PARADISE LOST

A critique of lost urban sites as didactic testing grounds for landscape architecture
Promise
PARADISE LOST

A thesis submitted to the Victoria University of Wellington in partial fulfilment of the requirements for the degree of Master of Landscape Architecture, 2013

Victoria University of Wellington, 2013
School of Architecture

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Awake, arise, or be forever fallen!

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For some unworldly reason acknowledgements tend to go by the wayside. I intend to roll up my sleeves, and just for a moment, bare some skin.

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I will always cherish these. X

Thesis is another beast altogether

Lastly, this one’s for you Dad, much love.
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John Milton's *Paradise Lost* (1667), like many great epic poems, begins *in medias res* (Latin for *in the midst of things*), with the background story being recounted later.

The poem's narrative recounts the creation of man, though the messages are far more understated. *Paradise Lost* is ultimately about the human condition, the fall of man and the Fall that caused 'all our woe.'

It is a poem about knowing, choosing and free will, though more truthfully, it also offers promise and a means of restoration.

Wellington, New Zealand is the site chosen for this thesis to reflect upon the human condition and how we have fared since Milton's epic. This thesis reflects upon some of the lessons that man has failed to remedy and puts forward a design that seeks restoration of a place through identity, memory and ecology.
RESEARCH QUESTION

Landscape architecture typically approaches the renewal and rehabilitation of degenerate ‘lost’ urban sites through the application of a superficial landscape. This thesis questions how the fundamental identities of a site with a history of blight, disregard and misinterpretation can be engaged to the facilitation of an urban narrative that activates this history and places it in a dialogue within the evolution of the urban context.

A 21st century approach to social responsibility is the issue of remediation. This thesis questions how this issue can be engaged with to better understand sites of degeneration and misinterpretation, and reappropriate them in a meaningful way that regenerates the site and enables the public to better understand the history that surrounds them – facilitating use within these spaces.

ABSTRACT

The traditional approach within landscape architecture to rejuvenate a distressed ‘lost’ urban site is to cap the problem with a more desirable landscape. This thesis argues that such an approach simply creates a ‘green bandage’ to the problem without actually resolving the real issues behind the disfunction of the space: that is, the social and identity issues of the site and how to reconcile them with a physical space. Elements of urban ruin and degeneration can become active participants in an urban narrative that engages the history of the site and its place within the evolution of the urban context. Time plays a significant role in the understanding of such sites to create methods of developing landscapes as a system which is never static, and is always reflective of the layers of history beneath its transient surface.

The proposed site for this thesis design research investigation is the Clifton Street Car Park, situated in the inner urban spaces of Wellington, New Zealand. It is a site that represents a multitude of identities, none of which actually engages with the reality of the history and actuality of the site. The site is a direct response to the overlaying of the standardised urban grid to the east, suburban grids to the west and a rift caused by the government’s failure to complete the motorway extension. It is a site that should be important to the functioning of a city; however, it acts as, and is therefore perceived as, a lost site, a placeless place.

The principal objective of this research thesis is to challenge why these in-between spaces so often remain tinged with placelessness and challenge how to deal with the space in a way which will enable the city to actually benefit from such sites through their ability to deliver spatial narrative in the urban context and to facilitate a new typology of design.
I see landscape as a question and an invitation. In this border zone between heaven and earth we try to find our way and tell stories to colour our lives and to give them meaning.

Andrei Tarkovsky
METHODOLOGY

This thesis engages with three major thematic concepts of remembrance, remediation and reactivation and analyses these through a series of local and international precedents to bring together a unique set of imperatives to frame this design research.

Remembrance is the term used to frame the history of the site, the identity and sense of place. It encompasses not only the tangible built aspects but the less tangible aspects of history, such as loss of place, and loss of site.

Remediation is discussed in this thesis with regard to the rehabilitation, recuperation and reclamation of site qualities, social functionality and the remediation of ecologies.

Reactivation is considered the underlying backbone to this research, through ultimately allowing a site to be re-entered and to become a piece of functioning infrastructure again for the community. Through engaging principally with the narrative of water within the site the research finds a resolution to these thematic concepts. The research analyses the collection, retention, filtration and storage of water and how the design experiment forms have evolved to cope and function with the different types. Water is considered an architectural definer in this research, whilst also creating a narrative that runs through the other two thematic concepts.

Chapters One and Two represent an examination and forming of place identity. This thesis uses the understanding and articulation of landscape as a repository of meaning, engaging history and memory as a main driver for constructing identity in our built environments.

Chapter One analyses literature based research as a means to frame place and identity for this thesis.

Chapter Two critiques the chosen site as an example of sites that best represent some of the issues with which this thesis is dealing – issues of placelessness and loss of identity and how design can reactivate these places through remediation and telling the history of the place through a narrative.

Chapters Three, Four and Five collectively inform the three major thematic concepts of remembrance, remediation and reactivation. These chapters are analysed through a series of local and international precedents to bring together a unique set of imperatives to frame this design research.

To better understand the values and rationale of use and the relationship between these types of sites to their surroundings, Chapter Three is comprised of local case studies. These are made up of designed parks, memorials, heritage sites, open spaces and leftover spaces.

A programmatic analysis of three international case studies and one local case study is presented across three scales in Chapter Four. These case studies are critiqued as passive and active layered programmes, challenging typical approaches to underutilised sites and leftover spaces.

Chapter Five analyses three international case studies, seeking resolution for re-activating lost sites within the urban fabric. This chapter discerns a change in perception of usable public space and further challenges typical approaches to stormwater treatments.

Based on the research collected from the analysis of international and local case studies, programmes and literature, the final chapters present an integrated design research section that responds to and tests the issues and imperatives that were raised in each chapter. The iterations explored in Chapter Six start to engage with the major imperatives of remembrance and remediation through a design that re-activates the site.

The final design in Chapter Seven draws from the critique of the previous research, presenting a design in the form of a didactic testing ground for landscape architecture. The resolution reflects the layering of the chosen landscape, whilst telling the narrative of the lost identities and seeks restitution through a form of social responsibility.

Finally, the Conclusion reviews and reflects on the design arguments, proposing developments in areas.

Figure 0.3. (Opposite page) Situating the context and location of the Clifton Street Car Park site

Figure 0.4. (Next spread) Diagram of the methodological approach taken within the thesis
INTRODUCTION

Role of Design
Scope of Research
Our torments also may in length of time
Become our elements.

Paradise Lost. Book II. Line 274.
INTRODUCTION

This thesis investigates a contemporary problem that has developed within the 21st century and develops a design and rationale for approaching such sites within the realm of landscape architecture.

Broad research problem:
Ordered patterns of roadways play a major role in establishing the clarity of urban fabrics. However, problems may arise when new motorways are added to an existing urban fabric, that cut across and damage the original ordering systems. Further problems may arise when economic decline or political changes cancel a new motorway project before its completion. The original ordering system can become permanently damaged by a failed structure that offers very little back to the city. These rudimentary infrastructures can fail to re-stitch the existing fabrics back together after they penetrate the urban matrix, leaving the site to become an under-utilised transitional zone with a thick boundary edge. Such events happen frequently in major cities with rapidly expanding populations, leaving permanent scars upon the urban fabric within important transitional zones. Typically, these zones will be capped with an undesirable and under-utilised concrete surface (a grey bandage) or seeded with grass (a green bandage). Consequently, these ‘green’ and ‘grey’ bandages create scars that damage social and community cohesion. The problem is often the decision to leave these sites with bandages in a permanent state of incompletion, which ultimately results in the loss of cohesive urban design.

Site specific problem:
Exposed and fragmented sites are enigmas of the contemporary city; they become familiar scenes throughout cities where industrial growth has severed ties of natural and cultural tradition, resulting in a narrative of modern alienation. The scene of this narrative is witnessed across the world with unfinished elevated motorways standing as contemporary monolithic ruins. The scene of this narrative is also witnessed at the Clifton Street Car Park, a grey ‘bandage’ in Wellington, New Zealand. This site has been selected as an example of this contemporary problem, where the original ordering system has been permanently damaged and where the incomplete, elevated motorway is fragmented from the linear incision within the urban fabric. At either end, a green ‘bandage’ is applied to this landscape in an attempt to mitigate some of the discontinuity wrought to this now transitional zone.

As a result of these bandages which are often left in a permanent state of incompletion, the task of designing within these exposed or fragmented spaces on the peripheries (both adjacent to and beneath motorways and transport veins) is critical for landscape architecture. This thesis engages with strategies to analyse sites such as these under-utilised spaces, in an effort to stitch communities and natural ecologies back together by engaging with significant historic cues and past identities as a means to re-appropriate and give purpose back to these spaces, so they can become inhabitable and flexible infrastructure for the urban community.
This thesis design research site in Thorndon once existed within a valley, through which flowed the historic Kumutoto Stream. It was later an important pa site for the indigenous Maori before being colonised by the early settlers. As the early settlers went about constructing churches and a cemetery and villas dotted along the hillside, Wellington took shape. That is how it began. When the city decided it needed a motorway in the late 1960s the valley was sacrificed, and despite strident opposition hundreds of homes were destroyed from the historic Thorndon to accommodate the new motorway. Further still, the historic Bolton Street Cemetery was bisected with thousands of settlers’ graves being displaced, thus permanently destroying important attributes that provided a strong sense of place and identity, based on history and environmental conditions which are essential to our life. The new motorway was left partly unfinished due to political reasons where much was lost, and nothing much was gained through the loss.

The Clifton Street Car Park is first and foremost a vertical site comprised of a series of horizontal platforms. It sits within a new harshly graded valley of impermeable concrete capped surfaces. The suburban fringe on the west side is nestled around the curvature of the landscape, while the commercial district of The Terrace on the east side cuts from north to south, which results in the Car Park site existing as a void within the urban fabric. The Car Park is occupying the unfinished fragmented motorway on one level and exists underneath and between the Wellington Urban Motorway, creating a series of infrastructural platforms. It forms a horizontal cap to the dramatic reformation of the landscape, further standardising the unique area through the ‘flattening’ of the topography. The site embodies a set of conditions that are unique to Wellington and to the history of Wellington that should be considered and remembered; however, due to societal preconceptions about motorways that tinge places like the Clifton Street Car Park, the datum planes that hold traces of past ecologies, experiences and history are forever buried underneath the concrete capped grey bandage.

The history of the site, which has also been capped and homogenised through the re-grading of the landscape, represents a lack of visual ties to the past. The site has a strong context of history and community and environmental damage which is complex and layered. Therefore, a layered programme is proposed to give purpose, meaning and textural presence back to the site. This lack of historical and textural presence was identified as a main driver within this thesis for the proposal of human and ecological reclamation.

The experimental design component of this thesis seeks to engage with the histories of the site in a unique and meaningful way, through programmes that maximise these infrastructural platforms. It strategically engages with two sets of three elements to facilitate change and reactivate the site. Three Motifs of Loss (Ecology, Memory, History) and Three Narratives of Place (Remediation, Remembrance, Reactivation) frame the design which is put forward to aid the recovery of this under-utilised site, which should never have been condemned to isolation from the urban realm. The experimental design seeks resolve through a didactic landscape which aims to reactivate this site through a series of diverse programmes that coalesce together as a sustainable system, encouraging re-growth.

These activities are intertwined through passive and active programming:

Water remediation is an educational programme that reawakens our awareness of the history of the site and further cleanses the ecology of the site.
Recreational programmes are important to include within the design, to tie into existing fabrics and through the ability to offer a large expansive covered outdoor public urban park.

Aspects of memorial and remembrance are important to the site's history, of the homes lost and graves displaced and to social responsibility. These identities all add to the frame of this design; but more importantly, it is also about the community and social responsibility that must take place for a design to function. This thesis takes the approach that remediation is a twenty-first century understanding of social responsibility, if brought into people's daily lives in a functional and understandable space.
ROLE OF DESIGN

This thesis argues that the traditional approach to green areas surrounding highways without engaging with the fundamental identities, cultural ties and historic datums offer little to the functioning of the city. The Clifton Street Car Park exemplifies a piece of fragmented infrastructure offering little to the social environment.

This thesis examines means of revitalising such scarred sites by providing them with viable new programmes, encouraging new growth by making them environmentally sustainable, and activating them as important testaments or memorials to the shared history of the community. In this way, the thesis argues that such scarred sites can reinvigorate the urban fabric once again, becoming socially responsible, and active contributors to place identity and community cohesion.

SCOPE OF RESEARCH

This thesis does not take a typical approach to a highway site, with grassed out areas and planting trees for mitigation of noise/sight. Nor does it take a typical landscape approach, dealing with this site in a two-dimensional aspect. Conversely, this thesis treats this site as a response to the layering and converging of urban grids creating a series of unique and distinct volumetric spaces to which the design will respond.

This thesis does not treat the appropriation and manipulation of stormwater and water bodies as an end to all urban infrastructural problems, nor should it be considered a resolved end. The design components seek to present an exploration of stormwater approaches, through collection, retention, filtration, displacement and storage as a unique urban design narrative that society in the 21st century can relate to and engage with. Lastly, this thesis does not try to pretend to provide fixed answers for urban infrastructural problems. Instead, what it has attempted to do is provide a time-based narrative through a proposal that engages with the fundamental identities that existed on site and the identities that are currently active. Through strategically engaging with these historical identities, coupled with the overlays of literature, case studies and comparative parallel sites around Wellington, the thesis provides a set of arguments and a set of imperatives that frame the research as a testing ground for landscape architecture.
Figure 0.6. Situating the Clifton Street Car Park within the immediate locale of the surrounding typologies
THE PLACE OF PLACELESSNESS

Losing site/sight
Placelessness
Motifs of loss and allegorical narratives
What does it mean to lose sight of something, both visually and conceptually? What happens to people’s associations with place and the identity embedded in that place when there are no longer any physical cues to the history of a site? These questions are paramount when considering the re-shaping and eventual erasure of site attributes when large infrastructural projects are realised. Until recently, edges of cities and peripheral spaces have traditionally been considered as uninhabitable zones, evidenced through discontinuities in the physical and social fabric. These edges typically arise where transport and other large infrastructural projects bisect through neighbourhoods. These linear cuts through the urban fabric erase identities from the sites and at times create uninhabitable zones on either side where people feel alienated and disconnected from their surroundings. Loss or placelessness are terms to describe this alienation, which is a problem that this thesis seeks to address through design experimentation and ecological remediation.

This chapter discusses a range of theorists who have written on the identity, loss and restoration of such compromised sites with similar problems. There is a large amount of writing and theory centred on place and placelessness, though very few designed examples represent successful remediation for these types of spaces. This thesis argues that in the 21st century landscape architects need to be multi-contextual and cross-disciplinary in the way sites like this are approached, rather than focusing on only social, economic or environmental aspects.
LOSING SITE/SIGHT

Identity and history as social constructs

The loss of site/sight is discussed in this thesis as an important cue to society’s loss of association with place and place identity. The erasure of histories, identities and topographies leads to a loss of site. Identity and culture are living entities, which are constantly in transition and are inherently concerned with our relationship to a place and site. Identity as a construct is made up of our experiences and reflections; it is a constant sum of the history, social makeup and geography that shape us and we can draw lines back but also forward in time.

(Kjeldsen, Schelde, Andersen, & Holm, 2012, p. 11)

In the early 1960s Wellington saw a major reconfiguration in its urban fabric; with the push for a more modern and faster growing city, the Wellington Urban Motorway was conceived. The landscape surrounding The Terrace, Thorndon and Kelburn was forever changed, and the land was dramatically excavated running north to south. The only remnants of the past topography are the now elevated roads linking The Terrace to the upper suburbs from east to west. As the motorway slides underneath, these roads now seem to become the add-ons rather than the existing. Concepts of place are dramatically changed when economic, political and social aspects impact sites and our theoretical perceptions of place are no longer in sight. This is where the boundary zone becomes important to the preservation of identity; however, at times, changes are implemented with little regard to the social and cultural heritage of a site, taking it as a tabula rasa.

Landscape is stratified heritage. Landscape is always culture, laden with values, economic practices, stories and myths, emotions, notions and social programmes, as well as with the diverse memories connected with them. The identity of the landscape – and thus identification with that landscape as well – is very closely linked to this.

(Blerck, Koekebakker, & Meggelen, 2008, p. 17)

Figure 1.2. Aerial of the construction of the Wellington Urban Motorway creating voids within the urban fabric and erasing previous identities
Figure 1.3. Photograph evidences the dramatic excavation and the thick boundary edge that evidently comes when a motorway is inserted into an existing urban fabric.
Figure 1.4. Photograph evidences the fragmented site as a grey ‘bandage’ and a linear incision creating a thick boundary edge between the suburban Kelburn and urban Terrace with green ‘bandages’ at either end of the unfinished elevated motorway.
The importance of the boundary zone and edges between the urban and suburban fabrics to the functioning of a city is well documented. Robert Venturi discusses such spaces almost a half century ago in his 1966 book *Complexity and Contradiction in Architecture* stating “… residual space in-between dominant spaces with varying degrees of openness is not unknown in our cities… [They include] the open spaces under our highways and the buffer spaces around them. Instead of acknowledging and exploiting these characteristic kinds of space we make them into parking lots or feeble patches of grass – no man’s lands between the scale of the region and the locality…” (Venturi, 1966, p. 80)

Though resolution of these leftover spaces has been theorised for decades, they still remain problematic in our cities today. In Wellington the unique aspect of such “no man’s lands” is evidenced in the transitional zone between the residential zone of Kelburn and commercial district of The Terrace, which was once historically seamlessly intertwined. This transitional boundary zone has become one of the most disrupted urban spaces within Wellington, where a school, a cemetery, a stream, homes and memorials have been erased and removed, leaving behind a void in the urban footprint and a barrier isolating Kelburn from The Terrace.

This barrier zone exists when major infrastructural projects are imposed on a rigid and functioning grid system, consequently creating voids in the urban footprints where the infrastructure has failed to stitch back the social fabric. In Phoebe Crisman’s article “Inhabiting the edge: architecture and transport infrastructure intertwined” in *Peripheries*, she suggests that when designing in such challenging spaces, the edges are where “the urban and architectural scales collide” and these voids which are often created by highways and rail infrastructures result in uninhabitable zones bringing with them discontinuities in the physical, social and temporal fabric.

(Crisman, 2013, p. 115)
To find a resolution within these places we must always engage with site-specific solutions that enhance or reveal a lost or forgotten identity embedded within the site, rather than resorting to the default solution of planting grass or inserting car parks.

Motorways across the world were once considered to be the answer to urban renewal, as evidenced in Robert Moses’s 1941 project for a Y-shaped Lower Manhattan Expressway (later nicknamed “Lomex”) in New York City. This was because, like Moses, many utopian modernists of the postwar era designed with the automobile in mind, rather than a holistic approach. In 1961 Jane Jacobs, a leading opponent of the “Lomex”, saw it as an example of poor urban planning, fundamentally detrimental to the social fabric of the city, and by 1968 Moses’s project was cancelled.

Paul Rudolph’s *City Corridor* proposal (1967-1972) did not oppose the concept of the “Lomex” like Jacobs, who argued that it would have brought far more urban destruction that urban renewal. Instead, he took on the challenge as a series of massive complex forms, interwoven with architectural programmes. Rudolph’s accompanying text stated, “…out of these investigations comes the implicit suggestion that urban throughways and city transportation systems of all kinds should be recognised as a major generator of urban form, as meaningful – even fundamental – elements in urban design.”

(Rudolph, quoted in Wolf, 1974, p. 52)
Although these complex forms and networks of high-speed transportation systems planned by Rudolph and many other great visionaries often never fully materialised, motorways added into a pre-existing urban plan have often brought with them leftover and undervalued space and interstitial voids that these visionaries never could have anticipated, and the Wellington Urban Motorway is no exception.

Within this leftover space, however, this thesis looks at new possibilities that exist; the Clifton Street Car Park can be seen as a fortuitous seam, built up of a number of levels that, if re-appropriated, could offer a complex spatial and functional layering that would remedy the fissure in the urban fabric caused by the initial disruptive seizure of land.

Though most motorways are designed as autonomous elements, the idea of stacking or layering programmes is not new, evidenced in the Brooklyn-Queens Expressway, where vertically stacked vehicle traffic lanes are capped with a pedestrian promenade. The promenade, which offers views out over Manhattan was opened to the public in 1950 after Moses’s LOMEX plan failed. The thesis design experiment goes beyond the Brooklyn-Queens example by proposing a far more diverse set of programmes than a promenade to reintegrate the residential and commercial zones.

‘Layering’ is explored as a design approach to expose, remember, and then celebrate the layers of history that have coalesced on site, as these layers of history are typically erased with infrastructural projects. The current infrastructural layers of the Clifton Street Car Park will be re-appropriated to serve as the grounding platforms for retrieving the more ephemeral layers of the previous histories and site identities.
This thesis takes the stance that in the 21st century, landscape architecture is not prosaic; it is not simply about planting grass and trees to mitigate traffic, nor is it simply about creating outdoor places with plants. To reveal the nature of a place, it requires a site specific understanding and a scraping back of the built up and at times expunged layers of human intervention. Exploring the site with a layered approach enables the design experiment to develop further than the Brooklyn-Queens promenade which has been a successful example.

In the hands of such designers as Hargreaves, Gustafson and many others it is the act of scraping off the products of human interference on the land to reveal the nature of a place. They find and exhibit the geology, topography and hydrology of the land along with the layers of human intervention that also shape the ground on which we live and build, producing a history of design transformations that change over time and in relation to natural forces. This is the most efficient and at the same time the most utopian form of architecture as the engineering of the land: one that does not try to hide habitation or to do as little harm as possible, but one that restores nature and our understanding of it to a prominent position in our culture.

(Betsky, 2002, p. 24)

Hargreaves does not try to hide habitation, but rather this approach is used to refer to the cultural and more ephemeral ecological and historical elements of the site.

Once a landfill site, Byxbee Park designed by Hargreaves and Associates, sits at the edge of the San Francisco Bay, redesigned as a public space. The strong hand of constructed elements, which are rhythmically set into the landscape, allows the eye to understand the more ephemeral site qualities at play. These structures along with the engineering of the land allow the design to assist people to connect to the history of the landscape.

Hargreaves Associates are a landscape practice that creates works which intensify the experience of guiding visitors through the landscape. Hargreaves employs a strategy of ‘open composition’, through using abstract forms which are repeated to draw an awareness of the natural processes which are operating within the site.

