An exegesis submitted to Auckland University of Technology in partial fulfillment of the requirements for the degree of Master of Art and Design (MA&D)

School of Art and Design

2014

Hannah Alleyne

TRAVERSING MEMORY:
THE LAST DAYS
OF THE OLD
MANGERE BRIDGE
Abstract

We rely very heavily on things, environments, or people external from ourselves to preserve our own memories. Mnemonic reminders, whether they are visual, aural, olfactory, or tactile, reinforce our memories, strengthening neural pathways. The removal of reminders through the destruction or disintegration of an environment that might have scaffolded mental processing could very likely cause the destruction or disintegration of the memories themselves.

In his book, *Spatial Recall: Memory in Architecture and Landscape*, Professor Marc Treib argues that built structures both hold and project memories. Pieces of architecture and infrastructure become repositories into which both deposits and withdrawals can be made. Treib sees the built environment as a memory bank for both individual and communal use.

Auckland city’s Old Mangere Bridge, in the Manukau Harbour, is a mnemonic device that offers communities, as well as individuals, an opportunity to recall and preserve memories of the area. As the bridge falls into disrepair and faces demolition, associated memories for communities and generations of people could well be lost.

This thesis offers a spatial intervention that attempts to foster and retain memories long after the old bridge is gone. Through an iterative drawing practice and the collection of both individual and community memories of the Old Mangere Bridge, I intend to construct a site-specific spatial provocation with two memory related outcomes. Firstly, the piece will attempt to stimulate recollections of the area, strengthening both individual and collective memory pathways, fostering old and new memories. Secondly, the installation intends to illustrate the temporality of both built structures and memory.

---

Table of Contents

Abstract iv
List of Figures vii
Acknowledgements xiv
Introduction 1
Chapter 1. Repeating Connections: The History of the Old Mangere Bridge 9
Chapter 2. Collecting Stories 21
Chapter 3. Drawing A Mnemonic Device 35
Conclusion 74
Addendum 78
Bibliography 84
Appendix A: Ethics Approval 89
Appendix B: Shared Stories and Correspondence 90

List of Figures


Figure 1-1 Hannah Alleyne, Reproduction of George John’s drawing of Uringutu and Ngaoho pa sites surrounding Manukau Harbour in early 18th century, 2013. Multiple media.

Figure 1-2 John (Dr) Johnson and Eliza Ann Hobson, The Ware of Te Whero Whero, Chief of the Waikato, Onahonga, 1843. Black ink and wash, 45mm x 80mm. Reproduced from Alexander Turnbull Library, Ref: E-216-f-174-1, http://natlib.govt.nz/records/2318280 (accessed 25 May 2014).

Figure 1-3 Edward Ashworth, Oneunga Beach, Manukau Harbour, New Zealand, 1843. Pen and ink, 151mm x 155mm. Reproduced from Alexander Turnbull Library, Ref: A-208-001, http://mp.natlib.govt.nz/detail?id=12526 (accessed 29 April 2014).

Figure 1-4 James Stewart, Onenhunga and Mangare sic Bridge, 1866. Manuscript map, 700mm x 1330mm. Reproduced from Sir George Grey Special Collections, Auckland Libraries, NZ Map 1155, http://www.aucklandcity.govt.nz (accessed 29 April 2014).
Figure 1-5  James D Richardson, Looking South from just West of Mangere Bridge showing Mangere....., c1914. Glass plate negative. Reproduced from Sir George Grey Special Collections, Auckland Libraries, Ref: 4-8647, http://www.aucklandcity.govt.nz (accessed 29 April 2014).


Figure 1-8  Photographer unknown, Old Mangere Bridge ca 1980, c1980. Black and white photograph, 130mm x 180mm. Reproduced from Manukau Research Library, MGE: I, 3, no. 54, Ref: Footprints 01142, http://manukau.infospecs.co.nz (accessed 29 April 2014).

Figure 1-9  Hannah Alleyne, North-west detail of Old Mangere Bridge, 2014. Digital photograph.

Figure 1-10  Hannah Alleyne, Mangere Bridge highlighted within surrounding Auckland Local Boards, 2013. Multiple media.

Figure 2-1  Hannah Alleyne, Page from Guest Book, 2013-2014. Pencil and ink on paper, 297mm x 150mm.

Figure 2-2  Helen de Faria-Johns, Hannah Alleyne hanging memory-collection posters, 2014. Digital photograph.

Figure 3-1  Hannah Alleyne, Mangere Mountain from Onehunga in 1875, 2013. Graphite on paper; 297mm x 210mm.

Figure 3-2  Hannah Alleyne, Mangere Mountain from Onehunga in 2013, 2013. Graphite on paper; 297mm x 210mm.

Figure 3-3  Hannah Alleyne, View along the first Mangere Bridge towards Mangere in 1913, 2013. Graphite on paper; 297mm x 210mm.

Figure 3-4  Hannah Alleyne, View along the Old Mangere Bridge towards Mangere in 2013, 2013. Graphite on paper; 297mm x 210mm.

Figure 3-5  Hannah Alleyne, Mangere Motorway Bridge in 1980, 2013. Graphite on paper; 297mm x 210mm.

Figure 3-6  Hannah Alleyne, Mangere Motorway Bridge in 2013, 2013. Graphite on paper; 297mm x 210mm.

Figure 3-7  Julianna Satchell-Deo, Hannah Alleyne drawing large-scale project image, 2013. Digital photograph.

Figure 3-8  Hannah Alleyne, Old Mangere Bridge with Bailey Bridge in 1980, 2013. Graphite on paper; 1240mm x 840mm.

Figure 3-9  Hannah Alleyne, Looking south along the Old Mangere Bridge in 2013, 2013. Graphite on paper; 1440mm x 840mm.

Figure 3-10  Hannah Alleyne, Old Mangere Bridge from Onehunga Wharf in 1945, 2013. Graphite on paper; 1235mm x 840mm.
Figure 3-11  Hannah Alleyne, *Old Mangere Bridge from under the new Mangere Motorway Bridge in 2013*, 2013. Graphite on paper, 1505mm x 840mm.

Figure 3-12  Hannah Alleyne, *The first Mangere Bridge in 1913*, 2013. Graphite on paper, 1220mm x 840mm.

Figure 3-13  Hannah Alleyne, *Looking toward Onehunga Wharf across the Old Mangere Bridge in 2013*, 2013. Graphite on paper, 1265mm x 840mm.


Figure 3-20  Hannah Alleyne, *Prevailing sou’wester over harbour, land, and Mangere Bridges*, 2014. Graphite on paper, 420mm x 297mm.

Figure 3-21  Hannah Alleyne, *Aerial view of mangroves between Mangere Bridges, 2014*. Graphite on paper, 420mm x 297mm.

Figure 3-22  Hannah Alleyne, *Aerial view of relationship between mangroves and between Mangere Bridges*, 2014. Graphite on paper, 420mm x 297mm.

Figure 3-23  Hannah Alleyne, *A child’s view in 1978 from the Old Mangere Bridge*, 2014. Graphite on paper, 420mm x 297mm.

Figure 3-24  Hannah Alleyne, *Drawing on Old Mangere Bridge*, 2014. Charcoal on concrete.

Figure 3-25  Hannah Alleyne, *Detail of drawing on Old Mangere Bridge*, 2014. Charcoal on concrete.

Figure 3-26  Hannah Alleyne, *Drawing on Old Mangere Bridge*, 2014. Chalk on concrete.

Figure 3-27  Hannah Alleyne, *Detail of drawing on Old Mangere Bridge*, 2014. Chalk on concrete.

Figure 3-28 & 3-29  Hannah Alleyne, *Drawing into concrete*, 2013. Concrete, 300 x 300mm.

Figure 3-30  Hannah Alleyne, *Preserved objects*, 2014. Found objects, resin, glass, 70 x 15mm each.

Figure 3-31 & 3-32  Hannah Alleyne, Conceptual drawings, 2014. Multimedia.

Figure 3-33  Hannah Alleyne, *Initial testing of copper as a suitable material for installation*, 2014. Copper, 117mm diameter.

Figure 3-34 & 3-35  Hannah Alleyne, *Initial testing of copper as a suitable material for installation*, 2014. Copper, 165mm diameter.
Figure 3-36 & 3-37  Hannah Alleyne, *Test drawings with heat*, 2014. Copper, 350mm diameter.

Figure 3-38 to 3-41  Hannah Alleyne, *Material testing in situ*, 2014. Copper.

Figure 3-42 to 3-53  Hannah Alleyne, *Conceptual drawing*, 2014. Pencil and ink on paper; 210mm x 297mm.

Figure A-1 to A3  Hannah Alleyne, *Traversing Memory*, 2014. Brass.

