Building On Controversy : Developing Architectural Dialogues on Controversial Sites

by

Makenzie Ramadan

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

at

Dalhousie University
Halifax, Nova Scotia
June 2020

Contents

Abstract

This thesis explores how controversial sites that are in stasis, like the old memorial library in Halifax, can be transformed into architecture. As the public becomes more involved in architectural design process the occurrence of sites in stasis like the Old Memorial library are increasing. Through the perspective that buildings are not passive objects, but collections of historic, political, social, and contemporary actors, buildings become autonomous actors that must be engaged with directly.

Methods that engage with the site as an autonomous agent can transform the controversy into an architectural response. Using traditional and contemporary techniques, The actors of the controversy are collected and analysed to defined moments. New moments are generated using architecture as the mediator, and the actors recollected and re-analysed, to defined new narrative moments. Through these steps the controversy is transformed into an architectural response, one of many potentials.

Acknowledgements

Chapter 1: Introduction

In Halifax, the Old Memorial Library indicates little that is unique about the building or surrounding site. It appears innocuous: a large abandoned building abutting a small, ill-maintained public park, surrounded by a wall made to appear like those found in the city's early beginnings. What grandness the structure may have had is now overshadowed by its replacement, the Schmidt-Hammer-Lassen designed Halifax Central Library across the street. However, its angle-breaking the grid of the surrounding streets-stands out. The wall around the site provides a convenient place to sit, grab lunch, enjoy the sun, and at the same time-divides park and street: separating the high energy steps of those rushing to meetings from those who have nowhere be. It is busy with day-to-day traffic, people talking, serendipitous meetings, buying lunch, panhandling, and kids at play. In winter, the cold, humid air and wet snow send the site into hibernation. Save for the people passing through, the weather drives people indoors, quickly scuttling from door to door, scarves pulled high, avoiding the burning cold. Patiently, the site waits until spring breaks the cold monotony; the food trucks return, and once again, people have time to be in the sun. Similar sites exist in many cities: it is almost plain, and this site does not often get a second thought by the day to day users.

The Old Memorial Library sits at the heart of Halifax on Grafton Street and Spring Garden Road. Built as a living memorial to World War II's fallen soldiers, it acted as a place where people could gather and community could exist (Halifax Public Library 2014). It was the possessor of knowledge and provider of lessons. It held this place for half
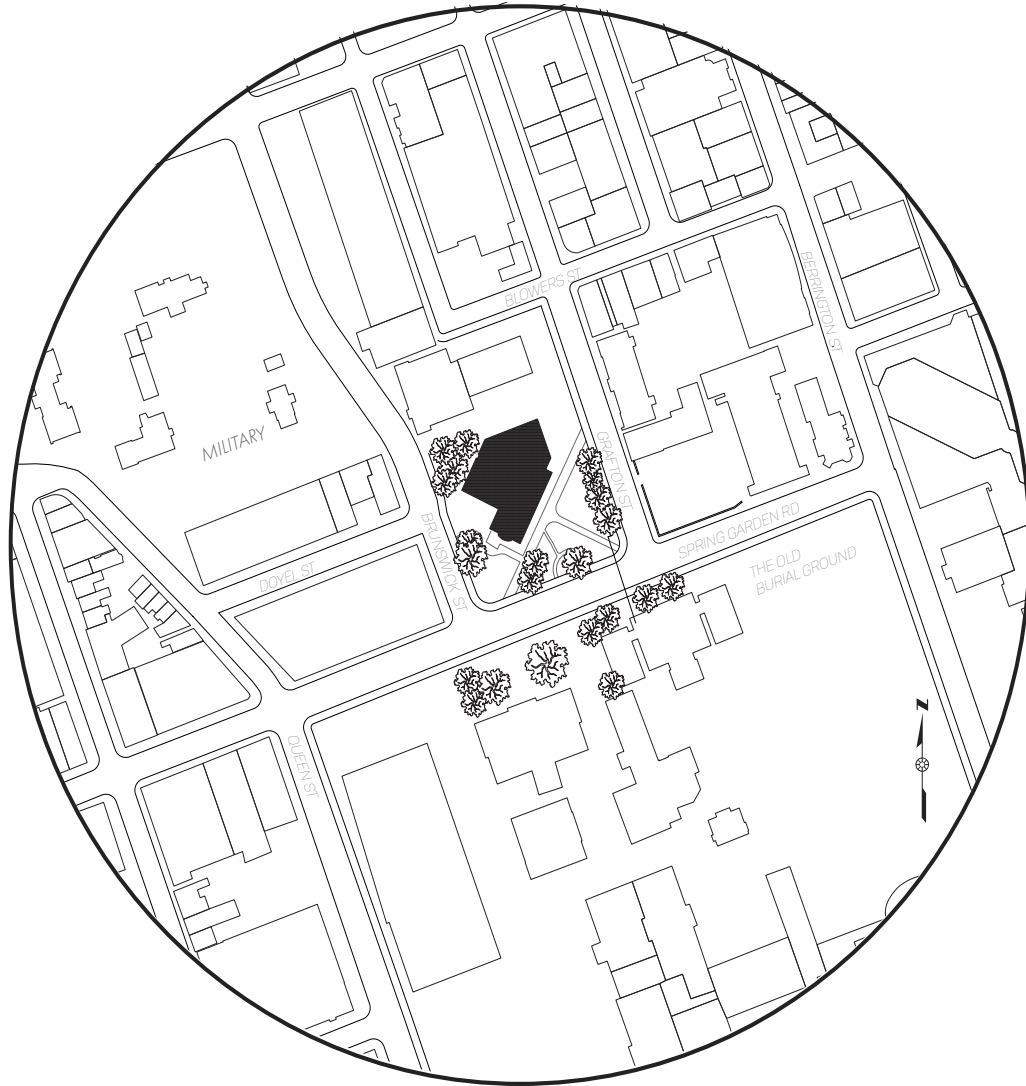
Front of the Old Memorial Library, Halifax, 2019-2020

Map showing the location of the Old Memorial Library site (base map from Halifax Open Data 2019).

a century until the city's needs and new technologies made the old building obsolete. A new library was planned for Spring Garden Road and built across from the Old Memorial Library. In 2014 the new Halifax Central Library opened, and the old library site's future was left uncertain.

Underneath the site's surface is a controversy that has stalled development of the site and creates tensions between the powerful and the public, between private interests and memory, between graves and construction. These tensions

have prevented the site from moving forward: holding it in stasis. No suggestion or proposal has gone unchallenged, and the site has been left as-is. There is no apparent reason why these tensions have prevented the advancement of the site. Reasons given for a proposal's failure are usually singular: it is too expensive, too risky, destroys the memorial, or disturbs the graves (Dube 2018). This binary perspective is reductive and inhibiting productive, generative dialogue. Architecture is not a binary practice, and binary methods do not result in meaningful architecture (Yaneva 2012). The site's complexity must be unravelled, unpacked, and revealed in full to develop transparent, meaningful, and democratic architectural projects.

Actor-network theory (ANT), was brought to bear on architectural practice by Albena Yaneva in her book Mapping Controversies in Architecture. It provides a productive method to analyze and understand the controversies which create architecture (Yaneva 2012). Through this book, Yaneva shows how architecture emerges from complex and dynamic networks of actors. Actors are human and non-human: they can be concepts or physical entities, biological or inorganic. These networks generate architectures that become actors in themselves: affecting and changing cities, environments, and communities. Imagine wandering the city at night, coming across a road that, in the day, you walk down without a thought. Now at night, the corners are somewhat obscured, the alleys hold unknown threats, and you move on to the next street. In this analogy, the decision to move on and the feeling of discomfort do not come from one singular actor or another, but instead a combination and their interactions. In this case, perhaps a combination of light and dark, or your history and the city's history, or

of emptiness, of gender, of race. This example illustrates the numerous actors and connections influencing our decisions in and about the city, and how they could change if one actor or connection were different. What if it was the daytime? What if you were familiar with the street? What if the next street was "worse"? It also serves as an example of how people participate with architecture. Participation is not relegated to the early design phases of a project but is continuous and ongoing. Architecture is built and rebuilt from moment to moment as networks transform and shift. New architectures arise alongside new perspectives and new actors.

Architecture and the Old Memorial Library site are complex, involving many actors, perspectives, and people. The Old Memorial Library site has evaded development for half a decade. The reasoning given is usually circumstantial and individual to each proposal. Prior proposals included the privatization for commercial use by start-up incubator Volta Labs, destruction of the Old Memorial Library if no solution was found, and offers to return the land to local Mi'kmaq (Dube 2018). It would be reductive to say that it was the privatization of land, the destruction of the memorial, or the library's restorations costs, respectively, that halted these proposals. Even if the entire extent of the network cannot be unravelled or illustrated, the parts that can be unravelled offer a new understanding of the issues on the site. What is revealed through the unravelling is that a singular person, idea, group, or reason did not rebuff the Old Memorial Library's proposals; instead, the site itself played a role in actively rebuffing these proposals. The network of controversy around the site involving its history, its memory, its architecture, and the people involved gave a voice

and autonomy to the site. Any proposal was judged not to meet the social, political, economic, historical, and cultural standards developed by the collective public and gave a voice to the Old Memorial Library. In Actor-network Theory, it would be said that the site has agency or influence in the decision-making process (Venturini 2009). The ongoing rejection of these proposals by the Old Memorial Library results in ongoing controversy and stasis. The dialogue is not with one group or public, but instead with the site itself, as a city representative.

Adding to the complexity, the public has become more engaged with architecture, and the process of architecture in the city. Internationally, the increased engagement is shown in the Olympics' introduction of legacy rules, whereby construction projects for the Olympics must include plans for the architecture following the actual Olympic event (Gratton and Preuss 2008). More locally, in Halifax, increased engagement is seen through the frustrations that surround newer developments like the Halifax Convention Center (CBC News 2018), the Doyle (Parcell 2018), or any of the other high-rise building projects that cause the creation of community groups (Parcell et al. 2018). Even on the Old Memorial Library Site, there have been demands for participatory methods (Cooke 2019) and the development of technologies in response to the public increased engagement (Global News 2018).

Showing how the view planes have agency in the form of the Bell Aliant building (data from Halifax Open Data 2019).

With the increase of public engagement, there is also an increase in the participation and agency of non-human actors, like the Old memorial library, on sites throughout Halifax. The view planes are a non-human actor that has

been imbued with legitimacy by the public, generating many controversies. The view planes have enough power to define the form at times, like the Bell Aliant Building. The issue is that these collectives gave the view plane legitimacy but could not imbue the view plane with power. The view from the Halifax Central Library may have had legitimacy in the eyes of the public. However, it did not hold the same legitimacy for the powerful politicians, developers, and architects, resulting in a building that impedes the view (Parcell 2018).

Methods exist for the engagement of human actors in the design process (Blundell Jones et al 2009); methods, including surveys, community meetings, and others used for the design of the new Halifax Central Library (Halifax Public Library 2008). In cases where the non-human actors act autonomously, these methods are inadequate for translating a controversy into an architectural response. The library site cannot come to a community meeting or fill out a survey. If we rely purely on human actors as the voices for the non-human, the controversy will remain, or come to an inadequate resolution: illustrated locally by the Doyle still being built or globally by climate change. Climate change acts independently and must be addressed as an independent, non-human actor for one to see and make the many changes required to rein in global warming. Methods of participation that include non-human actors, and recognize their corresponding agency, can break down controversies and transform the networks to move beyond stasis.

Chapter 2 : Model of Working

Background

Actor-Network Theory was initially developed through the study of scientists and the scientific process (Venturini 2009). Questioning how facts and scientific truths are developed and understood. From this beginning, the use of ANT has expanded to explore more fields. Through Mapping Controversies in Architecture, Actor-Network Theory looked at the architectural practice, exploring the design process of buildings and architecture (Yaneva 2012). It still maintained its analytical aspect, not being used as a way to develop new designs but only to understand how design works. These explorations found that there is no singular genius that designs the whole; instead, architecture emerges from a complex network of actors and continues forward as an actor.

What makes Actor-Network Theory and its methodology powerful as a design tool is its lack of a preordained technique (Venturini 2009). Instead of suggesting a way of approaching a controversy or a technique of observation.

Here is an exploration of the networks, actors and their influence. This drawing is an early abstraction, before solidifying the ideas into architecture.

It merely asks that the observation be open. That is to say, removing or ignoring actors during observation would undermine the results; only after the initial observation is complete, and the actors are collected, can a hierarchy be applied through the analysis. The analysis does not remove actors but weights them, revealing the most influential actors. Typically, the weighting is done through the connection of actors. The larger the number of connections, the more weight an actor has (Venturini 2009). For example, political figures or people with a degree of fame will be mentioned more in news media or social media. So if someone were mapping the controversy involving those particular actors, their influence would grow as more people mention them. In this case, news media and the number of mentions provide the data for the connections, but many other empirical methods can be imagined to develop those connections. In the case of architecture, physical connection or emotional connection between different actors can be thought of as a mention. The variety of empirical approaches is crucial, so the technique does not become restricted to specific types of data. These qualities provide a robust process as a design tool, as it implies that the methods and techniques developed from the context.

Furthermore, it can limit the bias that often comes out of predetermined techniques. Applying a specific technique to a multitude of situations can result in inaccurate assumptions or fail to incorporate some perspectives. It also implies that the observer has to be considered and with their own internal biases as an actor in the process of observation. Although this process offers many opportunities, it does have its concerns and limits.

The most substantial perceivable limit to Mapping controversies and the process described above is the speed at which it could occur (SciencesPo 2018). Analyzing and collecting such a large number of actors can become burdensome and confusing, potentially leading to the early removal of actors. This reason is why digital data is often touted as the best option for actor-network theory, as it is traceable and can be mapped and presented through digital techniques that are automated (Venturini 2012). However, this thesis did not have the tools capable of providing such a system. It is essential to keep this in mind.

Moreover, implementing ANT as part of a design process has the limit of devolving into a justification of the designer's own will, making it vital to view designers as an actor in the network, allowing critical analysis of the design and its relationship to the designer and their tools. Another concern of developing a method for a given context is it can seemingly devolve into a similar method or technique. For example, if the context is a park or an ecologically sensitive area, the actors that become the most influential in the design process may be ecologies of plants and nature. Thus the methods developed may be similar to typical ones that already exist for designing with nature. This devolution may be positive or negative, Seen as a way to choose the best method given the context or seen as a needless way to approach a context. This thesis takes the perspective of the latter.