(Rainey, 1996, p. 128)
PLACELESSNESS

*Subjectivity of place - A loss of place*

Loss of place as a concept within the realms of architecture and landscape architecture can be discussed as a narrative of loss. To understand this loss, one needs to look at the by-products of place – namely ‘non-place’ and ‘placelessness’. In the *Journal of Urban Design*, Mahyar Arefi writes on non-place and placelessness stating, “…they are substantive enough to caution us against the consequences of losing sight of what constitutes meaningful places.” (Arefi, 1999, p. 179)

Agnew & Duncan propose that place theory can be historically reduced to three elements of locale, location and sense of place. (Agnew & Duncan, 1989, p. 2)

Where locale is concerned with social relations, location is concerned with how economic transactions have shaped and influenced the effect on place. Sense of place, however, is concerned with people’s feelings and attachments to a place.

While ‘placeness’ suggests belonging, ‘placelessness’ signifies loss of meaning (Relph, 1976), which in turn reflects how people’s perception and attachment to place has shifted when responding to an introduced infrastructural corridor. The place-making role of infrastructure in the periphery and on the edge of our cities has become a focus of architectural investigation; therefore this thesis tests how Agnew & Duncan’s three criteria of locale, location and sense of place can be reactivated as a means of re-establishing place identity in disrupted urban spatial boundaries such as the Clifton Street Car Park.

Placelessness is often expressed through urban motorways and empty concrete grids as they are typically characterised by their programmes as transitional spaces. French anthropologist and sociologist Marc Augé refers to these as the ‘archetype of non-place’ and as such, the process through which one travels and passes through places, exists in a state of placelessness. (Augé, 1995, p. 79)

The traveller does not take notice of the individual place, but rather is more aware of the destination beyond these transitional zones. These are spaces of the in-between, the liminal and transitory spaces – the spaces that become blank on your mental map of the city. These blank spaces of transition are common to everyday life, and are becoming more and more prevalent as cities continue their unprecedented expansion; it is within these spaces that an important design movement must begin to take seed, as it is in these blank spaces that a resolution to placelessness is sought. Although these spaces of mobility and the place-making role of infrastructure have become the focus of architectural investigation, resolution of the public space surrounding these corridors and peripheral edges has not been achieved. Areas defined by newly added urban infrastructure fall under Augé’s notion of placelessness; by reactivating Agnew & Duncan’s three criteria, a landscape architect can begin to resolve some of the bigger issues like discontinuity in edges surrounding our cities in times of expansion.

Over the past sixty years our urban environment has changed significantly and increased development to a point where infrastructural spaces have emerged with little relationship to their surrounding natural environments. As much of the growth in our cities has been emergent, it no longer resembles a coherent body, rather a series of isolated spaces and moments which result in these internal and peripheral spaces of placelessness.

Placelessness as a concept is a lack of human identification with a place, but is also fundamentally the landscape’s loss of identity. Norwegian architect and theorist Christian Norberg-Schulz uses the term ‘flatscapes’ as lacking intentional depth, for mediocre experience of place and lacking diversity in the landscape and significant places. (Norberg-Schulz, 1969, pp. 90-91)
Figure 1.13. View looking north above The Terrace before the dramatic reformation of the landscape surrounding the site. 1903

Figure 1.14. View looking east above The Terrace. 1901
How can society start to construct places that remediate this concept of placelessness? One approach is through visualising a layered programmatic landscape, in attempts to reactivate identity within the landscape and to move past any preconceived notions about the underneath of motorways. Examples of these permanent and temporary installations in London, Auckland and Glasgow have been successful in terms of reactivating space, though they achieve little in terms of remediation and remembrance of place identity which is seen within this thesis as a critical approach to the reactivation of fragmented sites like the Clifton Street Car Park.

To intervene in a place, to find a form for the passage of a highway, for example, has nothing to do with the fact of passing through there or not. To create a highway, however beautiful it may be, in a place where it should not pass, does not solve that problem of passage, which is the most important factor, and makes it into something else by cutting it in two… [T]here is a value of identity particular to certain places, which makes them for a moment indivisible.

(lassus, 1998, p. 72)

It is important to clarify what the main experiences of a neighbourhood landscape once were, and in doing so landscape architects will have directions with which to work. As designers, however, we must be aware not to replicate the past but rather to incorporate aspects of the past through knowledge of a place to create a more richly varied and diverse experience of that place.

In New Zealand, we feel as though we have a strong association and uniqueness with place and identity, architecturally reflected though the Kiwi Bach and Victorian Villa. However, this strong association with New Zealand identity has not permeated through into our landscape architecture and infrastructural movements. Theoretically this could be connected to the general youth of New Zealand as an colonised country – as discussed earlier; culture and identity are ‘living entities’ and it is only through cultural and human awareness that place identity becomes a tangible quality. As identity is made up of our experiences which can be traced backwards and forwards in time, contrasting New Zealand’s comparative youth with a vastly ‘older’ country such as Denmark creates an interesting dialogue of differences. As an ‘older’ country, Denmark and many other European countries have a strong association with cultural identity and it is fundamentally represented throughout their architecture and landscape architecture. Interpretations of place have been prevalent in Nordic architecture for some time, influenced largely by the writing of Norberg-Schulz. But contemporary ideas of place identity are just as relevant for countries such as New Zealand:

“…today we are seeing new ways of considering place among architects: places can be regarded as a layered landscape of physical as well as social and mental processes – resources that together create a place-specific building culture.”

(Kjeldsen, Schelde, Andersen, & Holm, 2012, p. 12)
Figure 1.15. Non-profit organisation Assemble has constructed a popular temporary cinema under a London motorway flyover.

Figure 1.16. Isthmus programmed a car park space underneath an Auckland motorway with painted steel poles to bring life and energy into this potentially negative space.

Figure 1.17. The Phoenix Flowers is part of a pedestrian regeneration strategy to reconnect Northern Glasgow with the city centre.
MOTIFS OF LOSS AND ALLEGORICAL NARRATIVES

Reconstructing place identity from lost identities

How can a landscape architectural design intervention attempt to ensure a meaningful connection to the past histories of site, and resolve some of the discontinuities and fragments in the barrier zone created by the motorway?

This site needs to be resolved at a level that allows the occupant to understand the layered landscape of physical and social processes and also the layers of history that have coalesced through embodying triggers to the past.

A precedent study that has successfully achieved this is Enric Miralles’s and Carme Pinos’s Igualada Cemetery, where the landscape itself becomes, in a sense, an anti-memorial. SueAnne Ware discusses anti-memorials through questioning the collective memory and rationale behind memorial designs to evoke intangible qualities such as memory and remembrance.

...Not memorials in the conventional sense. They explore the possibilities and specificities of site and landscape operations. They do not necessarily ignore the tragedies; they search for alternatives to current socio-political conditions rather than literally mourn the dead. (Moncella & Ware, 2007, p. 92)

The Igualada Cemetery has been designed in such a way that the space does not just serve a single purpose and programme of memorial for social responsibility. It is just as much about setting up a narrative of descending into the landscape to remember the past, as a motif of loss, as it is looking to the future through passively programming the landscape and creating the infrastructure and architecture for future use.

Like the Igualada Cemetery, the thesis design research intervention will attempt to ensure a meaningful connection to the past but also allow a catalyst for a function in the future. It needs to achieve the strength and flexibility of form and programme to grow and change as the need for the site changes as the urban realm changes too.

The Three Motifs of Loss within the site of the Clifton Street Car Park:

1. Loss of History:
The demolition and intentional destruction of built elements – of architecture, of state housing, schools and memorials – leaves a physical void within the landscape. Rather than memorialise these losses in the conventional sense, there is a possibility to explore other ways, seeking resolve in site specificities and landscape operations rather than literally rebuilding architecture in its place.

Should we preserve the memory of a place when there is nothing there? Do we just end up with a landscape full of memorials or anti-memorials that stop progress from eventuating? The concept of anti-memorials warrants discussion as it seeks to formalise the impermanence and even celebrate the collective memory of a changing landscape of values. These anti-memorials can start to challenge the way we conceive loss, challenging the notions of the static and conventional singular purpose memorial.

2. Loss of Memory:
The loss of memory from a founding community has removed a sense of place which was grounded within the seam that is now the Wellington Urban Motorway. The displacement of social and cultural memory that is embedded into a memorial or the severed historic Bolton Street Cemetery is a constant reminder that even after our own eventual death we do not rest in peace.

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3. Loss of Ecology:
Is it our role as landscape architects to try and reveal or restore what has previously been displaced or destroyed? Of course, we know everything has changed and a lost, buried or culverted stream will never have the same ‘original’ status. As Treib states in Settings and Stray Paths, “...much of what we do is a somewhat desperate search for meaning in landscape.” (Treib, 2005, p. 109)

The loss of ecology within this thesis is seen as a loss of understanding for the public. Through the buried culvert of the historic Kumutoto stream and the regrading of a hillside, there is complete disregard for treating fuel-tainted stormwater that rushes off the motorway into our harbour.
Figure 1.18. Igualada Cemetery by Enric Miralles & Carme Pinós.
Architecture unfolds the earth as one descends down into the cemetery.

Figure 1.19. Igualada Cemetery by Enric Miralles & Carme Pinós.
Within the belly of the cemetery the ground narrows into a ramp that curves up towards the sky.

Figure 1.20. Igualada Cemetery by Enric Miralles & Carme Pinós.
Embedded within the ground are allegorical sleepers.
The design research component of this thesis aims to reconcile the three motifs of loss (Loss of History, Loss of Memory, Loss of Ecology) and a loss of identity within the landscape through three Narratives of Place: remediation, remembrance and reactivation.

**The Three Narratives of Place:**

1. **Narrative of Remediation**
   The ecological remediation of the site is imperative to the development and continual functioning of sites like the Clifton Street Car Park. The narrative of a restored site is particularly appealing both visually and physically to the inhabitant as it represents the allegorical Eden which becomes a point of re-inhabitation of the existing car park platforms. The thesis proposes that this allegorical narrative can be realised through the living existing within the constructed.

2. **Narrative of Remembrance**
   Remembrance is a critical human activity which enables a link to the past and in turn shapes our present. Remembrance was once seen as a role of social responsibility – to pay tribute to past soldiers and ancestors alike. Though the role of social responsibility may have changed, societies need this narrative of remembrance as a reminder of where we have come from through embedding identities for future growth.

3. **Narrative of Reactivation**
   The design research component of the thesis proposes physical forms through passive and active programmes as catalysts for social change leading to the reactivation of the Clifton Street Car Park.

This thesis engages with these three Narratives of Place as tools to approach sites like the Clifton Street Car Park where the landscape itself becomes a vehicle of values leading to the eventual restoration.

> The question is nontrivial, for the self-sameness or identity of a place is exactly what landscape design seeks to define, construction to realise, and maintenance to restore. (Leatherbarrow, 2004, p. 200)

In *Landscape Narrative*, Potteiger and Purinton discuss the principle of loss against the narrative of restoration, through its ability to transform derelict sites and other wounded places at the edges and margins.

> Restoration is quite literally built on wastelands, and much of the power of this narrative derives from transforming land with tragic pasts... Traces, fragments, and abnormalities point to unnatural causes... What is most provocative are the absences. These are the enigmas that raise questions and generate stories about wastelands. What happened here? Why? What are its effects? (Potteiger, 1998, p. 214)
The following chapter will look at the fragmented site of the Clifton Street Car Park, in terms of opportunities for layering identities reflecting the course of Wellington’s history. It seeks resolution of the underutilised, neglected and at times obscured relics and ruins that have become this site’s present and captivating identity.
One place after another
The transformation of site
Among the ruins
Ruins as dialect
The stains of time
The functional site
Remembrance Remediation Reactivation
The Clifton Street Car Park is the site chosen as the testing ground for this thesis. It is a prime example of an urban site with a history of insensitive treatment and overambitious civic projects leading to its dereliction. The site has an important history, and while blighted by mismanagement and misinterpretation, it still has potential residing within it. The thesis argues that such sites can be re-engaged environmentally through strategic remediation, and re-engaged socially through narrating the history of the site as a design tool leading to restitution for the community.

This thesis design research experiments test alternative ways to engage with such sites through site-specific analysis from the macro to the medium (human scale) and the micro. The objective is to draw from the site its identity cues, its meanings, histories and qualities of place identity.

The thesis argues that this can be accomplished more meaningfully by understanding the dynamic shifting nature of history, landscape and urban systems, which are crucial to remediating sites with a multitude of narratives.

*One cannot ignore a finer level of specific detail, the character or genius loci of any particular site, which is impossible to digitize and classify into neat categories at the cell level of any GIS system.*

(Campbell, 1999, p. 4)
THE SITE

CLIFTON STREET
CAR PARK

PROBLEMS

Circulation
Storm Water
Runoff
Boundaries
Edges
Safety

OPPORTUNITIES

Levels/Platforms
Infrastructure
Connecting Boundaries
Covered Public Space

INSPIRATION/HUNCH

SITE QUALITIES

Monolithic - Columns
Traces
Cemetery
Kumutoto
Platforms
Volumetric - Spaces
Heritage Aspects
Cable Car
Town Belt
Figure 2.2. (Opposite page) Matrix diagramming the problems and opportunities residing within the Clifton Street Car Park site

Figure 2.3. First impressions of the site responding to problems and highlighting access, context, grid structure, permeable and impermeable boundaries and points of interest.
OPPORTUNITIES

Maximise pedestrian circulation across and through site.

Utilise the structural capacity of existing infrastructural platforms.

Capitalise on the urban demographic’s view into site.
OPPORTUNITIES

Provide programmes within covered and uncovered public space

Facilitate awareness and occupation of awe inspiring volumetric spaces

Allow nature to take hold within the barren site
The Kumutoto Stream, which is now drain bound and buried far below the Clifton Terrace, was once a naturally formed stream that rose in the Puke-hinau Ridge; flowing down a deep gully on the north side of the lower end of Salamanca Road, it was edged with native trees and manuka scrub. The stream then turned north, flowing directly under the Clifton Car Park site, continuing through Shell Gully as far as Woodward Street, turning east to flow out to the harbour at present day Lambton Quay. When the harbour edge later shifted due to land reclamations, the stream was extended through yet another culvert to exit at Kumutoto on the northern side of Queens Wharf. The stream is no longer visible, but it participated in important chapters of local history.

Numerous traces of former cultivation and of cooking ovens with midden material occur along the sides of the lower part of the Kumutoto gully between Everton Terrace and Woodward Street.

(Adkin, 1959, p. 34)

The site was once called Kumutoto Kainga, a settlement known as a flax collecting area and boat landing site. In 1831 it was the central flax collection point along the coast of the North Island. (Adkin, 1959, p. 34) But by 1835 it had ceased to exist as an occupied settlement; and as the colonial population of Wellington increased in density from 1840 onwards, the stream became a dumping ground for raw sewage and industrial wastes. Not long afterwards the degraded stream was entombed in a network of culverts, forever buried beneath the layers of expanding urban landscape.
Clifton Street Car Park Site
Kumutoto Stream
1.6 Kilometre / 1 Mile radius

Figure 2.7. Maps show the Clifton Street Car Park site as an important centre within the CBD of Wellington as land is reclaimed and the city expands.
In 1841, the northern end of the site was reserved for a non-sectarian burial ground. By 1851 it was split into three separate cemeteries (Roman Catholic, Jewish, and ‘non-conformist’) collectively known as Bolton Street Cemetery. The cemeteries were closed in 1892 with the advent of overcrowding.

Clifton Terrace once defined an edge of the colonial green belt surrounding Wellington. In the 1890s Wellington was the fastest growing city in New Zealand, and this area became seen as an opportunity to grow beyond the green belt. It was transformed into a thriving residential community, achieving its first social identity with the construction of the cable car in 1902 to link the upper suburb of Kelburn with the central city.

The cable car is one of Wellington’s oldest and most popular tourist attractions. It takes people from Lambton Quay through three tunnels to Kelburn, with the first stop at the Clifton Street Car Park, which used to cater to the leading public school in Wellington.

To commemorate the boys of the school who served in the Great War, a memorial was inaugurated on the site in the shape of an obelisk erected in 1924 by the Governor General. In 1936 a new school was built, replacing the old Terrace school. (Ministry for Culture and Heritage, 2012)
Figure 2.10. Captain Mein Smith’s 1840 map shows the New Zealand Company’s allocation of land for 18 acres of undivided general cemetery and smaller area south for Roman Catholic burials.

Figure 2.11. S. C. Brees’s 1843 map shows the first scheme for dividing the cemeteries.

Figure 2.12. Map shows Governor FitzRoy’s scheme for dividing the land into three separate cemeteries.
In the 1960s, the controversial route of the new Wellington Urban Motorway disrupted and displaced all these layered identities. The identity that held the most significance to the community was the historic Bolton Street Cemetery. The cemetery was temporarily closed from 1968 until 1971 while the motorway was constructed; during this period 3.7 acres of cemetery land were removed and 3,700 burial plots were transferred into one large vault that now lies beneath the Early Settlers Memorial Lawn east of the motorway between Bolton and Bowen Streets. All the monuments and grave stones that were recovered were relocated throughout the cemetery, so of the 1,334 gravestones and memorials still visible within the Bolton Street Memorial Park, less than 600 are still in their original place, further displacing their heritage identity. (Friends of Bolton Street Memorial Park Incorporated, 2011)
Figure 2.15. Aerial view of the Bolton Street Cemetery from 1960 with the alignment and land taken by the Wellington Urban Motorway coloured in orange.
At one time or another the cemetery has been battered by wind, earthquake, rain, fire, vandals, roadmakers, and the tongues of critical men. Always there has been struggle—a struggle to get it established, another to have it closed, a struggle to keep it in decent order, a struggle to have its reserves converted into a park, a struggle to safeguard its graves against the intrusions of powerful administration. The struggles were vehement in their time, but most are now forgotten.

(Alington, 1978, p. 252)
Figure 2.16. Photograph overlooking Bowen Street from the Cemetery Opportunity to reconnect the cemetery within the urban fabric over Bowen Street and beneath the motorway in an interesting and meaningful way.

Figure 2.17. Instead the resulting Ballantrae Place Car Park programme was inserted underneath the motorway further alienating the urban community and severing pedestrian movement flow.
The National Roads Board approved the scheme for a linking piazza which was proposed to mitigate some of the effects of the new motorway. (Alington, 1978, p. 172)

However, by 1975 after construction had begun, this never eventuated and a footbridge was built instead, which did little to repair or mitigate the considerable damage done to the history of the community caused by the displacement of the cemetery.

Like the pioneers we still reckoned that what was progress was new… They said no self-respecting modern capital should be without [a motorway]. But there was a small irony. Just as the settlers paid scant respect to the past, their descendants in turn were not letting history stand in the way. So those once progressive city great grandfathers had to move over, and give ground. But the bigger irony was the motorway hit the living more than the dead. To make the inner city accessible was to make much of it uninhabitable.

(NZ On Screen, 1983)
Figure 2.20. Though the footbridge links the displaced cemetery, it shows little respect for the gravestones surrounding it.
Hundreds of houses occupying the site south of the cemetery were also removed.

The row over the destruction of the cemetery was a milestone in the conservation movement in Wellington, but it rather overshadowed the massive impact the motorway had on the lives of Thorndon residents forced to leave their homes. The impact on Thorndon’s population and house occupation was remarkable. Between 1966 and 1971, the suburb’s population dropped by over 1000 to 3800. Some 400 dwellings disappeared in the same period. The population bottomed out in 1991 when about 2500 people were living in the suburb.

(Black et al, 2008, p. 33)

The original motorway plans were eventually scrapped due to fiscal pressures in the 1970s, and the extension ramps at Clifton Terrace were never completed. But the damage to the cemetery and Clifton Terrace had already been done. The incomplete ramp areas were converted into the Clifton Street Car Park as a means of providing a temporary programme to the site, further alienating the urban community through this concrete capped landscape.

It’s causing a mass dislocation of people, where they live in the inner city area. Particularly, where you had a bridge between the city and the residential areas, with housing right in amongst it, people living in the commercial area, which keeps a city alive, they’ve now just been swept out of the way.

(NZ On Screen, 1983)
Figure 2.23. Motorway under construction at Shell Gully - illustrating the harsh re-grading of landscape and void created within the urban fabric.

Figure 2.24. Motorway under construction at Shell Gully - illustrating the infrastructural platforms naturally responding to the curve of the landscape.
THE TRANSFORMATION OF SITE

History Swatches and Erasure of Memory

1831
Kumutoto Kainga - It was the central flax collection point along the North Island. By 1835 it had ceased.

1841
The northern end of the site was reserved for a non-sectarian burial ground.

1851
The burial ground was split into three separate cemeteries. Roman Catholic, Jewish and 'non-conformist' collectively known as Bolton Street Cemetery.

1892
The cemeteries were closed with the advent of overcrowding.

1902
Construction of the cable car to link the upper suburb of Kelburn with the central city.

1924
An obelisk shaped war memorial was inaugurated on the site.
The population bottomed out in 1991 when about 2,500 people were living in the suburb.

A new school was built, replacing the old Terrace school.

The route of the new Wellington Urban Motorway disrupted and displaced all these layered identities.

Between 1966 and 1971, the suburb’s population dropped by over 1000 to 3800 and 400 dwellings disappeared in the same period.

The cemetery was temporarily closed from 1968 until 1971. 3.7 acres of cemetery land were removed and 3,700 burial plots were transferred.

In the 1970s the original motorway plans were scrapped and the extension ramps at Clifton Terrace were never completed.

The population bottomed out in 1991 when about 2,500 people were living in the suburb.
Into this wild abyss,
The womb of Nature and perhaps her grave.

A naturalistic Eden of sorts, verdant and hauntingly unruly. An unknown Paradise, or that is what it must have seemed like to the early coloniser approaching the Wellington harbour.
With ruin upon ruin, rout on rout,
Confusion worse confounded.

Though it didn’t take long for man to tame the land, villa upon beautiful villa were erected; across Wellington identities were forged.
Sufficient to have stood, though free to fall.

Progress was man’s shortcoming, that brought all our woe.
The fall of man and erasure of place identity, forever seeking reclamation.

By Author. Experiential narrative of Wellington’s layered history

Figure 2.29. Permanent grading and erasure of site qualities during the construction of the Wellington Urban Motorway and Clifton Street Car Park.

Figure 2.30. (Opposite page) Diagram illustrating the narrative of the Clifton Street Car Park site as a series of histories and identities which are voided and others which are carried through to the thesis proposal.
TIME NARRATIVE OF SITE: HISTORIES THROUGH TO THESIS PROPOSAL
This site is defined by the layering and voiding of identities that normally provide important memory cues for establishing place identity. The history and identity of this site began with the Kumutoto Stream edged with native trees and traces of habitation by a thriving indigenous population. It was transformed into a green belt, and later became a residential community with Wellington's first public cemetery, the leading public school and an important war memorial. All of this has now been displaced, making way for a roadway that never fully eventuated; the site of Clifton Terrace is now a car park.

