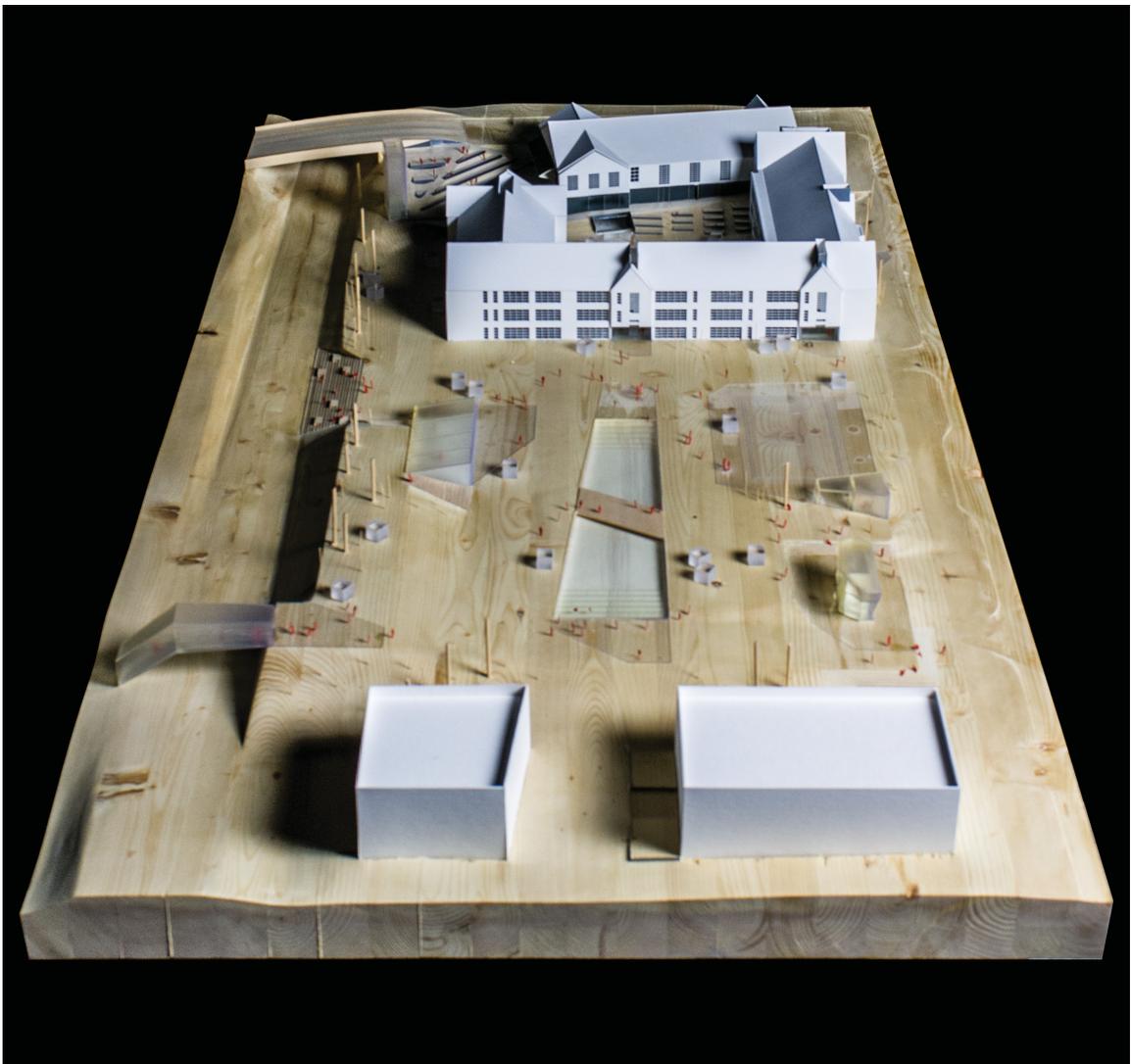


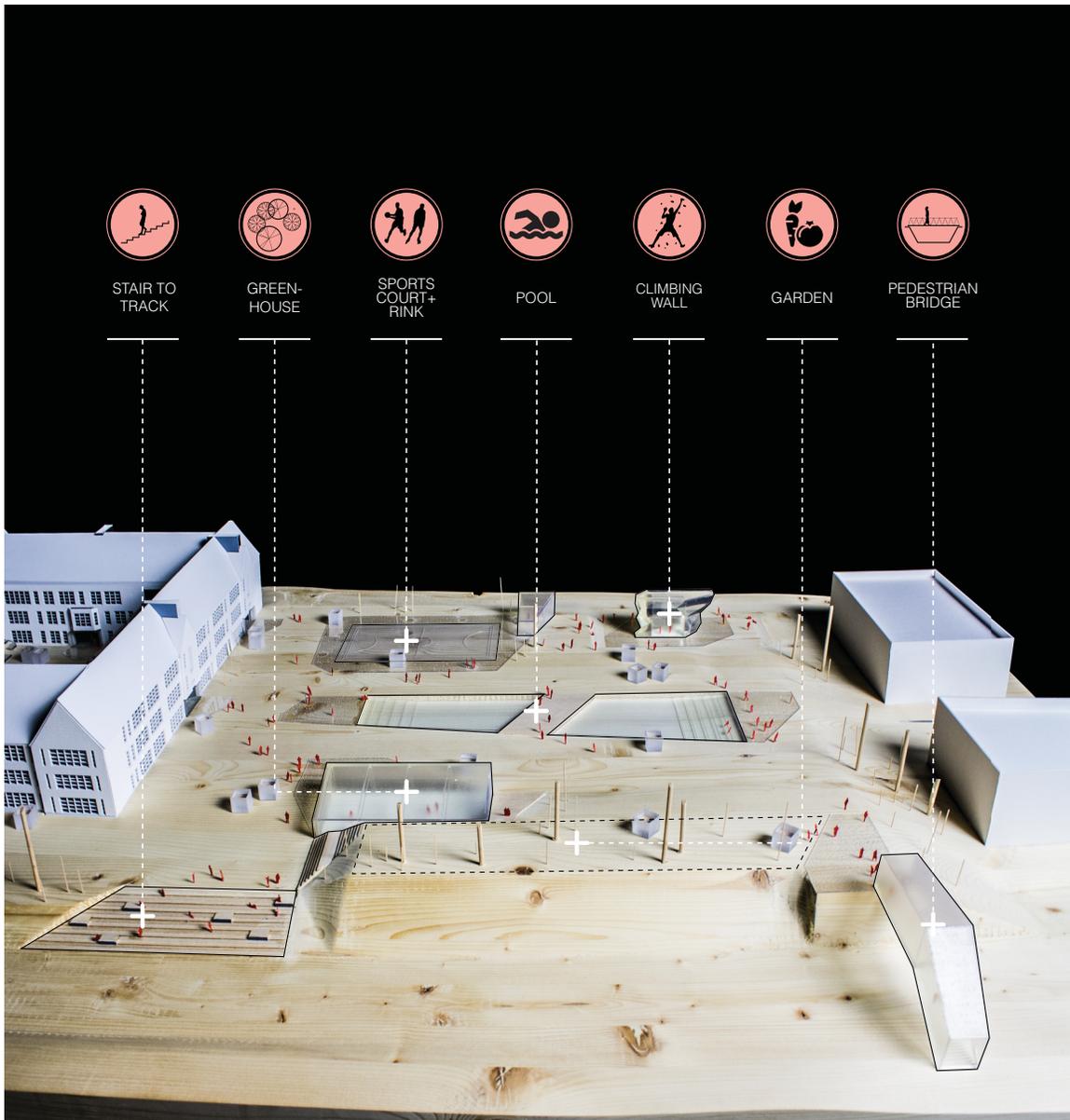
Diagram depicting areas of permanent program throughout the building to exist alongside the mobile incubator units.