To further bring Actor-network Theory into a design process, it is acknowledged that controversy does not need to develop around a material object or context (Venturini 2009). That is to say, a building does not need to exist for controversy to develop. Many of the proposals made on
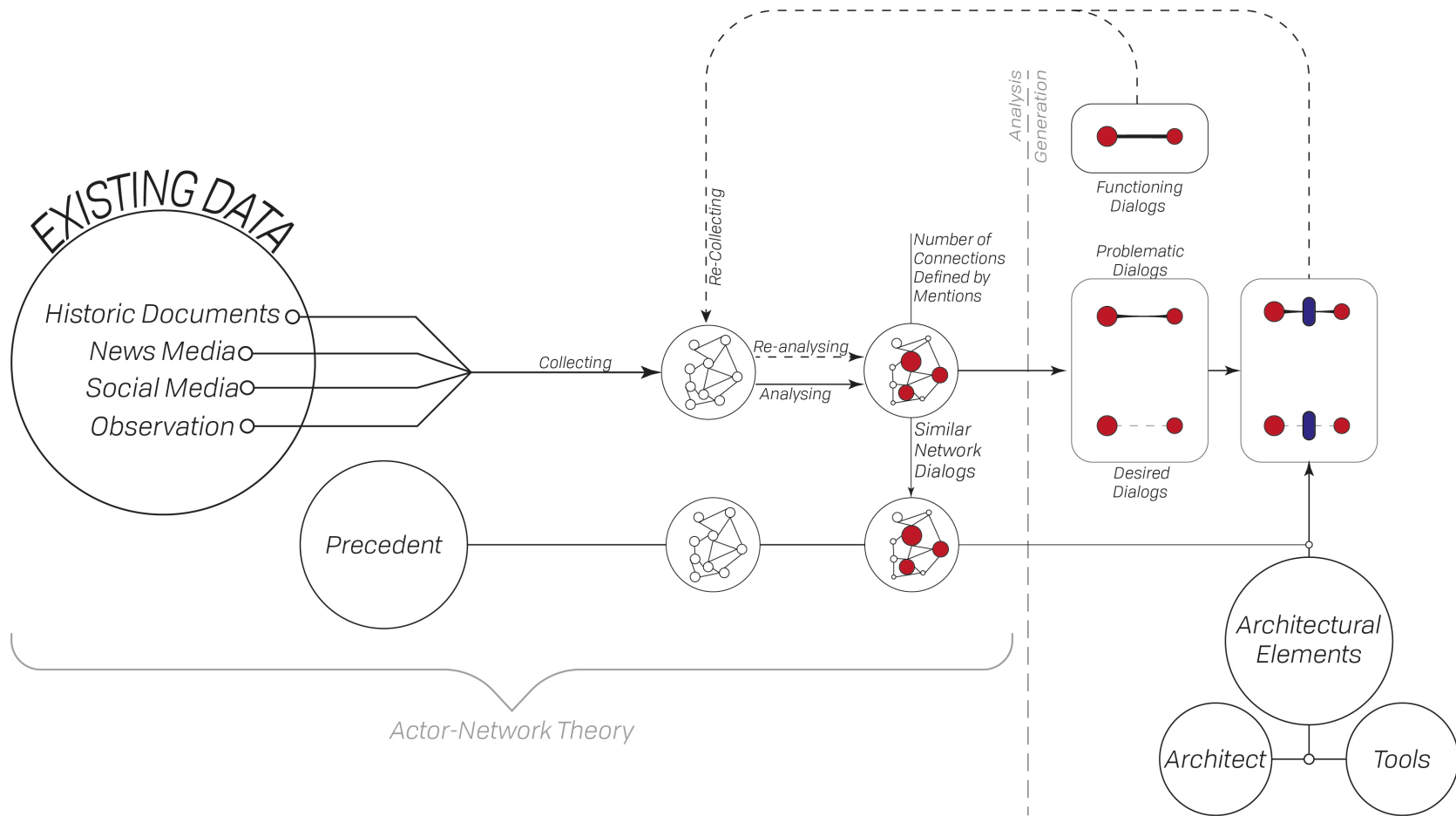
the site of the old memorial library became controversies; developed simply at the suggestion of a building. Non-material controversies show that actor-network theory can be used to analyze imaginary or conceptual realities that exist outside of the material world. Meaning it can analyze potential controversies that could arise from design proposals, making it possible to evaluate the architectural moves during the design process.

Process

These previous paragraphs show that actor-network theory and its methodology can be brought into a design process. To further clarify this idea. It is pertinent to imagine that the design process is not creating an object but is creating a network for an object to exist. In short, this thesis designs a network using architectural elements like that of programme, structure, form, and space. Networks themselves are transitioning from matters of fact to "matters of concern" (Latour 2008, 8). The illustration used is one of a spacesuit; on Earth, the atmosphere, breathing, and pressure are taken as matters of fact, while in space, these actors become matters of concern and must be designed (Latour 2008, 8). Extending this metaphor, nearly everything down to the atomic level, can become a matter of concern: it can become a question of design, speculation, and creativity. The notion of matters of concern is already at work in design and architecture. An air-conditioned space is the designing of the air. In the climate crisis, is not the reduction of pollution the designing of the planet's atmosphere? Yes, it is measuring and altering the parts per billion of CO_2 in the atmosphere or of plastic in the ocean is an act of care and design.

The networks themselves are matters of concern and can be changed, speculated on, and designed. This does not answer how networks can be designed: it only opens the door for them to be designed. How can networks be set up in anticipation of being activated?

While working through the design and focusing on the decisions and conversations that were occurring, a productive model was discovered. The network must be thought of being "activated" -a more narrative approach that is often used by those studying and applying ANT (Yaneva 2008). Imagine a bench underneath a tree on a sunny day: this is a network, and these actors are in dialogue. The network is going to activate by an individual. Depending on the individual, the network will be active in different ways. For example, a child may activate the network as a playground by jumping around and hiding under the bench, while someone on break from work may activate the network as a place to sit or eat lunch. Through this approach, new perspectives can be imagined. What if there was no bench; What if the individual was elderly or a different gender; What if the bench was stone, wood, or metal? Surprising activations can be played out through the production of these narratives. This example also qualifies the idea of architectural moments. Looking at the controversy and activations of the network; the dialogues of its actors create the situation of stasis. First, the controversy must be broken down into moments: moments of sun, moments of history, moments of memory and death. These moments are smaller parts of the whole network, and focusing on how these moments are activated opens opportunities for design. All of this begs how to determine whether a dialogue is functional; some may seem

EXISTING DATA

Historic Documents
News Media
Social Media
Observation

Collecting

Re-Collecting

Re-analysing

Analysing

Number of
Connections
Defined by
Mentions

Analysis

Generation

Functioning
Dialogs

Problematic
Dialogs

Desired
Dialogs

Similar
Network
Dialogs

Precedent

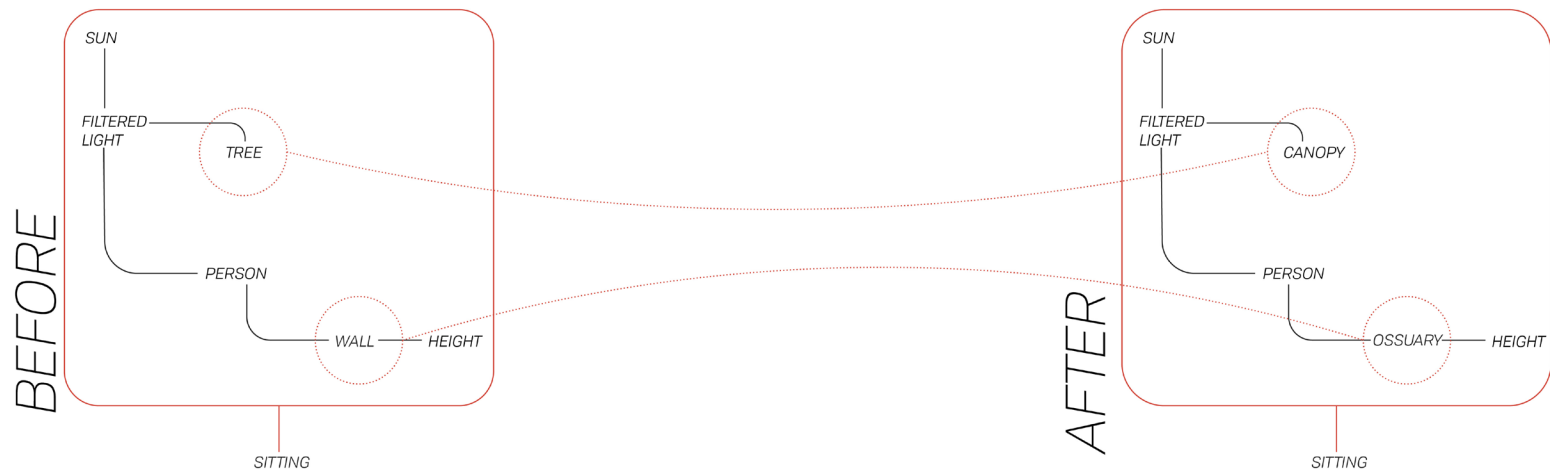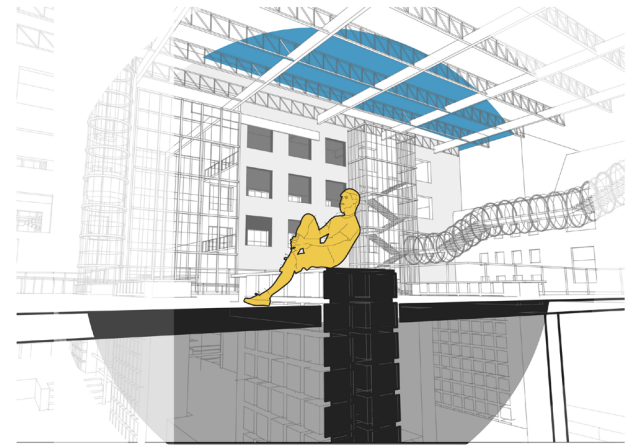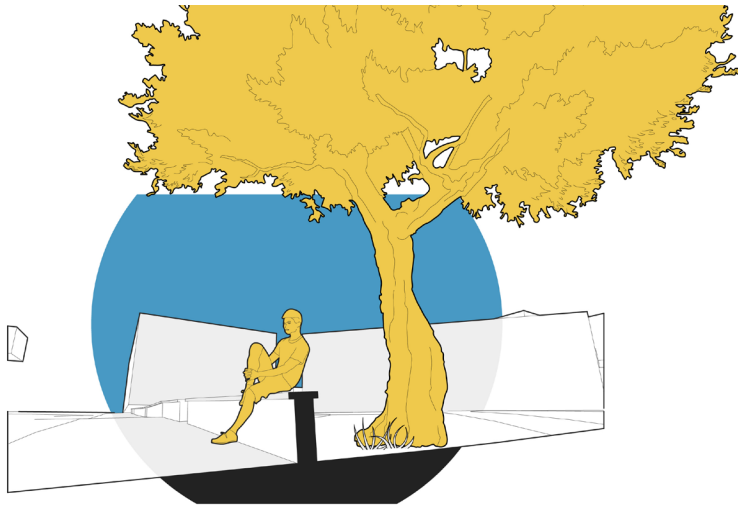Actor-Network Theory

Architectural
Elements

Architect

Tools

This diagram shows the potioning of Actor-network Theory in the design process and how the analytical process can evolve into or incorporate a generative aspect.

obvious as the example above, but others may involve a level of nuance that escapes common sense.

The process could develop many different evaluative methods; for example, more ecological contexts may be evaluated on ecologies that remain functioning. This thesis developed an evaluation based on the connection between actors. The functioning dialogues that were discovered early in the observation and analysis of the site must be maintained. These dialogues can be thought of as connections between actors. If a design intervention deteriorated the connections deemed functional, It could be evaluated as unfavourable. New or desire dialogues, created using an architectural intervention, forge new connections. For example, between the day-to-day users and the graves shown later in the design. The evaluation of these new connections is slightly more complicated than the existing and functional connections. Evaluation of these connections came from the ideas put forward in Latour's *Making Things Public* (2008, 8). If a design intervention worked to make public a piece of the controversy, it would be deemed a reasonable intervention. To put it simply, with each design intervention, the network is redrawn and diagramed to determine if existing functional connections are still apparent and if new connections work to make public the controversy that has occurred on the site. In this case, the connections are based on sensual interactions. Asking, Can the user touch or see the actor in question?

Precedents are existing data, and through the perspective developed here, they are also precedents of networks. Network fragments that are activated in particular ways. Precedents ground the new dialogues created with the architectural intervention. Avoiding copying a precedent, the

BEFORE

SUN

FILTERED LIGHT — TREE

PERSON

WALL — HEIGHT

SITTING

AFTER

SUN

FILTERED LIGHT — CANOPY

PERSON

OSSUARY — HEIGHT

SITTING

Through diagramming, the network is illustrated and evaluated. Here the connections that made the wall a great place for the day to day activities are maintained. More actors can be added to these diagrams to deepen the evaluation and reduce assumptions.

actors of concepts like that of light and structures, of people and activity, are used. These precedents are drawn from close to home, the site itself, or abroad.
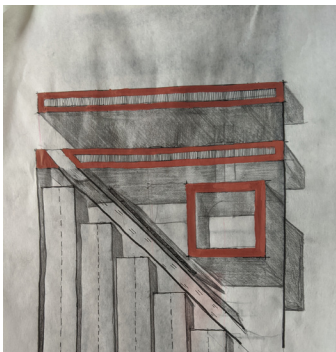
Techniques and Tools

Traditional techniques of drawing, sketching, model making, researching, writing, and more contemporary techniques such as parametric 3D modelling and Augmented reality, were used to analyze the network and generate new dialogues.

The technique of overdrawing provided an oscillation between the virtual and physical parts of the process.
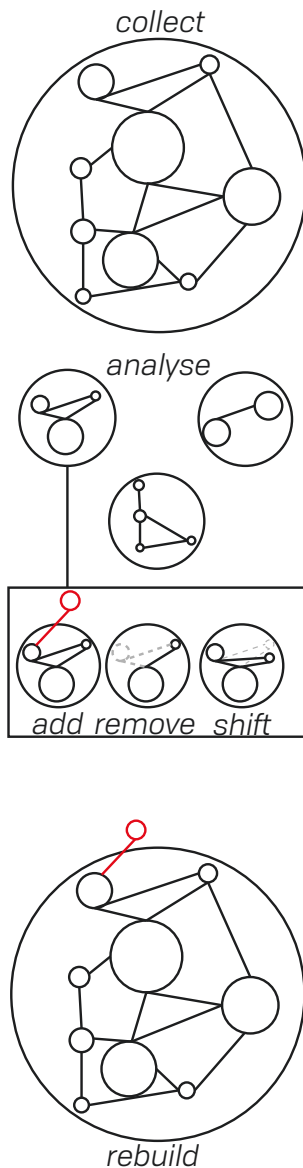
To collect the actors and define moments, observation, social and news media, and background research became critical. The generation of new dialogues creates new questions and requires the collecting of new actors. The media proved to be abundant resources for generating programmes, as shown later in this thesis.

Parametric modelling presented the most opportunities through the stages of the process. It provided a place for many of the collected actors to exist, their geometries could be broken down and applied to other areas, such as the use of the height of an existing wall to define the height of new places to sit. Primarily, by collecting the data into one parametric space, a palette was created with which transformations and new dialogues could be generated. Although out of the scope of this thesis, parametric provides the opportunity for optimization. The optimization of architecture for energy, climatic variables, and structural systems is well developed.

In contrast, the optimization for more social dialogues, like sitting, talking, or eating lunch, has been less explored for the apparent reason of data availability. Instead, architects rely

on the use of standards: standard bench height, standard talking distance. These are no doubt, necessary resources, but with the increase in data, these relationships can enter a more variable dialogue. Imagine collecting everyone's data in a park setting, along with weather, sun and shade, surface materials, ages, genders, races, and ethnicities. The patterns that would emerge from this data could be much more delicate than a standard manual could ever provide. The mind could never understand these patterns and large amounts of data, but new software makes these types of patterns more reasonable to explore.

Breaking Down and Rebuilding

There are three stages to the process that this thesis develops: Collecting, Analysing, and Generating. These stages are not clearly defined steps, but instead, the process oscillates between them and between scales of time. Consideration of the time scale is necessary to generate new architectural moments, including the day to day, monthly, yearly and life cycles of the architectural space.