Bolton Street Cemetery was the last important piece of social history remaining before the Motorway displaced these identities: the forever obscured presence of the Kumutoto Stream, the obelisk memorial (that is still missing to this day), the hundreds of homes and thousands of graves displaced. Even more important, the site now forms a rift in the urban fabric, isolating the residential community of Kelburn from the central city. This thesis investigates approaches to the reparation of this rift, and the return of its critical place identity by remediating the site's environmental systems and restoring its essential narratives of history and community.

The design opportunities arising from the site's layered histories include restoring the community's memory of:

- the Kumutoto Stream which represents the natural systems in play on the site;
- the historic native bush and once profitable flax collection area;
- learning and teaching, which were prominent in the community;
- the Bolton Street Cemetery, an important part of the community displaced by the motorway;
- the proposed linking piazza, a public gathering space for the neighbourhood;
- the important role of the historic cable car as a medium to draw people into this site.
Figure 2.31. Diagram exemplifying the void created within the fabric of the city. Image by author.
Here is where on a gloomy, cold, winter’s day the concrete monster awakes.

I walk hands in pockets with eyes down, shielding from the horizontal rain. The gateway into the site is a short walk from The Terrace heading north.

A sign stands in front of this space mocking the unfinished highway, stating reserved. Reserved for what? I think.

Yet another concrete cap to our ever-increased hard paved cities.

Standing on the landing I have a vantage point that is above the entire site, it seems unreal considering the sheer size and stature of the motorway towering over what only looks to be ruins below.

This bypass site was never a zone condemned for dereliction, rather, it was a space scattered with villas looking out towards the terrace and the harbour. As the path descends down into a severed gully I take respite underneath the overpass, until a slurry of sediment, fuel tainted water and pigeon excrement catches my attention.

It flows freely from the cracks in the stormwater channels up above and between the abutments it falls, down through the dark foliage to the bare earth below.

I trudge across the drenched landscape between the monolithic ruins, tracing the path of the culvert which, though buried far below, still carries the historic Kumutoto Stream out to the harbour. One cannot help but think, as this impermeable basin fills with dirty stormwater and clean rainwater alike, that there must be a better solution to this place.

Yet despite this uninviting outlook, the song birds are out happily singing from the surrounding trees. The unsteady thrum of car tires on uneven abutments creates a unique melody with the birds, that I find enjoyable while spending time waiting for the feeling to come back to my fingertips.

As I retrace my steps, I muse over what Alington wrote in her epilogue to Unquiet Earth. ... It is a waste of time to deny the past. It is there, behind us and in us.

By Author. Personal experience and walking narrative of the Clifton Street Car Park
Figure 2.32. Photographic series illustrating walking narrative
Since call'd
The Paradise of Fools, to few unknown.

Paradise Lost. Book III. Line 495.
Figure 2.33. Photographic series illustrating walking narrative
RUINS AS DIALECT

Using history as a dialogue and precedent

Urban landscapes are typically described as a dialogue between soft-scape and hard-scape. The public understand an urban site as a set of variable parameters defined by the contrast of soft natural and hard human-made surfaces. The Clifton Street Car Park site includes a soft-scape defined by an introduced native fringe forming a visual and noise buffer to the motorway on the steeply sloped suburban west side. Moreover, grass has been applied to the vacant residual spaces to the north and south of the Clifton Street Car Park site, acting as a green bandage. Additional traces of nature are found in the nooks and crannies, between the moist leaky joins where nature can once again gain a foothold. But the hard-scape elements are the most visible, claiming the urban site as an irreparable concrete surface. Large brutalist architectural columns line the site from north to south, creating a rhythmic datum that shifts with the bend of the motorway, ironically responding to the curve of the contours that once defined the buried valley below and once shaped the historic roads. These monolithic columns, remnants of an unfinished infrastructure, stand as a kind of built ruin.

So here we are back with the pioneers, measuring our advancement with the new. It’s all the same, no one measures progress by the old.
(NZ On Screen, 1983)

The thesis proposes that ruin can provide an allegory to memory and to imagination: imagination of past identities and past realities, future uses and future opportunities; after all,

Allegories are, in the realm of thoughts, what ruins are in the realm of things.
(Rendell, 2006, p. 75)

The consideration of ‘ruins’ as an important component of a site analysis is particularly interesting in the context of the relative youth of New Zealand. Using ruin as a dialect enables and facilitates the link between past, present and future structural signifiers on site. Ruins can be seen as symbolic representations of the past, where previous functions of architecture now become part of the landscape.

The story of the unfinished fragmented motorway is now one of the layered site identities, so retaining these ‘built ruins’ provides yet another important chapter to the overall layered landscape narrative.

This site can be addressed as a set of ruins that evidence a series of historic identities; and public awareness of these ‘ruins’ as signifiers can restore lost memories that facilitate a place identity within the site.
Figure 2.34. Monolithic columns - Once a utilitarian object - now standing in ruin within the concrete archipelago.
Figure 2.35. (Opposite page) Photographic series of the incomplete exposed concrete infrastructures as built ruins

Figure 2.36. Fragmented column against the motorway
THE STAINS OF TIME

Site weathering and trace swatches

These ‘ruins’ are evidenced on the macro scale by columns that carry no loads and half-built ramps that lead to nowhere; but they are also evidenced in the micro context through plant and water traces across the site, revealing weathering and exposure of the environmental conditions – the history of the actual physical and empirical qualities of site. This thesis argues that considering a damaged site in terms of its ‘ruins’ and ‘traces of decay’ can be a means of unveiling far more of a site’s heritage than traditional methods of site analysis.

An analysis of traces across the site offers an understanding and evidences the stains of time, where a site naturally weathers and wants to revert back to a previous state.

_The present of the past in the present can never be full, however, for the past as past would cease to exist. To name this reduced standing we commonly say that experience encounters traces of events that occurred before. A trace such as this is fragmentary, a remnant or vestige._

(Leatherbarrow, 2004, p. 204)

The traces have informed the design approach to site, through incorporating it as a design language – to encourage and accentuate these types of moments and traces on site, and then celebrate them as vestiges or remnants.

The design opportunities arising from analysing this site in terms of material/ruin dialects include restoring place memory by retaining and actively engaging:

- Concrete traces, plant traces, sedimentation traces and water traces;
- Brutalist inspired iconic and monolithic unfinished infrastructures.
Figure 2.37. Swatch diagram analysing the weathering and traces across the Clifton Street Car Park site.
The Clifton Street Car Park site exists beneath a massive elevated highway carrying high volumes of traffic, with fuel-tainted rainwater rushing off its surfaces as quickly as possible. Its approach to dealing with stormwater is outdated. Sediment-contaminated water drains freely off the motorway into three large down pipes which connect to the main culvert, transporting the dirty water and sediments directly to the harbour via the buried Kumutoto Stream. The stormwater that is not collected runs freely from the motorway to the ground below, creating drip lines on the edges and through the abutments, and contributing to the micro context of weathering traces and ruins. This on-going toxicity from water-borne fuel and sediment is one of the principal conditions the thesis proposes to resolve.

In any discussion of infrastructure, the notion of function must be of critical importance, because without function, there can be no such thing as infrastructure. Infrastructure is only infrastructure if it supports something else, and this type of relationship is a structural or functional one. (Raxworthy, 2004, p. 11)
WATER STORY - STORMWATER

Figure 2.39. Water story - sectional diagram of the Clifton Street Car Park site with drainage channels and Kumutoto culvert underneath.

Figure 2.40. Water story - diagram analysing the motorway and car park water runoff and highlighting the motorway as a large surface area for collecting and displacing water.
Through undertaking analysis into the Kumutoto Stream coupled with situating this analysis within the areas of opportunity under the Wellington Towards 2040: Central City Framework, it became apparent that seven historical streams ran underneath the city, and that although these streams are now culvert bound, opportunity still resides where there is potential to make a more distinctive landscape which will also improve filtration of stormwater before reaching the harbour.

The current initiatives of the Central City Framework include:

introducing filtration and hydrological systems as landscapes that improve stormwater quality and surface runoff prior to discharge to the harbour;

providing detention means within the landscape to reduce surface flooding in high rainfall events;

stream streets reflect the natural history of the city.

(Wellington City Council, 2011, pp. 58, 59)

Although the city realises the need for this initiative, the Kumutoto Stream and Clifton Street Car Park site is not one of the sites included within the selection of ‘Stream Streets’.

Figure 2.41. Historic map of streams running through Wellington penned by G. Adkin. Kumutoto Stream in blue.

Figure 2.42. Plan of the existing stormwater pipes and culverts with the Kumutoto Stream running through the length of the site.
GREATER WELLINGTON REGIONAL COUNCIL

SUPPLYING ENOUGH WATER PER DAY

150 ML
Million litres on average

TO MEET THE NEEDS OF

390 Thousand people

OPERATING FOUR WATER TREATMENT PLANTS
FIFTEEN PUMPING STATIONS AND JUST OVER
180 KILOMETRES OF LARGE DIAMETER PIPELINES

ANNUAL SUPPLY TO EACH CITY

<table>
<thead>
<tr>
<th>City</th>
<th>Supply (ML)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELLINGTON CITY</td>
<td>27,204 ML</td>
</tr>
<tr>
<td>LOWER HUTT</td>
<td>12,900 ML</td>
</tr>
<tr>
<td>PORIRUA</td>
<td>5,834 ML</td>
</tr>
<tr>
<td>UPPER HUTT</td>
<td>4,784 ML</td>
</tr>
</tbody>
</table>

WELLINGTON CITY

AVERAGE ANNUAL RAINFALL (mm)

1,270 Mean monthly values from 1981-2010

HIGHEST WEEKLY SUPPLY TOTAL

1,061 Million litres from 2010-2011

TOTAL SUPPLY OF WATER (av.)

351 L Per person per day

WATER CRISIS

MARCH 2013: THERE WAS JUST 70 ML

Of water available in Greater Wellington’s water-supply rivers

WELLINGTON CITY - LONGEST DRY SPELL SINCE 1947

WHEN KELBURN’S RAIN GAUGE DID NOT RECORD ANY RAIN OVER 1 mm FOR 34 DAYS

MARCH 2013: THERE WAS JUST

THREE DAYS OF WATER LEFT FOR WELLINGTON, PORIRUA AND HUTT VALLEY

ML = Million litres
WATER DISPLACEMENT - 1m CONTOURLS AT ASPHALT/GROUND LEVEL

Drainage across parking platforms

Drainage across Wellington Urban Motorway

Drainage across upper level parking platform

Driplines

Linkspans and abutments
Currently, there are two public access points at either end of the site and three access points in the centre, all of which require that pedestrians dangerously navigate alongside or across moving vehicles. It represents a total disregard for connecting place with people.

The site offers five parking level platforms, some covered and some uncovered. The thesis proposes that this combination of wide-span covered and uncovered space offers a unique opportunity for the city to incorporate a variety of outdoor programmes that can occur even in inclement weather. The thesis further argues that by claiming this as an important public gathering place with significant place identity, the value of the surrounding commercial and residential properties will be enhanced.

The design opportunities arising from analysing this site in terms of its hindrances and its opportunities include:

- **Hindrance:** Lack of sustainable practice with failing stormwater management systems;
- **Hindrance:** Poor pedestrian circulation through and across the site;
- **Opportunity:** Introduce filtration and hydrological systems to improve stormwater quality and surface runoff prior to discharge to the harbour.
- **Opportunity:** Incorporate outdoor public programmes within covered and uncovered space;
- **Opportunity:** Enhanced property value and revenues for adjacent businesses and residences.

**PARKING STRUCTURE**

- Level 1 - South - Covered + Uncovered
- Level 2 - East - Covered
- Level 3 - West - Covered
- Level 4 - Center - Covered + Uncovered
- Level 5 - North - Uncovered

Figures 2.43 & 2.44. (Previous spread) Macro to micro context of water catchments in the Wellington region and stormwater drainage across the Clifton Street Car Park site

Figure 2.45. Diagram analysing the current parking level platforms as a series of opportunities for covered and uncovered events
Figure 2.46. Diagrams analysing the current circulation patterns throughout the Clifton Street Car Park site.

ACCESS - ENTRY + EXIT

- Vehicle entry + exit
- The Terrace motorway offramp
- Pedestrian entry + exit
- Cable car entry + exit

VEHICLE - CIRCULATION

- SH1 - Northbound
- SH1 - Southbound
- The Terrace motorway offramp
- The Terrace
- Clifton Street Car Park

PEDESTRIAN - CIRCULATION

- Pedestrian footpath
- Primary routes through
- Secondary routes
Figure 2.47. Diagram of the surrounding commercial buildings which face the site. Highlights an opportunity to increase aesthetic value and to provide programmes within the site that can cater to a high number of residential and commercial users.

Figure 2.48. (Opposite page) Sun study analysis of the Clifton Street Car Park diagramming across the course of the day - reveals areas of feasibility for programming design.
WELLINGTON

CITY

EXPERIENCES 1,270 mm OF RAINFALL WITH 123 WET DAYS

TEN DAYS WITH GROUND-FROST WITH WIND SPEEDS AT AN AVERAGE OF 22 KILOMETRES/HOUR AND WITH AN AVERAGE OF GALE FORCE WIND DAYS OF AT LEAST 63 KILOMETRES/HOUR

AVERAGE ANNUAL SUNSHINE (hrs) 2,110

Mean monthly values from 1981-2010

BY COMPARISON LONDON AVERAGES 1,500 (hrs)

MONTH WITH MOST SUNSHINE (av.) 246.9 HRS JANUARY

MID-SUMMER TEMPERATURE (av.) 20.3 °C daily maximum

MID-WINTER TEMPERATURE (av.) 5.9 °C daily minimum

WARMEST MONTH (av.) 17 °C February

COOLEST MONTH (av.) 8.7 °C July

AVERAGE ANNUAL TEMPERATURE 12.9 °C Mean monthly values from 1981-2010
HORIZON IS A PICTORIAL, BUT ALSO A STRATEGIC NOTION
HORIZON IS A PICTORIAL, BUT ALSO A STRATEGIC NOTION
Ordering systems:

When regarding the ordering of the landscape, one needs to account for the movement between scales and experience of the user. This becomes most pertinent when an existing working grid system is disrupted by an introduced infrastructure.

Everything is ordered in some respect; however, the only problem lies within the perception of this order, for instance:

the suburban west side, which exists topographically above the Clifton Street Car Park site and the urban east side – topographically below. If they were to converge, to create an order, it would naturally create chaos.

A sense of perceived order depends on both the scale of the inquiry and the experience of the observer... We experience the greatest difficulty in perceiving order near the scale of the human body. But this should not imply that the constituent elements of the landscape are chaotic; it instead demonstrates that at least momentarily – or at certain scales or under certain conditions – we cannot distinguish the ordering system... Humans instinctively seek order and some may believe we order landscapes to make it psychologically “comfortable”. (Treib, 2005, p. 30)

However, if we analyse a site in terms of its elements through moving up in scale to the extent of the site itself, rather than just responding to the imposed existing grid systems, rhythm can be found within the equally spaced bays between the monolithic columns, which respond to the curve of the landscape.
Figure 2.49. (Previous spread) Diagram illustrating an ordering system established by taking lines through elevated roads, edges and areas of identity - points of convergence appear.

Figure 2.50. (Opposite page) Ordering the landscape through the convergence of grids.

Figure 2.51. Diagram illustrates that order can be found within the existing conditions of the given site.
The Three Narratives of Place from the last chapter The Place of Placelessness have been further developed through the undertaking of this site analysis.

Remembrance, Remediation and Reactivation are understood as critical factors in resolving the problems posed by this site. The thesis proposes to:

**Contribute to the remembrance (historic narrative) of this site:**
- Engage with the history of the Kumutoto Stream and the native flora
- Facilitate an awareness of the site as an important memorial
- Provide reference to the fractured cemetery
- Engage with a material palette that references instead of wiping clean the history that has shaped this site

**Contribute to the remediation of this site:**
- De-culvert the stream, allowing it to once again enter into a narrative capacity and also cleanse the site
- Engage with sustainable stormwater practice
- Introduce vegetation that enhances the amenity and functionality of this site

**Contribute to the reactivation of this site:**
- Produce a didactic landscape that facilitates an awareness of our environment
- Create linking pedestrian corridors between the suburban and urban fabric, enhancing safety on site
- Reclaim the proposal of a linking piazza that brings together the community and helps to stitch the fractured sites together
- Engage the cable car as an important gateway/threshold to this site, bringing the tourist demographic to the site to enhance its social diversity
- Use remediation as a tool to enhance the public’s perception of site over time
- Create a multifunctional covered/uncovered space that caters to a variety of programmes and demographics.
The following chapter of the thesis considers design opportunities arising from local case studies, including some of Wellington's existing parks and open public spaces. Through an investigation into Wellington's park/open space networks it becomes apparent that several open public spaces are not considered 'parks' but have the potential residing within them; for this reason the thesis terms these various spaces as parallel parks. They often exist as remnants of infrastructures; they are typically obscured, visually and physically. But more important, they are often obscured psychologically because of the public's preconceptions and misinterpretations of 'usable' space. The next chapter investigates how such lost spaces, parallel parks, can be understood as infrastructure for society, as a precedent to approach fragmented infrastructural sites like the Clifton Street Car Park.
Contextual tactics
In search of the untraditional landscape
The horizon of horizons

THE PARALLEL PARK
Wellington is known for its large number of small parks and open spaces that exist within the urban grid, offering amenity value to the urban lifestyle and a sense of green relief and escape.

Many of Wellington’s parks are popular and in turn are vastly used, while conversely the opposite exists – there are many areas of green without programme and population. This chapter investigates these parks and the qualities which make them of social value within the urban fabric of Wellington. More importantly, within this chapter is the exploration of spaces within the Wellington region that are un-programmed or un-designed, yet inhabited, existing as important parts of the city and of the identity of the area. These spaces have been named – for this thesis – ‘parallel parks’. Functionally, they operate as parks do, through providing identity, programme and connection to the sites within which they exist; yet at times, they are largely un-designed or actively un-programmed in the sense to which we are accustomed. They are completely different from parks yet run in parallel to the function that parks typically play within a city-scape.

Because our contemporary urban cities are so multi-contextual and have such a wide range of populations, cultural attitudes and age groups, our parks need to accommodate this and offer a variety of programmes that cater to a diverse demographic for the city. It has become apparent through conducting this research that more contemporary parks which have begun to engender multiple functions and programmes, such as Waitangi Park and Cobblestone Park, are seen as successful examples. ‘Parallel parks’ that only offer one programme, however, like the Massey Memorial and Fort Ballance, are seen as only having a singular function, offering little diversity and use to the society. Most designed urban parks that offer only a singular function or programme are beginning to fail, as seen with Glover Park and Te Aro Park.

Memorials have always existed, though initially their role and purpose to society was programmed for the remembrance of a particular date and time. This is largely due to the lack of physical amenities that go hand-in-hand with memorials. This purpose and function have changed over time; however, the role has morphed with society so that these spaces are often also areas for recreation, intrigue and day-to-day venture.

These sites which have been coined ‘parallel parks’, are not spaces that need to be redesigned; they exist as memorials, as fragmented ruins and cemeteries. They offer to the public a precedent of spaces that exist around Wellington as parallel versions of a more contemporary park. They have done everything a park should do through planting grass and putting in seating, but by not engaging with anything other than typical park amenities they are not as successful as they could be.

This thesis engages with a third spatial interface – tackling fragmented infrastructure – which typical memorial parks do not undertake. This typology of the fragmented infrastructural site had not existed fifty years ago, and through understanding these ‘parallel parks’, the notion to plant grass and providing seating will not facilitate a successful space when considering a redesign of such compromised sites. The design research component of this thesis must arrive at a multi-programmatic resolution that appeals to multi-contextual, multi-cultural opportunities to prevent the fragmented infrastructural site from continuing to fail.
Lance Neckar discusses a park as paradise in *Type and the (Im)Possibilities of Convention*, which invites a discussion about a parallel world to which we can escape, even amongst monotonous city life.

… *(_functionally and etymologically, the word [park] is related to the late Hebrew word for the enclosed hunting landscape of Persian Kings, pardes, from which we also derive paradise. The park, enclosed earthly paradise of western culture, is a landscape from which basic spatial conventions of recreation (and departures from convention) have developed.*

(Neckar, 1991, p. 137)

What makes generic public space into quality space? Liz Diller, from Diller Scofidio and Renfro suggests:

*To truly make good public space, you have to erase the distinctions between architecture, urbanism, landscape, media design etc.*

(Diller, 2012)

She argues for a more fluid interface between the public and private realm. This thesis agrees, arguing that by designing through a collective lens of architecture, landscape and sculpture rather than just the distinction of landscape, a more diverse and quality space will evolve. Furthermore, the largest problem with Wellington’s public parks, is that they are typically bounded by roadways. The Clifton Street Car Park site has the opportunity to fulfill this need where it backs onto the Town Belt and inherently connects to popular recreational routes.

An analysis of Wellington’s current public parks reveals the following design opportunities:

- lack of covered outdoor public space. Opportunity within the Clifton Street Car Park site to cater to this need;
- opportunity for engaging with sustainable ecological infrastructural practice;
- parks that offer a diverse range of passive and active programmes are seen to be more successful. Opportunity to provide a variance in park type.
Figure 3.2. Diagrams critiquing Wellington’s existing parks
The following ‘parallel parks’ have been selected as they represent a palette of unique areas within the Wellington region. Visually, these sites are typically obscured from the public domain and at times physically overgrown with self-seeded colonising plants or degraded by the harsh Wellington weather and passing time. They are sites that people find intriguing; it seems to be because of their connection to a bygone history, their remote location and their unique ability to offer respite from the busy city life. Where their identity is centred on remembrance, the role of this social responsibility to remember has shifted. Context and topography play a large role in the location of these sites, which are situated on the outskirts of Wellington city, ranging between signposted and those which are found through discovery or word of mouth.

Shelley Hornstein offers a series of thought provoking questions in her text *Losing Site - Architecture, Memory and Place*, which facilitates an awareness of Wellington’s parallel parks’ existence and how they can offer more to the social fabric.

What do we know of these sites if we never visit them? With or without the benefit of publicity, the place is still there… What does it mean to create a monument to mark the site of a historical event, yet know implicitly that it will be experienced by only a few? For whom do memorial sites exist? When the memory of those who fought to erect a monument is gone, what role does the monument play in its context?