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

6 October 2014
Acknowledgements

Firstly, I would like to thank my supervisors and mentors Dr Susan Hedges, Dr Janine Randerson, and Carl Douglas. Sue, I am so grateful and indebted to you for your extraordinary supervision and support. Your encouragement, patience, and enthusiasm has seen me through what I thought, at times, was an impossible task. Carl, thank you. The guidance you’ve provided since my move to AUT has been invaluable. Janine, your invitation to contribute to Other Waters: Art on the Manukau as part of a Masters degree has given me a belief in my own ability that I did not previously have.

I would like to acknowledge the Iwi that are kaitiaki to the Manukau Harbour: Ngāti Maru, Ngāti Paoa, Ngāti Tamaoho, Ngāti Tamaterā, Ngāti Te Ata, Ngāti Wai, Ngāti Whanaunga, Ngāti Whātua, Ngāti Whātua o Ōrākei, Te Ākitai Waiohua, Te Kawerau a Maki, and Waikato. I acknowledge these Iwi as tangata whenua and thank them for their stories. I would especially like to thank Ngāwahata Atahinga Haimona Tukua for his help and wisdom and Dr Ann McEwan for her research into the history of the Mangere Inlet. Tēnā rawa atu koe.

My gratitude to all those who took the time to share their memories of the Old Mangere Bridge with me. Thank you to everybody who left me a message on a poster, who emailed me, who offered to share your memories with me, who wrote in my guestbook, and especially to those who shared oral histories with me. George Shaw, Janet Presland, Ropata Selwyn, Valerie Payne, and Wayne Knox – the time you took to share your memories and thoughts with me made all the difference.

The artists and designers of Other Waters, thank you all for including me in the exhibition. I feel privileged to stand among you.

Dr Peggy Fairbairn-Dunlop and other staff and students from the Pasifika Writing Retreats, you accepted me into your group and gave me permission to write with my own voice. Fa‘afetai tele.

Thank you to my fellow students who have sat through my crits and provided me with feedback. A special thank you to Nina Tapu for your wonderful story and an extra special thank you to Juliana Satchell-Deo who has been with me this whole way through.

Thank you, Gregory Heap, for convincing me I could do this. Thank you, Mum and Dad, for letting me know you’re proud of me. Thank you, Helly my sissa, for your help hanging posters on a very windy bridge and your words of encouragement. Thank you, Kat Teirney, for your ideas, enthusiasm, wine, and proofreading skills.

Iris, my beautiful daughter; thank you for your patience and for believing in me.

And Wayne, my amazing husband, a million thank yous. You are my strength.
Introduction

For many the Old Mangere Bridge is a destination, a place to sit and fish, to be with whanau or to be on one’s own. It is a place where memories are formed and where those memories are refreshed and recollected. Author Margaret Mahy writes in her short story, ‘The Bridge Builder’,

… people thought bridges were designed specially for cars, mere pieces of road stuck up on legs of iron or concrete, whereas my father thought bridges were the connections that would hold everything together.

‘The Bridge Builder’ sees bridges as more than a way between places. Without them the world would fall apart, they are equally connectors and a destination. As a child, the Old Mangere Bridge was certainly a connector for me.

When I was five-years-old, and my sister just turned one, my parents separated. My sister and I moved with our mother to Te Atatu North and our father moved to Mangere. Every weekend our father would pick us up in his black Vauxhall, drive us to his house in Mangere, and then drive us back to Te Atatu.

Every weekend we slowly drove over the old Mangere Bridge. Already over sixty years old, it seemed to disintegrate beneath us. Every weekend there was a traffic jam on this bridge as people travelled to the still new Mangere Airport.

The three of us, my father, my sister, and I, sat in the car – one of those 33,000 that yearly used the bridge – sweltering in the

---

...memory is one of the most significant aspects of our humanity, not because of its instrumentality as signifier, or because it is a sacred object, but because memory and being human are functionally coterminous and defining of our significance.²

In many respects, it is memory that makes us human. It is memories that identify us as individuals making us each unique and extraordinary.

Each unique and extraordinary memory of a time or place is kept or lost depending on the strength of related neural pathways already in place. The stronger the existing pathways, the greater the chance a new memory will be formed and retained. Clinical psychologist Amanda Barnier’s research into shared memory showed that the retelling of a memory, with people who share a common experience, increases the strength of the memory for both the narrator and the audience, further augmenting its integrity and continuity.

The preservation of our memories lose their scaffolding, not only when we are taken from our known environment, but also when our environment is taken from us. The effect however is exaggerated because the environment may be lost for dozens, hundreds, or even thousands of people. When an environment is changed we run the risk of many people losing their memories.

We rely heavily on people, environments, or objects external to ourselves to preserve our own memories. Likewise, the destruction or disintegration of an environment that might have scaffolded mental processing will very likely cause the destruction or disintegration of the memories themselves. The Old Mangere Bridge

Looking back, the bridge seems such an important physical manifestation of what was happening in my life. Here was a bridge, the connection between my parents, the link between the two most important things in my life, and it was disintegrating.

By the time the new motorway bridge opened, and the old bridge was closed, my father had moved back to his hometown of New Plymouth. Our close connection had been lost.

Our connection was never completely broken but every time I see the old bridge my mind wanders back to the time when I was five. I’m reminded of the time I had with my father and the time I lost. In this light the bridge acts as a mnemonic device for the memories associated with my parents’ divorce and my separation from my father. Sitting back from the emotion of these memories, I find the connection between these memory structures and the built structure fascinating. With no intention by either the structure or myself, the Old Mangere Bridge has become a repository for my memories.

Literary theorist, Djelal Kadir, sees the ability to form complex memory structures, as one of the most important differentiators between us, as human, and other animal species.

is such a scaffold; helping us to recollect our past and to preserve the memories of it.

Kadir discusses this idea in depth in Memories of the Future where he notes that not only are memory and culture linked by time and place but that our culture is defined by what we remember as well as by what we forget. He writes,

*Our perpetual amnesia constructs its own future … through a subtractive process predicated on what is suppressed, repressed, overlooked, skewed, spun, or erased.*

Social memory is held by a society’s architecture. If the architecture is preserved, so may a society’s collective memories. Kadir suggests that where a society’s physical works are not preserved, nor will its memory be. In this light every culture’s identity is formed by the buildings and writings history has preserved as well as by those things that have been forgotten.

Looking at previous memory works, there is a multitude that focus on both individual and collective memories. Memorials, like those created by Daniel Libeskind or Maya Lin help us remember groups of people. [Figs I-1 & I-2] Their works, whilst helping us recall collective memories, are designed to touch us as individuals and help us understand that it is individual people, each with their own story, that are worthy of remembering.

Or as architect, Juhani Pallasmaa, put more succinctly in *Space, Place, Memory, and Imagination*, these works,

---

Pallasmaa goes on to say that beyond memorials, the built structure serves as a mnemonic device in three ways. Firstly, the built structure materialises the course of time. It projects time and makes it visible. Secondly, built structures concretise recollection by projecting and containing memories. Thirdly, built structures inspire us; they stimulate us to remember and to imagine.

The Old Mangere Bridge offers a materialisation of the course of time illustrated by its age and the materials used. By its visible decay and disintegration. It narrates a story of cultural change and changing technologies as it sits alongside the newer, faster Mangere Bridge, contrasting and illustrating what we now see as important. The old bridge was an exemplar of what we were capable of a century ago – today the differences between the bridges are material proof of the course of time.

Nonetheless, time is not memory, however closely linked they are. Memories are contained within and projected by the bridge, not because of its age, but because people experienced phenomena strong enough to remember. Because of the plasticity, fluidity, and flexibility of our brains we need to rely on things outside ourselves to keep the past in order. In The Extended Mind, authors Andy Clark and David J Chalmers argue that we very often reach to objects or people outside of ourselves to help us remember. The Old Mangere Bridge is such an object; our memories are contained within its form, and every time we see it the recollections are projected back to us.

Seeing the old bridge, smelling it, feeling it, stimulates us to remember and to imagine. Just as the taste of madeleine brought memories flooding back to Proust the bridge evokes similar responses. One glance at the Old Mangere Bridge and I remember my father; the special time with him, the loss and confusion I felt, and I once again imagine what could have been. Whilst the persistence of objects or of built space are important for social and personal identification, they are not wholly necessary as mnemonic devices. We do not forget someone or something once they are absent – photographs, writings, and mnemonic installations such as memorials all help us to remember.

Chapter One will set the scene by outlining the history of the Mangere Bridge, the surrounding area, and the people of its whenua, from the early 18th century. Even then the area was an important connector between iwi and the harbours as a place of sustenance and commerce.