Working with controversies and networks is complex and confusing(Latour, Yaneva, and Gündüz 2014). To illustrate the process, imagine the rebuilding of an engine. Taking the engine apart reveals the complexity of the mechanics: it is comprised of many parts. Someone tinkering and refining an engine will break it down-change, replace, or move the pieces-then rebuild and test it. It's imaginable that the process is not linear. Small or large pieces may be replaced. Testing the efficacy of an engine is easy with quantitative metrics. In comparison, the complexity of architecture lacks those measures, and speculations can only ever verify performance to a degree. Grounding the speculations

collect

analyse

add remove shift

rebuild

This is an illustrated overview of the process. Once the network is a matter of concern, it may be altered with design interventions and revaluated.

in precedent ensures that they are kept in a boundary of reasonability.

This process is one of breaking apart and rebuilding the networks on the site. In rebuilding the network with a new configuration of actors-like moving the Old Memorial Library façade-or with all new actors and dialogues- like the introduction of a public forum to the site- one or many moments are changed in an iteration. The rebuilt network is subjected to the retelling of existing and new narratives.

Each cycle brings new insights into the controversy that can be used in the next cycle. Through this, a design proposal is produced. This proposal is not an answer or proof; instead, it is one of many potentials showing that the networks of controversial sites can generate architecture.

Through this, the design process becomes iterative, putting out a design idea or intervention and redrawing the network and actors. Over and over again.

Chapter 3: Process

Collecting and Re-collecting

The process of collecting is predicated on the concept of 'just' observe (Venturini 2009). 'Just' observing avoids the early judgement of the actors. This way, nothing is cut out too early, providing many paths forward. The process of collecting is never complete as new actors are discovered and created through the design process. As these new Actors are generated, they are recollected, in a continuous process.

Using historical documents and direct observation brings together Old Memorial Library's actors. It is essential to note the historical documents themselves are actors in the process; the maps are used to define and to draw dialogues. The collection is not limited to facts of the site, but also to the documents, paper, and ink that is involved.

The Old Memorial Library site has its roots at the beginning of colonial Halifax. A block away from the current site was the first poorhouse in Halifax, officially established in 1758 (Dube 2018). Although called "The Poor House," it would be more correctly referred to as a debtor's prison typical of the era and was even being placed on the same grounds as the city prison. The site in question served as the Poor House's graveyard for the unfortunate people who died in the Poor House. For the next century, more and more bodies would be placed in the graveyard.

In 1760, the first wall was created around the site (Journal of Assembly 1845). This wall was constructed for the protection of people during funeral processions, suggesting the controversy of the site reaches further back into history,
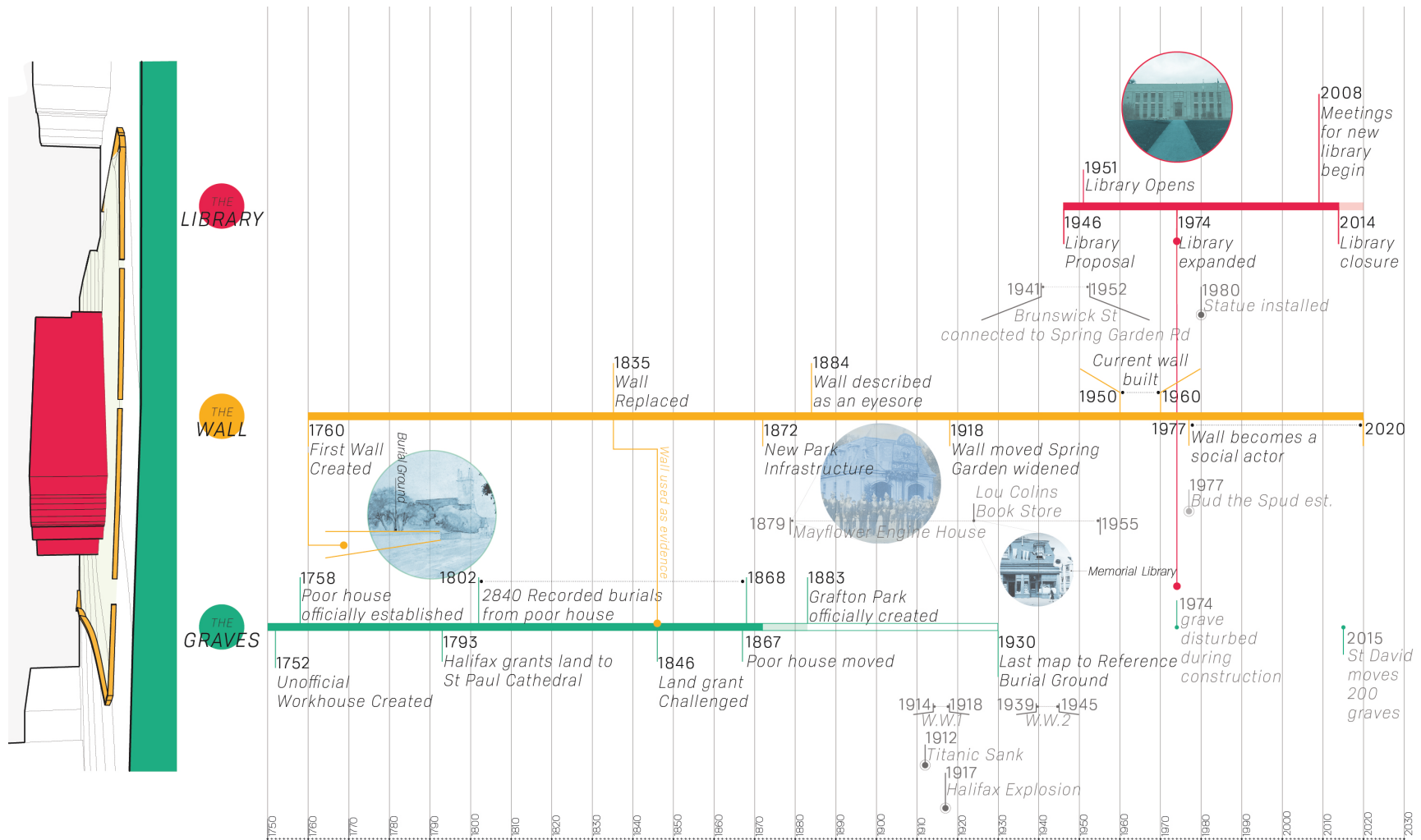

Images of the observation. Part of the collection process providing actors and connections for analysis.

commenting on the tensions and controversies between the colonial settlers and the Mi'kmaq population. These tensions do come up in the present day, with the site being offered initially to local Mi'kmaq groups. It is essential to recognize that the site has a history far more in-depth than those of the records of colonial Halifax and that the full history of the site deserves a thesis all its own.

In 1793, the land was granted to St. Paul's Cathedral and while it continued to be used as a burial site (Journal of Assembly 1845). Shortly after, in 1802, official records of the Poor House's burials started to be kept. In 1835, a new wall was built, and in 1846 the land grant was challenged, citing the new wall as evidence in the case (Journal of Assembly 1845). Finally, in 1867 the Poor House was moved to a new location. Burials stopped on the site in 1868 (Dube 2018). The site fell into disrepair until in 1872, and it was suggested that the site be turned into a park (Dube 2018). This suggestion did meet resistance, but new infrastructure like a pathway and benches were placed on the site. (Journal of Assembly 1845) In 1880, a new engine house for firetrucks was placed on the corner and in 1883(Archibald 2020),
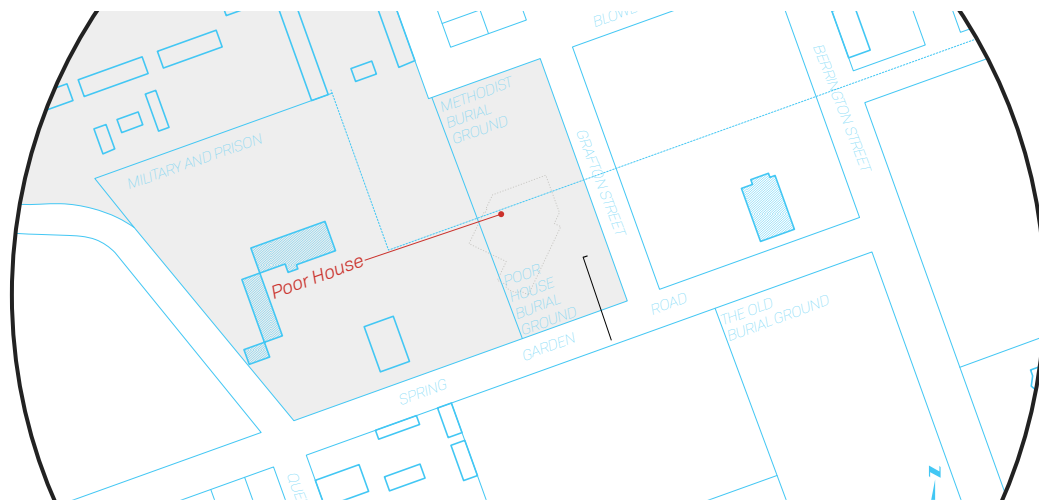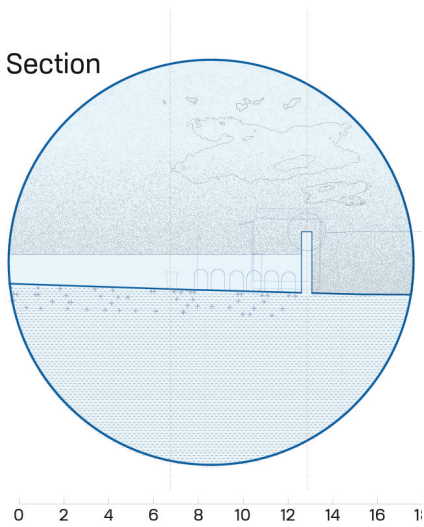

Map showing the poor house's proximity to the cemetery. Most of the individuals buried came from this poor house. (data from Nova Scotia Archives 2020)

THE LIBRARY

THE WALL

THE GRAVES

1951
Library Opens

2008
Meetings for new library begin

1946
Library Proposal

1974
Library expanded

2014
Library closure

1941 — **1952**
Brunswick St connected to Spring Garden Rd

1980
Statue installed

1835
Wall Replaced

1884
Wall described as an eyesore

Current wall built

1950 **1960**

1760
First Wall Created

Burial Ground

1872
New Park Infrastructure

1918
Wall moved Spring Garden widened

1977
Wall becomes a social actor

2020

Wall used as evidence

Lou Colins Book Store

1955

1977
Bud the Spud est.

1879
Mayflower Engine House

Memorial Library

1758
Poor house officially established

1802

1868

2840 Recorded burials from poor house

1883
Grafton Park officially created

1974
grave disturbed during construction

2015
St David moves 200 graves

1793
Halifax grants land to St Paul Cathedral

1867
Poor house moved

1930
Last map to Reference Burial Ground

1752
Unofficial Workhouse Created

1846
Land grant Challenged

1914 **1918**
W.W.1

1939 **1945**
W.W.2

1912
Titanic Sank

1917
Halifax Explosion

1750 1760 1770 1780 1790 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020 2030
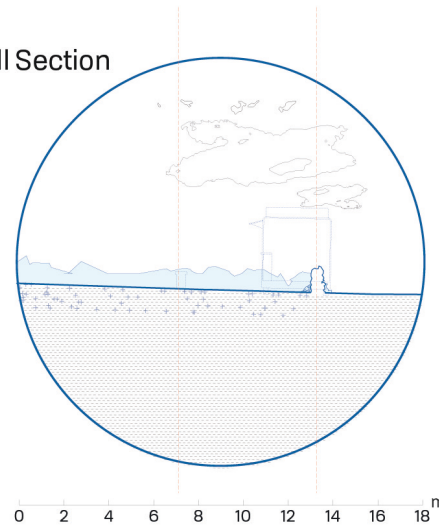
A timeline provided a scaffolding to collect and analyze, as new actors were found they were added to the timeline. Through this, the controversy and the influential actors were further defined.
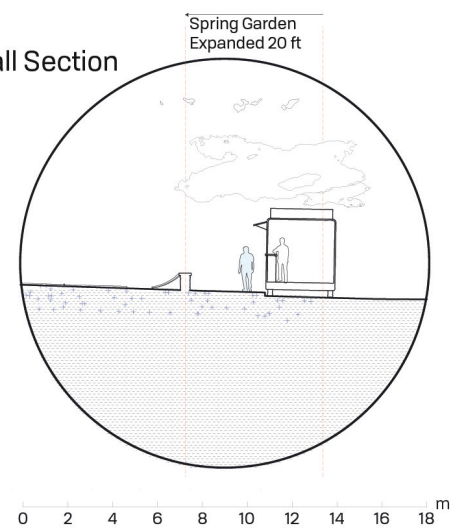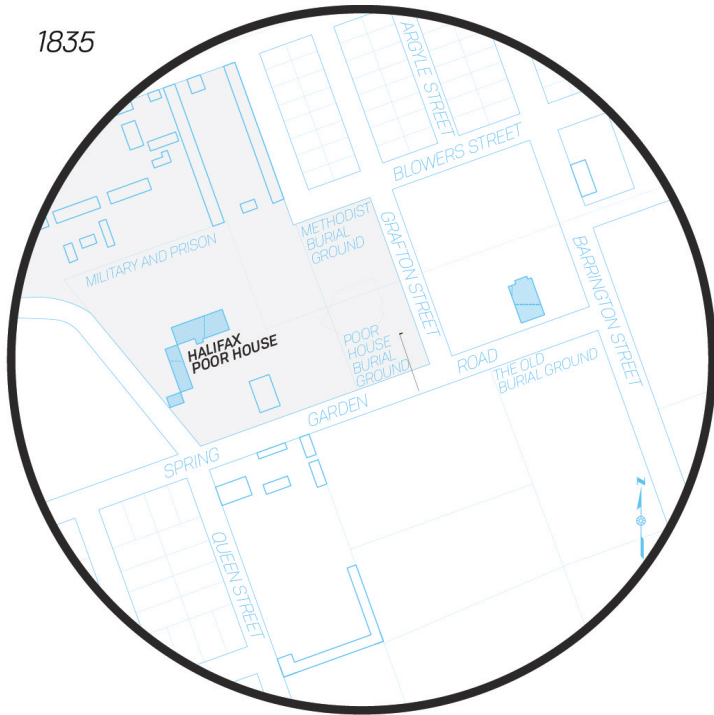
1835- Wall Section