(Hornstein, 2011, p. 8)
Figure 3.5. The sculptural Massey Memorial frames views over the Wellington Harbour

Figure 3.6. The sculptural Ataturk Memorial stands as a visual cue within the landscape

Figure 3.7. The Bolton Street Memorial Park retains aspects of the verdant, unruly naturalistic landscape, now in ruin, dotted with relocated gravestones
1. Fort Ballance. Point Gordon 1885-1886
2. Massey Memorial. Point Halswell 1927
3. Wrights Hill Fortress. Wrights Hill Karori 1943
4. Bolton Street Memorial Park. Wellington City 1978
5. Ataturk Memorial. Tarakena Bay 1990
Figure 3.8. Context map of the selected Wellington parallel parks situated on the extremities.

1. Fort Ballance, Point Gordon
   1885-1886

2. Massey Memorial, Point Halswell
   1927

3. Wrights Hill Fortress, Wrights Hill Karori
   1943

4. Bolton Street Memorial Park, Wellington City
   1978

5. Ataturk Memorial, Tarakena Bay
   1990
The change in role and purpose of Fort Ballance – now comprised of a series of derelict ruins, gun emplacements and bunkers.

The ruins are a historical touchstone – set into the hillside, creating openings within the land.

The approach to the site: notion of ascent and descent is present within this site where the landscape encompasses the visitor. Stairways built into the land lead visitors upwards which heightens the suspense to views over the harbour and of the city.

Figure 3.9. Entry to site - built up land blocks all views out to sea

Figure 3.10. Within the land - suspense building

Figure 3.11. (Opposite page) Topographical analysis of Fort Ballance
Fort Ballance
Point Gordon, Wellington

Elements of intrigue:
Historical touchstone - remembrance
Derelict bunkers and ruin
Respite from city
Vista over harbour

Elevation 60m
41°17'40.84"S
174°50'3.81"E
The Massey Memorial still retains the role of remembrance, though the role has shifted over time to become a destination for recreation, and as a look out – framing views of the city + harbour.

The approach to site: recreational trails lead upwards to the memoria – a sense of suspense is achieved with ascent within the landscape.

The arches frame views, while still retaining the purpose of a traditional element of architecture as symbolic notions of triumph and achievement.

Figure 3.12. Consistent use of materiality - pale Takaka marble allows the eye to move through the memorial.

Figure 3.13. Historical narrative of the site starting with a gun emplacement, a temporary tomb, and the memorial. There has always been an element of sculptural intrigue.

Figure 3.14. (Opposite page) Topographical analysis of Massey Memorial
Massey Memorial
Point Halswell, Wellington

Elements of intrigue:
- Historical touchstone - remembrance
- Sculptural artefact
- Respite from city
- Vista over harbour
- Recreational destination

Elevation 40m
- 41°17'6.87"S
- 174°49'33.75"E
After years of neglect the Wrights Hill Fortress is now in a state of restoration. Historical elements of a past era are intriguing to visitors – to enter into tunnels and large cutouts within the landscape. The above ground areas of the site are open to the public year round, whereas underground areas of the site are only open to the public on special memorial occasions, which increases visitors’ understanding of the importance of the narrative.

The approach to site: recreational trails lead upwards to the fortress. A sense of suspense is achieved with ascent and understanding with descent within the landscape.

The gun emplacement and ammunition bays tower over visitors making these restored ruins active participants within the historical narrative of the site.

Inspiration can be gleaned from the smallest of details, whereby the change of scale can influence the mind to imagine these mere screws as vessels, lights, towers or any type of vertical element within the landscape.
Wrights Hill Fortress
Wrights Hill Karori, Wellington

Elements of intrigue:
Historical touchstone - remembrance
Underground network of tunnels
Gun emplacements
Respite from city
Vista over Wellington city
Recreation destination

Elevation 342m
41°17'45.52"S
174°44'21.38"E
Although the city failed to halt the destruction of the Bolton Street Cemetery, the end result elevated the status of the Bolton Street Memorial Park to become a significant historic site and recreation park for the city. The approach to site: the recreational paths wind through the Memorial Park, ascending and descending, visually recounting the history of the cemetery through the sculptural artefacts and gravestones.

The plaque set into the grass at the foot of this vault does little to repair or memorialise these burials.

Figure 3.18. Displaced gravestones dispersed throughout the cemetery grounds

Figure 3.19. 3700 burials disinterred and relocated before being sealed within a vault

Figure 3.20. Shattered, fallen and defaced gravestones.

Figure 3.21. (Opposite page) Topographical analysis of Bolton Street Memorial Park
Bolton Street Memorial Park
Wellington City

Elements of intrigue:
- Historical touchstone - remembrance
- Sculptural artefacts and gravestones
- Respite from city
- Vista over Wellington Urban Motorway
- Recreation paths

Elevation 40m
41°16'43.98"S
174°46'21.67"E
The approach to site: recreational trails ascend and descend to the memorial which is seen as a sculptural icon in the landscape. It faces the Cook Strait where the location of the memorial was based on its likeness to the landscape of Gallipoli.

Consistent use of materiality: marble crescent and star with inscription and a bust of Ataturk for remembrance. The form takes on the symbolic arch from within the memorial.

The Ataturk Memorial still retains the role of remembrance, through wreath laying on ANZAC day. Like the other memorials, the role has shifted over time to become a destination for recreation.

Figure 3.22. The marble sculptural crescent stands proud of the landscape as a visual cue and destination point.

Figure 3.23. From within the memorial looking towards the sky.

Figure 3.24. (Opposite page) Topographical analysis of Ataturk Memorial.
Ataturk Memorial
Tarakena Bay, Wellington

Elements of intrigue:
Historical touchstone - remembrance
Sculptural artefact
Respite from city
Vista over Cook Strait
Recreation destination

Elevation 45m
41°20'30.35"S
174°49'17.08"E
These ‘parallel parks’ reactivate place identity within the public realm where they are often perceived as ‘lost sites’. They offer a different experience which is fundamental to the public realm while still existing as parks of remembrance: Fort Ballance with a narrative of ruin, Bolton Street Memorial Park and Massey Memorial with a layered history and Wrights Hill Fortress and Ataturk Memorial with inspired imagination and symbols of remembrance. They are a visual and experiential record of our early days, and as we are a relatively new country, this preservation and acknowledgement of the past is essential to the understanding of identity within ones place. In the text *Unquiet Earth*, Margaret Alington quotes a letter from Mrs. Olive Smuts-Kennedy, expressing the importance of the Bolton Street Cemetery and other such heritage sites, before the motorway displaced it physically—thereby diminishing its significance.

There are so few places in this country where one can read history other than in books... There are even fewer places where one can read history on the spot in surroundings of such charm and grace, and what a sacrilege it would be if it were all to be made so municipally trim as to take away its soul. As it stands it is some of the past living still, and if it goes it is gone forever, and no documents or memorials can replace it. New Zealand will not always be a ‘new country’, and even now we have a past of several generations since European settlement. We have no ancient buildings and few early relics of a lasting character – the more reason to preserve what we have.

*(Alington, 1978, p. 159)*

There are two principal ways the research in this chapter adds to the resolution of the thesis:

Firstly, mono-programmatic spaces are not as successful now, when our environments are more multi-contextual than they might have been fifty years ago.

Secondly, there is a need to memorialise events that are not centred on wars, as our generational responsibility to remembrance has shifted. This is particularly evident in the Clifton Street Car Park site, where it is important to remember the removal of the cemetery, the school, the memorial, the homes and the removal of a community intersection. Moreover, perhaps our parks can always act as memorial parks, while not subjecting themselves to the bleakness of the singular programme which does not allow anyone to think of anything but that.

By analysing a variety of park types, there is a recognition that often the type of parks that offer a sense of ascent, or some element that allows the user to move up vertically are popular with a variety of demographics. Some of these parallel parks that act as reminders of historic events bring in a secondary layer of people who are not as interested in the vertical notion of the site, but in remembering, and being a part of history.
The design component of the thesis will address this notion of the vertical movement and ascent. Unlike any other park in Wellington, it is the site itself that has the vertical datum, and by including vertical elements within the design, it will allow the visitor to move up and down and experience the vertical layering of parks. The use of vertical layering provides diverse vantage points from which the narrative of the design intervention can be perceived. In this way, it provides different perspectives for visitors arriving from the higher elevations of Thorndon and Kelburn, to those that arrive from the Cable Car datum or The Terrace. This has the potential to add to the richness of the narrative, enabling visitors to make different discoveries at different times within the site.

Through looking at the strengths of the memorial parks and then moving away from the typology of a memorial sculpture that people associate with war, such as arches, obelisks and tombs, this section uses the design research component to test the proposition that vertical park typologies may provide important opportunities for remembrance, as well as inviting a multi-programmatic context to be embedded on site.

This thesis surmises that the ‘parallel parks’ offer the research insight that extends beyond the prosaic notion of ‘vertical ascent’ primarily through employing the narrative of remembrance which has reactivated these lost sites within the Wellington region. Furthermore, these ‘parallel parks’ go beyond concepts gleaned from the more typical designed parks, as they offer the city a new typology of space to discover, one that has not been designed for ‘park’ use, nor has had a cap placed over the top.

Fort Ballance, Massey Memorial, Wrights Hill Fortress, Bolton Street Memorial Park and the Ataturk Memorial represent a palette of spaces that engage with and contribute to the identity of each place.
To sustain a city as compact as Wellington, sustainability and sense of place issues are fundamental to maintaining a functioning and unique personality characteristic of this small compact city. Just as the 'parallel parks' contribute to the identity and sense of place on the outskirts of Wellington, there are many 'lost sites' existing within the centre of Wellington that are in desperate need of attention. These sites are typically turned into car park spaces to fill a void within the urban fabric.

For the experimental design component of this thesis to be successful it will need to consciously situate itself within the context of the Wellington City Council's current urban design initiatives. These initiatives express the need to develop more parks and open spaces, where the main upgrades are to include:

**Walkability** – making Wellington’s streets and spaces as people-friendly as possible. Well-designed streets are critical to creating attractive and lively public spaces.

**Sense of identity and place** – identifying and enhancing the qualities and characteristics that make Wellington special, including conserving the city’s built heritage.

**Connectivity** – making sure there are good connections and it is easy to move to and through the central city, town centres and suburbs.

**Accessibility** – easily accessible places and spaces so everyone can get around.

**Sustainability** – recognising the natural environment and using sustainable design solutions where appropriate.

**Safety** – making sure public places and spaces are as safe and pleasant for people as possible.

(Wellington City Council. Urban Design)

How then, do we start to address areas within our central city that could be enhanced to actively contribute to the history and identity that is unique to Wellington? The design research experiments explore how objectives similar to the council’s (such as improved accessibility through connectivity and engagement with sense of place and identities) can be achieved alongside a more meaningful consideration of how we maximise the spatial arrangements and boundary zones within the city for the benefit of the people living and working on these edges.

The focus then is on these leftover sites that exist within the city – anomalies caused by a large infrastructure bisecting a previous working grid pattern. The residual space that remains is often like a scar that is struggling to find a way to heal itself, and too often a car parking typology is inserted. This typology is often the worst possible thing a city can do, because not only is it a singular programme but it is also a programme that does not invite community engagement. Those two aspects of the car park are the most damaging, providing no solution to the losses represented by these residual spaces left over by the introduction of new infrastructure.
Figure 3.25. Opportunity to reconnect fragmented edges underneath the concourse at 83 Waterloo Quay Station Car Park.

Figure 3.26. With the insertion of Ballantrae Place Car Park, the underneath of the motorway became an uninhabitable zone and disrupts pedestrian flow.

Figure 3.27. Further south of Ballantrae Place, another car park typology was inserted - Clifton Street Car Park has the same problem with pedestrian flow and boundaries.

Figure 3.28. The Basin Reserve Motorway proposal will need to be strategic in stitching back the urban fabric without introducing yet another car park typology.
1 83 Waterloo Quay Station Car Park
2 Ballantrae Place Car Park
3 Clifton Street Car Park
4 Basin Reserve Motorway proposal
Waterloo Quay and Ballantrae Place in particular are sites that have the potential to be important public spaces – in terms of where they are sited in proximity to the harbour, and being in the political district with parliament adjacent and the town belt as a backdrop. Yet because of infrastructure – rail tracks, pedestrian infrastructure of the monumental concourse and the motorway infrastructure – these structures which bisect these two sites result in the underneath becoming uninhabitable and consequently becoming barriers to public flow. This causes an effect where no one wants to walk through, competing with cars and creating a space which feels cold and dark – so for the council the answer was a single programme car parking space that had no social interface. The role, therefore, is given over to landscape architects to find ways to resolve these horrific disasters and residual spaces which have evolved over the past fifty years.

The car park site at Waterloo Quay by the train station offers views out to the harbour, and by vertically having a presence and engaging with a typology of mediating city to sea it would help resolve some of the issues that the site is facing between the residential Thorndon across to industrial Centre Port.

Like the Clifton Street Car Park, the Ballantrae Place Car Park is isolated, existing underneath the motorway and between the two sections of the separated Bolton Street Memorial Park. There is an opportunity to remember the narratives and histories of the site that once were there. And rather than it becoming a static memorial, it has the opportunity to reconnect the pedestrian flow between communities.

The Basin Reserve Motorway proposal is an extension of the Wellington Urban Motorway which bisects the suburb of Mount Cook. Three iconic entities – The National War Memorial, the Basin Reserve and Government House – are bounded within this urban context of the proposal. It is therefore crucial that these important place identities are strategically connected so as to not lose sense of place, once the proposed extension to the motorway bisects the urban fabric.

This thesis proposes that each of these sites can be strategically reactivated through the engagement of ecological remediation, historical remembrance and an understanding, rather than suppressing of site qualities and identities.

The thesis design research experiment engages explicitly with the Clifton Street Car Park as the site to test the resolution of this research proposition; each example would ask for a different site-specific and narrative-specific approach. The Clifton Street Car Park was selected because it offers unique and challenging physical opportunities through built infrastructural platforms, but also the real problems which have to be resolved, such as the toxicity of water coming from the motorways, safety issues, pedestrian circulation and addressing the loss of identity within this site due to the motorway.
THE CLIFTON STREET CAR PARK

PARALLEL PARKS
- Layered programmatic spaces are seen as being more successful
- Role of social responsibility is changing - memorials need to adapt to this

DESIGNED PARKS
- Lack of covered outdoor public space
- Lack of ecological sustainable infrastructure

FRAGMENTED INFRASTRUCAL TYPOLOGIES
- Engaging with site identities and qualities rather than suppressing potential opportunity to enhance these areas through access and circulation

Figure 3.30 Diagram highlighting what attributes can be gleaned from the three typologies of space within this chapter to the Clifton Street Car Park Site
The next chapter investigates the complexity of programmatic opportunities of an urban park, through critiquing programme from the macro to micro. The chapter investigates the staging, stacking and layering of programmes through all scales, and how it facilitates a more diverse approach to design that accommodates a variety of user groups.

The research component of this thesis is further extended through critiquing the chosen case studies against their ability to reactivate an underutilised lost site through multi-programmatic overlays.
Enshrouded
This chapter investigates one local and three international precedents for successful resolution of an urban park with multiple programmes. The three international case studies successfully transform vehicular spaces into community spaces from the macro, the medium and the micro. They re-appropriate vehicular space, reactivating lost sites through the layering of public programmes into areas traditionally considered inhospitable to the public.

- Freeway Park in Seattle by Lawrence Halprin caps a busy motorway with a park typology;

- 1111 Lincoln Road Car Park in Miami by Herzog & de Meuron integrates alternative programmes into a car park complex;

- PARK(ing) Day, initiated in San Francisco by Rebar, uses a pop-up installation or guerrilla approach to temporarily convert a single car park space into a park for a few hours.

This chapter also investigates a local precedent that successfully integrates a multitude of outdoor public urban programmes, enabling a diverse range of activities to overlap.

- Waitangi Park in Wellington by Wraight + Associates is assessed against the programmes considered for the thesis’s Clifton Street Car Park site. But unlike Waitangi Park, which operates on a horizontal site, the experimental design must engage multiple layers interacting vertically above and below one another.

Further analysis is undertaken into the various types of outdoor programmes which are currently active in Wellington to develop an understanding of the needs and opportunities for progress to occur.
This case study has been selected because it addresses the larger issue of an introduced infrastructure bisecting a previously working grid system, where Halprin realised the need to stitch the social fabric back together as a means to reactivate the site.

Freeway Park is located in Seattle, Washington nestled between 6th and 9th Avenues adjacent to the Central Business District of Seattle. The main driver for this 5.2 acre park was to draw together the city neighbourhoods that were divided by this freeway. The park recognised the need to re-establish a sense of place by stitching together these isolated fragments.

The trick is to perceive the old freeway as a part of the cityscape and tame it, rather than complain about it.

(McGuire, 2013)

The landscape partially covers the freeway that runs below and weaves over and under streets. It was once hailed as an engineering and architectural feat, being the first landscape to be constructed over a freeway, capping the problem highway from everyone’s view and ‘healing the scar’. Halprin designed the park using many of his signature features such as cascading waterfalls, pools, and concrete escarpments, each helping to mask the drone of traffic. An area of the park called the Canyon was to be viewed; as a ‘canyon’, it re-circulates 102,000 litres of water each minute through the large brutalist concrete escarpments.

The vast amount of planting and mixed levels offer a variety of experiences, pulling office workers and community into the park. Over the years the park has fallen into disuse and become unsafe; the trees have become too large, cutting off sight lines, creating blind corners and shading out most of the park. The murder of a blind and deaf homeless woman in broad daylight in 2002 spurred an effort city-wide to revitalise the park.
Figure 4.3. Freeway Park arches over the freeway

Figure 4.4. Abstracted concrete planter boxes lead visitors between the metaphorical outdoor rooms and plazas

Figure 4.5. Iconic concrete escarpments make up the design language for Halprin & Associates
The composition of Freeway Park is organised into three distinctive zones of the Central Plaza, West Plaza and East Plaza mediated by terraces and change in levels. The site is passively programmed through these terraces to change between levels in a narrative of layers. The components of the landscape are simplified to geometric shapes. The concrete sculptural forms and landscape 'rooms' together are influenced largely by nature and natural forms. Halprin recognised these as the main driving force to reactivate an under-utilised and inhabitable site through engaging with ecological attributes.

However, since the park opened in the late 1970s, and the consequent need to revitalise the park since the murders, the role and public’s demand for this landscape have changed too. Reduced vegetation, increased lighting at night and restricting the use of the park hours have helped. The public not only requires a landscape that offers a mask to the freeway, but also a green space that is more interactive, including amenities such as skating rinks and coffee shops.
Figure 4.9. Composition of Freeway Park as a series of rooms and plazas mediated by terraces
1111 LINCOLN ROAD

1111 Lincoln Road Car Park, Miami FL, USA_Herzog & de Meuron (2010)

This case study has been selected as it represents an example of a multi-programmatic response to a car parking typology. It addresses the issue of how to reactivate a typically problematic site through passive and active layered programmes.

The Lincoln Road Car Park structure successfully incorporates the layering of a 300-space garage with several high-end boutique retail and commercial stores and three restaurants. As well as these programmes the building includes an events space and hosts a number of art installations.

_The car park, a stack of concertina-ed concrete slabs braced by zig-zagging columns, the darkness squeezing out between them…The garage’s developer, Robert Wennett, proclaims this sculptural chunk of concrete a work of regeneration._

(Heathcoe, 2010, p. 48)

It is now considered a modern landmark in Miami through continually changing programmes that activate this structure, rather than the traditional notion of the entire car park being sheathed or buried. Through catering to a variety of demographics and operating programmes at night as well as the day time use, Herzog & de Meuron rehabilitated this unappealing car park typology into a 21st century place for interchange, exchange and encounter.

_The parking garage is an effort to turn the corner, to address the city using a building type that once seemed a radical prospect for modernity but more recently became a cipher for urban dystopia._

(Heathcoe, 2010, p. 48)
Figure 4.11. Iconic sculptural stack of concrete

Figure 4.12. When parking is not needed after hours, restaurant and event space is nestled between levels, thus bringing in additional revenue as well as creating public event space.

Figure 4.13. Stacked programmes are an extension of the public realm with retail façade
The components of the building are simplified to geometric shapes – a structure that looks unfinished yet coalesces together to perform a coherent design through distinctive zones and functional layers.

The concertina-ed concrete slabs and ramps act as extensions of the public realm.

The zig-zagging concrete columns, reinforce the notion of this building as a sculptural profile.
Figure 4.17. Schematic diagram highlighting layering of programmes and usable space within functional layers.
**PARK(ing) DAY**

PARK(ing) Day_Rebar, Worldwide (Annual day. 2005 - present)

This case study has been selected because it addresses the fundamental need and desire for a reappropriation of public space within the city. It addresses the more ephemeral or temporary aspect of programme which the Clifton Street Car Park site could incorporate.

*One of the more critical issues facing outdoor urban human habitat is the dearth of space for humans to rest, relax, or just do nothing. For example, more than 70% of San Francisco’s downtown outdoor space is dedicated to the private vehicle, while only a fraction of that space is allocated to the public realm.*

(Rebar, 2013)

PARK(ing) Day began in San Francisco in 2005 when the local art studio Rebar converted an outdoor metered parking space into a temporary park. This pop-up guerrilla event appropriated parking spaces in the city and converted them temporarily to park-like public spaces by paying the meter. This approach engages and encourages collaboration with the community to create temporary additions to the public realm. Once the valuable urban real estate (parking space) is reclaimed, it is reprogrammed any number of ways and has spurred an initiative worldwide, creating an annual day event.

People tend to enjoy the idea of taking back space that is considered ‘unsuitable’ for social activity. Where the majority of public urban space is dedicated to the vehicle, only a small percentage of that space is given up to open space for people. This is reinforced by the ongoing popularity of PARK(ing) Day around the world.

*In 2011, 975 parking spaces were temporarily reclaimed in 165 cities, 35 countries and across 6 continents.*

(Lydon, 2012, p. 15)
The composition of PARK(ing) Day is comprised as a staging/re-appropriation of programmes and usable space.

1. Find a metered parking spot - in a location where people will interact with it

2. Fundamental materials - Grass and trees add amenity through shade and interest

3. Fundamental materials - Seating and benches for respite and rest

4. Any other original active or passive programmatic equipment

5. Enclosure from surrounding traffic and signs to understand the programme

6. Moving truck for all materials to and from the site

Previous programmatic re-appropriations include:


- National park - Free bicycle repair shop - Memorial glen - Croquet tournament - Public dog park - PARKcycle - Notebook to elected officials - Chess tournament - Open poetry reading - Barbecue - Lawn bowling course - Marshland - Art gallery - Pirates' cove - Hula - Dinner party - Public reading room - Public beach - Public picnic - Chicken coop - and many more...

