Underutilized Space
A Migrating Social Program
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Abstract

Global forces have shaped the way modern cities are structured. This has resulted in spatial inefficiencies and a decrease in liveability. The global market demands a commodity based typology to be built into the real-estate market while ignoring the impacts on local communities. This has two major repercussions; the production of underutilized spaces that underserve the local community, and forcing those who cannot afford the new lifestyle out. It is possible to combat these forces by understanding them holistically and harnessing the potential of these underutilized spaces through ingenuity in programming, siting, and material application.

As people are displaced, they often lack a voice and have no means of upwards mobilization. The key to combating these issues is to inspire empathy in urban citizens to relate to one another regardless of their condition. Those who depend on the underutilized spaces as their residence or means of economic autonomy are often characterised as having an inherently stigmatic nature. This characterization further defines the spaces that these people inhabit. By facilitating a dialogue between all urban citizens, it can create an understanding of the overarching condition.

These underutilized spaces are often strictly utilitarian, overlooked, or have become derelict through disuse. It is through layering program in a temporal and physical nature that these spaces can become inviting and establish an identity within the urban fabric. By understanding the potential of these spaces, regardless of the type of neighbourhood they are present in, it becomes possible to have a net positive effect on the community. This can be done by adding an amenity, a place of respite, or a space of production.

The underutilized space within the city presents the opportunity to facilitate the discussion about the conditions that all urban citizens face while becoming inviting, and programatically layered. By utilizing this space, and programming it to promote the dialogue between urban citizens, these factors deteriorating the livability in the urban environment can be mitigated.
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Introduction

Residual space can be found in every modern city. Understanding where it comes from, how it can be interpreted, and understanding its physical and temporal nature is key to the exercise. In order to understand the systems which cause residual space, the city as a whole needs to be understood. The city as a series of networks and functions related to local and global forces needs to be examined. Finally, understanding the perception of onlookers or passerbys of residual space and those that inhabit it can impart a deeper understanding of the societal norms and preconceptions faced by attempting to intervene in these types of spaces.

It is the solemn hope that these factors can be synthesised into a thoughtful and effective intervention which will in turn promote a dialogue between all urban citizens. Those that reside within the residual and those that do not.

The Residual

Our modern cities are the result of a overlaying a series of systems or hierarchies dictating the built form of the city. These systems are compelled by the needs of the city or the requirements of the market. Examples of these systems are: the property grid in which a city is laid out; the land-use plan that provides a dictated development typology; and the infrastructure that facilitates movement and transportation. It is the result of these types of systems that our cities achieve the efficiency that is required for them to function. By the same token, it is the cracks in these systems that cause the by-product of residual space to occur (Foucault 1967, 15).

Residual space can be interpreted in a multitude of ways. It can be seen as forgotten, abandoned, or underutilized space. It is the in-betweens of designed and defined structures. It is the underneath of overpasses. It is the aggregate topography made up of the tops of other Buildings. These spaces are labeled as ‘no man’s land’, ‘dead zones’, or ‘waste lands’. These are places where the ‘civilized’ or the ‘normal’ do not go. These are spaces that are empty or appear to have no use. These are single use spaces that
serve strictly a utilitarian function (Doron 2000, 247-248).

Although, at a passing glance, these spaces create the illusion that they’re unoccupied, disused, or inconsequential, overlaying the temporal nature of transient spaces illustrates a different picture. These temporal events can take the form of temporary inhabitation by the homeless, or the permanence of established service routes and infrastructure. These spaces need to be viewed through the lens of spatial and temporal events in order to be holistically understood (Foucault 1967, 20). The future utilization of these spaces can be predicated upon overlaying these spaces with further temporal functions, creating complexity within their seemingly simple programming.

There are many examples of residual space being integrated into a programmed function. The elevated train tracks near Alexanderplatz in Berlin have a series of commercial establishments which have in-filled the structure underneath. It is apparent that we can find a form or function to infill the spaces that are peppered throughout a city. There are means by which the formalization or overlaying of new systems of interaction can create a better interface for those reliant on these residual spaces.

**The City**

As mentioned above, the physical manifestation of the city is dictated by overlaying a series of systems or a network. This network consists of different inputs directly affecting the form of the city. It is important to realize then that not all nodes within the network are equal. For example, as market demand shifts to a different built typology, the land-use plan may be modified to fit this new need. This is a shift in the network. Although this is the localized network in which a city functions, it is paramount to understand then how a city fits into a global network (Castells 1996, 470-473).