1883- Wall Section

2020- Wall Section

Spring Garden
Expanded 20 ft

0 2 4 6 8 10 12 14 16 18

0 2 4 6 8 10 12 14 16 18 m

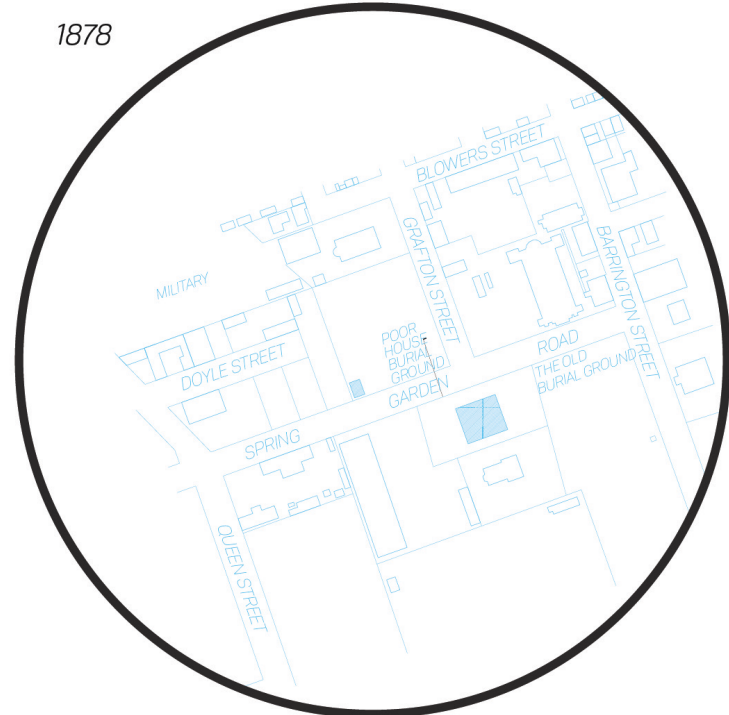0 2 4 6 8 10 12 14 16 18 m

As the wall gained influence, it became vital to understand the wall through time, collect new actors. Here sections of the wall are drawn to understand these new conditions.
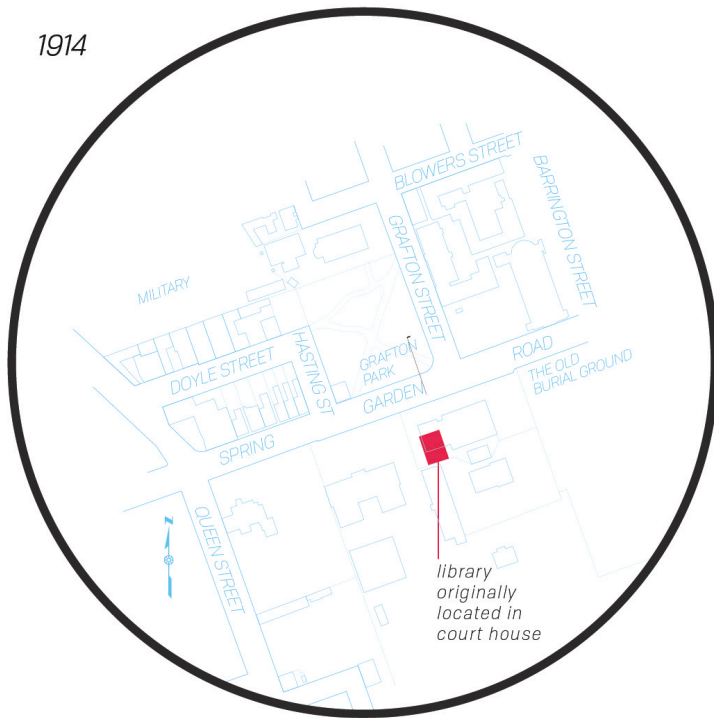
1835

ARGYLE STREET

BLOWERS STREET

METHODIST BURIAL GROUND

GRAFTON STREET

MILITARY AND PRISON

BARRINGTON STREET

HALIFAX POOR HOUSE

POOR HOUSE BURIAL GROUND

ROAD

THE OLD BURIAL GROUND

GARDEN

SPRING

QUEEN STREET

1878

BLOWERS STREET

GRAFTON STREET

MILITARY

BARRINGTON STREET

DOYLE STREET

POOR HOUSE BURIAL GROUND

ROAD

THE OLD BURIAL GROUND

GARDEN

SPRING

QUEEN STREET

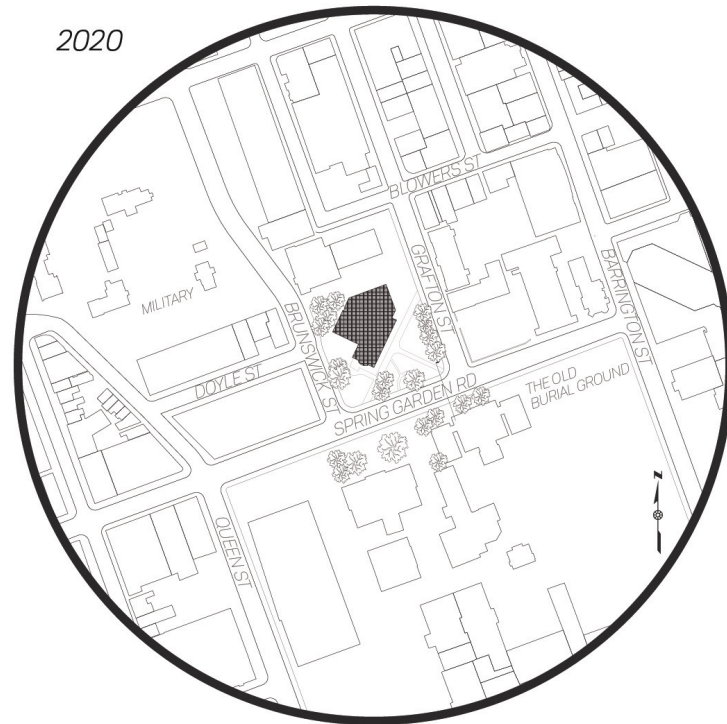| 0 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 m |

| 0 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 m |

Here the site is drawn through time to bring greater complexity to the connections that exist in the controversy. (data from Hopkins H.W 1878 and Nova Scotia Archives 2019)

1914

MILITARY

BLOWERS STREET

GRAFTON STREET

BARRINGTON STREET

DOYLE STREET

HASTING ST

GRAFTON PARK

ROAD

THE OLD BURIAL GROUND

SPRING

GARDEN

QUEEN STREET

library
originally
located in
court house

2020

MILITARY

BLOWERS ST

GRAFTON ST

BARRINGTON ST

BRUNSWICK ST

DOYLE ST

SPRING GARDEN RD

THE OLD BURIAL GROUND

QUEEN ST

| 0 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 m |

| 0 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 m |

Here the site is drawn through time to bring greater complexity to the connections that exist in the controversy. (data from Halifax Open Data and Nova Scotia Archives 2019)

Queen Victoria-by edict-officially made this "a park for the use of the people of Halifax" (Fraser 2013). One year later, the wall was again replaced- the record stating that it was an "eyesore in the city" (Dube 2018). The last mention of the graves appears on a map 1930 map, and the park is referenced as "the new graveyard," juxtaposed to The Old Burying Ground across the street (Halifax Nursery 1930). In 1918, Spring Garden Road was widened by 20 feet in the direction of the park (North), and a new wall was placed around the park. (Dube 2018) Widening spring garden road is an essential moment in the site's history. Archaeologists today believe that action mixed up or uncovered a lot of the graves and placed them close to the surface of the current site (Dube 2018). Eventually, in 1946, a new library was proposed, and the edict by Queen Victoria was changed to include the ability "to build North of the pathway, a public library" (Dube 2018). In 1955, the old-engine-house-turned-Lou-Collins-Bookstore was removed from the site (Archibald 2020). Then 1974 saw the expansion of the Old Memorial Library and the disturbed grave of a disembodied individual briefly mentioned in the construction process (Dube 2018). It brought the memory of the graves back to the forefront of the site. Finally, in 1977, the food truck "Bud the Spud" was established, activating the site as a dining and lunchtime community hub.

Direct observation of the site provides actors of the current day. Some actors found in the observation may also be defined in the historical context, and this overlap becomes vital in the analysis of the controversy. This overlap adds weight and influence to the actors found in both. For example, the wall is vital in both historical analysis and direct observation. Direct observation is often the first method

used to define contexts on the site, and it is a way of getting relevant data directly from the source.

Sitting at the edge of the site with a pen a paper, I wrote and counted the actors I observed.

From this, the actors of weather, temperature, exchange, seating, sound, food, ecology and the wall around the site, along with animals like birds, dogs, and rats, were noted. Of course, people were also a significant factor in the day to day activities of the site.

To define more actors, I searched through current council minutes to do with the site-adding politicians and experts to the long list of actors involved.

Re-collecting

The process of collecting is not singular: it is never done. As new ideas are generated, new actors are found, created, and introduced into the network. These actors create new moments and transform old. If architecture itself is never still, then the collection process cannot be restricted to the start of the process and must exist throughout. The process can bring in typical actors into the network like those of form, structure, and programme, as well as non-physical actors, such as the philosophy of making data public.

Analysing and Reanalysing

Overview

The actors on the site are in constant dialogue, with each other, and with transient actors like a person walking through or the birds waiting for a dropped French fry. Once the actors become more defined, and a clearer picture of the actors on the site develops, the next step is to identify architectural

moments in the controversy. An architectural moment is a section of the network typically referred to as a cluster. It is a piece of the broader puzzle, a network within the network.

Within each network, these can be numerous and almost infinite for the human mind's capacity to comprehend. Thus, architectural moments restrict the scope to areas that involve or result in architecture—moments of programme, structure, form, circulation, atmosphere, and material. The network analysis brings life to the network and begins to allow speculation necessary for the design process.

Much like collecting, this process is ongoing-always occurring with every new addition or change.

Analyzing reveals moments at different scales, like the city and site, or the child and bench. These narratives inform the generative process, providing new perspectives that define new architectural opportunities.

The methods of analysis are varied and depend on the actors and dialogues in question. The analysis is excellent at understanding varied and multiple activations of new ideas. While during the early phases-prior to the design interventions, the use of news media and more tuned observation reveals the moments of importance and moments that need care.

Depending on how news media is analyzed, it can provide both actors and the dialogues between actors. Actors can be determined by looking at who or what is mentioned in an article, well dialogues can be determined by analyzing the theme of the parts of the article. For example, the graves were mentioned in multiple articles many times, and

This drawing is a summary of news media use, using the medium both as a tool for collecting and analyzing actors and revealing the voices of some of the actors (data from local and national news outlets 2019)

the themes surrounding the graves were the dialogues of respecting the dead and disturbing graves.

Defining Moments

Looking at news media, two narratives develop around the actors of the graves and Old Memorial Library itself. (Patil 2018)

There is no definitive record, but it is assumed that buried individuals include the poor, the old, and the criminal (Dube 2018). For these people, the site represents their final resting place. These are people who fell into hard times, only to buried and forgotten. Most were buried in nothing more than a cloth wrapped around them-all individuality lost- leaving only best guesses of who they may have been for those involved in the site now (Thompson 2018). The narrative is not one of honour or care-it is one of neglect. The narrative is continually reinforced throughout the history of the site. First, its change to a park with all indications of the graves erased, then again when Spring Garden Road was widened, when the last map calling the site a cemetery was published, and when the Old Memorial Library was built and expanded. The narrative of neglect continues presently with day to day activities that occur on the graves.

The power dynamics in the early days of Halifax allowed for the continued neglect of these graves. Today the network has shifted, and the injustice of their handling has been recognized, with concern over disturbing these graves being a primary dialogue.

The Old Memorial Library represents a collective memory (PLANifax. 2017). To those who lost loved ones in World War II, it is a marker of their loss (Halifax Public Library 2014). To the City of Halifax, it is a marker of sacrifice. It is a marker of history to those in the military heritage organization (HMHPS 2019). To the architecture community, the Old memorial Library marks an era in the city and the country (Bogstie 2020). The destruction of this symbol would alienate these narratives and would bring them to an end.

Interestingly, the analysis revealed a loop in the controversy. The Old Memorial Library cannot be touched without disturbing the graves, and graves cannot be fully exhumed without dismantling the library structure.

Observing the Wall

The wall around the Old Memorial Library is where people gather, sit for lunch, or enjoy the sun. In this scenario, there is a complex interplay of wall, topography, light, and trees. This interplay creates gradients of comfort to accommodate the large variability of actors that may use the wall for sitting. Imagining ourselves as a person looking for a seat, each one of us would have a differing preference. The gradients across the wall provide a spectrum of opportunities for most people to find a location.

If a child was the Interpreter, the wall is an excellent height to play, to climb, or to talk to their parents at eye level. The slightly taller ground around the inside of the wall provides opportunities for both child and parent to sit comfortably.

If the concept of protest takes the role of Interpreter, the wall delineates a stage for the message to be displayed. The characteristic of separation gets amplified, marking the difference between seeing and being seen. Often the wall itself holds the flags of protest in that way, becoming a more direct actor in the protest.

For the hungry lunch-goer, the network of the wall includes the food trucks. Suddenly, the wall is a restaurant: a place to meet for a quick lunch date or the separation between the moving traffic and a quiet, grassy place to enjoy lunch.

Annual/Occassional Activation

STAGE

Daily Activation

conversing

playing

lounging

pan-handling

dining

exchanging
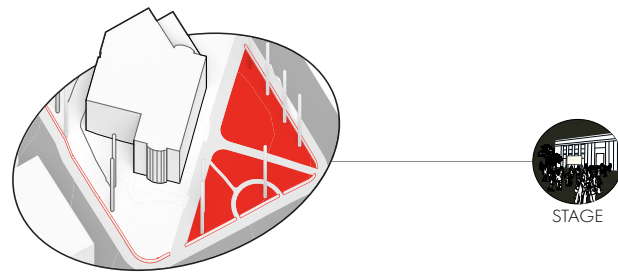
Here is a summary of the direct observation throughout the process, showing how the wall is an active participant in the city. It provides places for the day to day activities.

These narrative observations of the site provide the context or scale and prime the network for the methodology's generative stages.

Actor Profiles

It can be imagined that the analysis phase produced actor profiles. These profiles can be thought of as a convenient summary of the desires or goals of each actor.
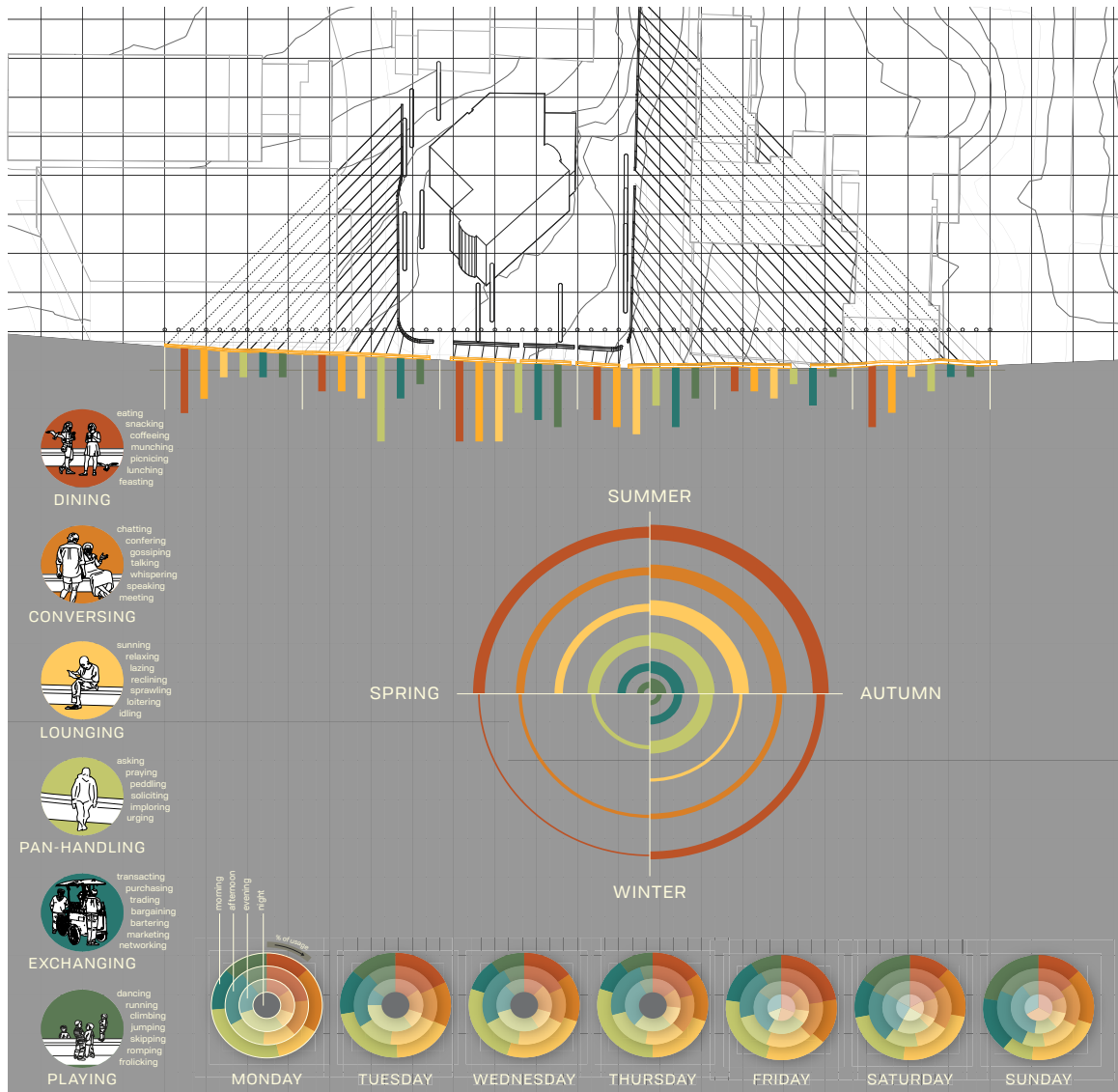
The networks that create the dialogues along the wall are broken down further. A more in-depth evaluation collects new actors like weather, time of day, and season. These new actors are part of each activity network and the broader system around the site.