Chapter Two will discuss how I have discovered the bridge as a mnemonic device for the local communities and myself. Through a bricolage approach to data collection, stories have been collected through onsite conversations, a guest book for anonymous storytelling, social media, a community engagement project, and a collection of oral histories. This chapter will outline that memory collection.

Chapter Three will consider precedent and describe the built response I have made, explaining how my intervention will provide both a mnemonic device and a space to foster memories.

---


5 Pallasmaa, 16–41.


Finally, the conclusion will attempt to provoke further questions and forecast how my spatial response will look in the future. Suggestions on how I believe the Old Mangere Bridge’s replacement could incorporate a mnemonic intervention to further foster memory will also be included. This exegesis document’s ongoing work and documentation of the final work will be inserted after examination.

Each person, given the same phenomena, will register a different memory. The same space is recreated infinitely through different memories and stories. This exegesis will retell some of those stories but principally it will outline the path I took to foster memories of the Old Mangere Bridge in a narrative format. Traversing Memory does not sit easily within any defined discipline. This is not a landscape architecture, psychological, philosophical, or social history piece of work, although it does include material and arguments from all these disciplines.

The aim of this thesis is to investigate how spatial design can foster and retain memories. My intention is to construct a site-specific work that will: stimulate remembrances of the area; strengthen both individual and collective memory pathways; and foster both old and newly constructed memories.

This installation piece, whilst mostly embedded within the practice of mnemonic spatial design, has been led by an iterative methodology, letting the stories lead the design rather than following a any discipline’s prescribed approach. There is currently only one Old Mangere Bridge, yet every person’s memory of the bridge has recreated the same space in different ways. The same bridge has so many different realities. Every person who has shared a story about the bridge has created a new way for us to view the space. My role has been to create a way to illustrate the iterations in a way that honours those who have created them. This is the story of how I did that.

**Chapter 1**

Repeating Connections: The History of the Old Mangere Bridge

When I think about what’s special about [the bridge] I can’t separate that from what’s special about the area. And I think of all the kind of significant things that have occurred in the area and that basically are stories of my ancestors and that’s been an important way of me being able to connect with the area, to know those stories.¹

The Manukau Harbour has been a place of sustenance, commerce, and transport for hundreds of years. The history of the area, its people, and their connections across the harbour is a continuing story. Today two bridges span the Manukau Harbour, a motorway bridge and a ferro-concrete bridge, connecting surrounding communities. Over the last hundred years the bridge has had many iterations, each tells a different story and each story holds true for that storyteller.² What follows is my contribution to the archive of these stories.

Twelve iwi (Ngāti Maru, Ngāti Paoa, Ngāti Tamaoho, Ngāti Tamaterā, Ngāti Te Ata, Ngāti Wai, Ngāti Whanaunga, Ngāti Whātua, Ngāti Whātua o Ōrākei, Te Ākitai Waiohua, Te Kawerau a Maki, and

---

Waikato) are kaitiaki to the Manukau Harbour. Each has a close relationship with the moana predating European settlement.

In the early 18th century the Te Waiohua iwi, led by Kiwi Tamaki, had pa at a number of sites in Tāmaki Makaurau, including Maungakiekie, Mangere, and Onehunga [fig. 1-1].

After a series of attacks that allowed Te Waiohua to occupy the significant sites surrounding the Manukau, Te Taou retaliated in 1741 and the people of Te Waiohua were defeated. They lost not only the Maungakiekie Pa, its surrounding pa, and Mangere but also Kiwi Tamaki. Further battles between Te Waiohua and Ngati Whatua very nearly decimated the whole Te Waiohua population. Eventually the fighting relented and the second half of the 18th century was comparatively peaceful.

Te Tō Waka, the portage route between Manukau and Tamaki River was the most frequently used in New Zealand during the early 19th century, and therefore, a highly desirable area. In 1823, Nga Puhi, led by Hongi Hika, used this route on their way to war in Waikato. Nga Puhi did not pass through the area peacefully and after several raids the Manukau iwi decided to unite against Nga Puhi. Hoping to put an end to twelve years of war, the united Manukau iwi, Te Akitai, Te Taou, and Ngati Te Ata followed Nga Puhi north and in 1832 returned home triumphant.

This stratagem, while effective in defeating Nga Puhi, had left the Manukau iwi open to attack from the south and by 1835 Te Wherowhero had control of huge areas of land, including the entire Manukau isthmus from Awhitu to Onehunga and beyond.

Te Wherowhero allowed Ngati Te Ata to return to Awhitu, Tamaoho to return to Pehiakura, and Te Akitai to return to Pukaki. Te Wherowhero, himself, took up permanent residence in Onehunga where he and Ngati Te Ata held cultivated land. [fig. 1-2]
Whilst the Tamaki iwi were returning to the Manukau, Waikato iwi were bringing produce, mainly wheat and flour, to the Tamaki Makaurau markets via Te To Waka portage. It was around this time that Pakeha began exploring the area, exploiting the area’s timber resources, and establishing Onehunga as a colonial settlement by alienating land from native title.

Through all these changes, the beach at Onehunga continued to be an important transport and trading hub. [fig. 1-3] A commercial town developed on the waterfront and, in 1847, Onehunga was made New Zealand’s first fencible settlement. 

In 1849 a fire destroyed most of the buildings on the waterfront, moving the commercial focus to Princes Street. But the beach area was still very busy with over 500 waka landing per year. 

Traffic continued to increase between Mangere and Onehunga. Waka, rowboats, and ferries were all being used to cross the harbour. There are stories that local iwi may even have built a connection of stepping-stones that could be used at low tide. These connectors were all dependent on good weather; however a more permanent solution was needed.

In 1866 a company was formed for the purpose of connecting Mangere and Onehunga leading to the conception of the first Mangere Bridge. [fig. 1-4] Eight years later, in 1874, the government authorised the Public Works Department to start construction and in 1875 the bridge was opened. It was narrow and hazardous to cross during stormy weather and within two years the bridge’s

6 Fencible settlements were stations of retired British and Irish soldiers, in military reserve, established to protect early settlers in fledgling New Zealand towns.

supporting piles were under attack by shipworm. By 1910 more than 30 piles had been replaced on the 20-pile bridge and by 1914, forty years after its construction, the bridge was declared unsafe.

A new ferro-concrete bridge was constructed and it spanned a total of 246 metres in length with each span resting on four reinforced-concrete piles. [fig. 1-5] Constructed quickly the new

---

8 Untold Stories of Onehunga (Papakura, N.Z: N. Borchard, 2004), 34.
10 In Concrete Planet (New York: Prometheus Books, 2011) Robert Courland describes how the Ferro-Concrete Construction Company had, just ten years earlier; completed Cincinnati Ohio’s Ingalls Building. The 16-story building was the world’s first reinforced concrete skyscraper. The company used their newly patented reinforced concrete construction methods including rebar and
Mangere Bridge opened on the 31st of May 1915 [fig. 1-6]. This bridge would not succumb to shipworm; this Mangere Bridge was intended to last. 

By 1921, just six years after its construction, the stone facing on the Mangere approach was showing signs of damage after strong gales and high tides.\(^{11}\) The damage soon extended to the bridge itself but the various parties involved were not able to agree on who should pay for the maintenance of the bridge. The next year the Mangere Bridge Commission was formed as a mitigation of the on-going division between Councils. The Commission’s first undertaking was to tally the amount of traffic using the bridge.\(^{12}\) By 1925 concrete on the bridge was flaking away leaving the reinforcing rods exposed. Funding for repairs and maintenance continued to be an issue at Council and Commission meetings for decades to come. There was always work to be done but little consensus on who should fund the work. Agreement was found however, in 1939, to build a shelter shed, halfway across, for pedestrians.\(^{13}\)

Traffic flow kept increasing and with the opening of the new Mangere Airport in 1966 it was decided that a motorway bridge needed to be constructed. Work began on the new bridge in July 1974. Wilkins and Davies Construction won the contract and completion was planned for mid-1978. By late 1976 on-going industrial relation issues had reached an impasse and work on the bridge stopped.\(^{[fig. 1-7]}\)

The second Mangere Bridge was under further pressure and in 1980 a Bailey bridge was constructed over the most deteriorated section of the bridge in order for the connection to continue delivering 33,000 vehicles a day across the harbour.\(^{14}\) [fig. 1-8]

Fletcher Construction won the contract to continue work on the motorway bridge and whilst there were some further small delays in construction (due to underestimating the amount of work needed to resuscitate the project) the new Mangere Bridge was completed and opened in February 1983. 