As a city becomes incorporated within the global network of financial flows, it almost immediately becomes a subordinate node to the global network’s requirements or inputs. As part of this global network the city is affected by global capital. In order for this global network to rationalize the resources,
goods, and services within a city it needs to redefine all of these activities as commodities. Commodities in the sense that they have a dollar value. This global capital then acts as capital has in the past in which it is invested, realized, and harvested, predicated upon profit. This leads to an imbalance within the city, skewing the market towards what is profitable globally versus what is required locally (Castells 1996, 473-477).

As the city becomes further imbalanced due to the effects of the global financial network, key characteristics become increasingly prevalent within the city’s development. Rather than architecture or development focused on the human experience, the city develops in a way that is most efficient for capital. The hyper growth within these cities leads to artificial boom in property value in centralized areas. This artificial spike in value then ripples out to affect the properties surrounding these central zones (Harvey 2013, 9-10). Although the value of property going up isn’t necessarily a negative, the cost of living within an area going up over time due to an artificial spike in value may have unintended consequences. As an example, one form of pressure can come in the form of indirect increase in cost of living via the cost of rent (Hutton 2003, 176).

As the profit value ripples out further, so too will development. This ultimately leads to these previously marginalized areas becoming the sites of future development. These developments rarely if ever are constructed with the aim to have the original inhabitants return. This gentrification then leads to a cycle of development that continues to ripple out from the centre of the city. With these factors in mind, understanding the value of the residual space within a city takes on a social and monetary value.

The People

The inhabitants of residual space vary and come from all walks of life. There are the transient passerbys and then there are those that rely on these spaces as zones of inhabitation. Those that rely on these zones for inhabitation are often the most heavily impacted by changes to these zones. Understanding the people within these spaces is invaluable in providing a thoughtful and holistic response.
Metro Vancouver’s overall homeless population has reached a record high since data began being collected in 2005. This is an increase from 1364 people at the peak of 2005, versus 2181 people of 2017. This number is also subject to substantial fluctuation over the course of the year. Although 850 homes were found by the city for people who were homeless or at risk for being homeless in the past year, the number continues to climb. With the population of Vancouver increasing and development not slowing down, it is a matter of time before the homeless population grows to further extremes. Last year there was a recorded 1522 people living in extreme weather shelters (Mike Howell 2018).

The people who are on the streets are often victims of gentrification. As mentioned above, there is a process in which the momentum of development pushes the marginalized residents of an area out due to the value of their proximate districts increasing (Hutton 2003, 177-180). These inhabitants of residual space are often looked upon with stigmatic gaze. Their situation seen as one of destitution and deplorability. Understanding these conditions and honing the perception of the public to these people and spaces are key in effectively utilizing residual space for greater social change.

The Perception

70,000 people in New York City were homeless in the winter of 1987. A sizeable percentage of this population was made up of individual homeless people rather than those with families. Those with families were given priority to amenities such as housing facilities and hotels. Although the other city-run amenities provided food and shelter, they were seen as very unfriendly and confrontational places. There was an element of dehumanizing programming that was run by the guards or operators of these facilities. There was routinely poor treatment of those taking aid from these facilities. It was commonplace for people to be denied food or showers for breaking rules. Due to these types of conditions; it would be unsurprising that some homeless people preferred not to partake in the facilities provided by the city. In doing so, they incurred unjust and unwarranted ridicule. This ridicule
didn’t come in the form of the citizens of New York; it came from the mayor at the time. Publically claiming that if a person who is homeless chooses to be on the street, they must be in some capacity mentally ill (Wodiczko 1998, 79). This provides a case study into the systems and issues that the homeless faced. It wasn’t seen as possible that the institutions set up by the city had failed in terms of quality, but rather that the homeless were ungrateful or mentally ill in order to avoid these amenities. This outcome or outlook is morally reprehensible.