## Public Park

Finally, the landscape will reach out into the former bus slips and be transformed into a new public park that can share the many functions of the building while serving as a recreational outlet for the artists and agricultural purposes. The park, like the building, will house its own objects alongside the incubator units. These objects will also meet the landscape with the same slabs of rubber concrete as the circulation cores.

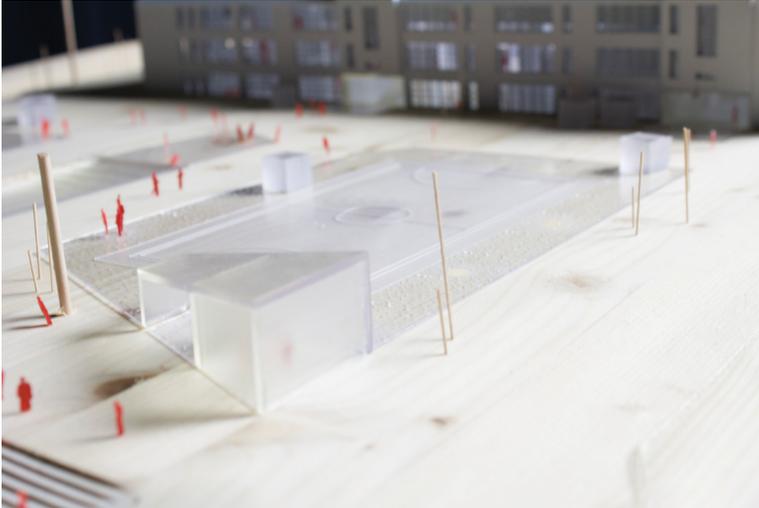


Model [1:200] photo showing the conversion of the former bus slip loading zone into a new public park that will complement the adaptive reuse of the building and enhance the project as a new social hub for the city.

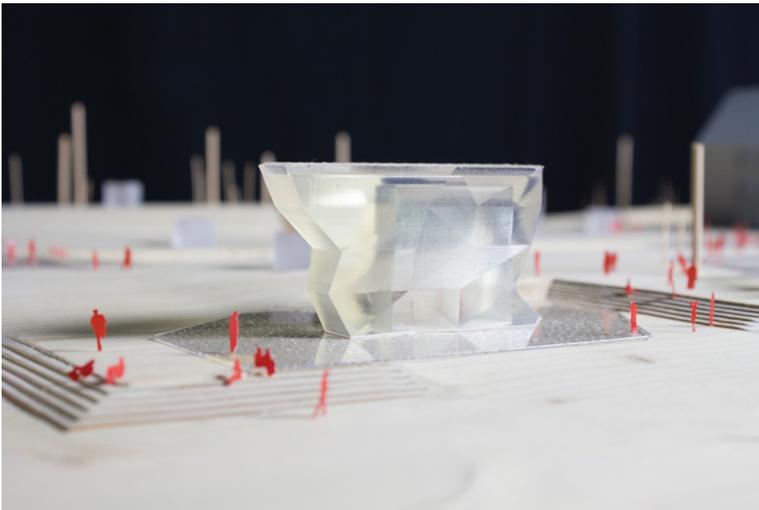


Model photo showing the various objects that will be inserted into the landscape of the former bus slip in its conversion into a new public park.

A full-sized sports court will exist at the western side of the park next to Church street. This court could also be frozen in the winter and become a skating rink allowing it to be used year-round. A rock climbing wall will also inhabit the western edge of the park creating a second recreational outlet where the busy artists can engage in physical activities when taking breaks from their work.