Today, as the old bridge reaches its centenary, the on-going maintenance costs have become unsustainable. The structural condition of the bridge is deteriorating rapidly and it is believed that it will not be able to provide safe access for more than another five years.\(^{15}\) [fig. 1-9] Construction of the replacement bridge will start early 2015 with plans to open the newest Mangere Bridge in 2016 – just one year after the old bridge’s centenary.\(^{16}\)

During its 100 years, the bridge has become a destination in itself. It is a link between two geographic communities and a link with the water it spans, a mnemonic connection with our past.

---

14 A Bailey bridge is a prefabricated, portable, truss bridge first developed by the Royal Engineers during WWII. 
and a connector of people. As equally its connects the Mangere Bridge Township with Onehunga. It’s the quickest pedestrian route between the two centres and is also part of the Regional Walking and Cycling Network.

The borders of three Local Council Boards meet just a few hundred metres west of the bridge – Puketapapa, Maungakiekie-Tāmaki, and Mangere-Otahuhu. Two of these communities share a border that cuts through the bridge itself, which only helps to emphasise how important the bridge is as a connector of communities.

The areas on each side of the bridge, whilst they share a border, are distinct. The communities on the Northern side of the bridge are made up of people who are older, whiter, and wealthier than those on the Southern side of the harbour. The Mangere-Otahuhu side has the region’s youngest median age (27.4) and

highest Pasifika population (58%). 18 Yet both communities meet on the bridge, use the bridge to travel, for recreation, to fish, to spend time with family, to watch the sun set while eating fish ‘n’ chips or KFC. It is the harbour that keeps these communities apart but the bridge that connects them.

This chapter has discussed the history of the area around the Old Mangere Bridge, it has outlined milestones and dates and the movements of large groups of people, but it has not discussed the personal and individual stories of the people that have lived in the area for generations, the tangata whenua, and the newcomers that now call the area home. These stories of family and friends, of work and play, of joy and tragedy, of human connection will be told in the next chapter.

Chapter 2
Collecting Stories

This chapter will outline the processes I used to engage with Mangere Bridge communities through memory collection. Stories have been collected in a variety of ways from conversations to recorded histories. People have been alerted to my project through onsite projects and from help from the local media. My drawing process started from historic images to imagined views through to drawing onto the site itself.

The processes were an important part of this project. It has, importantly, involved the collection of oral histories. Unlike typical collections, the interview, transcription, and archiving are not the final piece of work. The oral histories I have collected have been used as form drivers for my design. I have designed posters and placed them on the old bridge in order to collect anecdotes and feelings about the bridge. I have also used drawing to help me ascertain the research paths I should follow. These processes combined have all led to my final design thesis.

The following outlines the different research methods I’ve used within this project, as well as the benefits and challenges associated with each. The communities using the old bridge are diverse and this has required a bricolage approach to data collection. 1 The research methods I’ve used are mostly narrative, and so, the methods outlined below are in the form of a told narrative. This is a story about collecting stories.

[fig. 1-10] Mangere Bridge highlighted within surrounding Auckland Local Boards, 2013.

A multitude of tales

Memories of the Old Mangere Bridge have been collected, throughout this project, on the assertion that different people will construct different meanings in different ways from the same phenomenon. As people’s memories of the same time or place can differ considerably it has been important to allow for possibly contradictory statements to be used alongside each other whilst still keeping the memories’ authenticity.

Each event or phenomenon can be retold in a multitude of different ways. Each story recreates the same space in a different way. Each storyteller owns their truth and their knowledge. Each storyteller’s understanding of his or her experiences, hopes, dreams, and aspirations is what makes their knowledge valid. Honouring the authenticity of each storyteller’s experiences has become an essential part of the story collection. To best understand and contextualise the Old Mangere Bridge’s significance to the people that have used it, I have needed for them to tell me their stories.

My experiences, have also become implicit to this inquiry and an important research tool. An autobiographical approach has enabled points of reflection, exploration, and elucidation and focused the research on meaning and experience. So, this research begins with my own story.

My story is not an important story. It is not a story that’s been told and retold. It is not a story that has shaped my or anyone else’s life. It is not a memory that I dwell on to remember better or worse times. My memory of the Old Mangere Bridge is a memory that reminds me of family and of a different time. The old bridge was never a large part of my life (until now) and yet I still have enduring memories of it. If this is the case for me, there must be so many more memories out there that need to be recorded.

Architectural preservation most often safeguards the social memories of society’s privileged. Historian, Dolores Hayden, writes what is missing is “…the history of workers, women, ethnic groups, and the poor….” The Old Mangere Bridge is not a structure that has housed our elite; it is a bridge over a culturally significant piece of water. The bridge is used by a wide variety of people and I want to acknowledge these people’s memories of the area and especially acknowledge the iwi who are tied to the whenua of the area.

By contrast to architectural preservation, oral histories safeguard the social memories of those who don’t often have a voice. In Oral History Theory, Lynn Abrams explains how oral history collection can be a way to “give a voice to the voiceless, a narrative to the story-less and power to the marginalised.” The collecting of oral histories has been an important part of my research, it has allowed stories to be recorded that may have otherwise been lost, but it has not been the only way to record the local communities’ stories.

---


4 Ibid.


My story

My link to the Old Mangere Bridge started when my parents separated in 1977. Every weekend my sister and I sat in the car with our father listening to his stories, listening to him trying to keep a five-year-old child and a one-year-old baby amused. My father tells a good story and we heard a lot of them on that frequent trip. The bridge was the connection between our mother in Te Atatu North and our father in Mangere and, like their relationship, it was disintegrating. Though my father moved away from Auckland our connection was never lost and thinking of this time my mind wanders to what might have been. How may this story have been told had things been just a little different? And how are others’ stories different than mine?

Setting-out on my research journey from the starting-point of my own memories has allowed me to place myself firmly within the site. The next step was to move back to site physically to gather memories from different times and from different peoples.

Onsite conversations

Yeah bro, we’re sweet.7

As soon as I had decided on my research topic I started spending time at the Old Mangere Bridge. There were no formal outcomes I needed to fulfil. Using heuristic enquiry I needed to focus on meaning, quality, and experience rather than measurement, quantity, or behaviour. I knew I just had to ‘hang-out’ and talk to the locals. It’s not easy approaching people with the sole intention of just conversing. I’m a naturally shy person and I worried the ‘locals’ wouldn’t want to talk to me.

I learnt to wear my gumboots. I learnt to talk about fishing. I learnt to agree when people told me how thankful they are to God for their many blessings.

We talked about how when the fishermen first immigrated to New Zealand they didn’t know anybody or have anything to do, how they went and bought a fishing rod from The Warehouse and filled their days with fishing, how they provided for their families and made friends, how they are teaching their sons to fish now.

My onsite conversations aren’t recorded. The unrecorded encounters allowed me to have more natural conversation; conversations that accord an intuitive knowledge of the area and that bring me closer to the community. I enjoy chatting with the locals on the bridge now. I love hearing the communities’ stories and the knowledge gained through this social engagement is invaluable.

What I did learn from this exploration was that my focus had to be on the Old Mangere Bridge itself. Whilst the area surrounding the bridge and how the bridge sits within its surroundings are important, it is the old bridge itself that will be gone soon and so I turned to the old bridge.

The written record

Completion of the Mangere Bridge: The New Structure Which Spans the Manukau Harbour at Onehunga Formally Opened by the Prime Minister on Monday Afternoon. The new bridge is 820 ft in length, excluding approaches, and has a uniform breadth of 50ft. It is built entirely of ferro-concrete, with 20 supporting arches. The height above

---

high-water level varies from 8ft to 16ft. Its cost is within £25,000.8

It’s easy to get lost in the old newspapers; there are hundreds of stories about Mangere Bridge. I found stories about drownings, stories about motor vehicle collisions, stories about people being charged for dumping rubbish and driving under the influence. I read about missing people and found bodies. I read a lot of articles about white men making plans, implementing plans, criticising change, and repairing what they had built. I found very few stories of celebration. For those, I needed to collect stories myself.

Guest book

My brothers were given bikes for Christmas, but (since I was a girl) I didn’t quite luck out! So instead I would sneak out the smaller bike on weekends while they were out at soccer. This bridge was on my route. It reminds me of freedom and breaking free of people’s expectations.9

An opportunity arose, in late 2013, for me to exhibit my project to date. I decided rather than focus on showing my work I’d focus on collecting memories of the bridge. I designed and printed a guest book and set it on a side-table. While the exhibition was not linked to the Old Mangere Bridge, or its communities, several people chose to share their memories with me.

People shared stories that touched me. Stories of loss, stories of love, stories that made me laugh, and stories that reminded me of the challenges that many in our communities have had to overcome.

I have taken the guest book with me to various events, since the first exhibition, and asked people to leave a comment. Given a seat and some time, contributors have written some beautiful prose.