It is a common understanding that the homeless have a refugee like status within their own city, but it isn’t readily apparent to all that the cause of them in this state is due to the city transforming (Wodiczko 1998, 80). Many public spaces are being designed to be less accessible to the homeless. They are designed with the express purpose of removing the undesirable characters. Putting spikes under covered areas, blocking in the underside of bridge supports, allowing better surveillance sightlines to more efficiently remove undesirables. All of these interventions done not to improve the lives of fellow urban citizens, but to deny them access, comfort, or respite wherever possible. They are treated as mere objects rather than people. As these urban citizens are forced out of their homes and on to the streets, they become passive surveyors of what was once theirs. They watch as their neighbourhoods are destroyed and built anew for others (Wodiczko 1998, 81).

It is crucial to understand that the urban citizens, that inhabit residual or other space, do not live or operate in isolation from their community. They contribute to the city even though they are seen as the undesirables or exiles of their own city. They operate within a network of systems in order to survive. This can be done as a binner, merchants, or many other forms of economic autonomy. Although a lack of order seems to be implicit in residual spaces, maybe an order of a different sort does exist maybe an order of the sort that only those who operate under it but well past what passerbys see (Doron 2000, 249).

By discussing the systems and places we hope to intervene upon with locals, we can develop a more intimate understanding of who is there, and how they are perceived If spaces continue to be ‘cleansed’ of the urban
citizens without acknowledging their contribution to adapting space, a no-man’s land will definitely be the result (Doron 2000, 249-254).

The Goal

Residual spaces are the by-products of the systems and hierarchies in place that are used to shape modern cities. They are can be interpreted and found in many places and adapted to many different uses and users. Understanding the temporal nature of the formal and informal programmatic functions in these spaces will allow for a comprehensive redevelopment of our understanding of these spaces.

Understanding the ebb and flow of the City as it is acted upon by global forces underpins the lack of equilibrium in our cities development. The commodification of our local real estate into a global market has tipped development towards what is profitable rather than what is best for human experience. As development in cities continues, it will continue to marginalize those who cannot afford the increase in cost of living. This will continue as land values increase, rippling out from the newly globalized city centres.

Metro Vancouver’s homeless population is growing and will likely continue to do so as the city expands. It is important to note that there are several projects in the work to alleviate this situation.

The perception of the residual spaces and those who rely on them can be characterized as one of stigma. The urban citizens of and around these spaces come from all walks of life. They may be transient pedestrians using these spaces as short cuts, or inhabitants who rely on these spaces. Regardless, they belong to the same urban environment. The example of New York’s homeless population preferring to stay on the streets rather than be subjected to inhumane treatment by the amenities that are to alleviate their hardships is telling. The systems that are in place may not be adequate or as successful as they need to be. Understanding that the homeless are part of a greater system and not simply destitute individuals is also important.

With these factors above, there are a multitude of meaningful interventions that can be used to enhance or transform residual space. These
transformations can be performed on large or small spaces, by many or few people, and with substantial or unsubstantial materials. The overall goal for this study is to understand the spaces, the people, and to create a dialogue between those who rely on residual space and those that use it transiently. Promoting this dialogue will impart empathy through the actions between us and our fellow urban citizens.
Research

Thesis Statement

The residual space within the city presents the opportunity to facilitate the discussion about the conditions that all urban citizens face while becoming inviting, and programatically layered. By utilizing residual space, and programing it to promote the dialogue between urban citizens, these factors deteriorating the liveability in the urban environment can be mitigated.

Architectural Issues

The architectural issues addressed will range from: design process, tectonics, and program. Design process will encompass the entire study. It will provide the means in which the approach is oriented, the site studies are located, how these sites are explored, what is required, and ultimately the architecture. The tectonic languages will derive from the siting of the interventions. These approaches will be dictated by existing conditions. Programmatic functions will outline the efficacy of the interventions. By identifying what is missing from an area, an appropriate programmatic response can be conceived. The functions can range from environmental, social, or economic.

As the design process hinges on producing a methodology in which a lack of function can be identified, are there existing means and methods that can be employed? What are potential pitfalls in using these methodologies?

Will tectonics be dictated completely by the siting of the interventions and the structural implications of doing so? Will this hinder the architecture produced?

Do the implications of program imply a rigid or flexible typology of intervention? Is one type more suitable depending on the desired effects?
Approach

The approach moving forward will consist of three major steps. A thorough and ongoing precedent study, cataloguing spaces, and finally programming them.