Figure 4.21. Step by step diagram highlighting the staging/re-appropriation of programme for a car park space
These three international case studies represent different styles of architecture, from the macro to the micro, yet all share commonalities in the approaches taken through passive and active programming to reactivate these seemingly problematic sites. They all successfully reactivate sites which are typically considered inhospitable and through building upon the strengths and enhancing some of the weaknesses, this thesis arrives at a series of positive elements that help contribute to the resolution of the thesis research investigation.

Freeway Park's approach involved:
Capping a freeway which had disrupted pedestrian flow and societal cohesion. Through incorporating constructed elements with a vast amount of planting, the design was able to mask the freeway and provide the necessary circulation routes to connect the urban fabric back together.

Strengths:
- Creates a series of distinctive zones or outdoor 'rooms/plazas that offer visitors a different experience
- Engages with water as a passive programme to mask the sound of the freeway
- Through a passively programmed open design - it is flexible enough to adapt and change as society needs it to

Weaknesses:
- The combination of large concrete escarpments with vast planting creates blind spots, cutting off sight lines and ultimately has adverse effects to safety. This combination of vast planting and large design elements will be taken into account within the design chapter.

1111 Lincoln Road Car Park's approach involved:
Creating a sculptural car parking complex with a multitude of actively programmed spaces. The combination of retail stores, car parking and events/restaurants within one openly exposed building reactivates the surrounding area and offers visitors a unique experience.

Strengths:
- Incorporates multiple programmes (car parking, retail, commercial, events, restaurants etc.) facilitating more revenue to be gained within one design
- Operating a variety of programmes allows the design to function at day and night time
- Engages and adds to the character of the place through a sculptural profile, enticing customers and altering the paradigm of parking structures

Weaknesses:
- The architecture is purely iconic and heroic in the sense that it does not offer a human experience. It is still very much a car dominant building without the aesthetic and functional nuances of softer material palettes and breaking down the car typology with casual seating.
PARK(ing) Day's approach involved:

Temporarily reprogramming a parking space for one day to offer up more public open space within the central city. Through this guerilla approach the reappropriated parking space has an elevated status and people are interested and engaged.

Strengths:

- Temporary solution to create more public open space without impacting people’s daily lives with an adverse affect
- Has the ability to cater to a variety of programmes
- Low cost and maintenance

Weaknesses:

- It does not solve the larger problem of leftover spaces within a vehicular dominated urban fabric. The temporary solution is successful, but this thesis requires a more permanent resolution to the problems that have arisen within the Clifton Street Car Park site.
This case study has been selected because it addresses multiple active and passive programmes which have been layered within the site. It further adds to the research component of the thesis through the approach taken to the previously underutilised site through remediation and remembrance as tools to reactivate the site.

Waitangi Park is structured by an ordering system that provides clear spatial zones within which particular programmatic activity types can operate. The park has created a benchmark for sustainable landscapes within the Wellington region, through the daylighting and cleaning of Waitangi Stream and through the collection and treatment of stormwater with reuse irrigation. This has as a result improved the overall quality of urban stormwater running into the harbour.

Programmatically the landscape architects established a large open space to accommodate large-scale public activities such as impromptu community sporting matches and large scale civic functions such as marquees for festivals. They also incorporated a perimeter zone of wetlands (environmental infrastructure) and smaller outlying fixed activity spaces for skateboarding, café and playground, as well as the promenade that structures the design.

Waitangi Park has active as well as passive programmes, proportioned according to local community needs in relation to available space.

Relative programme areas are shown in the plans. They offer a range of activities for different demographics, such as a playground for young children, a skateboard park, basketball courts and rock climbing wall for intermediate ages, a grassy open space for families, and a promenade along with seating areas.

Figure 4.22. Diagrams analysing the relative programme areas and circulation corridors
Skateboard park, basketball courts and rock climbing wall

- **Strengths**: Large programmed space that provides the community with dedicated spaces for skateboarding; the varied types cater to a variety of age demographics; a dedicated skateboard park encourages urban youth to congregate away from parks such as Midland, where skateboarding used to be problematic.

- **Weaknesses**: It portions off a large area of public space which inhibits flow and people feel unsafe crossing over where skateboarders are.

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Playground and café

- **Strengths**: The combination of playground and café provides for parents as well as small children, and through the café an opportunity to create revenue from public space.

- **Weaknesses**: Close proximity to streets may create some safety concerns for young children.

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Open space/Park type and hardscaped area

- **Strengths**: Provides open space for the community to use for leisure and sports; also accommodates civic activities such as functions, festival marquees, outdoor performances, etc.

- **Weaknesses**: The grass needs to be repaired after each event due to the marquees, which effectively closes the area for substantial periods.

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Environmental infrastructure/Remediation type

- **Strengths**: Cleansing stormwater through a variety of wetlands (subsurface, linear, and open storage). Enhances area and re-introduces wildlife.

- **Weaknesses**: The duck population has increased exponentially; the park required a substantial lead-time after initial completion before the foliage was fully mature.

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**ACTIVE PROGRAMMES**

- Skate park
- Rock climbing wall
- Basketball courts
- Playground

**PASSIVE PROGRAMMES**

- Large open space
- Environmental infrastructure
- Hardscaped surfaces

Café + toilets
As the cultural hub of New Zealand, Wellington City hosts many outdoor festival and cultural events across its waterfront and various public parks; however, when the weather is inclement these programmes are often postponed or cancelled due to a lack of covered outdoor space. As a result, temporary marquees are generally erected, adding an unnecessary cost and often damaging grassy areas. The Clifton Street Car Park site has the potential to provide the cover that is needed for these outdoor programmes to take place.

These annual or biannual outdoor programmes include: the Summer City Music Festival (Botanic Gardens), Home Grown (Waitangi Park and Frank Kitts Park), Films by Starlight (Botanic Gardens and Waitangi Park), the Fringe Festival (Cuba Street and event civic centres), the International Arts Festival (multiple venues), public sculptures (various parks), night markets and weekend markets (Cuba Street and waterfront), LUX lighting festival (waterfront, parks and other liminal spaces).
PROGRAMMATIC ANALYSIS

Matrix of some of Wellington’s outdoor active programmes that have the potential to function within the Clifton Street Car Park – ability to provide a covered outdoor facility during all weather, night and day.

- **Botanic Gardens**
- **Waitangi Park**
- **Frank Kitts Park**
- **Cuba Street**
- **Waterfront**
- **Civic Square**
- **Event**
- **Light**
- **Water**
- **Alone**
- **Group**
- **Summer**
- **Winter**

Annual 3 month festival full of free concerts. Attracting thousands of locals and a range of demographics - day and night.

**Summer City Music Festival**

Annual music festival with 5 stages set across the Wellington waterfront. Marquees are set up every year to provide a ‘protective shell’ for each stage.

**Home Grown**

Annual event at the Botanic Gardens. Screenings are weather-dependent – making this event cancel frequently.

**Films by Starlight**
Summer City Music Festival

Annual 3 month festival full of free concerts. Attracting thousands of locals and a range of demographics - day and night.

Home Grown Annual music festival with 5 stages set across the Wellington waterfront. Marquees are set up every year to provide a 'protective shell' for each stage.

Films by Starlight

Annual event at the Botanical Gardens. Screenings are weather dependent - making this event cancel frequently.

Fringe Festival

Annual event hosted across Wellington - showcasing a new mix of all art forms. It is about grassroots arts and culture and emerging talent.

International Arts Festival

300 arts events over 24 days across Wellington. Music, dance, theatre and literature.

Wellington Sculpture Trust has commissioned 23 permanent sculptures around Wellington – 13 in the CBD and 6 in the Botanic Gardens. Sculptures are important wayfinding identities.

Markets

Weekly Friday night markets with 22 stalls offering food, jewellery and clothing from around the world. Weekly Sunday farmers' markets attracting thousands of locals.

LUX Light Festival

The event timed to Matariki (the annual rising of the Pleiades star cluster) attracting around 15,000 attendees with 18 installations across the waterfront and city.

Botanic Gardens

Waitangi Park

Frank Kitts Park

Cuba Street

Waterfront

Civic Square
Waitangi Park successfully incorporates both active and passive landscape features on a primarily level site. The Clifton Street Car Park site, however, offers an additional opportunity for engaging the layering or stacking of programmes. This thesis builds upon the strengths of Waitangi Park while enhancing some of its weaknesses within a setting which is vastly different, such as the ability to reconnect to existing pedestrian recreational routes, capitalising on the layered circulation network for greater safety and access.

Programmatically this thesis aims to provide this site with a remedial landscape of both people and ecology – giving voice to its history; reconnecting the communities of The Terrace and Thorndon/Kelburn; collecting, treating and cleansing stormwater; providing multilayered activities to a variety of user groups; and providing covered outdoor amenities that are currently unavailable in other parks around Wellington.

This provides an opportunity for further diversifying our infrastructures and maximising the potential of use through the multitude of existing platforms – re-appropriating them through the strategic layering of programmes.

Passive:
- Softscape / hardscape: a thoughtful integration of softscape and hardscape would encourage diverse use from a wide demographic;
- Remedial: stormwater runoff from the highway and hillside eventually enters the harbour and should be cleansed beforehand;
- Terraced: a vertical approach to programming invites greater visibility and flexibility of integrated uses.

Active:
- Sculptural: the site has a potential to become an important landmark feature for the capital city;
- Entertainment/theatre/film: the high volumes of the space would provide for outdoor film screenings, theatre presentations, etc. under cover;
- Memorial: the site represents an important part of the history of the community, which can be shared with future generations; it can also serve to reconnect the severed communities of Thorndon/Kelburn and The Terrace;
- Amenity: because the site has a combination of covered and uncovered areas, it would be perfect for outdoor civic and festival events that may otherwise be postponed due to inclement weather.
Figure 4.25. Passive and active programmatic considerations for the Clifton Street Car Park site

Figure 4.26. (Next page) Matrix diagram of possible demographic considerations for the Clifton Street Car Park site
Special event and everyday programmes informed by precedents and the site:

- Water purification and filtration facilities are typically places that keep people out with a large fence. Instead the proposed programme for the design thesis experiment proposes to draw people in and engage them in natural means of purifying the waters that become polluted as they flow across our highways and hillsides.

- The site provides a chance to evidence the amount of waste we put out into our harbour through a didactic/learning landscape to inform the public visually, and instil a sense of social responsibility.

- The site provides the everyday user – workers and families from The Terrace, Thorndon and Kelburn – somewhere to go for lunch, for play and for leisure during the day. The nearest park to this site is Midland Park, which is extremely popular during lunch hours. During inclement weather, however, there is no outdoor space currently available.

- The site provides a unique visual experience for tourists (not knowing that this site exists) when they ride the cable car.

- The site provides the opportunity to return some of the space taken from the Bolton Street Cemetery by the motorway, as a type of informal memorial reminding future generations of the rich history of the community.

- The site provides the space to have covered outdoor special events, engaging a variety of demographics in a wide range of activities. These can include: farmers’ markets, theatre events, drive-in cinemas, music festivals, arts festivals, public sculptures and other unique events occurring in Wellington currently without covered space.

<table>
<thead>
<tr>
<th>Type of user groups</th>
<th>Everyday users</th>
<th>Recreational visitors</th>
<th>Tourist visitors</th>
<th>Visitors to events</th>
</tr>
</thead>
<tbody>
<tr>
<td>People who live and work in the area; People who use it for breaks and pauses; People who use it as a thoroughfare</td>
<td>People who visit for leisure, play, pleasure</td>
<td>People who visit for leisure and experience</td>
<td>People who visit for special event</td>
<td></td>
</tr>
</tbody>
</table>
The next chapter analyses three international case studies that successfully transform underutilised and lost sites within the urban fabric back into important pedestrian spaces, while contributing to the history and place identity of the respective sites.

The case studies provide informed approaches to the issues of Remediation, Remembrance and Reactivation – which this thesis sees as being the three principal landscape narratives of a successful site.
FROM PLACE TO PLACE

The High Line
Paddington Reservoir Gardens
Sherbourne Common Park
"From Place to Place" critiques three international case studies that deal with designing for sites which have been abandoned, ecologically damaged and have contributed an important piece of history to the community. The High Line in New York City, Paddington Reservoir Gardens in Sydney, and Sherbourne Common Park in Toronto are the case studies which have been selected in order to investigate how they create programme while layering important place identities within the site.

This chapter critiques the structure and layering of programme that each case study successfully implements which contributes to the reactivation of the site. The case studies achieve this through the engagement of history and the layering of the sites’ previous identities as primary tools to remediate the memory and ecology of the place. Through analysing each case study against their approaches to stormwater treatment and in terms of a layering of programme and engagement with memory cues, the thesis design research experiments reflect upon their ability to create an experiential narrative conveying the importance of history as a contributor to place identity.
The High Line, Manhattan, NYC, USA; James Corner Field Operations, Diller Scofidio + Renfro, and Piet Oudolf (2009, 2011, present)

The High Line was selected as a relevant case study because, like the Clifton Street Car Park, it represents an elevated datum plane caused by an abandoned transport infrastructure, and it successfully engages with the history of the dilapidated rail infrastructure and re-purposes it as a landscape narrative, enabling the public to use this post-industrial space for multi-programmatic activity and community understanding. This is primarily achieved through memory cues, by embedding into the new path the old rail tracks and taking inspiration from the plant life that overgrew the tracks while it was not in use. Through engaging the history of the site, the design accommodates a variety of users while still facilitating a strong sense of place and history, rather than wiping the site clean of historic references or capping the surface.

There are three major imperatives for the design of the High Line that can inform the thesis design research experiment:

- the historic nature of the once-vital piece of functional urban infrastructure,
- the connection to the site as an instrument of leisure, life and growth,
- the consideration of time as a component of landscape architecture, reflecting an unfinished, sustained emergent growth that transforms over time.

The High Line is located on Manhattan’s West Side; it has been realised in a series of three stages across a number of years with the last of the three stages still pending development. It runs from Gansevoort Street in the Meatpacking District to West 34th Street, providing to the community a new typology of park design similar to the Promenade Plantée, a counterpart in Paris inaugurated in 1993. The Promenade Plantée was the only elevated parkway in the world for almost 15 years before the High Line was realised, though it has never held the same esteem.

This thesis argues that the 4.7 kilometre Promenade Plantée was not as successful as the 1.6 kilometre High Line because of the approach the architects took to cap the out-dated infrastructure, removing all identity and history ties to the past and overlaying it with a new typology.

Figure 5.2. The Promenade Plantée reappropriated an old rail infrastructural corridor with vast planting and a new pedestrian boardwalk.
Figure 5.4. Freight train in operation leaving Merchants Refrigerating Company Warehouse. Tracks still lead visitors through buildings.

Figure 5.5. Connections to the past are retained through Piet Oudolf’s significant hand in natural planting.

Figure 5.6. High Line left to degradation and self-seeded coloniser plants take over.

Figure 5.7. The landscape itself speaks of the past histories through embedded tracks and the pre-cast concrete slabs that act as fins to allow water runoff and encourage plant growth.
As the High Line is a piece of re-appropriated elevated industrial infrastructure, access is achieved through a series of staircases and a few lifts every two blocks, taking visitors from the streets below, up roughly 9 metres, onto the new datum plane.

Before the redesign, the out of use elevated rail tracks consisted of self-seeded grass, trees and other plants that took root during the 25-30 years after the trains stopped running. These historical remnants and traces of hardy self-sustainable plants were a main driver and inspiration for the redesign of the infrastructural platform. Many of the natural (passive) programme types have evolved from these traces and account for much of the narrative along the 1.6 kilometre platform. A similar approach will be explored in the design research experiment.

The High Line facilitates an important pedestrian platform through passively programmed covered and uncovered areas which offer the ability for the space to adapt to change and allow active programmes such as restaurants, functions, exhibitions, films, exercise spaces and community gathering spaces to temporarily operate within.

It is first and foremost a landscape rather than architecture, an inherently green structure consisting of a built up strata of layers that perform the necessary tasks of filtration devices, planter beds, and pathways.

The High Line’s filtration devices act as a green roof system, where the design allows the plants to retain as much water as possible through displacing the water underneath the porous pathway structures through open joints. This cuts down the quantity of stormwater that runs off the site into the sewer systems.

Re-purposing this platform as a landscape structure has changed the relationship between the previous structure and the architecture surrounding it, including increasing property values and creating revenue. This change in relationship is in direct response to the amenity value brought by the High Line resulting in new residential and commercial architecture surrounding the park. The High Line challenges the notion of what an urban park can be in the 21st century by retaining its historic narrative and elevating it as a green site above vehicle level.

This thesis argues that urban parks in the 21st century can go even further, fulfilling the notion of park without necessarily adhering to traditional definitions of green space. ‘Parallel parks’ can be developed throughout our cities as important re-appropriated spaces to our everyday commons, parks and public open spaces.

Figure 5.8. Public programmes operating on the High Line within the passively programmed covered spaces
Access to the High Line
Built up strata - concrete base
Built up strata - path planks
Built up strata - living roof layer
 Built up strata - pre-cast concrete planks
Porous pathway structures - open joints
Historic rail tracks

1 Access to the High Line
2 Built up strata - concrete base
3 Built up strata - path planks
4 Built up strata - living roof layer
5 Built up strata - pre-cast concrete planks
6 Porous pathway structures - open joints
7 Historic rail tracks
8 Planter beds
9 Re-purposed historic iron structure

Figure 5.9. Schematic diagram highlighting the structure and layering of previous historical identities and reappropriation of site qualities
PADDINGTON RESERVOIR GARDENS

Paddington Reservoir Gardens, Sydney, NSW, Australia
TZG architects with JMD design. (2009)

The Paddington Reservoir Gardens was selected as an important case study because it is an example of a dilapidated urban ruin re-appropriated through the engagement of historical cues and landscape architecture to act as an important public remediation space. It incorporates Remediation, Remembrance and Reactivation as significant tools which add to this thesis’s resolution of being the three principal landscape narratives of a successful site.

Located in Sydney, the site has gone through many uses since it ceased supplying water to the Botany Swamps pumping station (the original function and design) in 1899, including a garage and a petrol station until the roof collapsed forcing its closure. It is now listed as a site of state heritage significance.

Due to the site being in disrepair, the general expectation for the conversion of the Paddington Reservoir into an urban park was that the site would be capped off and a new arrangement built on top. But Tonkin Zulaikha Greer (TZG) architects and landscape architects James Mather Delaney (JMD) were captivated by the 19th century structures as ruins, and the possibility to reveal these through allowing the public to experience the layers and history was more compelling. They mounted a strong case, persuading the city to celebrate the history of the site and of the poetic urban ruin.

The design carefully integrates a limited palette of materials: the historic remains of the original brick, timber and iron structures with contemporary partners aluminium, steel and concrete, “united as they are in their raw industrial expression.” (Paddington Reservoir Gardens, 2012)
Figure 5.11. Repetition of curved arches with historic and contemporary partners

Figure 5.12. Historic remains of the original brick arches with more contemporary concrete boardwalk and steel elevated structure above

Figure 5.13. Entry and exits into the gardens via stairs

Figure 5.14. Elevated gardens stand on columns above the sunken tree fern garden and ponds below
Architects’ statement:

We believed the concept for the project was embodied in the existing artefact. An accessible sunken garden and pond, surrounded by a raised pre-cast concrete boardwalk, has been inserted within the conserved ruin of the western chamber of the former reservoir. The edges of the ruin are contained by concrete up-stands in such a way as to amplify the distinctive curved characteristics of the original brick vaults. The Victorian tree-fern garden hints at the era in which the Reservoir was originally built.

The eastern chamber has been conserved with new timber columns and a waterproof concrete structure over, stabilising the brickwork and forming the base for the new landscaped park above.

Two lightweight roofs float above the reservoir, signalling the main entry points to the park. The lightness of the roofs acts as a counterpoint to the solid earthiness of the masonry vaults, while there is a whimsical reference to the older masonry mortar joints in the staggered pattern of the metal grid.

(Paddington Reservoir Gardens, 2012)

The historic Paddington Reservoir consisted of two large underground tanks or chambers for storing water; one of the principal objectives was to conserve the eastern chamber and to reconfigure it into a usable passively programmed chamber for cultural uses, such as gallery, concerts, exhibition area, museum, coffee shops and other active programmes.

(Connybeare Morrison & Partners, 2004, p. 14)

The sustainable reuse of water on site, which is stored in tanks below the elevated boardwalk, allows for a unique microclimate to flourish. It is collected from the runoff from the upper level park and lower gardens and used as irrigation.

Through a unique design approach, the Paddington Reservoir resembles a fusion of contemporary and sustainable elements that elevate its status, being hailed as a blend of the ancient Baths in Rome and the Hanging Gardens of Babylon. It is a touchstone for sustainable design and place making through the adaptation and reuse of the existing structure, while also harvesting rainwater and reusing it within the gardens.
Figure 5.16. Schematic diagram analysing the structure and layering of previous identities leading to the reappropriation of the historical site.

1. Entrance to the western chamber
2. Raised pre-cast concrete boardwalk
3. Ponds
4. Accessible sunken tree-fern gardens
5. Elevated gardens
6. Original brick vaults
7. Timber columns
8. Elevated pedestrian crossing and lookout
9. Masonry vaults
10. Metal grid shelter
Sherbourne Common Park, Toronto, ON, Canada
Phillips Farevaag Smallenberg. (2011)

Sherbourne Common Park is part of a larger regeneration strategy in Toronto, with the aim to re-appropriate the harbour’s edge. East Bay Front where the park is situated is wedged between the expressway and Lake Ontario and was previously a brownfield site covered with industrial buildings and vacant lots. The park is unique in the approach it takes, through creating the infrastructure first as a public landscape, and then the consequent growth of residential buildings on the circumference will follow. When completely built out, East Bay Front will contain 6,000 residential units and 3,000,000 square feet of commercial space.

It is selected as a relevant case study as the design realises the potential and need for a multifunctional, passive and actively programmed space coupled with a sustainable stormwater design. This park successfully integrates sculptural art, infrastructure and landscape together to form a new vital piece of infrastructure for the city.