Social media

[Your grandfather] worked for a company called Metlabs as an Industrial Radiographer. The crucial welding needed to be X-rayed for faults before construction. This was done on the bridge using plutonium encased in lead. Me and Ross worked for the same company for a while. You had to trap a film behind the weld, open the ‘Bomb’ and run about thirty feet, take cover for 20 minutes then run back and shut the thing off and remove the film and develop it.10

Twitter, Facebook, and my family and friends helped spread the word that I was after memories about the old bridge. I received stories about them – and myself – that I’d never heard before.

My grandfather and two of my uncles worked as Industrial Radiographers on the bridge in the mid-1970’s. My parents would place me in my bassinette in the truck, and drive me over the bridge to get me to sleep. My aunty wrote a story on the Mangere Bridge for an Auckland television station magazine programme (whose name is long forgotten) in 1961.

I had felt connected to the bridge before I started my research. These comments only helped to reiterate that my chosen research site was important. If there were stories in my own family there

were bound to be untold stories in the families of the people who live in the area.

A suggestion by Facebook: I might ‘like’ Friends of the Manukau Harbour. Sounds great. We become ‘friends’ – I post about my project and add a link to my blog. Best research decision I made because next thing I know I’m contacted by journalist, Tao Lin, from the local paper, the Manukau Courier. Someone who’d seen my post in the Friends of the Manukau Harbour Facebook page had contacted Lin and she wanted to interview me.

The Manukau Courier is not a publication with a wide readership but it is free and read by locals who have it delivered straight to their letterboxes. After my project was published on the front page, I received countless emails from people wanting to share their memories of the bridge with me. And countless more emails suggesting people I should talk to.

I don’t have a strong social media presence and my requests for memories amongst my friends and followers returned few memories other than those about my family and myself. The benefit of social media here was its ability to connect me with people and organisations I would not have necessarily found otherwise.

Stop and share … or just say hello

I’ve spent a lot of hours on this bridge, even in the rain and I haven’t caught anything. Only one small yellowtail and my brother caught two.

I watched a short documentary about story-collector Brandon Doman. Doman founded a storytelling project called The Strangers Project. He sits, with a sign, asking strangers to write anonymous stories. To date, he has collected over 7,000 stories.

I felt inspired. It looked so easy. I could do this.

I designed a sign, I printed and mounted the A1 size sign and sat on the bridge.

I’m a white woman sitting on a bridge on a cloudy and windy day. Very few people walk past – even fewer are fishing.

Nobody spoke to me.

---

Stop and share … write a memory

Retired now, it lazily dreams,
monochrome images of those who walked or drove
past these broken walls and rails.
Treasured memories creep like weeds,
many ghosts lurk within the darkened cracks and seams.¹⁵

I tried again. This time I hung posters with accompanying blank sheets and felt tips on the bridge. On a Friday afternoon I hung four posters on the bridge. I went back to the bridge on Sunday morning – I needed to replace the felt tips I was sure would be stolen.

That Sunday morning was the most exciting moment in my research to date. Not only were all the felt tips still there – all four posters were full of stories. As soon as I could, I was back at the printers ordering more posters. Over the nine days I hung posters every day and people left almost 250 comments.

Some talked of the importance of the bridge, some of time spent with family. Mostly, people left just their names and wrote about how they love to fish from the bridge. These posters offered the opportunity for people to share their voice. Here, in a community where the mean household income¹⁶ is just two-thirds (67%) of Auckland’s mean household income¹⁷ and where English is often a second language, people had a chance to just say “I was here today”.¹⁸ People wrote not just to me but also to the other users of the bridge. On this bridge, this connector of communities, I had provided another opportunity for the locals to connect.

Local fishermen helped me hang and change the posters, and as they did, conversations grew. People approached me and spoke with me, while they hadn’t connected with me when I was sitting under a sign asking them to speak to me, now people wanted to know what I was doing. Why the posters? What was happening to the bridge? How come I was leaving these posters here for people to graffiti? What was going to happen to all the stories?

I didn’t always have answers to people’s questions but it always started a conversation. And those conversations, the social engagement, once again provided invaluable knowledge.

Oral history interviews

As I walk across it now, the new bridge and the old bridge, as I ride across, I see it as a recording memory stick that brings back emotions, brings back things that could have been worse.¹⁹

Meanwhile, I had been organising oral history interviews from connections made through the article in the Manukau Courier.

I learnt that tying people down to an interview time could be hard work.

I learnt that often, when introduced through someone else, participants believe they don’t have anything valuable to add to the research. This is very rarely the case.

After each interview, I felt incredibly humbled to have had the honour to record the participant’s memories. There were such a huge range of stories and experiences shared.

I spoke to a man born in 1916, just one year after the bridge was completed, about travelling over the bridge in the 1920’s on horse and cart and about returning to the bridge after WWII. He had known the first person to ever cross the bridge, in 1915, before construction was even complete. Apparently he couldn’t wait and he jumped the last bit of gap; horse, buggy, and all.

One woman told me how she’d won a bottle of whiskey in a raffle one evening. Then travelling home over the old bridge, with the Bailey bridge over the top, it was so bumpy the whiskey bounced right off the back seat, onto the floor, and smashed. The smell was all through the car and for weeks she was terrified they were going to be pulled over by the police and accused of driving drunk.

Two people told me how they’d taken family urns to the bridge and sprinkled family members’ ashes into the water below. Another two talked to me of their spiritual links with the bridge and the area, how their families had been here since Māori first came to New Zealand, and of the wars fought, won, and lost for the area.

I learnt about the snowball effect of collecting histories. Approaching one person who would then mention several other people, who lead me to several more people, brought me to a point that I had to say, no more interviews. Not yet anyway. Auckland Libraries will include the oral histories I’ve recorded within their heritage library – it would be nice to add some more once this project is complete.

I learnt that interview transcription takes hours.

I learnt that people want to share their stories – and they want to hear other people’s stories. I learnt that given the opportunity and the means, everyone has a story to share.

This project has given the local community the opportunity to share their stories and to have their stories retold. The voices of the local communities are not loud voices – they are not voices that are usually heard. Few of them will ever have their name on a plaque commemorating their great deeds, despite what many of them have accomplished with so little.

When I stand on the old bridge, as dilapidated as it is, watching the water move beneath me and the clouds move above me, the bridge feels so secure – a mainstay in an ever-changing world. But looking through this history and the images it is obvious that the Old Mangere Bridge is just another iteration and the tides and
prevailing wind are the only things that stay the same. My intent then was to create a way to illustrate the iterations in a way that attempts to speak to those who have created them.

Chapter 3
Drawing A Mnemonic Device

Drawing a space produces an understanding of it. Each line put to paper creates a neural pathway that gives us a new understanding of a space and also serves as a marker to help retain the memory of it. With this method of meaning-making as part of my usual practice, I began a series of drawings inspired by an essay by Jeff Parks.

First drawings

In A Regard for Pristine Loveliness, Park shows how he set out to, not so much recreate, but recapture images of the landscape taken by photographer Henry Wright in the 1890’s. So, using historical images I sourced from Auckland Libraries, I set out to recapture the landscape of the Mangere Bridge.

The historical photographs taken of the Manukau Harbour can never be recreated, the landscape is far too different now, but I could try to recapture the same view. I needed to find a way to absorb myself within the history of the area as well as link its history to the present day through site-responsive work.

I started with the first photograph of the area I could source. Taken around 1875 looking at Mangere Mountain from Onehunga. I first drew the historic image and then how the area appears now. [Fig. 3-1 and 3-2]

---

I did the same with an image from 1913, once again using Mangere Mountain as my point of reference. [figs. 3-3 and 3-4]

Lastly, I used a photograph of the new motorway bridge being built in 1980 and contrasted it with the motorway bridge as it stands today. [fig. 3-5 and 3-6]

This exercise was harder than I imagined it would be, it was difficult to find the same point of capture. But drawing these images brought about a better knowledge of the area and how it has changed over the past 140 years. Each line, each contour drawn, brought a clearer understanding of the area, its weather, its water, its past, and its present.

Projections

Thinking about the theory of how built structures project memories I decided to take my drawings a step further. Once again using both historical photographs and my own photographs, I printed the images onto acetate and projected them onto a large roll of paper. [fig. 3-7]

Just like memory recollection, these large-scale drawings projected the past into the present, blurring the edges of time. [fig. 3-8 to 3-13] It is the drawer’s and storyteller’s prerogative, to include what they want remembered, draw attention to what they want highlighted, and omit what they want erased. In these projection drawings, the darkness of one bridge illustrates what has already been destroyed; the negative space highlights what will soon be lost. Particular attention was paid to the hatching of the sea and sky. They begin to reflect one another — the only constant in this ever-changing environment.
[fig. 3-3] View along the first Mangere Bridge towards Mangere in 1913, 2013. Graphite on paper; 297x210mm.