The precedents are not solely focused on built interventions, but shifts in programmatic functions as well. There are several major categories that have been studied so far. These include but are not limited to; Parasitic, Incremental, Formalization of the Informal, and Altering occupation. Parasitic aims to identify projects or approaches that capitalize on the existing structure, infrastructure, or programming that is available for modification or utilization. Incremental is focused on finding ways to enable the end-users or those with fewer formal skills to make meaningful contributions to the interventions. Formalization studies the programmatic functions that are being ratified or given a framework through an outside or third-party. By identifying different informal practises and establishing a framework around them, they can become more efficient and beneficial for those who rely on these processes. Finally, Altering Occupation looks to understand the different ways that residual spaces can be re-programmed. This reprogramming can benefit nearby spaces by creating outdoor areas of gathering, or by providing a more meaningful destination for people to come to. As this list of precedents grows, the taxonomy may grow and shift, depending on what other typologies emerge.

Cataloguing space will require several methodologies to be applied. These will include but are not limited to; site visits, utilizing GIS information, aerial photos, traditional drawing, and diagramming. Site visits will be utilized at all stages of the cataloguing process as every site will be photographed. Having several photos from different times of day would be optimal. Utilizing GIS information, aerial photos, and detailed plans will help identify potential sites that can be visited. This will be a larger scale study of the sites available. Traditional drawing will then overlay all of the information accrued through the other processes. The general dimensions, physical characteristics, location, and viability of the sites will be scrutinized. Finally, diagraming will occur when a full study has occurred on a potential site. This will bring into account the adjacent programing, and potential synergies that can be
achieved by activating a particular site.

Programming the sites will be a resultant of the first two studies. The precedent study will indicate a general strategy that may work to fully utilize a site in terms of a programmatic response, while the cataloguing will dictate the logistical viability of the function being applied. The general goal of the program is to provide two different functions. A stationary semi-permanent skill-up centre and a deployable structure aimed at providing a framework for informal occupation or sheltering.
PRECEDENTS
PARASITIC
Parasitic

Parasitic architecture in relation to this study are those approaches which take advantage of existing infrastructures. These existing infrastructures can be in the form of structure, mechanical systems, or established programmatic functions. The two examples being examined are Vertical Harvest and ParaSITE. Vertical Harvest is a greenhouse and produce market which relies on the façade of an existing parkade. ParaSITE is an inflatable structure designed to provide shelter for the homeless by utilizing existing HVAC systems from buildings. These two projects provide a comparison in size, scale, and program. Vertical Harvest is extremely formalized and much more substantial in scale while ParaSITE consists of smaller installations deployed in a guerrilla architecture type manner.
Figure 01 - ParaSITE Exterior

Figure 02 - ParaSITE Exterior
ParaSITE

ParaSITE by Michæl Rakowitz looks to be a truly patristic architecture benefiting not only from the structure but from the mechanical systems of existing buildings. There were several of these structures located in Boston Massachusetts and New York primarily as shelters for the homeless. It is through the means of inflatable shelters attached to the outlets of existing buildings that this architecture thrives. By utilizing the outlets of existing building’s HVAC systems, the inflatable shelters are both conditioned and inflated. These shelters can be tailored to the use of the individuals utilizing them. By consulting the end-users of these shelters a different lens can be applied to the design process behind these shelters. Traditionally, windows in these structures may seem to exist to allow natural light, but in reality the increased security issues that homeless face require them. They wish to see oncoming attackers rather than value their privacy. The framework surrounding the design of these structures allows them to be deployed easily, have extreme flexibility in siting, and allows them to be extremely cost effective. A shelter can be made on a budget of nearly $5.00, granted the robustness of the material will dictate the longevity. The ingenuity in material application and utilization of existing infrastructures has produced an architecture that is highly adaptable, effective, and cheap. If there was a means of producing these shelters with an increase to the scale of deployment and robustness of structure, a greater number of people could be served (Rakowitz 2003).
Figure 03 - Vertical Harvest Render