The wall can be thought of as desiring a place for the day-to-day activities in the city. Meaning any new design or intervention should attempt to achieve this goal to fulfil the desires of the wall. The façade of the library desires to maintain the memory and memorial that it has today. Unlike the wall, the façade also resists formal transformation; the memorial concept is tightly entwined with the form of the façade. Finally, the graves' desire is to no longer be neglected. Instead, they want to become part of the city

once again and interact with the public. They do not wish to be forgotten or pushed aside but instead treated with respect and dignity.

These profiles become part of the design process and the new network that is developing. Helping create a metric to evaluate if these goals are respected in the design moves.

Although here, I have outlined the most influential or powerful actors that have come through the collection and analysis of the controversy. These actor profiles exist for any actor on the site, and each can provide exciting insights into the design moves.

Moreover, this process can show why previous proposals have failed. For example, the proposal put forward by the military Heritage Society of Nova Scotia did not address the graves (HMHPS 2019). So although it met the goals and desires of the façade did not meet the goals and desires of the graves. At this point, the graves' voice powerful enough to deny or halt the proposal based on that.

It is important to note that cost is a major actor (Woodford 2018). Although an economic, and financial break down is out of the scope of the thesis many controversies grow out of the cost of projects. The act of making the decision process public could reduce the influence cost has in the controversy.

Creating New Dialogues

Overview

Transitioning to a generative framework, one that creates ideas and possible futures. As described earlier, this changes the network into a matter of concern. The network

can be reworked by adding new actors, shifting old ones, and removing others. It is important to scope the study to the area of architecture, as it is easy to get sidetracked into the worlds of law, policy, and politics. These are actors that affect the site and the generative process but are not areas of direct exploration in this thesis.

These new generations occur at different time scales- from day to day use, to the decade or long-term use.

The generative process can be broken down further into speculations, boundaries, and evaluations. Speculations are a gesture of change: a suggested change in a dialogue or moment on the Old Memorial Library site. If a gesture crosses a boundary, it must be done with good reason. Finally, evaluation rebuilds the network with the changed dialogues and actors. Evaluation in this thesis determines if functional dialogues are maintained, while new sensual dialogues are created. The evaluation can be further grounded in precedent.
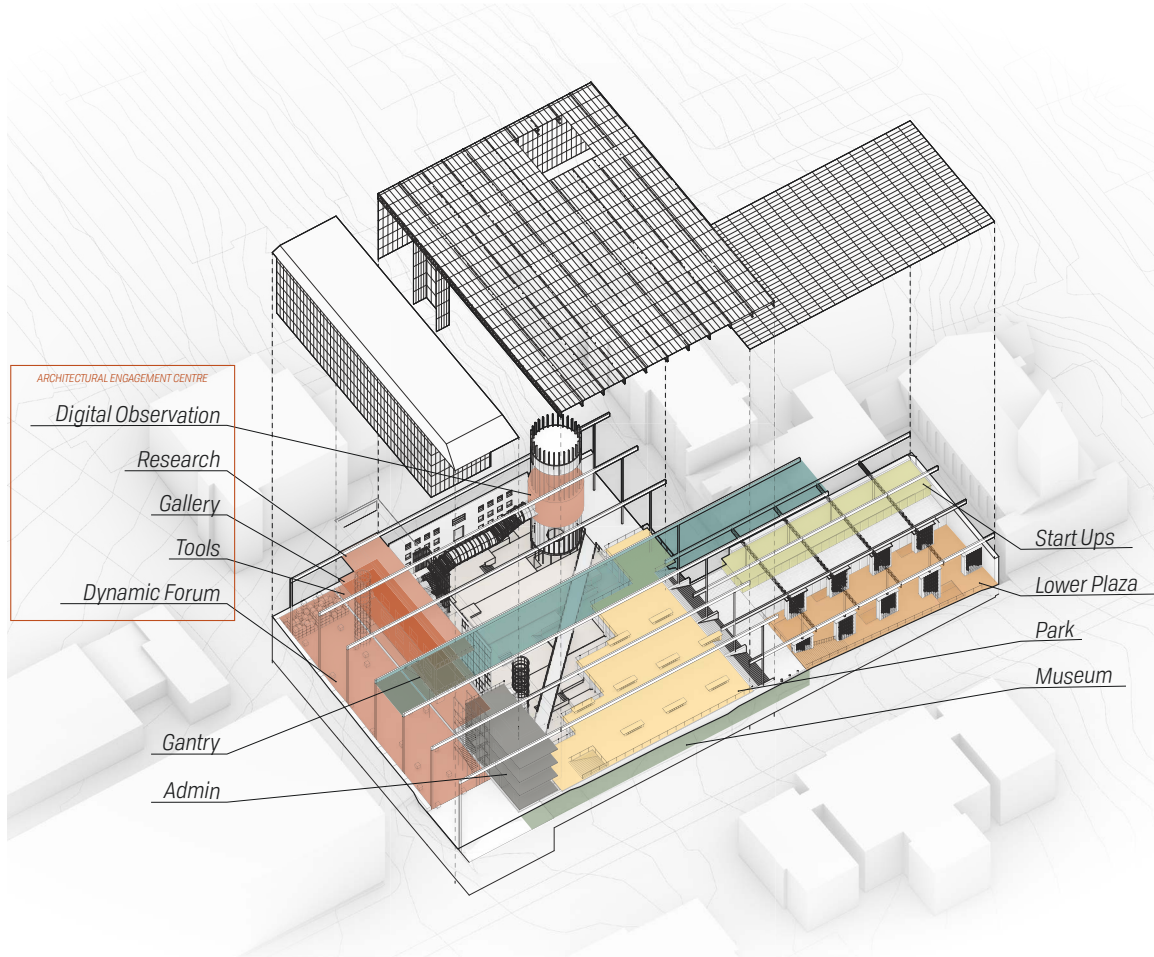
Emergence

Through the analysis' phase, gestures emerged concerning the programme of the site. While looking at the controversy, frustration began to show on social media (Insino93 2018). A media, whose advantage is the direct, unfiltered connection to individuals, unlike other media. Expanding on this frustration, researching the public's engagement with other controversial sites, including that of the New York Public Library and, more locally, the Doyle Block, the Halifax Convention Center, and the Willow Tree Apartments (Parcell et al. 2018). What emerged is the public's alienation from the architectural process. The Vast [psued.] illustrates the frustration, saying "At this point, I think the best we can hope

for is an angry social media flash mob, an unfavourable article in The Coast, and zero repercussions after people find the next thing to focus their complaints on a week later." (November 13, 2017, comment on reddit thread, https://www. reddit.com/r/halifax/comments/7chhb5/halifaxs_forgotten_ memorial_library_rerelease/dpr4u1r/?context=8&depth=9)

This alienation pattern can be seen throughout history, where there are a few influential individuals who get to make the choices. Even in situations where public participation was used, like the new Halifax Central Library, the public was invited by those with power. It was on the terms of these influential people that engagement was stipulated. Reports are "declassified" for the public, an indication that the public cannot get a full picture if the data is withheld (Quon 2018). Pointing to the signs on old buildings around Halifax, inviting the public to call, one might argue that there is a requirement for the powerful to consult. These signs are a requirement for an invitation at most, but it is still on their terms, with one number to call during their hours of operation. It is far from changing the power dynamic, and at best, it is only diminishing it.

What emerges from these findings is the need for a new program. Program is an architectural element that can rework the dialogue between the public and the architectural process—transforming the dialogue from alienation to participation and engagement. This architectural element is carefully designed and chosen based on the boundaries and actor profiles developed earlier. For example, knowing that privatization is a contentious dialogue that prevented the Dalhousie proposal from proceeding, it is necessary to design a public program (Petracek 2018). With this metric in mind, it is easy to see why programs like apartments

ARCHITECTURAL ENGAGEMENT CENTRE

Digital Observation
Research
Gallery
Tools
Dynamic Forum

Start Ups
Lower Plaza
Park
Museum

Gantry
Admin

After reworking the dialogue between the public and architectural process, the programme is broken down further into its constituent actors, program elements. These elements can be placed and wrapped in formal moves.

or commercial space cannot be introduced as a primary actor. These private program elements are actors that fail to rebuild dialogue between the public and the architectural process. This public programme would be a center for architectural engagement; Imagining it as a place where the controversies of the city and indeed the site itself could be discussed openly on the terms of the public a new way to engage, to discuss, and to unpack.

Precedents could ground the newly added actor, to show that this new dialogue is reasonable. First, is the writing of Bruno Latour in which he calls for more transparent systems best summarized by this New York Times article writing about his work:

> Latour believes that if scientists were transparent about how science really functions — as a process in which people, politics, institutions, peer review and so forth all play their parts — they would be in a stronger position to convince people of their claims (Kofman 2018)

Further illustrated by a story of a climatologist who needed to defend their findings:

> At a meeting between French industrialists and a climatologist a few years ago, Latour was struck when he heard the scientist defend his results not on the basis of the unimpeachable authority of science but by laying out to his audience his manufacturing secrets: "the large number of researchers involved in climate analysis, the complex system for verifying data, the articles and reports, the principle of peer evaluation, the vast network of weather stations, floating weather buoys, satellites and computers that ensure the flow of information." The climate denialists, by contrast, the scientist said, had none of this institutional architecture. Latour realized he was witnessing the beginnings a seismic rhetorical shift: from scientists appealing to transcendent, capital-T Truth to touting the robust networks through which Truth is, and has always been, established. (Kofman 2018)

Such an institution could bring trust back into the relationships of the public and the architectural process. In the case of the Old Memorial Library, dialogues only involving powerful entities like those outlined by (Josh 2018) in their news article, is reduced. Further, science centers add another precedent for the addition of this program, as they are imagined as spaces to create a dialogue between science and the public. The science centre involves a similar network of people, knowledge, engagement, tools, pens, paper, and computers.
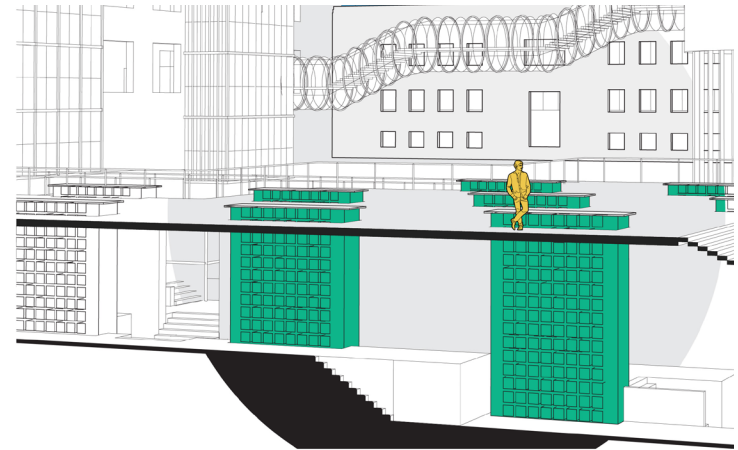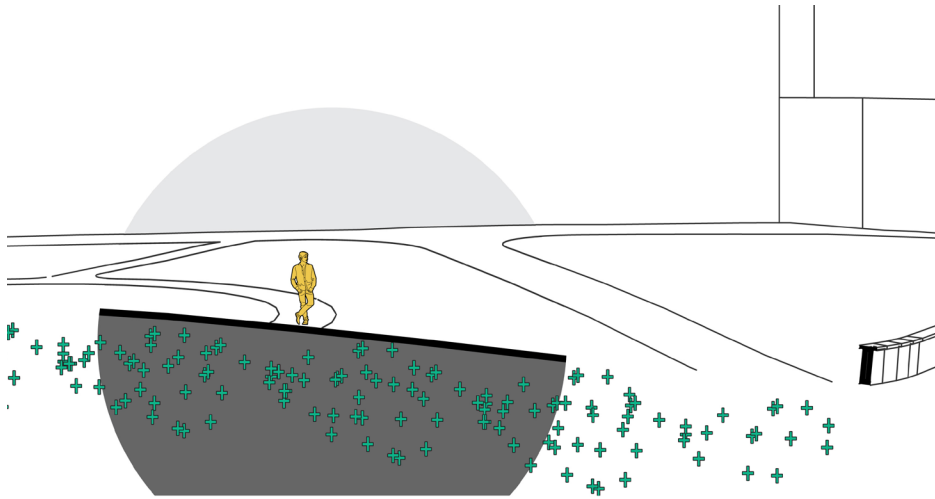
Speculation

Some architectural moves cannot emerge from the analysis, but instead must be speculated. Creating a more iterative process whereby new architectural elements are suggested and introduced as actors. The network is then redrawn to determine if these new additions maintain, degrade, and create new dialogues.
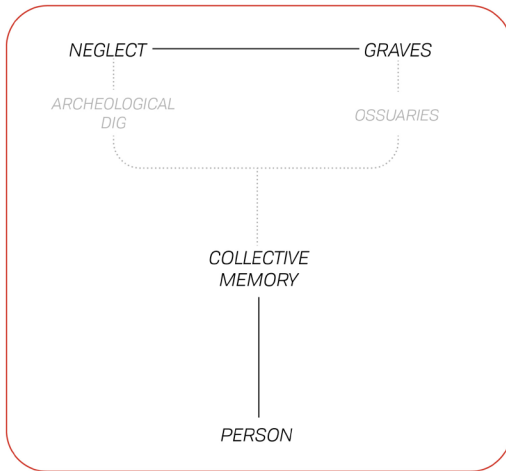
The graves are the oldest programme of the site in the colonial record. To develop speculations on what could be done with graves was complicated and often unclear. It involved the detangling of Halifax's relationship with death, graves, and neglect. The solution could not emerge from the controversy itself, and the only thing that could be done was to speculate options.