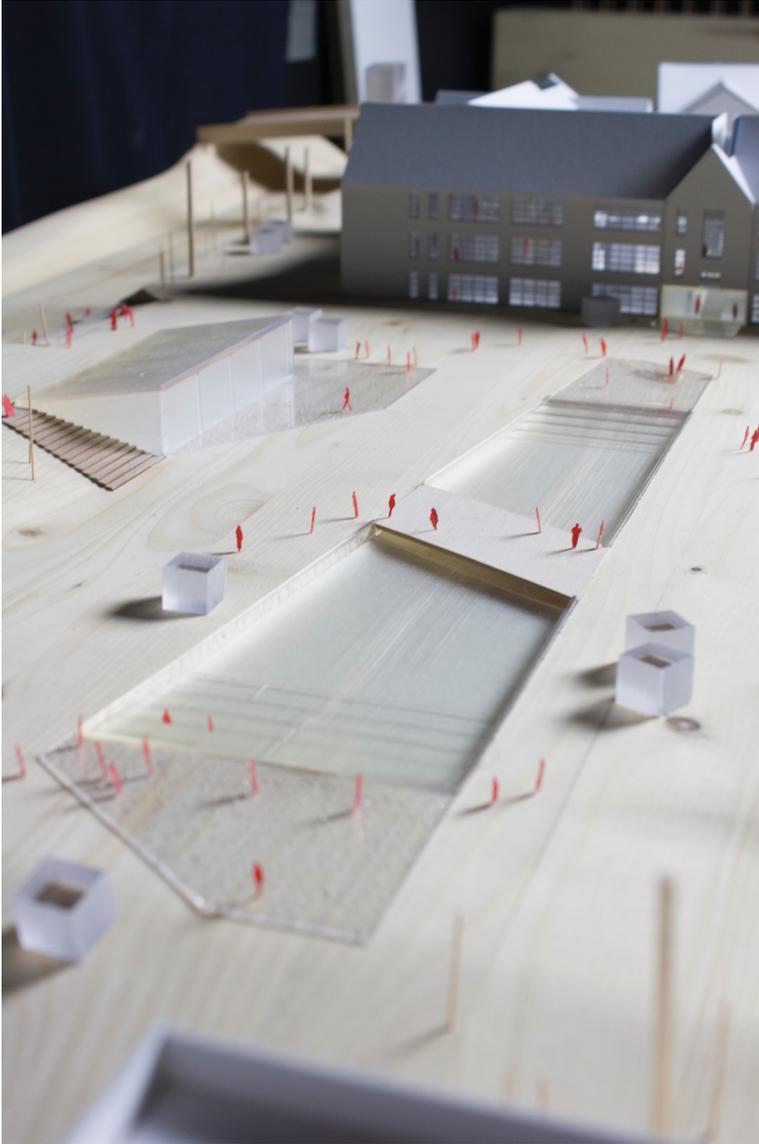


Model photo of sports court and skating rink as well as small rental building to house sporting gear.



Model photo of rock climbing wall at north western corner of park.

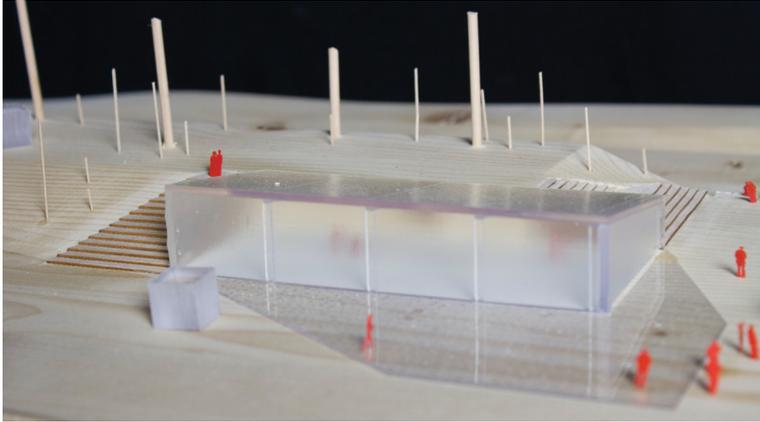
A long water feature aligned with the opening of the vertical circulation core between the courtyard and the park will serve as a pool and play area for children. This water feature will be placed at the center of the park acting as a reflection pool for the building and will serve as a soft barrier between the recreational and agricultural sides of the newly landscaped area. A small bridge will then link these two ends and create a pathway vertically between the NW and SE corners of the park.