Figure 04 - Vertical Harvest Built
Vertical Harvest

Vertical Harvest is an example of ingenuity taking advantage of a marginalized site. Located in Jackson Hole, Wyoming, the structure occupies a 1/10th of an acre of site covering the façade of a parkade. In this 1/10th of an acre, Vertical harvest produces the same volume of produce that 10 acres of traditional farm land would produce. Traditional farming is highly dependent on the localized climate, only allowing for 2 to 3 growing seasons per year. The green-house allows produce to be grown 365 days a year, allowing for up to 4 growing seasons. Although produce efficiency is integral to the success of this program, there is a socially impactful element as well. Through the highly inclusive programming in Vertical Harvest via Cultivate, people with disabilities in the community can engage in meaningful employment. The program strives to educate, develop and provide training for those with disabilities. This training is not limited to professional training as personal growth and development is reinforced. This inclusive work force combats the 78% unemployment rate for those with disabilities in Wyoming. It is through meaningful employment at Vertical harvest that these citizens can make a competitive salary, participate in the workforce, and are able to contribute to the overall community. As of 2016, there are 28 people employed at vertical harvest, 16 of which have a form of disability. Vertical Harvest is an example of transforming residual space into an efficient and highly productive tool which benefits the community.
Takeaways

These two precedents both benefit from conditions created by existing architecture. Vertical Harvest takes advantage of the conditions created by an existing parkade and ParaSITE cleverly benefits from the waste of existing HVAC systems. By adapting the existing conditions into integral parts of the architecture, their integration into these residual spaces becomes much more seamless and realizable. The programmatic function these two projects serve extends past their physical nature. Parasite is designed to meet the end-user’s needs, while Vertical Harvest has an impact on the disabled population of its community. These two projects serve as examples of ingenuity in material, siting, programing, and longevity. One is realised through cheap materials, where the other competes with the traditional means of production.

In terms of take-aways, these two projects provide a plethora of approaches which will be applied in the continuation of this study. Utilizing the waste of existing infrastructure, flexibility in siting, efficiency in production, and focusing on the economy of realization will all be parts of the Architecture.
Incremental

Incrementalism sees the redefinition of slum or squatter settlements as informal housing. By re-classifying these typologies, typologies ridden with negative connotation, they hope to extract means of efficiency and productivity which are inherent within them. Unfortunately, even though these informal settlements can be upgraded over time, their history tends to follow them. An example that illustrates this haunting characteristic is Ciudad Nezahualcoyotl. Formerly an informal settlement outside Mexico City, and now one of the most densely populated areas in the region. It was built up slowly with infrastructure and buildings. This could be seen as a win for Incrementalism, however, citizens of surrounding areas won’t even step foot in Ciudad Nezahualcoyotl. They see it as a problem or tough area which is to be avoided, but in reality it is bustling with economic and social growth. The two precedents chosen, Villa Verde and Quinta Monroy, show that providing a framework for future development can lead to a more sustainable and safer means of development. By eliminating the higher-skill elements from construction, the remaining elements can be constructed as required by the end-user.
Figure 05 - Villa Verde
Villa Verde

Villa Verde by Elemental, encompasses both areas of the discussion. The project takes an interesting approach to the stigma around incremental housing and addresses the common issues that tend to occur with incremental housing. In terms of the stigma, Elemental seems to have turned away from calling the project a type of humanitarian effort. The aim was to provide homes for 484 families of Constitución, in the Maule Region of Chile. A massive earthquake and tsunami levelled their homes leaving them without infrastructure or safety. This then prompted the response to provide heavily subsidised housing through the local government and the forestry company that employed many of the families. This being said, there is little-to-no mention of any of this story on Elemental’s website, or about the project in general. This was addressed 3 years after project completion and inhabitation. It can be speculated that is was to steer away from being the project being labeled as relief shelters, or from the project being thoroughly vetted for better publicity. It is interesting to note, that regardless of the positive impact of the Villa Verde, there are still people who judge its motives. Providing expandable housing to those in precarious situations is seen as irresponsible by some. A comment on the Arch Daily page highlights this view:

"Love your housing projects.....but the 2nd floor alternative with more single beds(future expansion plan)is what I like to call the stop having children or at least until you change your financial situation....."