Three options could be logically determined in regards to the bodies: disinter, leave and ignore them, or leave and work around them. Each option is re-collected and reanalyzed within the network to define what is lost. What is maintained and what is created. Could any of these options still honour the dead? What are the options if they are disinterred? Is it possible to work around them?
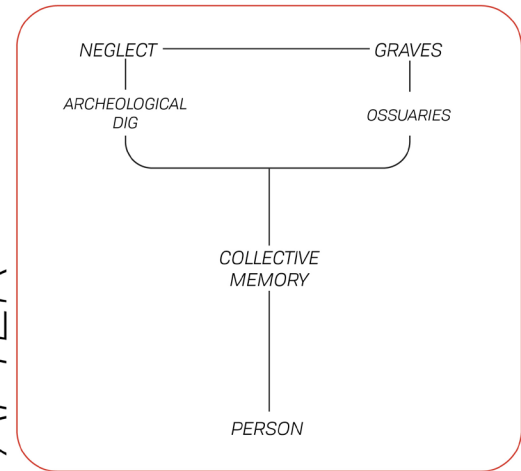
Answering these questions took an investigation of the history, precedent, and experts and technology. History gives us the narratives of those buried there. The narrative of neglect continues in the day to day activities that occur on the graves. The graves at no point were honoured, and leaving them undisturbed does not give them honour (DeMont 2019). To work around them does not solve the problem of honour, but pushes it into another dialogue, one of plaques and signs, which are second thoughts. Speaking with experts, the technology for ground penetrating radar

NEGLECT ——————— GRAVES

ARCHEOLOGICAL
DIG

OSSUARIES

COLLECTIVE
MEMORY

PERSON

AFTER

NEGLECT ——————— GRAVES

ARCHEOLOGICAL
DIG

OSSUARIES

COLLECTIVE
MEMORY

PERSON

Here dialogues involving the graves are evaluated, showing new connections and interactions.

is not detailed enough to ensure the disturbance of graves impossible. All of these actors and their respective networks, recollected and reanalyzed.

Only one option was left: to exhume the graves, with care and time, systematically allowing the unearthing of remains and their individuality. It may be impossible to find their names, but their bones can provide an individual spirit or idea. Disinterment may seem drastic, but there is precedent, 244 graves were exhumed for the recently finished Grafton Park Apartments (Lord and Quon 2020).

Returning them onto the site into ossuaries is a gesture grounded with precedents and does not repeat the past mistakes and reintroduce narratives that were dishonourable. The gesture starts to reconcile their history, and put the graves into dialogue with the site's day-to-day activities.

As stated earlier, the evaluation of this architectural move would be made with the redrawing of the network to determine if new connections between the graves and the day-to-day users are created. These connections being of a sensual nature.
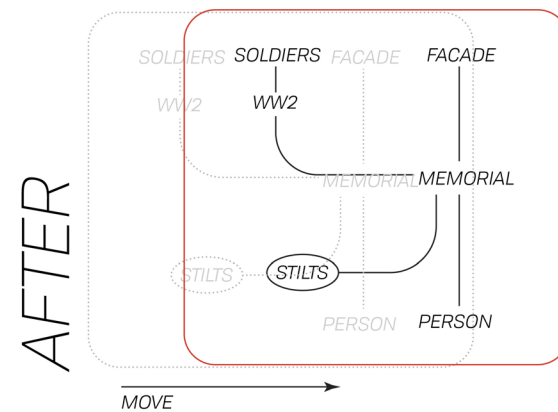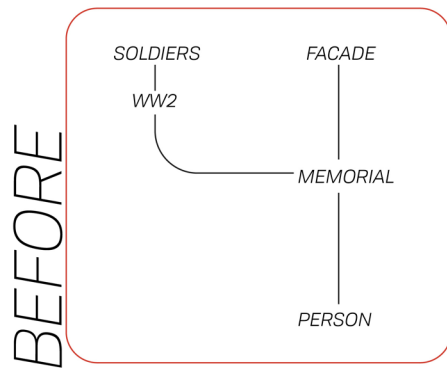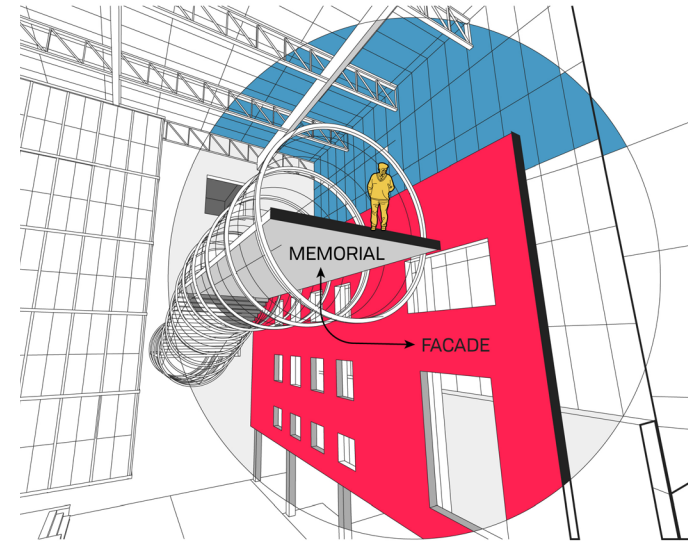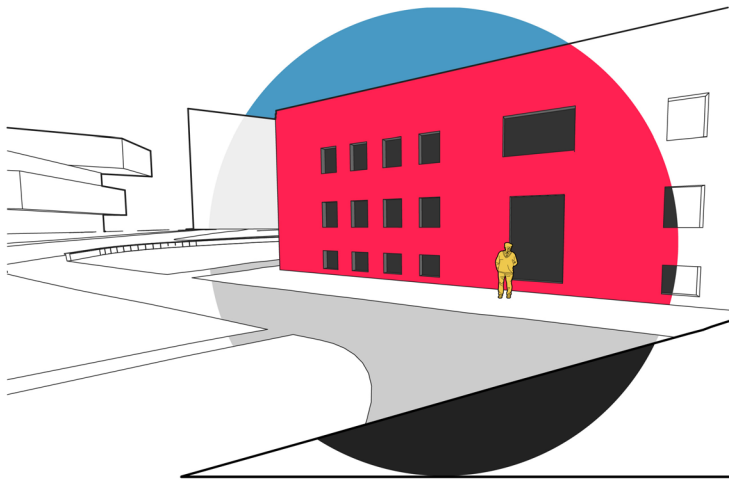
The facade is the last of the influential actors in the controversy; the evaluation shows that the network is moved but maintained.
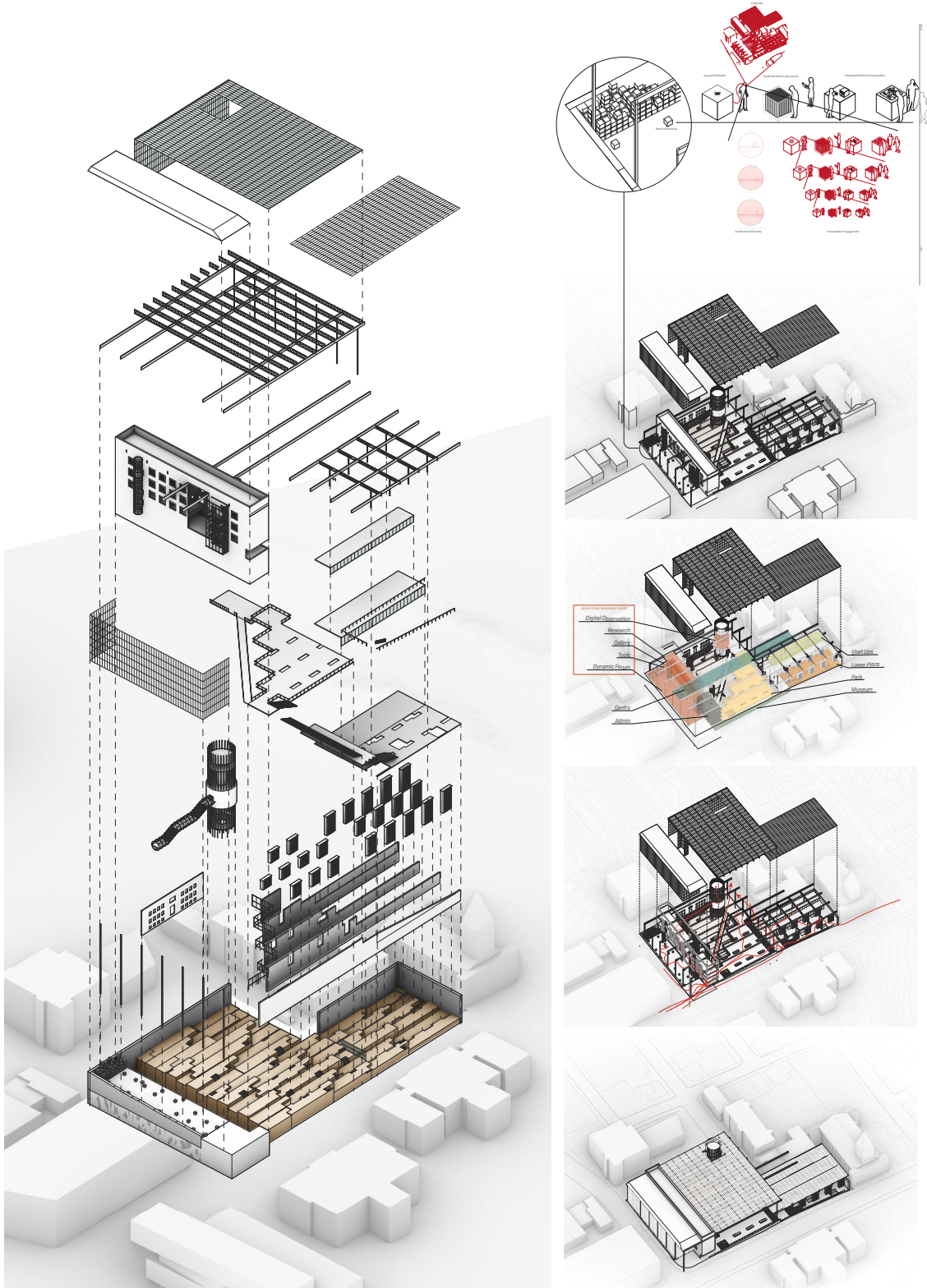
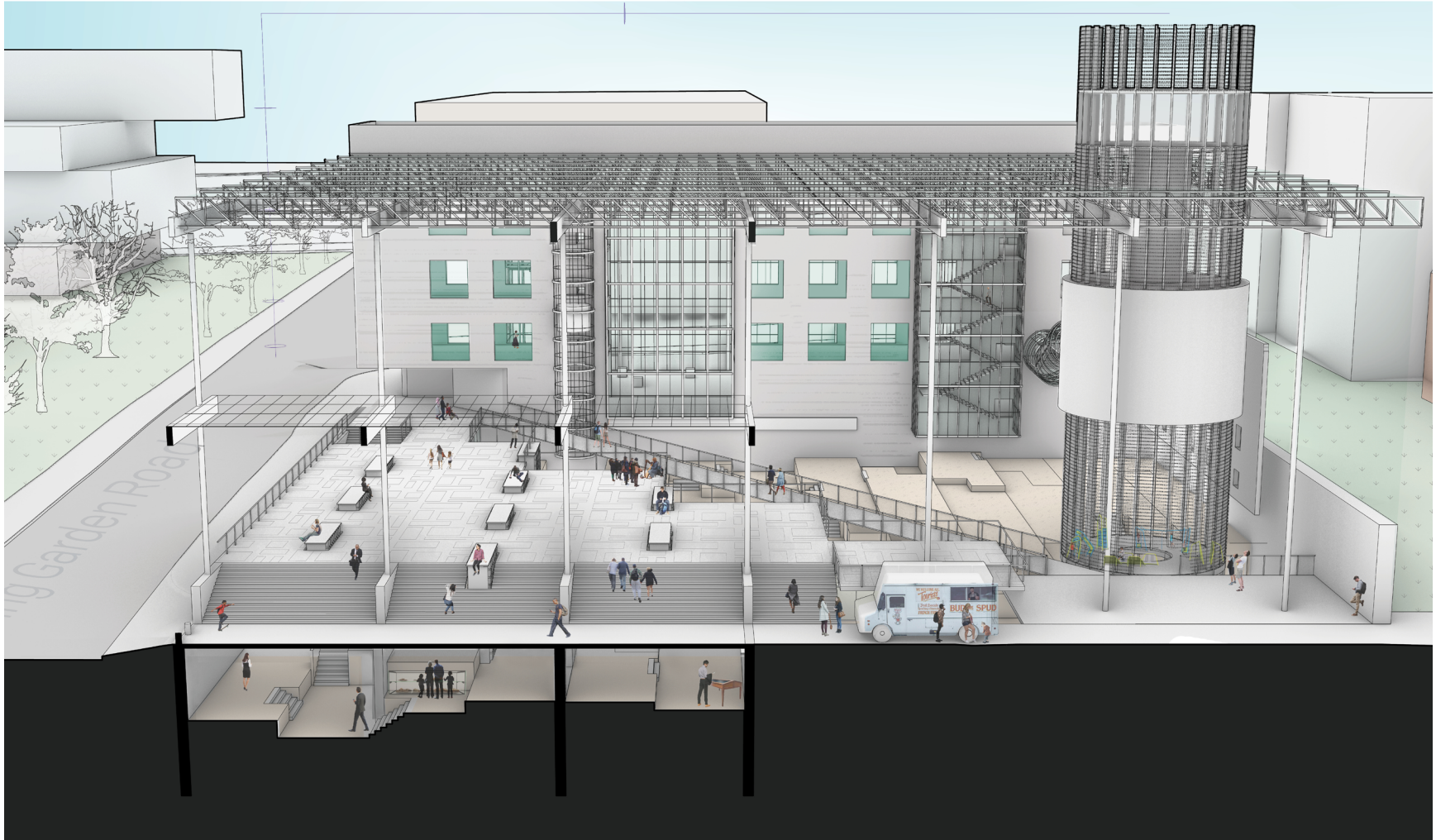**Design Drawings**