*Light Showers* by artist Jill Anholt turns “infrastructure into art through a series of iconic sculptures… Three, nine metre tall sculptures celebrate collected and purified stormwater by lifting it from the ground to the sky then through a textured veil of water that flows into a channel, carrying it into Lake Ontario.” (*Light Showers*, 2012)

Programmatically the site is divided into two sections with passive and active programmes within each end. The northern end is closer to the expressway with play equipment and light sculptures; the southern end is closer to Lake Ontario featuring gathering areas, the pavilion, lawn and splash pad. Compositionally, the 240-metre long urban river ties the northern end to the southern and combined with the sculptures, represents a signature part to this park.
Figure 5.18. UV treatment, pumping facilities and park pavilion acts as an icon guiding the ‘urban river’

Figure 5.20. Programmatically the splash pad adapts and transforms into an ice skating rink during winter

Figure 5.19. A layered approach to stormwater treatment is witnessed in the secondary channel with a bio-filtration bed

Figure 5.21. The iconic Light Showers transform at night to become even more symbolic
Architect’s statement:

The conceptual design for Sherbourne Park is built upon the abstraction of an iconic Canadian lake's edge landscape, composed of the woods, the water, and the green. As a key component of the redevelopment of Toronto’s waterfront, the park will be about inspiring civic space, flexible uses, play, and sustainability. The design responds strongly to the need to create both a neighborhood park and a city-wide destination.

From its beginning, the park will deliver a place with strong defining forms, edges, and diverse programme potential.

(Sherbourne Park, 2012)

The water which is used within Sherbourne Common is from natural sources: clarified stormwater and raw water from Lake Ontario. An integrated treatment facility pretreats neighbourhood-wide stormwater through the removal of grits and sediment prior to UV disinfection and reuse in the park. It passes through two UV disinfection units before heading into the park’s light showers, which illustrate to the public a celebration of an integration between sculptural art, engineering and sustainability. From here the water passes through a secondary filter channel and bio-filtration bed before entering the ‘240m urban river’, thus allowing the water to be an integral and passively programmed space for children to play in and celebrating the return of treated water to the lake.

WATER STORY

- Clean water discharge to lake
- Lake water intake
- Remediates water pumped up
- Stormwater runoff
- Park pavilion pumping station and UV facility

Figure 5.22. Compositional plan highlighting the stormwater management process
Figure 5.23. Schematic plan and diagram analysing the sculptural infrastructure as a celebration of purified stormwater and secondary filter channels.

- Purified water channel
- Reinforced concrete flooring
- Light showers - iconic sculptures
- Textured veil of water
- Water channel
- Overflow channel
- Secondary filter bio-filtration bed
  - Pebbles, sedges and reeds
- 240-metre Urban river
- Lower edge for public access to water
- Splash pad
- Large open grass space
- Pavilion
These three case studies represent different styles of architecture, but all share commonalities in the approaches taken to resolve some of the conflicting site issues. All actively engage with the sustainable treatment of water and all three case studies actively engage with Remediation, Remembrance and Reactivation as the three principal landscape narratives that this thesis proposes contributes to a successful site.

Although these case studies operate on varying datum planes with the High Line operating above the ground, Paddington below the surface and Sherbourne at grade, by integrating the three case studies this thesis arrives at strengths for a multi-datum, complex site.

The High Line's approach involved:

A design that gave reference to the history of the site's changing typology, through engaging elements of memory, keeping in the design a strong language of the previous functions on site through use of the old rails and embedding them into the precast concrete path. Furthermore, a strong narrative was established through keeping the existing structure and edge conditions and only re-appropriating the horizontal surfaces.

Strengths:
- Engages the history of the existing industrial infrastructure, re-purposing it with a park type typology
- Manages stormwater on site through reuse irrigation
- Facilitates commercial and residential revenue through aesthetic appeal
- Connects a variety of neighbourhoods through multiple entry and access points
- Provides flexibility through passive programming to change over time
Paddington Reservoir Gardens’ approach involved:

Celebrating the civic urban ruin, and by doing so preserving a significant piece of heritage, while challenging perceptions of typical water treatment and reuse irrigation.

Strengths:
- Provides a variety of experiences within a series of interior and exterior ‘rooms’/urban spaces
- Engages with the history of the site as an urban ruin, preserving it, and creating a new use
- Manages off-site stormwater to irrigate the landscape
- Conserves and embodies urban memory through materiality

Sherbourne Common Park’s approach involved:

Celebrating the remediation, reuse and return of treated stormwater through sculptural intervention that speaks of an integration of engineering and sustainability.

Strengths:
- Engages with a variety of active and passively programmed spaces
- Engages water as a tool to cleanse and re-appropriate an under-utilised brownfield site
- Facilitates growth within the urban environment, directly responding to the amenity brought from the park

Each case study looks at the social consciousness of sustainability through Remediation, Remembrance and Reactivation. As a whole, each case study creates through a landscape intervention a precedent for reactivating such lost sites in the respective cities. What is important to take from these case studies are the approaches to issues of Remediation, Remembrance and Reactivation as parts of a narrative informing the public, whereby fractured urban infrastructures are re-appropriated through a remedial process.

Lastly, with each case study engaging with various treatments of stormwater, it is becoming more important that elements such as water-treatment facilities should be brought into the public eye, for everyone to see, to enjoy and to understand the approaches to cleanse a site.
Capacity to engage with:

Remembrance

Remediation

Reactivation

ENGAGES THE HISTORY OF THE SITE THROUGH MATERIALITY + FORM

ENGAGES WITH DISTINCTIVE ZONES BASED ON THE ABSTRACTION OF A PLACE IDENTİTY

ENGAGES WITH STORMWATER THROUGH UV AND BIO-FİLTRATİON METHODS, ACTİVELY ENGAGING WATER AS A PASSİVE PROGRAMME FOR THE SITE

TREATS STORMWATER THROUGH UV AND BIO-FİLTRATİON METHODS, ACTİVELY ENGAGING WATER AS A PASSİVE PROGRAMME FOR THE SITE

INCORPORATES ACTIVE + PASSİVE PROGRAMMES + SCULPTURAL INTERVENTİONS AS ICONS TO REACTİVATE A UNDERUTILİSED BROWNFIELD SITE

SUSTAINABLY REUSES WATER RUNOFF ON SITE

PASSİVELY PROGRAMMED PLATFORM WHICH OPERATES ON A DATUM ABOVE GROUND AS A PRIMARY TOOL TO REACTİVATE THE SITE

ENGAGES WITH STORMWATER HARVESTİNG WITH REUSE IRRİGATİON

PROVIDES COVERED AND UNCOVERED PASSİVELY PROGRAMMED AREAS FOR PUBLIC ENTERTAINMENT

CATEŞ TO A VARIETY OF DEMOGRAPHICS WHO ARE INTERESTED IN THE HISTORY OF THE SITE AND ITS PRESERVATİON

THE CLİFTON STREET CAR PARK

THE HIGH LINE

SHERBOURNE COMMON

PADDİNGTON RESERVOIR

Figure 5.24. Diagram highlighting how these case studies through their approaches to Remembrance, Remediation and Reactivation have informed the experimental design of the Clifton Street Car Park Site.
The next chapter discusses a series of design iterations which formulates a language of components, that together provide a kit of parts designed to express a water orientated narrative of the didactic landscape. These iterations will test and formulate the basis of the final design.
PARK BETWEEN THE WHITE LINES

Ecological Atolls
3700 Vessels
Re-grading Infrastructure
Water as Architecture
Water Directed and Orientated
Many options of building identity within the site could have been taken, such as constructing a building on top of the columns, completing the unfinished motorway or even inserting a building within this space to fill the void. None of these approaches would enable the issues, research questions and problems discussed to be fully resolved. This thesis proposes to safeguard the elements of partial completion, celebrating the ruin allegory as important elements of political and cultural history. Through this approach the iterative design experiments within this chapter explore the fragmented infrastructure as an infrastructure for a new landscape, finding purpose in the inherent structural capacity and volumetric spaces available.

The premise of this research investigation is not to restore the cemetery, but rather it is to rethink what restoration means. Because while we as designers may invest objects with memory – so that spaces come alive with meaning – the goal is rather to create a place which is capable of reinstating place identities and generating past and future memories.

The design explorations within this chapter thus strive to reanimate the site through celebrating the unique inhuman scale and unfinished ruinous infrastructure of this Brutalist site. The design aims to give back to the community, in a format which is usable for all inhabitants, an area which enables a sense of relief and remembrance but also re-emergence of the site’s lost histories and identities.

The design process of this thesis experiment morphed and adapted along the way, as the design-led research applied design to test potential solutions. A series of iteration schemes was tested and specific components were then developed alongside, which were then filtered back into the schemes.

The key principles surmised from the literature review, site analysis, and case studies chapters were strategically incorporated into the design iterations. The iterations sought a resolution to the three motifs of loss – History, Memory and Ecology – whilst exploring the three narratives of Remediation, Remembrance and Reactivation. The iterations of design explorations tested and discovered alternative schemes for the resolution of the evolving didactic landscape.
ECOLOGICAL ATOLLS: Design explorations

This design exploration represents the ideology of reclaiming this site as the historic Kumutoto Stream, through allowing it once again to fill the void and to become the spatial definer of the site. It primarily looks to reactivate the site through an intervention that engages with remediation.

Ecological Atolls is the term the thesis gives to a series of concrete basins which redirect stormwater from the motorway down through these basins which are filled with aggregates and specifically selected plant species. These include sedges, rushes and reeds which are able to withstand a fluctuating water level and often found on edges of streams and swamps. Oioi, Jointed twig rush, Club rush and Wiwi will be sourced locally from the Wellington region to maintain the health of the system and ensure plant survival.

These ‘Ecological Atolls’ act as the site’s first flush system, removing heavy metals and pollutants from the water as it passes through the densely planted native reeds and sedges before the water reaches the site.

Ecological Atolls (EA) combined with Floating Vegetated Islands (FVI) are situated along the length of the site, staggered to direct and act as a secondary filter to the watercourse. The FVI’s are planted with a selection of Carex species which are capable of storing and breaking down pollutants with their root structures.

A circulation network is established through linking with the permeable recreational suburban edge on the west side of the site. Ascent and elevation is employed as a tool to reactivate the site through elevated walkways which are elevated above the water’s surface to mediate between the islands and the atolls for recreational, educational and maintenance purposes.

The triumph of this exploration is through the ecological connections, whereby the design allows for the harnessing of stormwater for functional and aesthetic uses along with cleansing the site.

Accuse not Nature: She hath done her part; Do thou but shine.


Figure 6.2. Design exploration plan of Ecological Atolls
1. Kumutoro Stream water channel
2. Ecological Atoll
3. Floating Vegetated Island
4. Elevated walkways
Figure 6.3. Visualisation of the Ecological Atolls

1. Redirected stormwater from motorway
2. Ecological Atoll - concrete basin
3. Aggregate filled section
4. Structural dividers - planter boxes
5. Bio-filtration - sedges, rushes and reeds
6. Filtered water passes through
DESIGN EXPLORATION CONTRIBUTES TO THE HISTORY AND IDENTITY OF THE SITE

REMEMBRANCE

- CATERS TO A VARIETY OF DEMOGRAPHICS WHO ARE INTERESTED IN THE HISTORY OF THE SITE AND ITS PRESERVATION
- CIRCULATION NETWORK EMPLOYS ASCENT AND ELEVATION THROUGH ELEVATED WALKWAYS THAT LINK THE SITE TO THE SURROUNDING CONTEXT
- PASSIVELY PROGRAMMED PLATFORMS WHICH OPERATE ON A SERIES OF DATUMS ELEVATED ABOVE GROUND AS A PRIMARY TOOL TO REACTIVATE THE SITE

REACTIVATION


REMEDIATION

- SUSTAINABLY TREATS SEDIMENT CONTAMINATED WATER RUNOFF THROUGH BIO-FILTRATION METHODS, ACTIVELY ENGAGING WATER AS A PASSIVE PROGRAMME FOR THE SITE
- ENGAGES WITH STORMWATER HARVESTING WITH REUSE IRRIGATION

Figure 6.4. Diagram highlighting the experimental design’s approach to Remembrance, Remediation and Reactivation within the Clifton Street Car Park Site
3700 VESSELS:
			Design explorations

This design exploration primarily looks to reactivate the site through an approach that engages with remembrance.

This design exploration tests the middle level car park platform as a type of informal memorial space. Instead of filling the void with the Kumutoto Stream – like the last experiment – it repurposes the platform through 3700 vessels which hang and are embedded within the landscape. These vertical elements are simultaneously memorial elements through remembering the graves, as well as functioning through the removal and remediation of waste. This allows the combination of the verticality with the memorial to infiltrate a contemporary language without being reminiscent of typical memorial sculpture, such as an arch or obelisk or a tombstone.

The vessels, like archives and reliquaries, represent a memorial that embraces the history of the site, whilst entering into its future – secretly cleansing the landscape whilst also collecting water – filtering and purifying sediment contaminated stormwater, and storing the purified source as vestiges of remediation.

The vertical elements programmatically fulfil the needs of active programmes like a memorial while offering a secondary role through passive seating, play and lighting components throughout.

Earth felt the wound; and Nature from her seat,
Sighing through all her works, gave signs of woe
That all was lost.

Paradise Lost. Book IX. Line 782.
Figure 6.8. The vessels collect rainwater and transform the space at night through lighting.

Figure 6.9. Visualisation of being within the memorial.
DESIGN EXPLORATION CONTRIBUTES TO THE HISTORY AND IDENTITY OF THE SITE

REMEMBRANCE

3700 VESSELS ARE HUNG AND EMBEDDED WITHIN THE SITE TO GIVE REFERENCE TO THE GRAVES LOST FROM THE CEMETERY

VESSELS LIGHT UP AT NIGHT TRANSFORMING THE SPACE FURTHER

REACTIVATION

CATER TO A VARIETY OF DEMOGRAPHICS WHO ARE INTERESTED IN THE HISTORY OF THE SITE AND A TYPE OF INFORMAL MEMORIAL TO THE BOLTON STREET CEMETERY

PASSIVELY PROGRAMMED PLATFORM WITH A SCULPTURAL INTERVENTION WHICH OPERATES AT DAY AND NIGHT

REMEDIATION

A SERIES OF VESSELS COLLECT RAINWATER AND STORE THE WATER FOR REUSE

OTHER VESSELS TREAT STORMWATER THROUGH FILTRATION METHODS - WATER BECOMES THE SPATIAL DEFINER WITHIN THE SITE

Figure 6.10. Diagram highlighting the experimental design’s approach to Remembrance, Remediation and Reactivation within the Clifton Street Car Park Site
This design exploration primarily looks to reactivate the site through a sculptural intervention which remediates the water within the site. The existing infrastructure becomes the device to inform this design exploration, through using a language of structure that is currently on site. Stormwater down pipes, concrete ribs, columns, berms, abutments and escarpments inform the design language of this exploration.

The existing stormwater infrastructure is redirected through a series of archival concrete cases that line the west side of the site. Within these archival cases are a series of gabions filled with varied grades of aggregates which trap and filter sediment before the water exits back into the culvert leading to the harbour. This design exploration employs the narrative of remediation through displaying the sediment as a building up of waste, acting as a reminder – and by archiving it renders it visible rather than it remaining ‘out of sight, out of mind’. The archival cases are regularly monitored, emptied and maintained to ensure the display is a piece of contemporary sculptural art.

Standing parallel to the archival cases – within the middle level car park platform – on the east side are a series of cisterns which collect fresh rainwater and store the source for reuse.

The approach to rhythmically align the cases and cisterns along the length of the site allows the visitor to walk the site and understand water as a spatial definer through a visual narrative.

Through mediating the water level between large rain events, these cisterns are constantly kept full so that the sculptural archive is on display in a way that invokes a sense of social responsibility to the way we understand and treat stormwater.

Figure 6.11. Visualisation of the archival cases as a sculptural intervention lining the site

Figure 6.12. Design exploration plan of Regrading Infrastructure
DESIGN EXPLORATION CONTRIBUTES TO THE HISTORY AND IDENTITY OF THE SITE

REMEMBRANCE

Capacity to engage with:

THE SITE REMAINS LARGELY UNTOUCHED OR RETAINED - ALLOWING THE EXISTING AND PREVIOUS SITE IDENTITIES INCLUDING THE CAR PARK TYPOLOGY TO ADD TO THE EVOLVING HISTORY AND IDENTITY OF THE SITE

REACTIVATION

Capacity to engage with:

PASSIVELY PROGRAMMED OUTDOOR SPACE THAT ALLOWS FOR ANY NUMBER OF PROGRAMMES TO OPERATE WITHIN THE SITE

LARGE STRUCTURAL SCULPTURAL CISTERNS RHYTHMICALLY ALIGN THE SITE TELLING A NARRATIVE OF REMEDIATION

REMEDIATION

Capacity to engage with:

A SERIES OF ARCHIVAL CASES COLLECT SEDIMENT CONTAMINATED STORMWATER FROM THE MOTORWAY AND FILTER THE WATER BEFORE RELEASING IT BACK INTO THE SYSTEM STANDING PARALLEL TO THE ARCHIVAL CASES - CISTERNS COLLECT FRESH RAINWATER AND STORE THE SOURCE FOR REUSE

Figure 6.13. Diagram highlighting the experimental design’s approach to Remembrance, Remediation and Reactivation within the Clifton Street Car Park Site
The previous three iterations of design exploration tested approaches to engage with Remediation, Remembrance and Reactivation within the Clifton Street Car Park site. Furthermore, the iterations sought a resolution to the three motifs of loss – History, Memory and Ecology – and while each approach builds upon the historic identity of the site, a more comprehensive design exploration, which addresses the entire site and the multiple levels is needed.

**Ecological Atolls design exploration:**

**Strengths:**
- Allows for the re-emergence of the Kumutoto Stream to become an active participant within the history and identity of the site again
- Engages with sustainable environmental infrastructure through two unique approaches (EA & FVI) to remediate the site, through managing stormwater runoff and bio-filtration
- Elevated walkways contribute to resolving some of the circulation issues & connect the permeable boundary edges

**Weaknesses:**
- The approach takes over the entire site and does not offer the community space for other programmes to operate, nor give reference to the Bolton Street Cemetery

**3700 Vessels design exploration:**

**Strengths:**
- Engages with a sculptural intervention to perform the necessary tasks of remediation, while passively programmed to operate as storage vessels, seats and lights
- Gives reference to the 3700 burials which have never been formally addressed, and reawakens the original proposal to create a plaza linking the two bisected sides of the Cemetery

**Weaknesses:**
- The static repetitive sculptural memorial takes over the ground plane of the site and could have adverse safety effects

**Re-grading Infrastructure design exploration:**

**Strengths:**
- Through not taking over the ground plane, it allows for multiple passive programmes to operate within the site
- Archiving the remediation process enables a visual learning landscape to evolve
- Stores rainwater within a series of cisterns, maximising reuse before flushing into the underground water system

**Weaknesses:**
- Functionally, the archival cases only need to be at either ends of the site – where the water could be collected and treated before returning to the underground water system and flushing into the harbour

The last iteration of design exploration (on the following spreads) looks to incorporate the strengths, such as allowing the re-emergence of the Kumutoto Stream, engaging with sustainable environmental infrastructure, incorporating elevated walkways to resolve circulation issues, engage with a sculptural design intervention that adds to the historic narrative of the site and archiving the remediation process through an informative, learning landscape.

It will further build upon some of the weaknesses that these three iterations propose in order to resolve some of the wider issues within the site, including the zones at either end. These include distinctive zones that offer functional and aesthetic design interventions which add to the historic narrative of the site as well as community space for alternative programmes, keeping the ground planes unobstructed from sight lines, and using the built platforms to influence the natural flow of pedestrian and ecological flow of water movement.
This design exploration re-appropriates this site as a testing ground for remediation, remembrance and reactivation. It adds to the historic narrative of the site through layering the previous site histories and place identities within a design that incorporates the strengths and builds upon the weaknesses of the previous iterations.

Water is seen within this design exploration as a spatial definer, whereby the design elements are consciously exposing the remediation processes through rendering the treatment of stormwater (which is typically kept invisible within pipes underground) and the collection of remediated water, visible.

The design approach treats the southern and northern ends of the site as anchors – through collecting and treating the stormwater runoff from the motorway – while allowing the middle to become an uninterrupted park typology. Furthermore, at either end of the site underneath the triple height motorway spaces is a series of hanging memorial light vessels. These vessels are an embodiment of the loss within this site; an informal memorial to the loss of the houses, the graves and the community interface.

The southern end of the site is programmed for collection and retention of stormwater from the catchment area. The retention basins allow for the slowing down of the water and the collection of larger metals and pollutants on the bottom of the basins. The culverted historic Kumutoto Stream is redirected and re-enters the site through the retention basins from underneath the Everton Terrace overpass. The retention basins control the release of the water into the park landscape, whereby the water then filters through a constructed wetland that runs the length of the site. The wetland allows the water to meander and filter through densely planted sedges, reeds and rushes including Oioi, Jointed twig rush, Club rush and Wiwi. These specifically selected plants help to further remove pollutants and larger metals and filter sediment.

The northern end of the site represents a layering of programmes across the three platforms. The ground level with a triple height space and memorial light vessels underneath the northbound motorway is left as an open passively programmed space for holding concerts and events that require shelter from inclement weather. The enclosed mezzanine level holds an archival space – called a reliquary – and represents this design exploration’s potential for enshrining the remediation process and adding to the history narrative of the site through allowing the visitors to read the layers of identity and history that have been voided and erased. The top uncovered level tests an alternative method of remediation – called the transcending vessels. This design exploration takes inspiration from Wellington’s popular tourist destination, the bucket fountain, while adding function to the sculptural intervention. A series of fine filtration vessels filters sediment contaminated stormwater through aggregates (including coal and sand) and disperses down into storage vessels.

The two ends of the site are explored further in the following spreads.
Figure 6.14. Sketch explorations of fine filtration and storage vessels to filter and store water on site. Inspired by Wellington's bucket fountain.

Figure 6.15. (Next spread) Proposed design exploration layout and context master plan.
These diagrams highlight the programmatic space of the transcending vessels as a testing ground for a remediation process.

The sediment contaminated stormwater is collected from the motorway and redirected through channels to the eastern side where it is pumped upwards through armatures and displaced along a series of pipes that allocates the water between the fine filtration vessels. The water then filters through the series of aggregates and falls into the storage vessel below. This storage vessel is able to pivot so that it empties out into the water channel below, once it reaches three-quarters full. This final water channel carries the remediated water back to rejoin the underground system of pipes that take the water out to the harbour.
Collection of stormwater + rainwater device + lighting

Displacement of water through channels

Redirected water through filtration devices

Fine filtration vessels: charcoal, aggregates and sand

Storage vessels

Remediated water
These diagrams analyse the design components which add to the experience of being within the space through strategically incorporating planting as mediators to absorb noise from the motorway.