– JP McDaris
Figure 06 - Quinta Monroy - Framework

Figure 07 - Quinta Monroy - Infilled
Quinta Monroy | Elemental

Elemental had done similar ‘half-houses’ for Quinta Monroy. This housing typology provided a small, well built, and budget oriented houses with the framework to expand them. This is echoed the Villa Verde precedent to a larger extent. These houses were larger and had more features than those done previously. The eventual inhabitants of Villa Verde were asked for key amenities that they would like to have within these new houses. Hot water, a full shower, a kitchen, and several other amenities were listed out. Along with these features, the houses and framework were well suited for seismic events, fire, and well insulated. All of the conventional needs for a well-built home or foundation were satisfied by a shell being provided for inhabitants to expand on as needed.
Takeaways

The two major challenges faced by Incremental approaches are the stigma and prioritization of different skillsets. These two examples showcase that the requirements of skilled labour can be eliminated by providing a framework for which unskilled or informal work can be done. By dealing with the implicated structural issues, systems issues, and planning issues, the informal portions of the homes can be added as needed by the end-users. In terms of the stigma that incremental approaches face, this requires an attitudinal shift within the community. These approaches should not be seen as only effective relief shelters or a typology for the less fortunate. These approaches bring together efficiency and future-proofing for those who will utilize them, all while including them in the discussion for what is needed. The flexibility in programing is based upon what the end-user decides to build. They could expand their kitchen, have a sublet room, or a myriad of other programmatic functions.

The key takeaways from these projects are that a foundational or framework based approach that can be built upon by the end-user can be a successful method of creating Architecture.
FORMALIZING THE INFORMAL
Formalization of the informal

Formalization of the informal in the context of this study is related to the means of conveying information, and identifying informal revenue streams which can be ratified. Vacant NL preforms the former while the Binners’ Project does the latter. Vacant NL, through the medium of a scale model and atlas, aims to convey the amount of space in disuse in the Netherlands. This physical rendering of this phenomenon clearly illustrates the potential that isn’t being used. The second part of the project is a thorough cataloguing of these spaces, referred to as an atlas. Although this study doesn’t result in the production of a specific architecture, it provides a framework of which to view the residual space in an easily communicable way, even to the layman. This is where the inherent strength of this precedent is. The Binners’ Project is a study in the informal act of binning done in an urban setting. Through binning many people generate some amount of economic autonomy through collecting recyclables and bringing them to depots. This project aims to formalize this by providing an online and offline identity, scheduling, and increasing the efficiency in which this processes takes place. All of these things occur all while those who benefit from the program are those that lead it.
Figure 08 - Vacant NL Physical Model
Vacant NL

Vacant NL is a direct commentary on the unoccupied and unused spaces within the Netherlands. The goal of the project is to facilitate the utilization of these spaces by the creative community as needed. The firm believes that the lack of inspiring and affordable spaces is a severe detriment to the creatives in society. In order for the utilization to occur, these spaces needed to be found, documented, categorized and organized. This is done through physically rendering the city and these spaces, and thoroughly documenting them via an atlas. The physical model aims to convey the sheer volume of space that isn’t being utilized in a way that is clearly communicable to the layman. The atlas then goes into great detail documenting all of these spaces via photograph, location, and their dimensions. As the Netherlands is a densely populated area already, it is surprising that this inefficiency in spatial utilization is occurring. The same could be stated about other major city centres. By providing a cataloguing of the spaces that are disused in the city, a comprehensive plan to utilize these spaces for different program types can develop.
Figure 09 - Binner’s Project
Binners’ Project

The binners project is aimed at improving the economic opportunity for those that rely on binning for income. The project describes binners as follows:

*binner*  
`ˈbin-ner\` - noun  

*A person who collects redeemable containers and other things from bins to sustain their livelihood and to divert waste from landfills: a dumpster diver*”

Collecting in this manner is typically an informal way to generate money. This is being impacted throughout the city of Vancouver as many areas are resorting to locking or enclosing their bins. Although some residents do leave recyclables out for binners, it takes a toll. It is easy to identify the positive impact that binners have on their neighbourhoods and communities. Typically they are taking what wouldn’t be recycled and taking it to the correct areas for monetary compensation. The Binners Project aims to formalize teams and event planning so that groups of binners can collect efficiently and without the usual stigma associated with being a binner. By being identified as part of a collective, rather than a singular collector, they are seen as part of the community. The Binners Project is also leading the initiatives to give the tools needed to do the job. The Universal cart initiative is providing standardized and robust carts to those who are enrolled in the program. The program is setting out to place Binners’ hooks throughout the city. These hooks are purchased by businesses or private residents for fixed locations and scheduled collection. The binners’ project took those who relied on this informal means to survive and imbued them with public presence, organization, and opportunity.
Takeaways