Model photo of water feature at center of the new public park to be used as a swimming pool and children's play area.

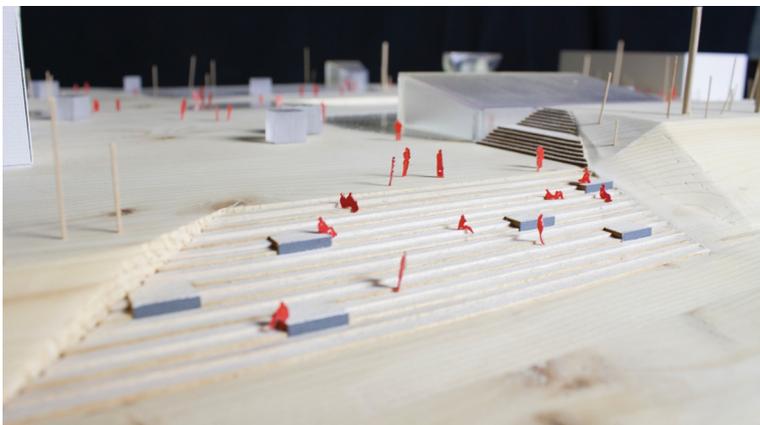
A greenhouse will exist at the eastern edge of the park, nestled into the landscape which will be raised up to protect the park from the noise of the CN rail line. A garden will be placed atop this mound and the area will become a place for where the culinary artist can grow their own herbs and produce.

The final landscape insertions will be circulation based and help connect the site to its urban context that

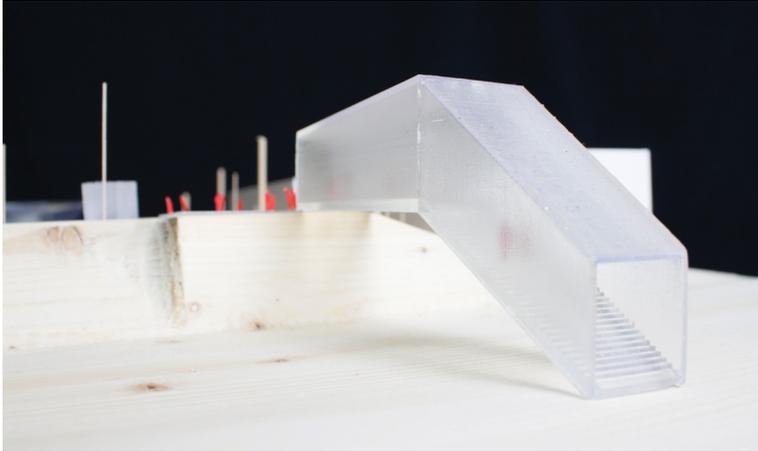


Model photo of greenhouse building nestled into an elevated portion of the landscape where produce and herbs can be grown for the culinary artist of the Incubator.

has been separated due to the CN rail line. A new stair set at the South East corner of the park will carry pedestrians down to the rail line that is often used as a walking path by many between Downtown and other areas of the city. These stairs will have embedded seats that will serve as rest points for the site's users as well. A second connector in the form of a pedestrian bridge will be placed at the North Eastern edge of the site and link the previously disconnected residential area to the newly developed park. This is an ideal location for a connector to the site as there is a hand full of design and art related businesses at the foot of the newly introduced bridge.



Model photo of stair insertion connecting the rail line path to the park above.



Model photo of new pedestrian bridge at NE corner of site that will reach over the rail line, connecting the site to the detached residential area and other design businesses.