[fig. 3-4] View along the Old Mangere Bridge towards Mangere in 2013, 2013. Graphite on paper; 297x210mm.


[fig. 3-6] Mangere motorway bridge in 2013, 2013. Graphite on paper; 297x210mm.
Drawing such large images allowed me to immerse myself within the images. The past was projected onto me, and I took from those projections what I felt needed repeating, and omitted what I saw as superfluous. These drawings supported a deeper unspoken and tacit understanding of the site and its changes over time.

**Precedent**

Within Pallasmaa’s theory that there are three ways the built structure serves as a mnemonic device was the idea that the built structure inspires us and stimulates us to remember and to imagine.¹

As a spatial designer, and especially as a designer of a memory-place, I need to ask, what should be brought to mind here? What should be remembered? What could be imagined?

To help me make these design decisions I looked at works by artists and designers for inspiration and four, in particular, caught my attention. Rietveld Landscapes are a design firm based in Amsterdam. Their installation, *Pretty Vacant*, is a suspended screen, which is a reversal of a previous work, where we are presented with the negative spaces of a model city. [figs. 3-14 & 3-15] I imagined what effects negative spaces could create when reacting with the water and weather around them. Do they shimmer, do they sing, do they float, do they sway with the wind or the tide?

Chad Wright, like Rietveld Landscapes, has used models of the built form to create an installation piece. In *Master Plan*, Wright examines the symbolism of the mass-produced tract house in American suburbia. Whilst I understand this piece was never designed to speak about disintegration of structure, I think read that way, it certainly helps me see possibilities for my project. [figs. 3-16 & 3-17]

Based over the water, the Old Mangere Bridge is crumbling and disintegrating as it is weathered by wind, water, and time and as the sandcastles depict, with suburban homes where so many of our dearest memories are held, so are the memories of the bridge. The *Snow*, by Tokujin Yoshioka, offers an atmosphere of quiet calm. Feathers fly around a 15 metre-long tank. The exhibition aimed to rethink the unconscious way we sense nature, it did not try to re-create nature but suggest a memory of snow. [figs. 3-18 & 3-19]

Understanding this, I knew I didn’t want to simply create an image of the old bridge in order for people to remember it. This installation made it very clear to me that it was the memories of the bridge I needed to concentrate on and illuminate – not the bridge itself.

[fig. 3-8]  
Old Mangere Bridge with Bailey bridge in 1980, 2013. Graphite on paper; 1240 x 840mm.

[fig. 3-9]  
Looking South along the Old Mangere Bridge in 2013, 2013. Graphite on paper; 1440 x 840mm.

[fig. 3-10]  
Old Mangere Bridge from Onehunga Wharf in 1945, 2013. Graphite on paper; 1235 x 840mm.

[fig. 3-11]  
Old Mangere Bridge from under the new Mangere Motorway Bridge in 2013, 2013. Graphite on paper; 1505 x 840mm.
The start of a conversation is like a depth sounding. An introduction is the first sound – the testing of the waters. If all is safe, the conversation begins, like radar signals being sent and received. I saw echoes in the conversations I had and within the stories people left me. Echoes across time as stories were repeated again and again. Echoes across the harbour as patterns began to emerge within the larger narrative.

I started to draw the story echoes as lines – each line a repetition of the one before, but each one, slightly different. Collecting memories had been time consuming and I needed to move back into site and back to drawing. I needed to look at how I could draw what was on the bridge, what had been there, and to try to imagine what could be.
My first step back into site was to look at what is constant on the harbour. In my previous drawings I had looked at the clouds and water and now I turned to the wind and wind patterns. [fig. 3-20] The wind seems to gather momentum as it travels through the harbour, towards the inlet. The bitter cold sou’wester is the prevailing wind on the bridge. I wanted to portray the way it whips over the water, slows for land and the bridges, and then speeds up again.

One of the interesting effects about being on the Old Mangere Bridge is how its low elevation connects you with the surrounding environment. The bridge, the water, the mangroves, and the land have equal visual influence. Standing near one end of the bridge, the mangroves are closer; the water is closer; the aroma of the mud is closer than the other end of the bridge. I shifted my focus towards the space between the Mangere Bridges. [figs. 3-21 and 3-22]

To move back onto the bridge, I imagined myself, back in my father’s Vauxhall, kneeling up to peer through the window towards the new bridge under construction. In this autobiographical drawing my view – and the boundaries of the drawing – are confined by surrounding built structures to the north and the east. The cement silos and the port limit my view to the north. The almost completed new motorway bridge limits my view to the east. Visible, however, is the gap in the bridge (waiting to be finished) where I can peak through. [fig. 3-23]

These drawings, among others, allowed me to move away from collecting stories to being able to use those stories. I was beginning to see how the storylines could be developed into drawn lines, but also, that there was something missing in the drawings. They were predominantly from a plan and elevation perspective. I wondered how I could develop these drawings into the spatial intervention I needed.
[fig. 3-20]
Prevailing sou’wester over harbour, land, and Mangere Bridges.
Hannah Alleyne, Untitled, 2014. Graphite on paper, 420 x 297mm.

[fig. 3-21]
Aerial view of mangroves between Mangere Bridges.
Hannah Alleyne, Mangroves, 2014. Graphite on paper, 420 x 297mm.

[fig. 3-22]
Aerial view of relationship between mangroves and between Mangere Bridges.
Hannah Alleyne, Water Between Bridges from Nexux of Mangroves, 2014. Graphite on paper, 420 x 297mm.

[fig. 3-23]
A child’s view in 1978 from the Old Mangere Bridge.
Hannah Alleyne, View from the Car, 2014. Graphite on paper, 420 x 297mm.
I took my drawings into site, discovering that drawing is not a two-dimensional exercise. I drew echo lines out from the bridge’s foundations and then from the holes left by core samples taken to test for structural integrity. [figs. 3-24 to 3-27]

Each line I drew was a retracing of the line before it yet every additional line was a little different. This exercise illustrated to me that with each retelling whether that be of a drawn line or a memory, the story not only changes (just a little) but perhaps more importantly becomes bigger; more visible, more memorable. This shift into site, this new connection with the texture of the old bridge, allowed me to move forward into making some initial models and placing them in site.
Material testing started early in my research, predominantly concrete because it is the main construction material used in the Old Mangere Bridge. Using several kinds of premix I poured wet cement into form-sets of varying depths, and without form-sets, to investigate the differences between the formed concrete once set. Then using scalpels, Stanley knives, and an electric etcher I turned the concrete slabs into canvases for both freeform drawings and more structured line drawings. [figs. 3-28 & 3-29]

After the success of collecting memories through the large posters on the bridge and further thinking about the echoes of conversation, I turned from the rigid constraints of concrete towards found objects, more malleable materials where people could leave their own mark, and sound as a material.

Looking at found objects, I took small finds I’d collected over the past year and set them in resin. Whilst I enjoyed the aesthetics of

Materials and ideas

Early in this project it seemed obvious that people’s stories would be inscribed in some form. Robert Sullivan’s Kawe Reo on the steps of Auckland Central Library was an easily accessible precedent. I sought cultural guidance and was advised that any stories dealing with whenua were taonga. To reproduce these stories in any way that allowed for people to step on them or over them would breach tikanga. Secondly, text seemed too overt a way to produce and replicate stories and memories. Text creates an explicit message whilst I wanted for people to create and remember their own memories.
the small bottles and the preserved found objects I didn’t believe these could be transferred to site in a meaningful way. [fig. 3-30]

In one of several design iterations I considered installing a number of vertical pipes into each side of the harbour. The pipes would be of different sizes and different materials – representing the different communities that have used the bridge over its hundred years. I thought that as the wind hit the pipes they would sound. Each pipe offering a different voice depending on its size, its materiality, and the amount of water in the pipe from the changing tide.

The pipes would call to each other, across the harbour, retelling the stories, echoing conversations. The installation would illustrate the countless stories that have been told about the bridge in its, almost, one-hundred years. It would call across the harbour and through time in a continuous conversation, signifying the voices of those living and of those lost. [figs. 3-31 and 3-32]

I purchased pipe of varying sizes and materials and took them to site. Whilst the pipes did make a sound it was not enough to
be heard over the traffic on the motorway so I turned instead to the idea of malleable materials.