As illustrated by these two precedents, the formalization of informal activities can be drawn upon as opportunity. This opportunity presents itself in two forms. Cataloguing the existing residual spaces in a densely populated city allows the visualization of these spaces that would otherwise go overlooked. Vacant NL does this in a way that renders the information easily accessible and communicable to the layman. The programmatic approach taken by the Binners’ Project shows that an informal activity that is used to generate revenue and provide economic autonomy can be a tool to reduce the stigma that binners face, all while making their process more efficient. These two precedents both put agency in the hands of the end user. They allow them to contribute in a meaningful and impactful way on what they would be dependent on. The key takeaways from these projects come from identifying unutilized space and ingenuity in identifying possible streams of economy that could be ratified for the better.
ALTERING OCCUPATION
Altering Occupation

Altering occupation refers to projects that aim to change or shift the type of programming that occurs within residual space. Typically these are spaces that are strictly utilitarian with no other layered uses overlaid on them. The two precedents chosen are Alley Oop and Ackery’s alley by HCMA. These projects showcase that multiple interventions can be applied to these types of spaces in order to activate otherwise disused spaces. These interventions can activate the spaces through creating a sense of public identity, having interactive elements, and relating to the adjacent programming. Also, employing local people of various talents and trades into the production of not only the spaces, but the events that happen within them can further strengthen the identity that they garner over time.
Figure 10 - HCMA Laneway Activations - Alley Oop
Alley Oop

Alley Oop by HCMA is a huge success in terms of the viral internet presence it has garnered. This is what sets this alleyway intervention apart from any other project done within the city. Although other interventions, such as Parklets, have occurred in the city, none have gained as much viral fame as Alley Oop has. It is an extremely recognizable intervention through its clever use of bold colors, graphics, and programming. Originally, this served as a utilitarian alleyway, home to service vehicles, temporary parking, and the back of house of many businesses, but quickly became a very instagramable location. Through this intervention, this space became more inviting for those passing by, encouraging the use of the space as a shortcut or one for people to stop and linger in. The basketball hoops bring summer games of basketball, and even tournaments from local businesses. With these positive factors aside, a longer study looking at the number of people utilizing this space varies extensively, depending on the time of day and season. The majority of the day and year this space isn’t utilized. Although when there are formal programs planned, such as the launch of design week 2017, there isn’t as much utilization as was hoped for. This is one of the first forays into alleyway interventions done in the city, and future ones plan to be much bolder and comprehensive.
Figure 11 - HCMA Laneway Activations - Ackery’s Alley
Ackery’s Alley

The most recent alleyway activation done by HCMA, Ackery’s Alley goes further than Alley Oop had. It introduced an interactive art element in the form of Field, provided an insight into the interior programming of the spaces it was serving, and aims to make a larger impact throughout the day and seasons. In terms of Field, it can be understood as an interactive art piece and instrument. It is made up of several lights, sensors, and speakers which play distinct sounds as people move through the Field. This provides incentive for passerbys to go through this space and interact with the installation. The overall goal of the project was to take what can be seen inside the Orpheum Theatre, the program it is adjacent to, and reinterpret it to the outside space. This activated the space, turning it into the muster point that the theatre was hoping for all while engaging local artists in the graphics and treatments of the alleyway. The overall impact has been more successful than Alley Oop in that it is scheduled times for interactions with the programming extend into later hours that would otherwise see the alleyway unutilized. Overall, this intervention is tied into the adjacent programmed spaces, brought local artists into the mix for its production, and provided a programmatic function that the adjacent programs needed. This points to a more successful and comprehensive approach.
Takeaways

Both of these projects have their inherit strengths. The strong identity of place created through Alley Oop led to viral internet success, while Ackery’s Alley benefits from a more comprehensive approach. The online presence of Alley Oop lead people to flock to this space as a destination, activating an otherwise unutilized space. The successes seen by this activation then lead to the intervention of Ackery’s Alley. This being a higher budget and more programmed space. This programming further tied the intervention in an infill space directly to what it was being placed beside. The key takeaways from these two projects is to create a strong identity of place, and to integrate the programming being produced to infill a space with those that are adjacent to it. If there is an opportunity to meld the local community by including local people of various talents and trades into the production of these spaces, the identity of place can be further strengthened.
Program

The programmatic approach is currently broken down into two components. These two components are a skill-up centre and a deployable structure.