GRAVES
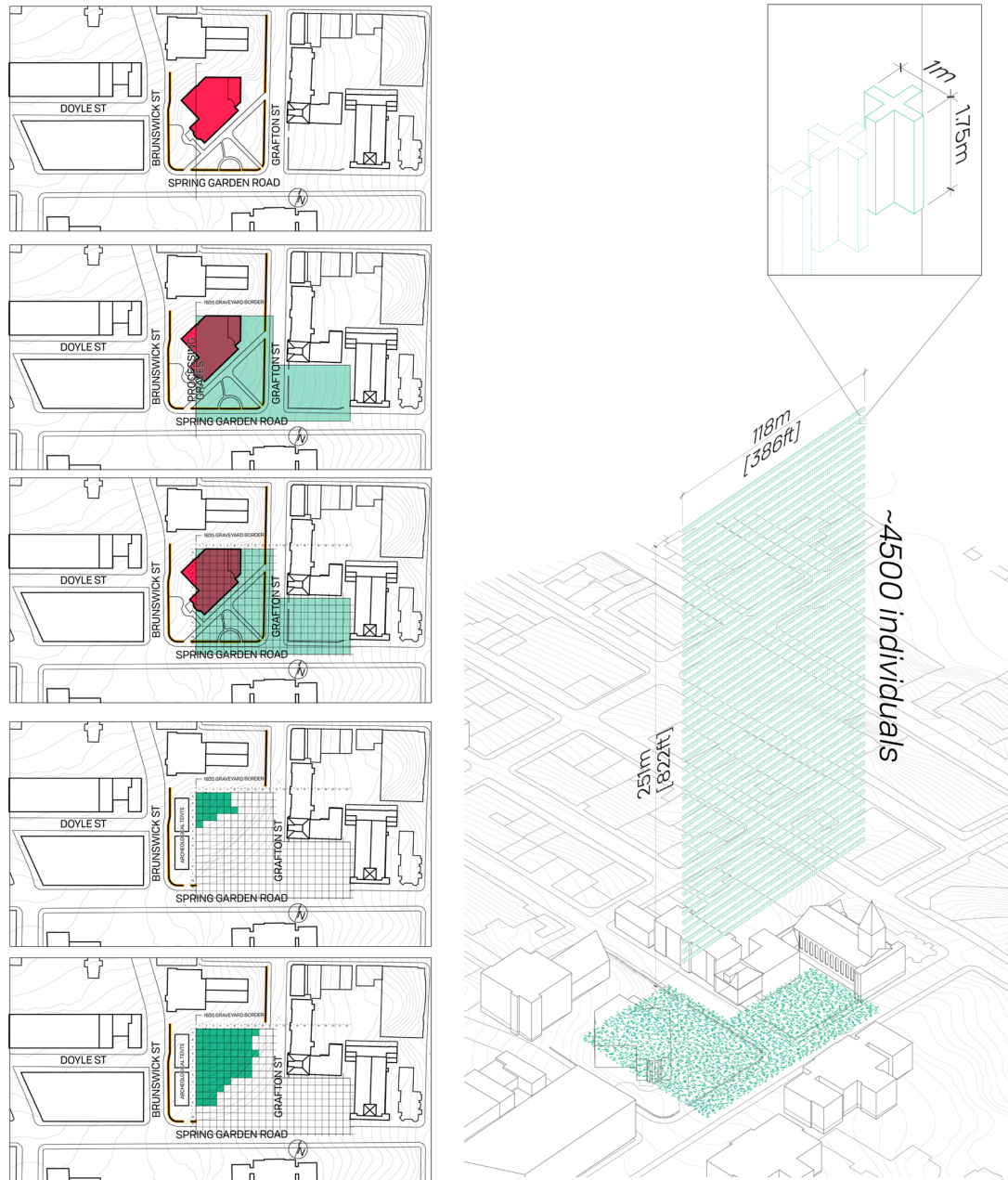
The process of archeology reveals the burial sites. The archeology dig becomes an actor through re-collecting and influences future ideation.
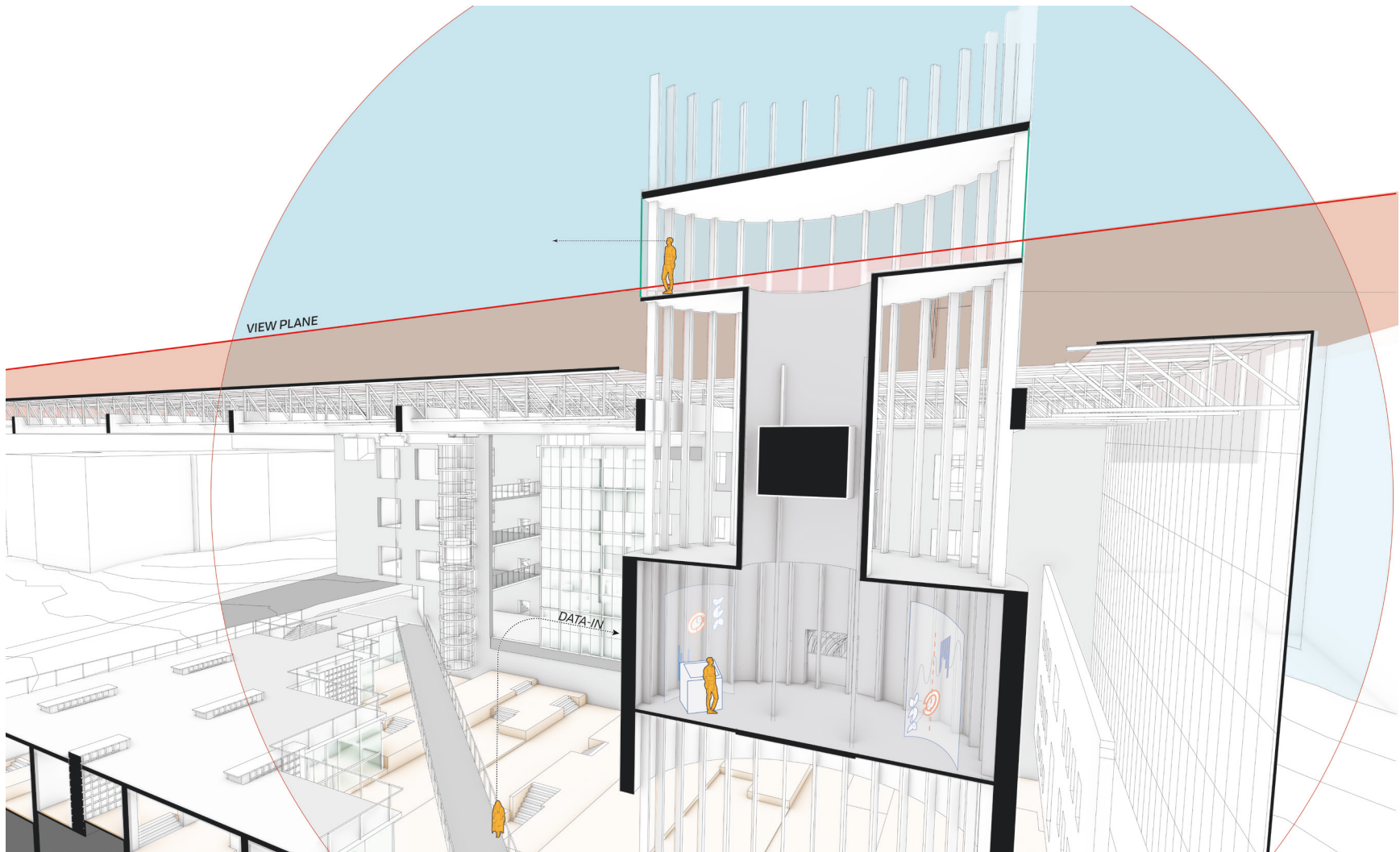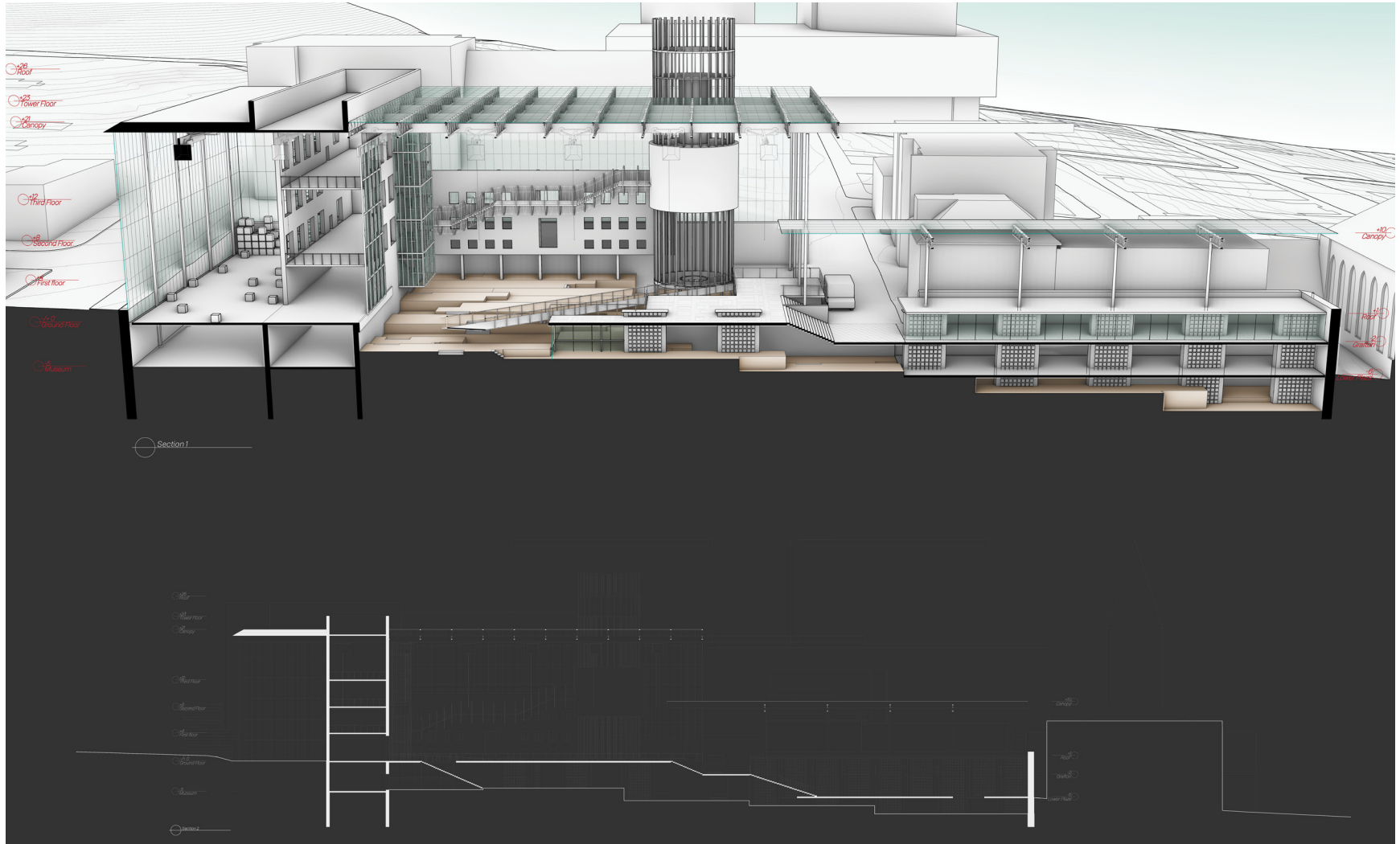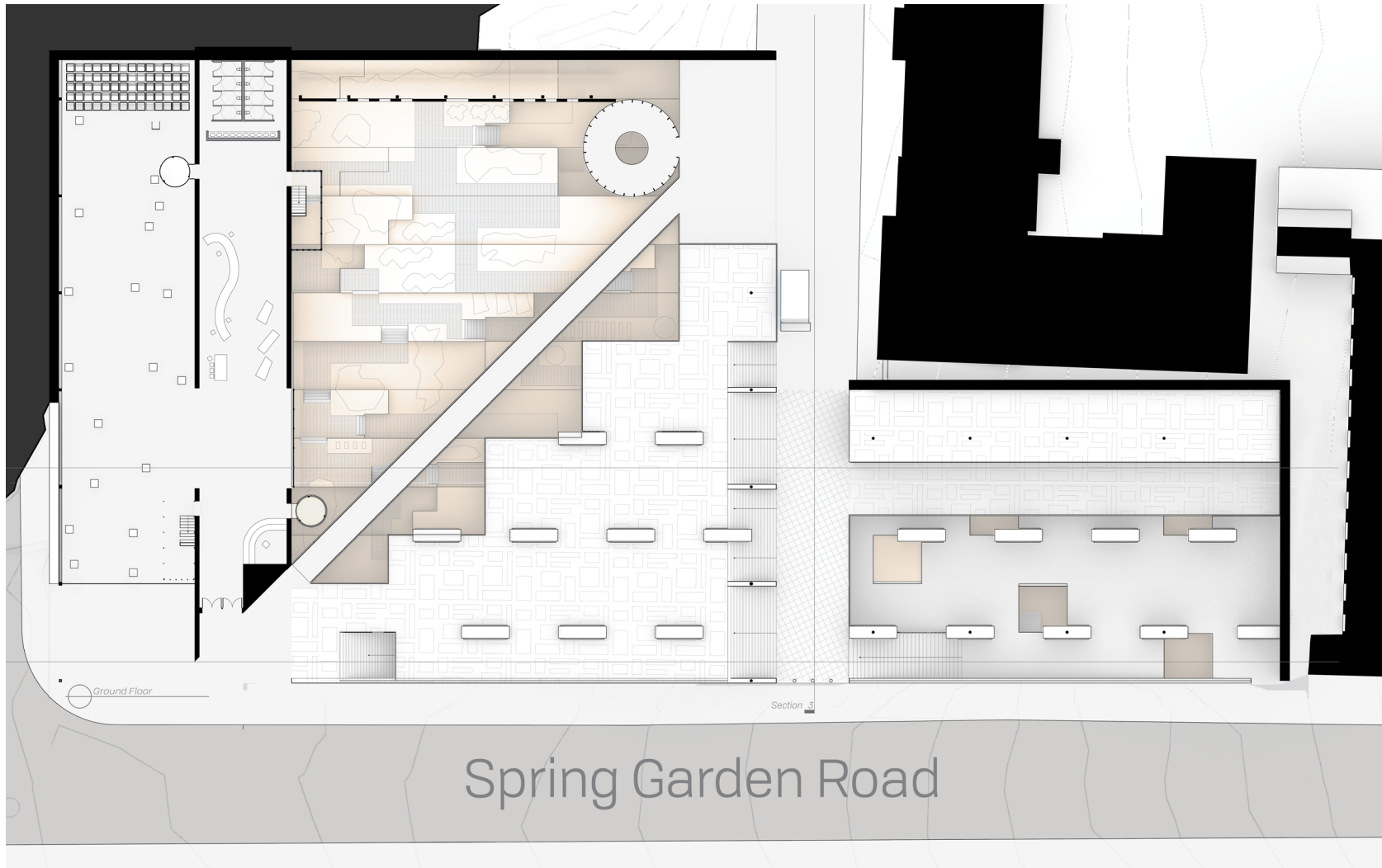
AXO

Axo's showing design

Short section

Section vignette of the tower. The tower further reworked the dialogue between the public and the architectural process and traditional dialogues between towers and observation.

Long sections

Museum Plan

Plan of the lowest floor. It is where the archeological dig is unravelled.

Ground Floor

Section 3

Spring Garden Road

Plan of new plazas

Chapter 4: Conclusion

This thesis set out to explore what methods can engage non-human actors on controversial sites. The Old Memorial Library in Halifax, Nova Scotia, provided the perfect opportunity to explore this question. The site has collected the voices of many actors through its history. A history that starts before colonial Halifax existed. Moreover, the site still functions with day-to-day activities occurring in the park, adding to the complexity. The aggregate of these actors has allowed the site to act autonomously and prevent any proposal from passing. Traditional perspectives are too binary and only capture a fraction of the reasons why these proposals failed. The reasons for the proposal's failure are much more complex and dynamic, involving many more actors and considerations than what these binary perspectives can provide. A more holistic and open understanding of architecture and buildings is necessary to fully unpack and unravel the controversy that is occurring at the old memorial library. Actor-network theory (ANT) provided this perspective and a methodology that could be implemented in the design process.

The engagement of non-human actors is an important topic to explore because controversial sites are becoming more common. The research found that controversial sites are increasing as the power dynamic between the architectural process and the public shifts. Whereas it used to be acceptable for a few people to make decisions on the future of the city, the public is now asking to have a more significant role in the decision-making process. The political, social and cultural systems that exist in the architectural process have not caught up to the publics' demands. Thus influential

people are still trying to impose their will through architecture on the city. At the same time, the public is actively fighting these new proposals on social media through protests and the news media. These contrasting perspectives are why there is a marked increase in controversial sites that seem to stay as-is. Although methods exist for participatory design and have been used in Halifax, these methods are rarely used. The site viewed through actor-network theory (ANT) becomes an aggregate that includes the public's opinions and conceptions of what the city and the site could be. Excepting the agency of non-human actors on the site and developing methods that engage with them directly provides the opportunity to develop design interventions that reveal these aggregate voices.

ANT was developed initially to look at the culture in science and the creation of facts. Differing from other methodologies, ANT provides no concrete techniques for its study. Instead, it only asks that the empirical study be open and avoid assumptions. ANT has been used to evaluate the culture of architectural studios and the process of design. Through these studies, it was revealed that buildings are not solid objects that people passively experience. Instead, it showed that buildings are always in the state of becoming. They evolve from dynamic, complex, and convoluted networks of actors and go on to be actors in themselves. This thesis attempted to move ANT from an analytical framework and bring it into a design methodology.