Visitors are invited to walk the elevated walkway platform which is situated above the vessels, allowing views out over the entire site. The platform enables the visitors to witness the remediation process below them and gain an understanding of the systems.

The platform is planted with vines, mosses and climbers to create a layer of regenerating vegetation parallel to the town belt. This new vegetated layer is seen within this design exploration as an important spine for the site and a visual cue within the landscape.

The vertical aluminium perforated screens add another layer of vegetation to the north end of the site, through planting mosses and climbers which will eventually grow into a green wall. It functionally mediates the sound from the motorway and acts as a hinging barrier between the two sets of fine filtration vessels.
1. Elevated walkway for pedestrian circulation
2. New canopy layer - vegetated spine engaging with vertical layers/levels of site
3. Framework to hold up primary walkway and form growing patterns
4. Vertical Aluminium screens - Perforated to allow growth of mosses and climbers

Vines
Mosses
Climbers
Linear elevated walkway + planter canopy
Framework
Planter Screen
The southern end of the site, underneath Everton Terrace is where the emergence of the Kumutoto Stream is realised. It is redirected upwards from the buried culvert to enter the retention basins and add to the narrative of the site once again.

Sediment contaminated stormwater sources within the catchment area are collected from the motorway and the buried Kumutoto Stream culvert. They are redirected into the collection and retention basins.
Figure 6.21. Visualising the southern end of the site. Standing on the elevated walkway with the Kumutoto Stream emerging from beneath - looking down into the retention basins.
The main purpose of the retention basins is to hold the water bodies while allowing sediment to drop to the bottom. As the water flows between the basins larger sediments are collected in Gross Pollutant Traps (GPT) which are underneath the elevated walkways. These are monitored and emptied regularly. The water is redirected from the retention basins over the cable car via two pipes into the wetland within the park landscape.

The hanging memorial light vessels tie the southern end to the northern end of the site through accentuating the height underneath the motorway. These vessels symbolically fill the void that has been left by the motorway.
Figure 6.23. Visualising the southern end of the site. The large retention basins hold and store the water before the controlled release into the wetland. Underneath the motorway hang the memorial light vessels.
The water flows through the wetland within the park landscape where it is filtered and held within the reliquary space in a glass storage tank – celebrating the purified source adding to the narrative of remediation. The water then exits at the end of the reliquary space – as a remediated source - back into the underground system.

The reliquary is seen within this design exploration as having the capacity to influence and inform visitors of the history of the site and the remediation processes within the design.

The hanging memorial light vessels visually tie in with the reliquary as spaces of remembrance.
RELIQUARY

Figure 6.25. Visualising the northern end of the site. The reliquary transforms at night to illuminate the archival cases storing by-products of the remediation processes. Underneath the motorway hang the memorial light vessels.
This zone which is beneath the motorway at the northern end of the site has been strategically left unprogrammed (passively programmed) to allow for events to operate within the large covered space.

The hanging memorial light vessels act as allegorical erasures, in the sense that they represent the motifs of loss of history, of memory and of ecology and the physical loss of houses, graves and the community interface.

The lower channel takes the overflow from the wetland during large rain events and from the berm on the west side. It carries the remediated water to the northern end of the site and exits back into the underground system.
Figure 6.27. Visualising the northern end of the site. Underneath the motorway and the hanging memorial light vessels - allegorical erasures
Figure 6.28. End of year symposium presentation boards
The layout of this design exploration is successful in layering programme and contributing to the history of the site through engaging with the remediation of water, the narrative of remembrance – through an informal memorial – and the reactivation of the site through sculptural interventions and through a reliquary space that informs the visitor of the layered identities.

This exploration successfully engages with remediation, remembrance and reactivation as tools to re-engage the community with the site; however, the overall design needs to be refined at the human scale to better understand the transition spaces from zone to zone.

These zones within the design exploration require further developments in order to better understand the human scale elements within the site.

**Develop and refine the collection and retention basins:**
- Ability to pre-treat the Kumutoto Stream culvert before entering the site through UV treatment.
- Use this space as the first testing ground for bio-filtration methods.

**Visualise the park landscape zone at the human scale:**
- Evidence the bio-filtration wetland and overflow channels.
- Resolve the circulation networks and connectivity to the city through elevated walkways that link the permeable edges.
- Incorporate built-in seating along the constructed wetland within the park landscape, offering places to rest.

**Visualise the reliquary space:**
- Develop the archival cases through refining the storage capacity and layout.
- Introduce a storage cistern at the end of the reliquary space that stores the remediated water for reuse within the site and also returns back into the underground system.

**Refine the transcending vessels space:**
- Visualise the space at the human scale within the elevated walkway.
- Develop a secondary elevated walkway that links the vertical towers thereby adding another level to the layered landscape in order to mediate all the zones. It will link the transcending vessel space to the reliquary below, to the park landscape and to the suburban and urban fringes.

**Visualise the retained site:**
- Evidence the design within the context of the surrounding landscape.
- Regrade the southwest berm underneath the motorway through an introduced path – facilitating connectivity across the cable car as well as connecting to the existing pedestrian recreation route.

The last section within this chapter looks at the design process as a matrix of developing components alongside the design explorations. The process involved taking inspiration from the site and around Wellington combined with the precedent studies from the previous chapters to further develop the form, function and aesthetics of the components.
WATER DIRECTED AND ORIENTATED:
Language of components

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<thead>
<tr>
<th>Inspiration</th>
<th>Precedent</th>
<th>Component</th>
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<tbody>
<tr>
<td>Existing stormwater</td>
<td>Paddington Reservoir</td>
<td>Cisterns</td>
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<tr>
<td>downpipe</td>
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<td>Waitangi Park</td>
<td>High Line</td>
<td>Wetland channels</td>
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<td>Bucket fountain</td>
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<tr>
<td>Common grave - 3700</td>
<td>Existing lighting</td>
<td>Lighting vessels</td>
</tr>
<tr>
<td>burials</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 6.29. Matrix of design component development
Must I thus leave thee, Paradise? - Thus leave
Thee, native soil, these happy walks and shades?

Paradise Lost. Book XI. Line 269.
The last chapter looks toward an accumulation of these explorations, reflecting and building upon the last design exploration in a more refined design that collaborates the principles from the previous chapters and resolves the bigger issues of remediation, remembrance and reactivation.
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THE DIDACTIC LANDSCAPE

Water as a spatial definer
Site edges and connectivity
Ascent and elevation
Informal memorial spaces
Programmes
The act of collecting

Distinctive zones and functional layers
The collection and retention basins
The park landscape
The reliquary
The transcending vessels
The retained site

THE DIDACTIC LANDSCAPE
CHAPTER VII

THE DIDACTIC LANDSCAPE

This design chapter builds upon and further develops the components in more detail that were established within the last design iteration chapter. Through looking at the main principles which have been combined from the previous iterations, this design exploration seeks to resolve the thesis research question of how to engage with sites of misinterpretation and degeneration through engaging remediation, remembrance and reactivation as tools to regenerate the site.

The main principles this chapter discusses in depth are: water as spatial definer, permeable and impermeable site edges and connectivity to the city, ascent and elevation, informal memorial spaces, passive and active programme types and the act of collecting.

The design itself is made up of a series of interwoven spaces which become a coalescent space for all the previous identities that have been layered over the site, while solidly resting on the three main design narratives of remediation, remembrance and reactivation.

The final design exploration has been named within this thesis "The Didactic Landscape", as it is an educational learning landscape and a testing ground for approaching 'lost' sites like the Clifton Street Car Park site within the profession of landscape architecture.

The didactic landscape finds order within four distinctive zones of: the collection and retention basins, the park landscape, the reliquary, and the transcending vessels with the retained site weaving throughout each zone. The zones respond symbolically through the natural flow of water as it runs the same axial alignment from south to north as did the original Kumutoto Stream – both symbolically cleansing the site and returning a purified water source back underground into the city system and out to the harbour. Distinctive zones and functional layers help to define hierarchy, whilst also establishing a continuity and order as described in detail in the following chapter.

Figure 7.0. (Previous spread) The micro climate of the site can contribute to the didactic potential of the landscape

Figure 7.1. (Opposite page) Unmasked - pealing back the layers of the site to reveal the current identities
Lookout over the collection and retention basins
Collection and retention basins
Historic cable car
Constructed filtration wetland
Storage cistern
Water storage and circulation tower and cisterns
Elevated walkways
- linking the site with the urban east side
Existing recreational path
Entrance to water storage and circulation tower
- linking the suburban west side to the park landscape
Elevated pedestrian crossing
Lookout over the collection and retention basins

Collection and retention basins

Historic cable car

Constructed filtration wetland

Storage cistern

Water storage and circulation tower & cisterns

Elevated walkways
- linking the site with the urban east side

Water collection, aeration and circulation structures

Fine filtration vessels

Entry to circulation observation tower from the elevated walkway – linking the park landscape

Circulation observation tower

Elevated observation deck

Remediated water outlet and storage cistern

Figure 7.2. Site layout and context master plan.
Refer back to this plan on the following spreads
Re-emergence of Kumutoto Stream - channeled moss covered surface
 Structural bracing and channels
 Stormwater collection devices
 Elevated pedestrian crossing and gross pollutant trap
 Regraded pedestrian walkway
 Lookout over cable car and site
 Built-in seating along the wetland edge
 Wetland water regulators
 Lower overflow channel
 Wetland bridge crossing
Re-emergence of Kumutoto Stream
- channeled moss covered surface
- Structural bracing and channels
- Stormwater collection devices
- Elevated pedestrian crossing and gross pollutant trap
- Regraded pedestrian walkway
- Lookout over cable car and site
- Built-in seating - along the wetland edge

Sectioned motorway columns
- Cut out - exposing layered landscape
- Reliquary - archival cases
- Entry to circulation observation tower from the reliquary
- Remediated water settling storage tank
- Retained site - Passively programmed covered space
- Remediated water outlet and storage cistern

Figure 7.3. Sectioned site layout and context master plan.
Refer back to this plan on the following spreads
Collectively the design components consciously expose elements that are typically invisible to the public through rendering them visible with the intent that an understanding of the remediation process is experienced. The elements that are now rendered visible are an important component to the learning landscape, evidencing the collection of dirty sediment contaminated stormwater and witnessing the filtration methods, climaxing with a remediated source at the end.

Through collection devices that channel water, various bio-filtration methods that evidence the remediation and storage cisterns that celebrate a clean and purified source, a visual understanding and learning landscape is established. The storage cisterns mediate the amount of water which is stored for potable drinking water, reuse, irrigation on site and the amount to be pumped back into the city system.

Immediately after a rainstorm, the site becomes alive with the displacement of water channels across the site. Water becomes the architectural spatial definer as the components start to come alive with their multi-layered purposes, allowing a greater understanding of the layering of systems, functions and identities to play out within the site.
COLLECTION AND RETENTION BASINS (Visualisation and detail on pages 234-237)

Kumutoto culvert is redirected into the basins for a controlled source of water.
Stormwater is collected from the suburban fringe and motorway runoff.
Levels of water input and output are controlled to allow a steady feed into the wetland.

FILTRATION WETLAND
(Visualisation and detail on pages 231 & 238-241)

Wetland allows for lateral movement and slowing down of water.
Rainwater is harvested and redirected into the wetland through channels which run underneath the park landscape space.

OVERFLOW WATER CHANNEL
(Visualisation and detail on pages 238-239 & 251)

This channel deals with the overflow from the upper wetland and retention basins within large rain events.
Overflow from the upper wetland is managed via a series of water regulators that send water to the lower channel during large rain events.

Figure 7.5. Diagrams analysing the displacement, flow and storage of water within the site.
SITE EDGES AND CONNECTIVITY:

Permeable and impermeable boundaries - [reactivation]

The understanding of a politically disrupted, unfinished landscape and socially damaged heritage is experienced on the site’s impermeable boundaries. The design addresses the disconnected spaces between suburban Kelburn and commercial The Terrace by repairing the transitions across and through the site.

The design resolves this transitional movement by reconceiving the circulation network from three perspectives:

Vertically – enabling vertical movement between the existing platforms’ new datum planes;

Crossing – by crossing over from the residential Kelburn suburb to the commercial The Terrace;

Depth – by addressing the depth of the site through a pedestrian prioritised landscape and an elevated walkway linking all three levels.

It further addresses the depth of the site by repairing the link between the southern half of the site and the north, through a graded walkway over the cable car, maximising the collection of water runoff through introduced drainage channels. (Refer to sectioned plan on pages 218-219 for the path underneath the motorway.)

By addressing the circulation network first, it resolves some of the social problems that have impeded this landscape from becoming anything other than a void. The thesis proposes that movement across the three levels of the site strategically completes and reactivates this fragmented site through stitching the unfinished vehicular infrastructure together as an inhabitable piece of re-appropriated pedestrian infrastructure.

PEDESTRIAN - CIRCULATION

- Vertical movement
- Crossing elevated walkways
- Crossing site
- Depth movement elevated walkways
- Depth movement site
Figure 7.6. Plan diagramming new pedestrian circulation movement within the site
ASCENT AND ELEVATION:

Vertical orientation + identity - [reactivation + remembrance]

Ascent and elevation are notions that have always been intriguing, informing identities with places as vertical cues – to climb and to build the highest, to look out and view the land below, from where you came. The unique ability to invoke this interest in ascent and elevation is captured in the design experiment through the new towers within the site. As the site is a depressed seam between two motorways and beyond that, Kelburn and The Terrace, the design of the towers physically needs to inspire a sense of intrigue. These design experiments are conceived as vertical elements on site that spatially direct visitors between levels, while framing and focussing the view within the site and of the Bolton Street Memorial Park.

The design intent of the timber clad observation tower aims to engage with telling a narrative of remembrance through directing and framing the view from within the tower through the two lookouts. The lower lookout frames the light memorial vessels hanging underneath the northbound motorway, and as visitors reach the top the lookout frames a view over the motorway and towards the cemetery. At full height, the head of the timber clad tower peers over the motorway, allowing the visitor to climb above the threshold of the motorway and witness the tale of loss – the shifting and building up of traces made on the land by people through the regarded, displaced and fragmented landscape.

The conscious design move of the towers – an architectural statement within the landscape – is imperative to the reactivation and remembrance of the site. They become sculpturally iconic while adding to the material language within the site and contribute to the visitors’ mental map as legible wayfinding tools – generating memory and identity through physical and visual elevation.

Figure 7.7. View over the motorway and of the memorial light vessels from the lower lookout within the tower

Entry to tower from reliquary
Circulation - precast concrete steps
Tension cable - stainless steel wire rope
Structural form - rectangular hollow sections (RHS)
Lower lookout - glass and steel
Upper lookout - glass and steel
Exterior façade - timber cladding
Complete form - observation tower
Entry to tower from park landscape
Circulation - precast concrete steps
Middle level - access to suburban edge
Top level - access to elevated walkway
Water tower
Structural form - enclosed concrete storage tank
Storage cisterns - concrete and glass
Complete form - water tower
Figure 7.8. Diagrams analysing the towers as a layering of form, function and aesthetics. The two towers provide different functions, yet contribute to the reactivation of the site through ascent.
INFORMAL MEMORIAL SPACES:

Anti-memorials - [remediation + reactivation + remembrance]

The design explores alternative approaches to the site's resolution through informal memorials to highlight remediation processes, but more imperative, to highlight past identities and histories. These spaces are areas where design experiments conceived as sculptural installations become participants of the landscape. They take on a persona that induces an interest for the occupants on site. The vessels and cases which store artefacts across site are the objects that render what is typically invisible, visible.

*Art does not reproduce what is visible it renders things visible.*

Paul Klee.

The by-products of the remediated stormwater are also seen as an important component of the design in a didactic sense. An exhibition in the form of a reliquary celebrates and archives the accumulated waste that has been remediated from the site and by-products of the filtration methods. These design moves are seen as ways to reactivate the site through providing an always changing 'installation' on the site, and with it, bringing social understanding and therefore responsibility to the way we consider stormwater and our impact as a city and as individuals to the water systems upon which we rely.

The design further engages with remembering past identities through the retained triple height areas on site. These areas give a different sensation of awe than being elevated above the earth as discussed previously, and the design facilitates a moment of pause through hanging vessels as allegorical voids within the retained volumetric motorway spaces. They are allegorical of the earth and houses that were taken out to create a void, and of the thousands of graves moved into one large volumetric vault, fracturing the cemetery and displacing their cultural identity. These vessels embody the identities of erasure.
Figure 7.9. Diagram of the reliquary cases as a form of layered archive

- Precast concrete base
- LED strip lighting
- Tension cable - 6mm stainless steel wire rope
- Spacer - steel crimp and rubber ring
- Rectangular exhibition cases - 30mm reinforced glass
- Green pin d-link shackle - high tensile steel
- Archival display case - 10mm reinforced glass
- LED strip lighting and tension cables
- Displaying information on the current exhibition on the reliquary and on the site’s identities
PROGRAMMES:

Passive + active - [remediation + reactivation + remembrance]

The programming proposes a flexible passive agenda to the platforms to allow for the transition of different activities to play out. Both passive and active educational programmes are explored and layered within the site; in areas that would otherwise be viewed as breaks in the landscape or infrastructure system, the strategy seeks to use these opportunities to hinge the programmes together through circulation pathways and enhancing the occupant’s experience. The platforms are intertwined with social programmes acting as catalysts for public involvement incorporating ecology, education, recreation and leisure. This aims to cater to the diverse range of demographics across the communities with the vision to capture the urban richness that the site has to offer and redefine the identity of this infrastructural corridor.

Recreation and leisure – The infrastructural landscape system of pathways connects back up to the existing pathways surrounding the site, linking the immediate site to the wider context of Wellington’s pedestrian pathways. The design offers places to rest, wander and take respite from the city. The retained site offers the covered space to hold and perform specific exhibitions and shows that Wellington hosts throughout the year.

Ecological and educational – The remediation strategies of retention basins and filtration wetlands are ways of engendering a sense of experiential understanding for the occupant of the site, through re-embedding a forgotten identity of a regenerating ecosystem through which the occupant can walk. These passive and active programmed areas perform bio-filtration and water cleansing roles, storing water for reuse irrigation and displacing the excess to requirement water back into the harbour.

Figure 7.10. Axonometric of site - locating and proposing passive and active programmes
Figure 7.11. Axonometric representations of the passive and active programmes proposed
THE ACT OF COLLECTING:

Through the act of collecting history, memory and ecology the design experiment enables a resolution to the loss of these identities as an act of remembering. The architectural elements are a way of mining history and layering the accumulated histories that have coalesced on the dilapidated site. Collectively, the architecture forms a collage of different elements that begin to establish a new language of architectural connectedness between old and new within the site, by adding a palette of complementary materials. These forms give purpose to the existing platforms through constructed concrete clad wetlands, connecting timber, concrete and steel viewing towers that allow the site to be understood across the multiple levels and a concrete, steel and glass archival space that functions inherently as an interior gallery through informal memorial installations. Purpose is instilled in the retained covered north and south areas through the installations of light vessels hanging underneath the covered spaces.

The final act of collection is experienced through the collection of ecology both ephemeral and permanent, expressing the rehabilitated landscape. Visually, society is more attuned to sustainable practice and can understand the remediation processes that are at play.

The introduced plant species of sedges, rushes and reeds including lake club rush and tall spike sedge (which are used for weaving) help maintain water quality while removing sediment and pollutants from the water.

Through the collection of plants from the site, weaving practice and landscape architectural testing of remediation processes, the new didactic landscape is realised as a recollection of a past purpose and a re-established place identity.

Figure 7.12. The material palette complements the existing site and layers the new elements within the existing structures.
Figure 7.13. Visualising the constructed wetland within the park landscape. Visitors collecting reeds and sedges for weaving.
DISTINCTIVE ZONES AND FUNCTIONAL LAYERS:

The site is arranged in four distinctive zones that coalesce together, starting with the collection and retention basins, the park landscape, the reliquary, and the transcending vessels. The retained site weaves throughout the designed areas, enabling a coherent flow of layers.

For the purpose of understanding the intricacies of each zone more clearly, the diagram below has been portioned into five areas which bisect and overlap some of these zones. Area I, Area III and Area V will be looked at in more detail in the following pages.

Figure 7.14. Schematic section (from south to north) through the site - breaking down the site into distinctive zones and functional layers
FUNCTIONAL LAYERS

1. Kumutoto Stream surfaces
2. Collection and retention basins
3. Stormwater redirected over cable car tracks into wetlands
4. Park landscape and wetland
5. Cistern - remediated water storage and circulation
6. Cut out - exposing the layered landscape
7. Elevated circulation
8. Reliquary - archival cases
9. Reliquary - entrance to tower
10. Cistern - remediated water outlet
11. Collection devices
12. Filtration boxes
13. Aeration and lighting structures
14. Lookout tower and circulation
THE COLLECTION AND RETENTION BASINS:

The southern end of the site, beneath Everton Terrace overpass, is where the resurgence of the Kumutoto Stream is realised in the design experiments; in the new design, the culvert is redirected initially through a silt trap and UV filtration treatment then carries on bubbling up and pooling in an area of clumped soft mosses, which have overgrown the precast concrete channels that direct the water northward. From here the water then seeps down the concrete clad face and channel armatures into the retention basins, where the first series of testing and filtration occurs.

The visitor is invited to witness the collection, retention and filtration of the stormwater from the buried culvert along with the collected fuel-tainted stormwater from the motorway. It is a chance for the visitor to understand and experience the amount of water moving through the space. The first retention basin acts as the site’s initial sponge, slowing the water down and allowing the larger solids to collect in the concrete ribs on the floor and pollutant traps underneath the elevated pedestrian crossings. The second and third basins act as the site’s first testing ground of removing pollutants, metals and chemicals through floating vegetated islands, planted with Carex Virgata. The roots of the Carex bind the pollutants and metals below the surface of the island.

Figure 7.15. Schematic section of AREA I - the collection and retention basins - highlighting the design components.
Figure 7.16. Visualising the resurgence of the Kumuroto Stream from the moss covered channels and elevated walkway.

Figure 7.17. (Next Spread) Visualising the second and third retention basins from the elevated pedestrian crossing - viewing the testing ground of the floating vegetated islands.
THE PARK LANDSCAPE:

The park landscape exists on the mezzanine level, which runs the length of the site, and represents the second testing ground as a remediating platform of ecologies layered directly over the previous programmatic parking platform. The walking platform is layered with a waterproofing layer, precast concrete channels to direct the water into the wetland, and then capped with timber decking. Areas are strategically left exposed to witness the layered programmes and previous identities on site. The wetland is constructed from precast concrete formwork that mediates height and the channelling of water, with a waterproofing layer on top, engineered soils, and gabions with specifically catered planting types.

