ABANDONED INDUSTRIAL SPACES:
The place of adaptive reuse in revitalising a rural community in Tokomaru Bay, New Zealand

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Explanatory document

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Industrialization in New Zealand can significantly affect rural areas, especially if a major production facility provides the main source of income. At the community level, it brings either prosperity while it operates, or devastation when it closes down. Eventually, the original industrial programme of a facility will be no longer viable as the business has moved elsewhere, leaving the imprints of abandoned factories as a long-term reminder of the industrial past. Eventually they become neglected architectural sites.

The history of Tokomaru Bay, a coastal town in the Gisborne District of New Zealand is evidence of how the rise and fall of an industry can affect an entire community. The facility, in the Tokomaru township of Waimā, has been abandoned for over 66 years and its closure resulted in a population decrease from over 1200 to approximately 390 residents, according to the 2013 census. The current freezing works complex is comprised of buildings in various stages of decay; however the sturdier ones are still intact with minor disruption, while others have grass growing wild among ruined walls.

By asking how an isolated rural area can re-establish the livelihood of a community after the loss of the key local industry, this research examines the possibilities for the adaptive reuse of a dilapidated industrial site in Waimā, Tokomaru Bay. The proposed new use is backed up by relevant literature and precedent reviews and is drawn from the major historic events that took place in the area, as well as from the rich cultural background. The design seeks to revitalise the community and grow its prosperity; therefore the result of this architectural analysis is a design for a museum and a crafts centre at the site of the former freezing works.
I would like to express my sincere gratitude to my supervisor Dr Renata Jadrešin Milić for providing her invaluable guidance and help.

Also, this research would not have been possible without the essential support of my dear husband, my son, and the entire family.
Figure 1. The former storage building above Wahi stream at Waimā, Tokomaru Bay, Gisborne District

1. INTRODUCTION

1.1. KEY TERMS AND ABBREVIATIONS

East Cape is the easternmost point of the main islands of New Zealand. It is located to the north of Gisborne in the northeast of the North Island. The name “East Cape” is also used to refer to the Gisborne region around the cape stretching from just north of the Mahia Peninsula northwards and inland to Te Urewera National Park.¹

Fabric – all physical material of an historic building and site, including its structure, surfaces, fixtures and fittings, landscaped gardens and plantings.²

Offal - the parts of a butchered animal that are considered inedible by human beings; carrion.³

Pākehā - New Zealander of European descent, originally applied to English-speaking Europeans living in Aotearoa/New Zealand.⁴

Slaughterhouse - a building or place where animals are butchered for food; abattoir.⁵

ASP – Auckland Studio Potters;

ICOMOS – International Council on Monuments and Sites;

INTBAU – International Network for Traditional Building, Architecture & Urbanism;

TBHT – Tokomaru Bay Heritage Trust;


Tokomaru Bay is a coastal town in the middle of the East Cape. The town centre organically grew around the area where State Highway 35 makes its turn to the Bay, before continuing on to other townships and the city of Gisborne. Holidaymakers usually explore the East Cape travelling up or down the highway. Despite the tourist promotional programmes developed by the Gisborne District’s authorities, the East Cape is not among the popular places to visit nowadays and remains a remote area experiencing economic difficulties. Lack of jobs and opportunities force young people to leave their hometowns in a search for a better life, although they might return to the Bay to retire.

The East Cape’s assets are its strong cultural background and stunning scenery. The area experienced significant historic events in its industrial past and if one knows where to search for them, architectural remains of the former glory still can be found in the overgrown landscape. However, only a few explorers enjoy exploring the gloomy atmosphere of the abandoned or ruined places.

The will to respond to the issue of the East Cape’s decay using an architectural approach, narrowed down to the scale of the Tokomaru Bay community, laid the foundation for this research.
1.5 RESEARCH QUESTION

How could Tokomaru Bay in the northern Gisborne region be given a second life by the adaptive reuse of the abandoned meat freezing works facility?

1.6 SCOPE AND LIMITATIONS

The scope of this research explores the historic and cultural context of Tokomaru Bay. The historic period under consideration ranges from the beginning of the 20th century to the 21st century. This historic time frame is crucial to the project, as the most significant and relevant events happened in the area during this period and their outcome influenced the design objectives of this research. The historic events outside the specified time frame are not relevant to this research and will not be addressed.

The scope of this project also explores the physical context of the heritage site in Waimā township in Tokomaru Bay. The historic industrial complex located there is comprised of the meat freezing works facility and the interrelated buildings and structures, including The New Zealand Shipping Company Offices and Wool Store, the wharf and other smaller-scale buildings. The research is limited to developing an architectural solution for the adaptive reuse of the buildings and structures of historic significance, while the rest of the complex is considered not relevant for this research and therefore is not covered.

The research project studies the possibilities for the revitalisation of the local community of Tokomaru Bay through an adaptive reuse of the abandoned industrial site. The scope of the project, the literature review and the context analysis are focused on the particular site in Tokomaru Bay, which therefore creates limitations. Although other decaying rural communities with former industrial sites can be found in New Zealand, it is questionable if the objectives derived from the current research can be applied to other places.