Using ANT to breakdown the site initially and understand the many actors and connections involved is a typical use of ANT. The unravelling and breaking down was done through the use of news media, social media, historical documentation, and direct observation. By using these

different forms of data, the network and its actors were revealed slowly. An understanding of the many people, histories, and narratives, involved in bringing the site to this point became clear. This stage was labelled as the "Collecting" stage of the methodology. This thesis uses the term stage or step loosely, as the process turned out to be far from linear or step-by-step. These descriptions fell short when it came to making explicit the process that took hold. Without stopping the collection of new actors, the analytical process starts to form. In the analytical process, the actors are connected and weighted.

Mentions, in this case, define the connections. If a news article mentions the Old Memorial Library, then a connection can be drawn between news media and the library. Again if the library is mentioned in reference to the idea of a memorial, then a connection can be drawn between memorial and library. It is essential to note that the idea of "mentions" is not limited to the written word. For example, using direct observation, people sitting is considered a mention. The influence of particular actors is revealed through the analysis. Actors' influence grows with the number of connections it collects. For example, both pigeons and the Old Memorial Library are mentioned in articles, and thus, both are actors. The Old Memorial Library is referred to many more times than pigeons across news media, social media, documentation, and observation. It was through this process that the important actors and their connections are revealed. In this case, the library, the wall, and the graves held the most significant influence in the current controversy. These actors and their connections become the basis and context for design ideation.

The connection between actors can be thought of as a dialogue. It was found that the current dialogues taken as a whole are one of partial stasis. The network itself had to be thought of as a matter of concern in order to change these dialogues and ideate on potential futures. Allowing the network to be a matter of concern and not a matter-of-fact allows the network to become an object of design, something that can be altered changed and manipulated with design interventions. This perspective shift transitions the process from an analytical one into a generative one. In the generative process, the dialogues that exist can now be altered with architectural elements. Architectural elements are familiar and typical items like form, structure, programme, circulation, and materiality. Existing architectural elements could be shifted or removed, well new architectural elements could be introduced. These actions would either change, maintain, or create dialogues. The design moves and introduction of elements could either emerge from the analysis like that of the programme or be speculated like that of exhuming the graves. Once the network has been altered, evaluation is vital to understand how these changed, or new dialogues affect the network.

There must be an understanding that controversies do not only develop around physical objects. In actor-network theory, controversy can develop around a concept or idea. This understanding is vital in the evaluation process because the analytical framework can now analyze a generated idea even though it is not physically built. The evaluation of the network and the design proposals develop through the analysis. Many different evaluation methods could be imagined depending on the context from which they grew. For this thesis and design proposal, the evaluative method

that developed was one of making things public. Essentially the architectural design became an enactment of the controversy at hand. The site became a stage where many actors are revealed and made public. Thus the evaluation was based on connections. If desirable or functioning connections were maintained through a given design move, while new connections were created and undesirable connections reduced, they would be evaluated as positive. It turns out that the evaluation of some dialogues is more evident than others. Material connections like that of the sun and sitting tend to be precise.

In contrast, other connections that are more symbolic turned out to be more challenging to evaluate. Precedent became a useful tool in evaluating these connections, as a precedent can be viewed as a snippet of a network. If this snippet of dialogue is successful, it can even be used to ground particular design choices. ANT was used to understand the contextual difference between the precedent and the current design, ensuring that the snippets are relevant to the current site and context.

The evaluation process made clear some potential issues to do with using ANT in the design process. If not carefully used, it could quickly degrade into a justification for the designer's will and not a critical evaluative tool. It also runs the risk of devolving into similar methodologies and evaluations. The example given in the thesis is if ecology becomes a primary actor, then the evaluation techniques may be similar to design methods that already have any ecologic focus. These considerations reveal why it is crucial to incorporate the designer as an actor while using ANT in the design process. Then it is possible to evaluate design interventions in relation to the designer and their history.

It is vital to not only be critical of the design but also the architect and their network. Keeping this in mind allowed the evaluation process to develop many perspectives. The designer able to ask questions like; what if I was a different gender? What if I lived through a traumatic experience? These new perspectives have to be viewed as truncated and incomplete it would be too much of an assumption to claim a complete perspective separate from one's own identity.

A methodology was developed through the thesis that could directly engage with the non-human actors on the site of the Old Memorial Library. The methodology, through collecting and re-collecting, analyzing and reanalyzing, and generating broke the controversy down into dialogues and allowed interventions using architectural elements to occur. Historical documents, news media, social media, and direct observation allowed non-human actors to express themselves, making their voices heard. Interventions could then be developed using those voices. The evaluation and understanding of these new interventions occurred by re-collecting and reanalyzing the new actors involved. Actor-network theory provided the basis for the methodology to function and revealed the controversy in full. The engagement of the non-human actors, in the controversy, provided a rich and powerful context to develop design interventions.

Future Exploration

Through the process, many new questions arose, and the methodology could be developed further. A more precise definition of ANT's role in the design process would further enrich the exploration. This clarity could be developed by experimenting in the use of ANT in different contexts.

How shifting contexts develop varying methodologies and evaluative principles. This experimental approach would also clarify the principle of black boxing in the cartography of controversy. Where controversies cannot be unravelled because they are private and unknowable. Suggesting that there may be a scale or context where the methodology becomes non-functional or requires significant alterations. On the other hand, it may not be non-functional but simply devolve into a similar existing method.

A major question that arose is one of representation. Traditional modes of representation cannot adequately describe the cartography of controversy (Schoffelen et al. 2015). Attempts to simply diagram or draw the network often results in a representation that is convoluted or inadequate. In early explorations, networks represented on a computational interface started to capture this complexity but still only a fraction of the potential. Augmented reality was briefly explored and could provide a method of representing a controversy effectively, allowing for the dynamic and complex nature of the networks to be shown.

Furthermore, combining such a representational technology with analysis could allow this process to become live. That is to say; instead of accepting a snapshot of the network at a point in time, it would be possible to work with a live or ever-changing network. These modes of representation and the ability to work with networks live allow for the full complexity of architecture to be involved in the design process, instead of the often-used oversimplification of a context to allow understanding.

Finally, questions involving the understanding of architecture, such as the idea of "programme" were also

revealed. Although unable to fully explore or understand the questions themselves, an exciting glimpse at the crisis that may be occurring between how architecture is understood and how it represented seems to exist.

References

Archibald, Stephen. 2020. "Poor House Burying Ground & Grafton Park." *Noticed in Nova Scotia. Halifax Bloggers*, January 26, 2020. https://halifaxbloggers.ca/noticedinnovas-cotia/2020/01/poor-house-burying-ground-grafton-park/.

Blundell Jones, Peter, Doina Petrescu, and Jeremy Till. 2009. *Architecture and Participation*. London: Taylor & Francis.

Bogstie, Ben. 2020. "Halifax Memorial Library Becomes Heritage Property." *The Signal,* February 11, 2020. https://signalhfx.ca/halifax-memorial-library-becomes-heritage-property/.

CBC News. 2018. "Halifax Convention Centre Costing City More Than Expected." April 10, 2018. https://www.cbc.ca/news/canada/nova-scotia/halifax-convention-centre-costs-council-1.4613238

Cooke, Stephen. 2019. "Public Forum Next Week Over Halifax Memorial Library's Fate: *The Chronicle Herald*." Lifestyles | The Chronicle Herald, May 16, 2019. https://www.thechronicleherald.ca/lifestyles/public-forum-next-week-over-halifax-memorial-library-312456/.

DeMont, John. 2019. "Let's Honour Halifax's Necropolis, Not Destroy It." *The Chronicle Herald*, May 22, 2019. https://www.thechronicleherald.ca/opinion/john-demont-lets-honour-halifaxs-necropolis-not-destroy-it-314195/.

Dube, Jacques. 2018. *Halifax Memorial Library / Grafton Park Property.* October 22, 2018. https://www.halifax.ca/sites/default/files/documents/city-hall/regional-council/181113rc162.pdf?fbclid=IwAR1-4hGLurf8YYbULC5wFuGIJtGNp0M3ClxK-Puy7VPmUVRD7EAUqEuAIkOU.

Fraser, Jane. 2013. *Halifax Memorial Library/Grafton Park Property*: Community Planning & Economic Development Standing Committee. February 20, 2013. http://legacycontent.halifax.ca/council/agendasc/documents/130305ca1031.PDF?fbclid=IwAR37J7BNR-LvB3M5SS6lzk1N-ivPbNuDaNWPT_sMwRltLofEvyLGHTCjeR0.

Global News. 2018. "Group Working on Platform to Explore Possible Future of Spring Garden Road Memorial Library." January 23, 2018. Video, 1:43. Directed by Steve Silva. https://globalnews.ca/news/3982665/group-working-on-platform-to-explore-possible-future-of-spring-garden-road-memorial-library/.

Gratton, Chris and Holger Preuss. 2008. "Maximizing Olympic Impacts by Building Up Legacies." *The International Journal of the History of Sport* 25, no. 14: 1922-38. https://www.tandfonline.com/doi/full/10.1080/09523360802439023.

Halifax Nursery. 1930 An *Establishment for New and Rare Plants*. Scale: 1:5000. Halifax: Greenhouse and Nursery

Halifax Open Data, 2019. *Building Outlines.* Halifax, Halifax Regional Municipality. https://catalogue-hrm.opendata.arcgis.com/datasets/625d718e3dd04dc4ac69ae2861f6df36_0?geometry=-65.749%2C44.172%2C-60.580%2C45.535

Halifax Public Library. 2008. *Halifax Central Library Building Program and Space Requirements. Record of Participartory Design*. Halifax: Halifax Cental Library, 1-160

Halifax Public Library. 2014. "A Living Memorial." www2.halifaxpubliclibraries.ca/archives/living-memorial/history.php.

HMHPS (Halifax Military Heritage Preservation Society). 2019. "Halifax Memorial Library And Grafton Park." https://hmhps.ca/sites/halifax-memorial-library-and-grafton-park.

Hopkins, H W. 1878. *City Atlas of Halifax, Nova Scotia.*" Provincial Survey and Pub. Co. Halifax, Nova Scotia

Journal of Assembly. 1845 "Journal of Assembly." file App 66, j104-1c3, 3532. Nova Scotia Archives.

Kofman, Ava. 2018. "Bruno Latour, the Post-Truth Philosopher, Mounts a Defense of Science." *The New York Times*, October 25, 2018. https://www.nytimes.com/2018/10/25/magazine/bruno-latour-post-truth-philosopher-science.html.

Latour, Bruno. 2008. *A Cautious Prometheus? A Few Steps Toward a Philosophy of Design.* Falmouth: Design History Society. http://www.bruno-latour.fr/sites/default/files/112-DESIGN-CORNWALL-GB.pdf

Latour, Bruno, Albena Yaneva, and Can Gündüz. 2014. "Give Me a Gun and I'll Move all Buildings: An ANT's View of Architecture/Making Architectural and Urban "Things" Controversial." *Mimarlik Dergisi* (378): 34-41. http://vhpark.hyperbody.nl/images/2/2a/Latour-Give_me_a_gun.pdf

Lord, Ross and Alexander Quon. "Past Comes Back to Complicate Future of Halifax's Memorial Library." *Global News*, January 3, 2020. https://globalnews.ca/news/6362348/halifax-memorial-library-future/.

Parcell, Steve. 2018. "The Doyle Blocks the Library's View of Citadel Hill Despite Developer's Earlier Guarantees." *The Nova Scotia Advocate*, September 19, 2018. https://nsadvocate.org/2018/09/19/steve-parcell-the-doyle-is-blocking-the-librarys-view-of-citadel-hill-despite-developers-earlier-guarantees/.

Parcell, Steve, Andrea Arbic, Peggy Cameron, Kathy Moggridge, Andrew Murphy, Janet Stevenson, and Grant Wanzel, eds. 2018. "Willow Tree Group." *Willow Tree Group*, https://willowtreehalifax.wordpress.com/about/.

Patil, Anjuli. 2018. "Council Discusses Future of Old Halifax Memorial Library." *CBC News*, November 13, 2018. https://www.cbc.ca/news/canada/nova-scotia/council-discusses-future-of-old-halifax-memorial-library-1.4903919

Petracek, Heidi. 2018. "Proposal Floated for Old Halifax Library Baffles Cultural Groups." *CTV News*, November 14, 2018. https://atlantic.ctvnews.ca/proposal-floated-for-old-halifax-library-baffles-cultural-groups-1.4177867.

PLANifax. 2017. "Halifax's Forgotten Memorial Library (Rerelease + Update)." November 12, 2017. *Youtube video*, 5:51. https://www.youtube.com/watch?v=2zqcyHFFoGY.

Quon, Alexander. 2018. "Halifax Declassifies Report on Proposed Redevelopment of Memorial Library." *Global News*, November 14, 2018. https://globalnews.ca/news/4659261/halifax-revitalization-memorial-library/.

Insino93. 2018. "r/Halifax - Council Discusses Future of Old Halifax Memorial Library." *Reddit*, November 13, 2018. https://www.reddit.com/r/halifax/comments/9wus92/council_discusses_future_of_old_halifax_memorial/.

Schoffelen, Jessica, Sandy Claes, Liesbeth Huybrechts, Sarah Martens, Alvin Chua and Andrew Vande Moere. 2015. "Visualising Things. Perspectives on How to Make Things Public through Visualisation." *CoDesign* 11 (3–4): 179–92.

SciencesPo. 2018. tools:MediaLab. Accessed October 21, 2018. https://medialab.sciencespo.fr/en/.

Thompson, Brenda. 2018. "Halifax, Acknowledge Your Historic Poor!" *Poor Houses in Nova Scotia*. June 19, 2018. https://poorhousesofnovascotia.com/tag/halifax-poor-house/.

Trevino, Abigail. 2019. "17 New Properties Greenlit for Heritage Consideration." *The Signal*, November 29, 2019. https://signalhfx.ca/17-new-properties-greenlit-for-heritage-consideration/.

Venturini, Tommaso. 2009. "Diving in Magma: How to Explore Controversies with Actor-network Theory." *Public Understanding of Science* 19, no.3 : 258-273.

Venturini, Tommaso. 2012. "Building on Faults: How to Represent Controversies with Digital Methods." *Public Understanding of Science* 21, no. 7: 796–812.

Woodford, Zane. 2018. "HALIFAX New Proposal for Old Halifax Library Carries Price Tag of Up to $30 Million." *The Star,* November 13, 2018. https://www.thestar.com/halifax/2018/11/13/new-proposal-for-old-halifax-library-carries-price-tag-of-up-to-30-million.html.

Yaneva, Albena. 2008. "How Buildings 'Surprise': The Renovation of the Alte Aula in Vienna." *Science Studies* 21, no.1: 8-28. https://pdfs.semanticscholar.org/3f1d/c3d57b880a322ff426a024891b46410aed51.pdf

Yaneva, Albena. 2009. *Made by the Office for Metropolitan Architecture: An Ethnography of Design*. Rotterdam: 010 Publishers.

Yaneva, Albena. 2009. "Making the Social Hold: Towards an Actor-Network Theory of Design." *Design and Culture* 1, no.3: 273–88.

Yaneva, Albena. 2012. *Mapping Controversies in Architecture*. Burlington: Ashgate Pub. Co.

Young, Josh. 2018. "HRM, Province and Dal Working on Plan to Modernize Former Halifax Library." *The Signal*, November 14, 2018. https://signalhfx.ca/hrm-province-and-dal-working-on-plan-to-modernize-former-halifax-library/.