Copper is malleable, easily obtainable, and being an industrial material fits well within the surroundings of the Manukau Harbour inlet. Copper is also a semi-precious metal reflecting the importance of the memories related to the bridge as well as literally reflecting the people and environment itself. I made small-scale maquettes, drawing on copper sheets with cut lines, pressure, and heat. [figs. 3-33 to 3-37]

I made larger scale maquettes and took these onto site. I wrapped the copper around different parts of the bridge and along its path.
questioning how the material related to the bridge and to the people who use it. [figs. 3-38 to 3-41]

Taking the copper maquettes on site illuminated several things that would aid me in making some final design decisions. Firstly, sitting the maquettes flush to the ground and to the parapets made them barely noticeable on such a large structure but once noticed they were difficult to ignore. Reflecting the surrounding light the copper maquettes shone but they did not reflect the viewer. The more closely the copper was wrapped to the texture of the bridge the more it lost its reflective quality. I wanted, at least at first, for the viewer to be able to see themselves in the work — to understand that it is their communities’ memories that are being illustrated.

One of the wonderful things about copper based metals is their patina. The weathering illustrates the passing of time. The metal,
like the Old Mangere Bridge itself, offers a materialisation of the course of time through its visible change in colour and texture.

I needed a material that would weather but that would also allow the viewer to see themselves within the work. Closely related to copper is brass. Brass being lighter in colour, more reflective, and being a harder metal would be able to be wrapped around the bridge without taking on the structure’s texture.

Brass is a common material in maritime areas and is regularly used for the marking of remembrance. Brass plaques are traditional mnemonic devices marking the places of our dead, recalling the deeds of leaders, and commemorating the opening of important structures. The Old Mangere Bridge does not have a brass plaque to remember its builder, its engineer, or the placing of its foundation stone. There is no plaque to mark the events, losses, celebrations, or peoples of the area. *Traversing Memory* will go some way towards providing that remembrance.

Each brass marker would become a line in a larger story. The linear nature of the final installation would mark the lines of conversations and the linear histories of the area and its people.

This project will not stand alone. On 15 November 2014 the art event and exhibition *Other Waters: Art on the Manukau* will open at Te Tuhi Centre for the Arts. *Other Waters* focuses on our connection with the waters of Tamaki Makaurau. Whilst the exhibition will show through the summer, an event based around the Manukau Harbour will take place from 28 to 30 November. *Traversing Memory* will sit alongside other works by artists: Dianna Brindsen; Eu Jin Chua; Rebecca Ann Hobbs; Local Time; Janine Randerson; Lisa Reihana; A. D. Schierning; Nick Spratt; Sarah Treadwell; and Ruth Watson drawing attention to the area’s history and its waters.

The intent of the *Traversing Memory* project is to mark the passing of the bridge’s 100 years as significant to the people who use it. The brass will reflect within it the people who stop to look as well as the environment around them, linking them to the installation and to their extended environment.
Placement

Starting from where I imagine I waited in my father’s car, I cast a glance at the new motorway bridge, towards the space that was between. A first mark on the bridge. A line of site from 1978 brought back to today. [fig. 3-42]

I imagine how, in 1915, Billy Bachurst couldn’t wait for the bridge to be completed. He was busy. He had things to do, maybe people to see or produce to sell. In 1915 Billy Bachurst jumped the last gap in the bridge; horse, trap, and all. [fig. 3-43]

2 Barry Shaw, “Mangere Bridge,” January 8, 2014. Refer Appendix B
In 1983 a man sat with his back against the bridge, trying to hide from the beating sun in the shade of the parapet, while he waited for a fish to bite. He looked out across the bridge towards the water. In 1984 he did the same. In 1985 again. In 1986 his son did the same. [fig. 3-44]

In 1992 a family came and sat around their package of fish 'n' chips. They felt the wind blowing, fed the seagulls their left overs, and watched the sun disappear behind the Manukau Heads. [fig. 3-45]

In 2005 two young lovers held hands, took acid, touched each other, and talked into the night about their dreams and aspirations. [fig. 3-46]


Every week, in 2011, an elderly man seeking some respite from his wife in his long retirement, sat here with his son. Every week, in 2012, an elderly man seeking some respite from his wife in his long retirement, sat here with his son. Every week, in 2013, an elderly man seeking some respite from his wife in his long retirement, sat here with his son. In 2014, when he can, an elderly man seeking some respite from his wife in his long retirement sits here and remembers his son. [fig. 3-47]


---

On a warm night in 1977 a little girl fell asleep in the back seat of the family car. “Lulled by the moon into a hazy slumber; drunk from the day’s folly, sedated by a scent unknown.”\(^5\) [fig. 3-48]


In 1926 Margaret Armstrong laid her coat, hat, and bag on the bridge and stepped into the ebbing tide beneath her, praying the water would take her with it. Her prayer was answered.\(^6\) [fig. 3-49]

6 “Lost And Found,” Evening Post, October 26, 1926, Papers Past.
In 1957 a cyclist took their second commute of the day across the length of the bridge. They kept as close to the curb as they could to avoid being clipped by the lorries on their way home from market. [fig. 3-50]

In 1965 ten young men lined up, facing the Onehunga Wharf, sea gulling, looking for an opportunity to earn some money. [fig. 3-51]


In 2002, a family stood, heads bowed in prayer (amen) and the ashes of another loved one are committed to the waters below. [fig. 3-52]

In 2014, a woman stood here and surveyed the area, wondering where they would build another bridge. In the same year, in the same spot, another woman stood here collecting stories. [fig. 3-53]

My design sits on and wraps around the bridge, a retelling of linear histories. Each line is a retelling of a memory or an iteration of a story brought together, offering a new narrative. Parts of the installation will be retained onsite, only to weather or disappear; other parts will be removed to be archived and exist outside the site. My intention is that the Traversing Memory installations will operate as, not only mnemonic devices, but also representations of how memories are altered, lost, or retained over time.

Like the drawings that have helped form this final work, the installations are lineal in nature. Each line traverses not only the time between the memory it records but also the Old Mangere Bridge itself.

I want for people to be able to imprint their own stories upon the work. However, for those that would like to know the precedent of the stories illustrated booklets were available at the Other Waters event.

The theoretical positioning of this work, within theories of memory in architecture, led to my pursuit of research through oral history. Like artists John Kuo Wei Tchen and Charles Lei in their respective works Brass Valley and New York Chinatown History Project it was important to generate a methodology which engaged both the social and material components of the built structure as mnemonic device.

Traversing Memory’s final iteration attempts to illustrate the temporal nature of memory by its gradual degradation, mirroring the disintegration of the Old Mangere Bridge and its importance as a connector of communities and the moana.
Conclusion

The Old Mangere Bridge has changed from an engineering marvel that enabled travel across the Mangere Inlet to a busy piece of motorway connecting Auckland city to its airport. The bridge, a destination in itself, offers local communities a place of recreation and restoration.

Each visit to the old bridge creates new memories and reinforces old ones. With the building of a new pedestrian bridge in 2015 and the demolition of the Old Mangere Bridge memories held by generations of people will be destroyed.

Given that each phenomenon, each experience, is retained in a unique way by each person; given that many people hold a memory or memories of the old bridge; that these memories have been shared with others, retold to whanau, friends, and strangers; given all this, there are an unfathomable number of memories being held of the bridge and by the bridge. To date, the bridge has been a scaffold supporting memories of itself. With its destruction, the Traversing Memory project will serve to retain and foster some of those memories.

I have had the opportunity to record the voices of the often voiceless. Using several forms of memory collection has allowed for a more diverse and inclusive memory collection. The oral histories I recorded are housed within Auckland Libraries’ Oral History Collection available throughout the Auckland region. The library is not a mnemonic device but as a memory repository it will maintain the collected memories for those that seek them. And whilst the collecting of memories was an integral part of this project, the archiving of them was not. The archiving was not incidental but important to the community and generations that follow, and important as real voices sitting alongside the final design.

The new Mangere Bridge is still in its design phase. Architects, engineers, and local artists have been appointed to design and construct the new bridge. The unnamed new bridge will be built to the east of the Old Mangere Bridge ending near the old bridge’s abutments. Curving away from the old bridge, the new bridge will not rise much higher than the old bridge, ensuring ease of use for pedestrians and cyclists, and will include several bays to be used for fishing.

The New Mangere Bridge is another iteration in a long line of Manukau Harbour crossings. No matter how the new bridge is designed, whether the communities’ memories and stories are included in its design or not, the new bridge will act as a mnemonic device simply because it is there and fulfills the same functions.

The old bridge provides a transportation route and a place of recreation. Is it a function of the bridge to act as mnemonic device or does it act as a reminder incidentally? Certainly, it was never designed as a mnemonic device but my research has shown that the bridge acts in that capacity now. Is it therefore the responsibility of the designers of the new bridge to ensure that that bridge too continues to retell the communities’ memories? Or is it up to the communities around it to provide their own repositories that keep telling the stories that are important to them? Regardless of one’s philosophical beliefs on whether historical preservation should be state-led or community-led, design that allows local communities to tell their own stories will enable them to do so should they choose. The new bridge, as another harbour-crossing, will act as mnemonic device – how effectively it will work in that function will depend on the importance that function is given within its design.
Like the old bridge, I want my work to be a connector of communities. It is the connection that I would like highlighted in the final design. Physical traversing lines illustrate the thousands of journeys across the bridge. Lines built into the thoroughfare, extending beyond the physical structure of the bridge will highlight the bridge’s main purpose – to connect communities – while illustrating the many crossings that have already been taken.