Many of these moves are inspired by Herzog and de Meuron's Tate Modern adaptive reuse project in London and the way in which it engages the public and connects to the surrounding urban context via a long public bridge that reaches into the city core or the landscape and many ground textures that welcome people to use it.

### Future Development

To cap the site, the old student and faculty parking lot at Northernmost side of the project's edge could be a space for future development. In this case, I would propose a residence building for the artist of the new Art Incubator which would be ideal for visiting and short-term artists; however, any development that would enhance the proposed program and site transformation such as school, community center, sports facility, supply depots, etc... would be more than welcome.



Tate Modern and its connection to its urban environment (Tate, 2005).



Tate Modern's landscape (Davis, 2013).



Tate Modern's textured landscape pathways (Davis, 2013).



Model image of a potential future set of artist residence buildings that could be development on the former student and faculty parking lot that could compliment the proposed Art Incubator.

## CHAPTER 5: CONCLUSION

Since the former Moncton High School's abandonment in 2012, the immediate site and surrounding residential area have declined rather severely. By introducing a program that would take advantage of the city's growing art culture while breathing new life into the building, the shared memory of all who have attended high school here can be maintained and built upon in a new vibrant way. The surrounding urban context would begin to heal and the site could return beyond its former glory.

The adaptive reuse of the site as an Art Incubator could engage the public with the creative presence of the city and become a social hub between Downtown, Université de Moncton and Champlain place, defining a true core for Moncton, New Brunswick. While this thesis uses the Former Moncton High School as a test subject for what a public space should be in the city, it may also serve as a guide in developing future sites in Moncton whether it be adaptive reuse or new construction.



Sections through courtyard showing building inhabitation by public, artists, and incubators and the many activities that could occur throughout the site.



Render of early hallway inhabitation with incubator units, artists, performers and the public within the newly exposed free-plan of the building.



Render of new plaza that will take the place of the gymnasium being used to screen a movie.



Render of potential gallery space on the third floor of the building with new steel panel doors opening to the outdoor balcony space.



Render of the many uses and interactions between incubators, artists, and the public under the exposed riveted steel columns and beams.



Render of the courtyard now open to Mountain road with various art installations, outdoor lounge and the glowing beacon.

## REFERENCES

- Baan, Iwan. 2016. "Arnadillo vault." *Block Research Group*. <http://block.arch.ethz.ch/brg/project/armadillo-vault-venice-italy>.
- Barnaby, Julianna. 2017. "LX factory - Street Art and Urban Life in Lisbon." *The Discoveries of*. Accessed on February 4. <https://www.thediscoveriesof.com/lx-factory-lisbon/>.
- Beesly, Philip. 2018. "About." *Philip Beesley Architect*. Accessed on November 10. <http://philipbeesleyarchitect.com/about/index.php>.
- Bing. 2017. "Aerial photo of the City of Moncton." Accessed December 19. <http://www.bing.com/maps/>.
- Bing Thom Works. 2011. *On Risk*. Edited by Dan Simon. Vancouver: Princeton Architectural Press.
- Breitfuss, Klemen. 2014. "Free-form catalan thin-tile vault." *Block Research Group*. <http://block.arch.ethz.ch/brg/project/free-form-catalan-thin-tile-vault>.
- CBC News. 2018. "Old Moncton High to be converted into office space, community arts cnetre." <https://www.cbc.ca/news/canada/new-brunswick/moncton-high-school-arts-heritage-1.4685448>.
- . 2018. "Moncton High School developer unable to sign tenant but still confident." <https://www.cbc.ca/news/canada/new-brunswick/moncton-high-heritage-developments-sale-questions-1.4582312>.
- City of Moncton. 2018. "Moncton high school 207 church street." Accessed on October 7. <https://www.moncton.ca/Assets/Residents+English/By-Laws/Heritage+By-law/10.+207-245+Church+EN.pdf>.
- Cormier, Paul. 2017. "Moncton company buys old high school, saving it from destruction." *Global News*. <https://globalnews.ca/news/3640198/moncton-company-buys-old-high-school-saving-it-from-destruction/>.
- cSpace King Edward. 2017. *Spaces*. Accessed on October 5. <http://cspacekingedward.com/spaces/>.
- Davis, Roger. 2013. "Tate modern landscape birch tree blocks." *Davis Landscape Architecture*. <https://davisla.files.wordpress.com/2013/11/tate-modern-landscape-birch-trees-blocks.jpg>.
- . 2013. "Tate modern landscape seating." *Davis Landscape Architecture*. <https://davisla.files.wordpress.com/2013/11/tate-modern-landscape-seating.jpg>.