The skill-up centre aims to be a large scale intervention which is sited permanently. The specific site that the skill up centre will occupy will be decided by the end programming and site analysis. The goal behind this intervention is to provide a space in which vocational skills can be taught to those that require them.

The deployable structure will be a mobile workshop that occupies a finer scale. The focus of this intervention will consist of relying on low skill labour in conjunction with supervision and education to realize projects and initiatives. This will empower the end-users of these projects with a framework aimed at improving their current processes while teaching them vocational skills and providing a toolkit to realize their goals. The flexibility of this mobile workshop aims to temporarily inhabit small scale sites and produce amenities which can be utilized by those in need. These amenities can range in size and scope, but it is imperative that they be teaching opportunities.

It is hoped that the skill-up centre will act as the hub for the deployable structure. Ultimately creating several interventions that can impact the urban fabric.
Figure 12 - Greater Downtown Eastside
Site Analysis

Greater Downtown Eastside (GDTES)

The GDTES consists of an amalgamation of several neighbourhoods:

1) Gastown  
2) Oppenheimer  
3) Industrial  
4) Victory Square  
5) Chinatown  
6) Strathcona  
7) Thornton Park

The GDTES is a predominantly low income area with strong connections to several communities. These communities are comprised of the First Nations, Japanese, Chinese, and other cultural groups. These community ties are from the early settlements that occurred in this area. Apart from the cultural relevance of the area, there is a substantial amount of critical infrastructure for low income residents and the homeless.

The main issues that affect the GDTES include general poverty, homelessness, affordable housing, mental health, crime, and drug use. Although this isn’t exclusive to this area in regards to the GVRD, it is highly concentrated there. Despite these issues, the general development stemming from Gastown is migrating East, gentrifying the low income area slowly over time. This will lead to substantial pressure on the more vulnerable urban citizens that rely on the GDTES as a means of habitat.
Figure 13 - Chosen Area
As mentioned previously, several neighborhoods comprise the area, there are stark differences in their character and demographics. The Gastown area of the map is comprised of higher price-point luxury goods and services as well as high-end housing. This differs to the Oppenheimer neighbourhood which is home to a much greater concentration of homeless people and low income. Oppenheimer park in particular has been home to many homeless people, including a homeless encampment in 2013-2014 (City of Vancouver 2018).

Due to the above factors, Oppenheimer park and the adjacent areas have become the focus of this project. The site is central to the concentration of homeless or at risk people and offers several infrastructural benefits that are illustrated in subsequent mapping exercises.

The area is easily accessible through public transit, although several bus stops have been temporarily suspended due to increased criminal activity. There are several bus routes that connect to the downtown core as well as to the skytrain system.

There are several public green spaces and sports fields available in the area. Although they vary in formality, their presence to the local population is widely adopted.

Socially service based programs include non-profits and those aimed at aiding those in need. Several of these programs are located within walking distance of the park.

There is a concentration of churches within this area as well. It is important to note that these churches often house socially aimed programming to help those in need as well.

Various cultural centres, museums, and community centres can be found within walking distance of the park as well. These are aimed at the general community and some have programs for those in need.
Figure 15 - Public Green Space
Figure 16 - Socially Service Based Programs
Figure 19 - Museums
Figure 20 - Right - **Walkthrough Area**
Figure 21 - Right - Site 1
Figure 22 - Right - Site 2
Figure 23 - Right - Site 3
Figure 26 - Right - Site 6
Figure 27 - Right - **Site Ordering**
Figure 28 - Right - Identifying Iso of Site 1
Figure 29 - Right - Parti Diagram of Program
Figure 30 - Right - **Project Phase 1**
Figure 34 - Right - **Project Phase 5**
Figure 35 - Right - Project Packing Diagram
Figure 37 - Right - **Long Section 1**
Figure 39 - Right - **Short Section 1 and 2 Respectively**
Figure 40 - Right - **Render of Front of Mobile Workshop**
Figure 42 - Right - Render of Back of Mobile Workshop
Figure 44 - Right - Aggregation Diagram