My work, installed on the Old Mangere Bridge, will be destroyed when the bridge is demolished. As equally, a permanent installation that illustrates the connection through stories being retold would also be an appropriate addition to the new bridge. A sound work, of looped waiata and stories, would allow for memories to be continued through further generations, connecting those that have been with them yet to come.

The Manukau Harbour has been a place of sustenance for hundreds of years, both physical and spiritual. Anecdotally, I have heard of diminishing kaimoana stocks and with a planned increase in wastewater overflows into the harbour there will be no improvement in the foreseeable future.

Each storyteller that shared a memory with me shared their own knowledge and truth. Hundreds of experiences, hopes, dreams, and aspirations were shared with me. It is my hope that the stories I chose to illustrate honour the authenticity of each and every one of the memories that were shared.

The lineal nature of my process drawings led me to the final linear markings on the Old Mangere Bridge. Like the many people’s stories they illustrate, these lines traverse across both the structure and across time, reminding us of stories told and evoking new memories. Margaret Mahy’s bridge builder built one bridge where,

\[\text{Those who crossed over from one bank to another on this bridge, crossed also from one day to another, crossing time as well as the spaces under the piers.}^{1}\]

I would like to think that Traversing Memory does the same for the Old Mangere Bridge; at once, enabling us to retain memories from the past whilst creating new memories to take with us to the future.

---

Addendum

My intention for this project was for the work to allow the local community a mnemonic device for their memories of the Old Mangere Bridge and to create new memories for them to foster. I am very pleased to see my intentions realised.

Echoing my time on the bridge over the past two years, sitting beside my work evoked very little interaction from the public but installing the work, working on the bridge, created many conversations. People were interested in my work and still keen to share their memories of the Old Mangere Bridge.

The communities of people using the Old Mangere Bridge are interested in what is happening to ‘their’ bridge. Many people stopped to ask me what I was doing. Some presumed I was an Auckland Council worker installing safety measures, others presumed I was strengthening the bridge. Others wanted to share their memories of the bridge with me.

People wanted to know what each mark represented. They were interested to know that each disjointed mark was a conversation and a memory they could relate to. That the work as a whole acted as a mnemonic device and represented some of the community’s memories, inspired people to share more memories of the bridge.

The working name of the event, Other Waters: Art on the Manukau, of which my work was a part, was ‘Water and Weather’, and the installation of my work was very dependent on those two things. The days of the event were windy and wild with coats and hats flapping around in the wind. The wind seemed to gather momentum as it travelled across the harbour. The bitter-cold sou’wester buffeted the water, guests, and visitors; our kaumatua’s karakia became almost a whisper, lost amongst the wind and the rain.

Light refractions and sound from the installation activated small parts of the bridge. The lines of brass shone in the sunlight, reflecting the environment and the people stopping to study them. As the light changed throughout the day, so did the light reflecting off the brass markers – at times almost blinding, at others golden. In the gale winds of ‘Other Waters’ pieces marking time spent between father and son were blown about, at times flailing in the air like ribbons of light, whilst creating a cacophony like crashing thunder. [figs. A-1 to A-3]
Walking the length of the bridge there are twelve works illustrating different memories. And like memories themselves, some pieces are very easy to find, others, almost invisible until the light hits them at just the right angle. To aid with the discovery of each installation I produced a booklet (below) for the exhibition, relaying an idea of each memory, and a small synopsis of the reason behind the project.

[fig A-2] The long line showing cyclists’ travels along the length of the bridge glows red as it reflects the setting sun.

[fig A-3] In the gale-force winds, a work illustrating the loss of a son, blows in the wind.
People walked along the bridge, intrigued by the brass markings, creating their own memories, and then walked along again with the booklet filling in some gaps and further fostering the memories the work illustrates. Since the exhibition, the booklet has become a further mnemonic device, reminding us of the exhibition, the bridge, and the initial memories. Readers who never saw the exhibition have relayed how the book acted as a mnemonic device for their own childhood memories of the bridge and that through reading the book they could imagine themselves as part of each of the illustrated memories.

This further connector emphasises that there are many ways we can use spatial design to foster and maintain memories of the built structure but also that my intention to foster community memories was actualised. What were personal and sometimes individual memories have now been imagined by a large community of people. The memories are now shared and fostered by a community.

The installation’s design is not meant to last forever but its ability to maintain any longevity is only as strong as the connection between it and the bridge. The closely wrapped bronze followed the linear nature of the bridge, its reflections exposing the viewers to not only their own reflections but also a line in a larger story — the brass markers, visual conversations and reflections of the area, the people and links to the extended environment. Traversing Memory’s final iteration illustrated the temporal nature of memory by its gradual degradation, mirroring the disintegration of the Old Mangere Bridge and its importance as a connector of communities and the moana.
Bibliography


---

**Appendix A: Ethics Approval**

UREC REGISTRATION NUMBER: 2013-1047

This study has been approved by the UNITEC Research Ethics Committee from 9 August 2013 to 9 August 2014.
Appendix B: Shared Stories and Correspondence

Dear Hannah Allyne,

I saw the article on the front page of the *Auckland Courier* and think you may be interested in speaking with my father, George Shaw, who has strong feelings about the bridge.

He is 97 years old, and was born in Oshungha, where his father had a small farm and a school house close to where the current Unghungha school stands. They later moved to a farmlet in Tawera Road when he was 6 years old. He later worked with his brother Billy, who owned Shaw’s Garage at Mangere Bridge which existed from about 1925 to 1951.

He has told me the following, some of which I am sure you would already know:

Bill Buchanan (Billy) was the first across the bridge with his horse drawn cart which he used to carry his plough and other goods. The bridge had not quite been completed and there was a small gap which he managed to get over. He lived in Waiwera Road, Mangere, and used to come to the farmlet to plough in the fields. When ploughing he would sing ‘Ivy, hold your head up and keep the sea out of my eyes’.

He had been a boxer in his day and thought my father should give it a go.

Billy told my father that the engineer working on the bridge was often drunk, which may have led to him blowing the top off of the arch. This is why there is a dip in the bridge at the Mangere end. The tops could be seen in the harbour when the tide is out.

The harbour was clean back in the 1920s, before the slaughter works got going properly.

Femmes (women) would line the bridge on a Sunday evening for fishing. It was a day working week back then. There was lots of salmon about in the 20s. Not long after the Council banned fishing from the bridge.

Shaw’s garage was originally on the corner of Coronation and Mirco Roads, but later moved in 1939 (right down the bridge to what is now Yeranga Service Centre (Guanfia Alley) at 1 Coronation Road, on the corner of what is now Waterfront Road.

A Bayley bridge was put on it in the 1950s, while they made repairs.

He remembers going across the bridge on his horse therapy to see his aunt Amy up at Mairua Hill when he was about 20 years old. At this time he was the only one riding a horse (today it’s the new Orakei Primary School in Stadden Road, since been knocked down). He attended a school reunion a couple of years ago and was the oldest one there.

I am sure he would entertain a lot more with questioning. He remembers a lot of the people in the area.

He can be contacted on phone [redacted] and lives in Hunters Corner.
BRIDGE-O-LAGE

I pretended not to hear Ella calling me while I sat on the loo, humming to 'Dancing Queen'.

"Young and Sweet only seventeen"

I didn't want to go to Magpie. Poosh shrik.

Bang bang bang, pounded Ella on the noisy door.

"Hurry up Nana I know you're not sick!"

Yes I am I've got die-die die-die-rarr.

Have not and you can't even say it proper.

Ella clunks the Pea Tree; pries the window shutter open yelling,
Wet as your bum, pull up your uncles and get out here now before mum comes...

Oh oh oh, I concede and pull the chain then fling the door open.

The Beast awaits: engine roars, petrol humping. Dad is plastered in the Man seat one hand clutches the steering wheel while the other conceals his beloved flagons stowed between him and Mum. Mum's in the passenger sits laden with bags of extra clothes (in case I see my dual) and her lap cushions a hummusy bowl of pancakes.

Big bro hugs the backseat and stares through the window picking his nose. Little bro has stretched out in the boot playing out a duel between his Incredible Hulk and Action Man figures.

Ella shuffled me in between her and Big bro and flanks me with a platter of pan-fried flounder covered with flour tea-towel...