- Donnelly Centre. 2018. "Donnelly Centre at the Heart of Toronto." *University of Toronto*. <http://tdccbr.med.utoronto.ca/working-and-living-toronto>.
- Edensor, T. 2005. *Industrial Ruins: Space, Aesthetics and Materiality*. New York: Berg.
- Estiler, Keith. 2017. "Vhils & Obey Giant Collaborate on a Breathtaking New Mural in Lisbon." *Hypebeast*. <https://hypebeast.com/2017/7/vhils-obey-giant-collaborate-on-a-breathtaking-new-mural-in-lisbon>.
- GEHL Architects. 2014. *In Favour of Public Space*. [www.akershus.no/file/.../091217\\_Cph\\_Guide%20\(2\).pdf](http://www.akershus.no/file/.../091217_Cph_Guide%20(2).pdf).
- Government of New Brunswick. 2017. "Development Opportunity, Moncton High School." <http://www2.gnb.ca/content/dam/gnb/Departments/trans/surplus/westmorland/pdf/14-043infoeng2.pdf>.
- Gruyaert, Harry. 1975. "Gordon Matta Clark and Gerry Hovagimyan working on Conical Intersect." *NYR Daily*. <https://www.nybooks.com/daily/2018/01/16/the-cutting-edge-art-of-matta-clark/>.
- Jodidio, Philip. 2010. *Public Architecture Now!* Cologne: Taschen.
- Jones, Robert. 2017. "Moncton becomes no.1 commercial, industrial development hub in atlantic canada." *CBC News*, July 18.
- La SAT. 2018. "THE SAT." <http://sat.qc.ca/fr/la-sat>.
- LX Factory. 2018. "About." <http://www.lxfactory.com/EN/lxfactory/>.
- Lynch, Kevin. 1960. *The Image of the City*. Cambridge: The MIT Press.
- Medjuck, Sheva. 2007. "Moncton." *The Canadian Encyclopedia*. <https://www.thecanadianencyclopedia.ca/en/article/moncton/>.
- "Moncton council accepts high school deal." 2012. *CBC News*, June 26. <https://www.cbc.ca/news/canada/new-brunswick/moncton-council-accepts-high-school-deal-1.1145036>.
- Naito, Clay, Joe States, Christopher Jackson, and Bryan Bewick. 2013. "Assessment of crumb rubber concrete for flewural structural members". *American Society of Civil Engineering* 26(10). <https://ascelibrary.org/doi/full/10.1061/%28ASCE%29MT.1943-5533.0000986>.
- Neal, Z. P. 2014. "Types of hub cities and their effects on urban creative economies." *Hub Cities in the Knowledge Economy: Seaports, Airports, Brainports*. Farnham: Ashgate Publishing Ltd.
- Nyhoff Architecture. 2017. "King Edward Arts Hub." <https://www.nyhoff.ca/projects#/king-edward-arts-hub/>.