The meandering wetland filters and acts as the organisational spine of the landscape through rhythmically aligned overflow channels. These channels mediate the flow of the water and redirect water to a lower channel in large rain events and 20 year floods. Thus the water becomes the spatial definer of this changing landscape.

Figure 7.18. Schematic section of AREA III - the park landscape - highlighting the design components

Figure 7.19. (Opposite page) Axonometric diagram of the park landscape as a layering of function informing the rhythmic design
Figure 7.20. Sectional diagram analysing the water level and flow of the wetland

Figure 7.21. Sectional perspective through the site (from east to west) highlighting the design components
Figure 7.22. Panorama within the park landscape - everyday recreation and leisure space, and also an outdoor classroom

Visualising the circulation tower, water cisterns, elevated walkway above and wetland running the length of the site. Every second water overflow channel is a bridge to allow visitors to cross the wetland.
THE RELIQUARY:

The reliquary represents the didactic potential of categorising, archiving and revealing the remediational processes, but also it is an important stage to strategically provide insight into these designed moments and components through a series of specific visual and reflective pauses. The artefacts on display here are carefully selected to visually tell a particular story about how much waste we flush into our harbour. Possible exhibition themes include: a stratified collection of cigarette butts, or 15,000 coke bottles and plastic bags, or the stratified sedimented waste collected from the site and stormwater catchments.

The reliquary space consists of a system of precast concrete bases with 6mm stainless steel wire ropes tensioned between the bases and ceiling of this interior space. This provides the archival frame for the 30mm thick reinforced glass rectangular exhibition cases, which are suspended between the wire ropes. The cases are vertically stacked and aligned to signify the layering of waste that has accumulated across the site and across the years.

Figure 7.23. Schematic section of AREA V - the reliquary - highlighting the design components
The orientation of the cases offers the visitor a parallel view and an ability to pause and read the descriptive accompanying text of the didactic landscape that reflects on the identities and vessels across the site. The space is naturally lit during the day with the existing apertures letting light filter through from the east and west. The space is then transformed at dusk, when the cases become illuminated, showcasing the artefacts and highlighting their prominence within the site as important visual cues to remediation.

The triumph of the reliquary is evidenced through the celebration of these artefacts becoming pieces of art and even juxtaposed to other similar objects by being placed in the context of a specific narrative. As visitors meander through the reliquary, the hanging light vessels to the west tie the two areas together through juxtaposing the voidance created by the vessels with the voidance created by the cases. The reliquary thus provides a space for reflecting on the subjectivity of memory as visitors speculate on the remembrance of the past layers of this landscape and the Bolton Street Cemetery and the now remediated ecologies through the illuminated artefacts enshrined in glass cases.

Figure 7.24. The reliquary space at dusk - as the lights start to turn on. The visitors are able to view the remediation processes and read the history of the site as they move through this space.

Figure 7.25. (Next spread) The reliquary space at night - the space transforms into an interior room.
Collectively, the previous design explorations coalesce on the upper level of the site, where water channels redirect the contaminated stormwater from the motorway horizontally across the site and vertically within this area of the design.

The previous parking platform houses the ecological atolls which filter the fuel-tainted stormwater within a series of precast concrete cases. These cases are seen as the site’s last testing ground for the remediation processes. The concrete cases are made up of a series of components each lined with a waterproofing layer – with the first section filled with a gradient of aggregates and sand where the water pools and filters through into the next section which is constructed from engineered soil and specifically selected plants.

The water is then redirected through aeration structures which redirect water through a series of distribution pipes to fine filtration vessels, where gravity filters the water through a series of aggregates (including coal and sand) to storage vessels.

The water then falls and empties out to the last channel which directs the purified water to the northern end of the site where it falls down into the storage cistern and exits back underground, leading out into the harbour.

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Figure 7.26. Schematic section of AREA V - the transcending vessels - highlighting the design components

1. Entry to tower from elevated walkway
2. Entry to observation deck
3. Lookout towards the Bolton Street Cemetery
4. Remediated water channel
5. Water collection, aeration and circulation structures
6. Water distribution pipes
7. Fine filtration vessels
8. Remediated water storage vessels
9. Water channel exit to storage cistern
10. Observation deck lookout
11. Rain water collection
12. Storage cistern for remediated water
Figure 7.27. The transcending vessels are the site’s last testing ground. A dynamic sculptural icon within the landscape that celebrates water as a spatial definer.

Figure 7.28. (Next spread) Visualising the elevated observation deck during a rain event with views down onto the filtration vessels and memorial light vessels below.
THE RETAINED SITE:

How does one start to touch the site without destroying the qualities that are classified as its current identity? Furthermore, how can one be gentle with a site that has undergone such a transformation already, to leave some areas untouched and alone? This thesis takes the position that it is not just the Kumutoto Stream that needs to remain part of history or needs to be prevalent, and that especially in the case of this site, the devastation of architectural history needs to remain as a meaningful message – to maintain a space that speaks of the current identity layer of the site, so that in years to come people can make these connections to this site as a resultant ‘memorial’ to what has passed. The zones underneath the northbound motorway section have been largely left untouched, seeking resolve in the retained site qualities as important traces of previous car parking programmes and spatial anomalies that need to remain there.

These zones underneath the northbound motorway are seen within the design exploration as the large passively programmed spaces to cater to special events, such as farmers markets, films and festivals and other outdoor programmes which often require shelter during inclement weather throughout the year.

Figure 7.29. Sectioned plan – diagramming an event within the passively programmed space underneath the northbound motorway and the reliquary.
Figure 7.30. The retained site. Visualising the lower overflow channel as an element of play for children.
Some natural tears they dropp’d, but wip’d them soon;
The world was all before them, where to choose
Their place of rest, and Providence their guide.
They hand in hand, with wand’ring steps and slow,
Through Eden took their solitary way.

*Paradise Lost. Book XII. Line 645.*
Some natural tears they dropp'd, but wip'd them soon;
The world was all before them, where to choose
Their place of rest, and Providence their guide.
They hand in hand, with wand'ring steps and slow,
Through Eden took their solitary way.


Figure 7.31. The retained site - visualising the site from the suburban west side with the linking walkway passing beside the informal memorial below the motorway and transcending vessels on the east side reaching above the motorway.
CONCLUSION
Unveiled
The proposed flyover adjacent to Wellington’s Basin Reserve is an urban infrastructure planned for the near future that is about to cause a similar problem as the Clifton Street Car Park. And while the approach to its remediation could be very similar to the approach for Clifton Street Car Park, its relationship to its context is so different that an appropriate landscape architecture proposition would take on a very different site-specific appearance. This thesis reflects that similar sites could be resolved to similar degrees, though the site-specific narratives that enable a reintegration of community would be different. Both the Basin Reserve and Clifton Street Car Park sites offer important site-specific opportunities within the site to provide covered outdoor spaces for a variety of programmes and to claim these outdoor zones as areas which could be actively inhabited by the public. They are zones with a capacity to frame memory and view and the city should use these in ways to activate sites like this rather than allowing these new motorway infrastructures to deactivate the landscape beneath them and become a barrier.

Such blighted border edge conditions are typically the result of massive infrastructural projects that are still being placed out of context into an urban environment. But the design research experiment suggests that because they are infrastructural, they offer opportunities. They have structural capacity and they have occupational capacity, both vehicular and human. By using the infrastructure as an infrastructure for a new landscape of pedestrian and ecological movement, this thesis design research experiment has evidenced a more robust approach to their repair. The Clifton Street Car Park, a site layered with expunged pasts, is now a landscape of recuperation. The nature of this design experiment is strengthened through incorporating, rather than erasing, the previous identities that have long been buried underneath the concrete archipelago – formulating a design that engages with multiple typologies and organises them on a strata of platforms.

If the approaches this thesis proposes for sites like the Clifton Street Car Park were looked at as philosophical objectives, then landscape architects might be able to have a greater role in guiding these infrastructural movements. By not simply having engineers construct these infrastructures, but rather engineers combined with landscape architects providing these philosophies and allowing it to be done well at the beginning rather than through post-rationalisation and mitigation at the end, there may be a new role for infrastructural corridors within our cities that would provide guidelines for civic responses in the future.

The approach that was undertaken for the design of this didactic landscape was to address the two ends of the site as anchors, dealing primarily with the largest problem that this site faced of pedestrian circulation, overlaid with the collection, filtration and displacement of stormwater. The northwestern end of the site is the most intriguing; this area is where the site – already extraordinarily beautiful and unique spatially – had its own narrative to convey and should not be touched. It is a triple height space, offering an awe-inspiring inhuman scale that is so unique to this site, unparalleled by any other outdoor or indoor space around Wellington. The architectural statement of leaving this portion largely untouched is a chance for the visitor to reflect on this voidance and fragmentary nature of our society, which is too often covered up within a green bandage.
Where the southern end collects all the water from within the catchment area, the middle is allowed to remain as it is; visitors walk through the enormous, beautiful but resounding ruin until they reach another anchor point, the reliquary, which brings them back to humanity and takes them out of the industrialised political issue. The northern end of the site then displaces the remediated stormwater back into the harbour. The narrative of this design approach is allegorical of the journey of a stream – from its source point, through cleansing, and then the meandering journey out to the harbour.

When visitors approach this site, the design facilitates an active environment through incorporating various sculptural elements suspended from the elevated overpass. It creates a changing landscape view for the public, so there is constantly something interesting and new to look at there, but more importantly it conveys the narrative of the site, its history and its community rather than remaining a desolate volume and site of erosion. Through situating itself in the seam between The Terrace and Kelburn, the interlocking public park system allows and enables a direct relationship between people and the site processes. This direct engagement between process, operation, and a natural identity and awareness of remedial processes engenders a celebration of a piece of landscape infrastructure as a new systematic and operational spine for the city.

The physical act of collecting layers of memory is a more ephemeral act of remembering, which this thesis has engaged with in a manner that allows the site to be constantly reviewing itself, and thereby making people re-view it as well. The collection of water on site and the collection of waste as the remediated by-product enable and inform a logical flow, a composition of order. It achieves this and frames the role and context of the site – as a site of recuperation.

More important than this, it gives back to the community, to the city, and to the profession of landscape architecture, a testing ground for the methods of treating sites like this through providing more inviting environments that have never been fully ameliorated before. Ultimately, the Clifton Street Car Park has been given back to the landscape – not to be consumed, or to be taken completely over by it – but as a supplemental typology, a parallel park, that embeds itself within the existing.

The design is not apologetic, but rather allows us to re-evaluate how to approach these all too common spaces that are still being placed within the urban infrastructural realm. The multi-faceted systematic landscape approach that this thesis undertakes can be used as a precedent for the amelioration and application of other desolate sites similar to the Clifton Street Car Park. Displaying these layers of remediation on site changes the focus from a space that is associated with fragmentation and disruption, to a space that offers an understanding and narrative of ecological and social regeneration. The didactic landscape now functions as a new type of nature. For society, the remediation of ecology fundamentally enables the site to be re-inhabited, and through the stitching of communities, ecologies and ultimately the removal of waste, it enables us to view this site in an entirely new way.
The voyage of discovery is not seeking new landscapes, but in having new eyes.

Marcel Proust
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THE PLACE OF PLACELESSNESS

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The intrinsic nature of reflecting light and sound that water provides to space is seen to enliven the site’s natural qualities and complement the brutalist structural concrete.

The fundamental history of the site is re-encapsulated through the didactic landscape that stretches from pre-historical, to current day and informs the water-based narrative of water as a spatial definer as the important design cue for the project.

Introducing well-chosen planting into an infrastructural design is seen as a strategic way to weave a site that has been damaged from neglect or construction back into use - accentuating the site’s regeneration.

Taking into account the ecological history of site through environmental considerations coupled with human settlement patterns and introduced planting creates invaluable links between the design and the site’s history. All these considerations add up to inform a sense of place and identity within the landscape.

Site-specific co-ordination is undertaken with reference to documenting existing planting types and proposed palettes, based on sun, soil and water needs.

Figure 9.2. A selection of leaves collected from the existing site
Reed with fine grey-green foliage. Creeping rhizomes.
H 1m x W 1m

Baumea articulata. Jointed twig rush.
Large robust sedge, swampy areas
Grows in standing water H 1.8 x W 2m

Baumea juncea.
Rush with blue-green foliage. Lowland swamps very wet soils. Full sun. H 1m x W 1.5

Baumea rubignosa.
Vigorous creeping rush. Found in boggy, swampy areas.
Needs full sun. H 1m x W 1.5

Bolboschoenus fluviatilis. Marsh clubrush.
Sedge found on margins of coastal streams and swamps.
H 1.5m

Carex secta. Purei.
Common plant of swampy areas. Grow best in sun or semi-shade. H 1.5 x W 1m

Carex virgata.
Vigorous sedge useful for edge planting very damp soil.
Sun or semi shade H 1m x W 1m
Cyperus ustulatus. Giant umbrella sedge.
A vigorous sharp-edged swamp grass forming large thick clumps. Useful plant for revegetation. Will grow in standing water. H 1.5m x W 1m

Eleocharis acuta. Spike rush.
A sedge with rhizomes. Stream margins and edges. Needs full sun. H 1m x W 1m

Juncus pallidus. Giant Rush, Wiwi.
Giant rush forming a large clump with creeping rhizomes. H 1.5m x W 2m

Schoenoplectus tabernaemontani. Lake Club rush.
A rush-like plant growing margins of lowland lakes, streams and ponds. Suited to revegetation. It has a creeping rhizome. H 1-2 m. Grows in shallow water.

Typha orientalis. Bulrush, Raupo.
A vigorous erect clump-forming plant with spreading rhizomes. Large furry brown cylindrical flower heads can be harvested. Will grow in standing water up to 1metre. Suited to revegetation. H 2.5m x W 5m
APPENDICES

Paradise Lost

Figure 9.4. Old layered approach to site informed by Paradise Lost and the structure of the mezzanine level

Figure 9.5. Old methodology informed by Paradise Lost - approach to sites like the Clifton Street Car Park
PARADISE LOST METHODOLOGY: DIAGRAMATICAL + THEORETICAL INTRODUCTION

ALL URBAN DEGRADED SITES

NARRATIVE OF UNDERSTANDING

CLIFTON STREET CAR PARK

DISCIPLINE OVERLAYS USING RELICS OF SITE

LANDSCAPE ARCHITECTURE SCULPTURE
PARK RELIQUARY VESSELS

TOOLS FOR UNDERSTANDING IDENTITY

REMEDICATION REMEMBRANCE

ECOLOGIES PLACE ECOLOGICAL RECLAMATION
HISTORY MEMORY HUMAN RECLAMATION

REACTIVATION

SOCIAL RE-INTEGRATION

PARADISE LOST METHODOLOGY:
DIAGRAMATICAL + THEORETICAL INTRODUCTION
A dungeon horrible, an all sides round,
As one great furnace, flam’d. Yet from this
No light, but rather darkness visible.
Served only to discover sights of war,
Regions of smoky, hideous shades, where p
And ron can never dwell, hope never rest.
This came to all: but nature without end
Still urges, and a fiery shield,
With ever-burning sulphur unconsum’d,
Such place eternal justice had prepared.
For these rebellions here their pris’n ord

Book I

Book II

Book III

Book IV

Book V

Book XI

The rot in circuit, with this universe.
Look downward on that globe, whose felt
With light from heaven, though but reflect
That place is Earth, the seat of Man.
That the day, which else, as the other blemish
Night would beend. Bar three three weights
So old-thinst opposite for her ad
’Troundly intervenes, and her assembly coins
Still rolling, still snowing, through still.
With bowed beam his condescension with
Heaven itself and empires to desolate the
And in her pale circumference checks the sight
That spin to which I point is paradise.
Adam’s doleful, those lofty shades, her brow
’Tway down cast out and lone. Our notice
Then he, and yes, his note.

Cade, and pass, and fit, and branching p
A syblos some, and, in the radar secret,
Black shooles shooles, a woody chassis.
On occasion view. We lighten than chir is
The air, the park of paradise. The great sun
Which to our general seat gape project
From his mother empires neighboring now
And lighter than that will, a circling now
Of prodigious rings, heaven with ominous
In heaven, with graciousness or grace, of,
With gain unmak’d, in which all the:
Than is the way, the sky, the earth.

Flowers, worthy of paradise, which none
In both and various locks, but nature more
A poet forth, before, and in, and that
And such where the snowing is fast frozen.
The open field, and where the sentenced
And the sentence, no more indolent below.
Thus was a top’ry mount of various view.
Green whose rich roses sprout abundant
Others whose fruits, baroqued with golden
Herein, here is, and in, and in.
Herein, her note, both down, down, and at
Gowning the tender feet, were impressed, in.
Or goby followed, or in the bowery lap
Of some narrow valley spread her store.
Flowers, of all sorts, and without them the:
Another, apples, sauce, green and nice ones
Of rich roses, or where the mantling
Lay’s forth his purple grape, and gently on
Lavender. Moreover immuring woman
Down the steep hills, dispersed, in a leaf
That to the springbok bring with mythic crow
Her stratified arrow kids, saints their stream.
The birds, their quiet apply, and, seminal air
Breathing the oil of field and fruit, over
The trembling towers, while universal Pan,
Kate with the Graces and the Hymen in the
Lady on the eternal spring. Not that fair
Of Eros, when Propontis gathering
Hereof a lower flower, by grove of
Was gathered, which coat Co and all that
To seek her through the world: nor to
Of Daphne by Omo, and the inspired
Canadian spring, might with this paradise

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Figure 9.6. A selection of verses from Paradise Lost

Most opportune might serve his wish, and
The separate solemn hosts of all the field.
Hits after long delay, irresistible,
Of heighten'd hue, his foul intent the
Fist'ned, front of baud, in whom To,
and his dark suggestions hide
From sharpest sight, in the whist
Whatever slighter, none would repose.
As from his wit and native wisdom
Proceeding, which, in other bosoms doth
Double might bring of dulcet power:
Artes within beyond the sense of ears.

And he the future still so vast
In apprehension of its substance feel.
Greatness to be born. But that now is gone
Man is no more to wear. These few our
Firmest and最高 will to last among
Wasting that watery desert. I had hope,
When violence was cease, and war was on
All would have then gone well, peace was
With length of happy days the rest of the Man
Was I for disdained. For now a
Peace to corrupt no less than war to warm
How comes it this? Unfed, unshod
And whether best the rest of Man
To whom (in Man) (?1)? Whose, whom?
In triumph and laureate wealth, are they
Free now in ears of proudest eminence
And great eclips, but of true virtue void.
Who, being split much blood, and done:
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APPENDICES

Research Data


FLOATING VEGETATED ISLAND RETROFIT TO TREAT STORMWATER RUNOFF

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ABSTRACT

A novel approach to improve retention basin water quality performance is retrofit with a floating vegetated island (FVI) to introduce wetland-like vegetation. Limited studies have identified the capability of pollutant removal of FVI but none have dealt with treatment efficiency at a full scale specifically for stormwater.

This paper presents the expected different pollutant removal pathways induced by a FVI as well as the monitoring methodology used to assess the overall efficiency of a retention pond with a FVI compared to an unvegetated one. Sampling and analysis methodologies to quantify the magnitude of each pollutant removal pathway are explained and a preliminary analysis of plant roots from a well-established FVI is presented. The results show that the roots hanging in the water below the FVI can host microorganisms. Furthermore, they become covered by deposits (clay and iron plaques) which have sorption capacity for elements like sulphur and zinc. Preliminary analysis confirms that roots surfaces below the FVI can act as a sink for pollutants.

KEYWORDS

stormwater, treatment, floating vegetated island, retention pond, metals, nutrients

1 INTRODUCTION

A floating vegetated island (FVI) is a vegetated device typically installed on the surface of a pond in order to improve water quality treatment. It is composed of a floating plastic mat and vegetation planted within it, allowing the roots to hang into the water (Figure 1).

3 CONCLUSION

The present research will contribute to the assessment of the global efficiency of a pond retrofit with a FVI compared to a conventional retention pond. Furthermore, this study will identify the processes involved in the pollutant removal by a FVI, which are for now unknown. The correlation of the physicochemical parameters induced by a FVI with the different removal pathways will help to establish a relationship between the design of a FVI and the pollutant removal efficiency. This will contribute to design specifically for improved stormwater treatment. Such techniques could thus be more widely implemented for road and urban areas and would contribute to sustainable urban development and landscaping in a cost-effective manner.

THE SITE

CLIFTON STREET CAR PARK

INITIAL DESIGN EXPERIMENTS

LITERATURE

PARADISE LOST

FORM + SPATIAL ORDER

NARRATIVE OF SITE
- COLUMNS AS BOOKS
- FALL OF MAN
- RESTITUTION FOUND @ END

UN-RESOLVED

LITERATURE

PARALLEL PARKS

THE DIDACTIC LANDSCAPE

CRITIQUE OF PARALLEL PARKS

PROBLEMS

CIRCULATION
STORMWATER
RUNOFF
EDGES
SAFETY

OPPORTUNITIES

LEVELS/PLATFORMS
INFRASTRUCTURE
CONNECTING -
BOUNDARIES
COVERED PUBLIC
SPACE

FORM + SPATIAL ORDER

VESSELS
RECOLLECTION
DEVICES
- TRACES
- MEMORY
- WATER

TOWERS
VERTICAL
PRESENCE ON
SITE
- COLLECTION
OF WATER
- VIEWING

HOW TO SPATIALISE

UN-RESOLVED

LITERATURE

PARALLEL PARKS

THE DIDACTIC LANDSCAPE

CRITIQUE OF PARALLEL PARKS

PARK[ING] SPACE

PRECEDENT STUDY OF STACKING AND LAYERING PROGRAMMES ACROSS 3 SCALES MACRO-MEDIUM-MICRO

FROM PLACE TO PLACE

INTERNATIONAL CASE STUDY OF DILAPIDATED SITES - THAT HAVE BEEN RE-ACTIVATED THROUGH REMEMBRANCE AND REMEDIATION

DESIGN ITERATIONS TESTING FORM AND SCALE - INFORMED BY SITE ANALYSIS, LITERATURE AND CASE STUDIES

PARK BETWEEN THE WHITE LINES

LEVELS/PLATFORMS INFRASTRUCTURE CONNECTING - BOUNDARIES COVERED PUBLIC SPACE
Figure 9.8. Process diagram

Figure 9.9. (Back cover page) Paradise Lost - A critique of lost urban sites as didactic testing grounds for landscape architecture.
PARADISE LOST

A critique of lost urban sites as didactic testing grounds
for landscape architecture