- Otzen, Ellen. 2014. "Copenhagen's piles of bicycles." *BBC News*, October 14. <https://www.bbc.co.uk/news/magazine-29601069>.
- Rahn, Ben. 2013. "A-frame - Simons Aurora." *Philip Beesley Architect*. [http://philipbeesleyarchitect.com/sculptures/1115\\_Simons-Aurora/index.php](http://philipbeesleyarchitect.com/sculptures/1115_Simons-Aurora/index.php).
- Regehr, T. D. 2002. "National transcontinental railway." *The Canadian Encyclopedia*. <https://www.thecanadianencyclopedia.ca/en/article/national-transcontinental-railway/>.
- Roy, Sebastien. 2013. "Best of electro evenings in the satosphere." *Société Des Arts Technologiques*. <http://sat.qc.ca/fr/albums/best-des-soirees-electro-dans-la-satosphere>.
- Ryan, Andy. 2008. "The Nelson-Atkins Museum of Art / Steven Holl Architects." *Arch Daily*. <https://www.archdaily.com/4369/the-nelson-atkins-museum-of-art-steven-holl-architects>.
- Sims, Michael McArdle. 2016. "Back from edinburgh's fringe festival." *CBC Player*. <http://www.cbc.ca/player/play/2694133581>.
- Smith, Colin. 2016. "Residents excited over U-Haul offer on former Moncton High School building." *The Manatee*. <https://themanatee.net/residents-excited-over-u-haul-offer-on-former-moncton-high-school-building/>.
- Stange, Ty. 2018. "Stroget". *Visit Copenhagen*. <https://www.visitcopenhagen.com/copenhagen/stroget-gdk414471>.
- Steeves, Shelley. 2017. "Monctonians concerned over garbage, tents appearing at former Moncton High School." *Global News*. <https://globalnews.ca/news/3848359/moncton-high-school-garbage-tents/>.
- . 2017. "Moncton environmental group pushes back against turning green space into parking lot." *Global News*. <https://globalnews.ca/news/3840051/moncton-environmental-group-pushes-back-against-turning-green-space-into-parking-lot/>.
- . 2017. "Frustrations grow over delays to develop former Moncton High School." *Global News*. <https://globalnews.ca/news/3187045/frustrations-grow-over-delays-to-develop-former-moncton-high-school/>.
- . 2016. "MH35 group reveals new plans for library in public information sessions." *Global News*. <https://globalnews.ca/news/2761801/mh35-group-reveals-new-plans-for-library-in-public-information-sessions/>.
- . 2016. "Future of former Moncton High School still undecided." *Global News*. <https://globalnews.ca/news/2540611/future-of-former-moncton-high-school-still-undecided/>.
- . 2016. "Two sides at odds over future development of old Moncton High School." *Global News*. <https://globalnews.ca/news/2577018/two-sides-at-odds-over-future-development-of-old-moncton-high-school/>.

- Tate. 2005. "People of the millennium bridge walking toward tate modern." <https://www.tate.org.uk/about-us/projects/constructing-tate-modern>.
- Vail, Keegan S. 2014. "Beneficial arts collaboration, A Bloomington Perspective." *Undergraduate Honors Thesis, Public and Environmental Affairs*. Indiana University. [https://spea.indiana.edu/doc/undergraduate/ugrd\\_thesis2014\\_pnmgmt\\_vail.pdf](https://spea.indiana.edu/doc/undergraduate/ugrd_thesis2014_pnmgmt_vail.pdf).
- Verderber, Stephen. 2012. *Sprawling Cities and Our Endangered Public Health*. New York: Routledge.
- Vincent, Guy. 1899. "Moncton riverfront." Moncton Public Library. [http://www8.umoncton.ca/umcm-vincent\\_guy/GEOG2701/Downtown%20Moncton%20-%20vision-draft.pdf](http://www8.umoncton.ca/umcm-vincent_guy/GEOG2701/Downtown%20Moncton%20-%20vision-draft.pdf)
- .1904. "Moncton Rail Yards." <http://enacademic.com/pictures/enwiki/77/Moncton-RailYards1904.jpg>
- Werlemann, Hans. 1993. "Kunsthal." OMA. <http://oma.eu/projects/kunsthal>.
- Wernick, Jane, ed. 2008. *Building Happiness: Architecture that Makes You Smile*. London: Black Dog Publishing.