Figure 3. Dilapidated timber section of the wharf at Waimā, Tokomaru Bay

1.7 STATE OF KNOWLEDGE IN THE FIELD

This research project provides an overview of the most relevant literature and precedents that are available in the field to support the design outcome.

The literature review identifies the state of knowledge about the treatment of architectural heritage and covers the following themes: general knowledge on the history of conservation and current heritage preservation theories; historical informants related to Tokomaru Bay and their role in various historic events, and an overview of the Tokomaru Bay heritage site project.

The literature is based on a review of the history of architectural preservation, and the modern conservation movement is an important background to the project. This includes the most relevant books by architectural theorists Jukka Jokilehto, Miles Glendinning and Donald Insall, as well as a study of the ICOMOS guidelines and relevant information on the New Zealand Heritage List.

Another branch of the literature reviews the historic evidence of the town’s major past events. The overview is divided into three parts and discusses recent and distant history and a possible future.

The precedent study examines the physical material available in the field and enriches the supporting analysis for the research outcome. The precedents for this review include national and global examples, representing the variety of approaches to the design.

The first precedent looks at the programme as it presently applies to the craft production of the Auckland Studio Potters in New Zealand. The next three precedents are an overview of overseas experience, including the Pewabic Pottery in Detroit, which represents a successful engagement of the historic building with contemporary community needs. The third precedent is the Mill City Museum in Minneapolis, which shows how the historic fabric can be emphasized through adaptive reuse. The fourth precedent shows how the common fabric can be used in an out of the ordinary way, through the example of the Crystal Houses in Amsterdam.

The conclusions reached in the both literature and precedent reviews will be used to derive the design guidelines for the adaptive reuse of the former freezing works facility.

As the research project is in the field of adaptive reuse, it demands a thorough study of the existing buildings and structures, which may be a combination of historic sources and a site survey. As no information was available on the size of the buildings and the ruins of the former freezing works facility, in March 2017 a field trip was made to inspect and measure up the site. The outcome of the trip was not limited to the observations and as-built plans, but also gave a chance to dive into the social part of Tokomaru Bay’s life by being in immediate contact with local residents.
1.8 METHODOLOGY

Four methods were used in this research to obtain the important data for the design guidelines for the adaptive reuse. The methods are:

- A historical, cultural and physical analysis of Tokomaru Bay. This analysis is important, because understanding the site’s background is a basis for the new programme and a new design that connects with the historical, cultural and physical aspects of the area. The results of this study will be a better understanding of the different aspects of the site and how the narratives derived from the research influence the design outcome. The development of Tokomaru’s community can be divided in three major phases: pre-industrial, industrial and post-industrial. There is a strong Māori influence in the area and a rich cultural background.

- An architectural analysis that studies the existing buildings of the freezing works from the functional, structural and aesthetic points of view and considers the potential for future development. The architectural analysis includes five buildings and structures: the former New Zealand Shipping Company offices and wool store; the former boiling down room; the former boiler house; the former freezing chambers and store; the former store, and the wharf.

- Site survey. The site surveying and measuring investigated the spatial potential of the existing buildings within the freezing works complex. The measurements, along with photographs and an overall sense of the place, were among the key elements that supported the decisions about the design outcome of this research. The information was later used to create a precise digital model of the complex, as no architectural documentation could be found except for a 1911 layout of the freezing works. The observations of the site included an overall exterior study, along with a study of smaller scale details. The outcome of this investigation was a better understanding of the existing heritage fabric and its possible future use.

- The design process of this research project was documented and systematically presented to show the phases in the development of the design to date. This also included the proposed degrees of conservation that could be applied to the historic buildings of the complex. When the programme for the adaptive reuse was defined and the facilities were allocated accordingly, the degree of conservation of the heritage buildings was introduced. All the existing buildings in the complex require a change of use, as they are no longer the part of the industrial site. In addition, the conservation methods based on the new programme and the new layout defined the particular conservation method for every building individually.

Figure 4. The former storage building facade is visible among the overgrown landscape. The Waihi stream bed is at the bottom.
2. LITERATURE REVIEW

The literature review identifies the current knowledge about architectural heritage treatments and is divided into two themes. The first part explores general knowledge on the history of conservation and current heritage preservation theories; while the second part examines historical informants related to Tokomaru Bay and their role in various historic events. Finally, there is an overview of the Tokomaru Bay heritage site project.

2.1 General history of conservation

The first section is based on works that review the history of architectural preservation and the modern conservation movement. This group includes the most relevant books by theorists including Jukka Jokilehto, Miles Glendinning and Donald Insall, as well as the ICOMOS guidelines and relevant information on the New Zealand Heritage List.

The story of the conservation movement has roots stretching back to Western antiquity, in particular to Greece and Rome. There were many approaches then to the repair and reuse of places of cultural and religious value, which is why the earliest buildings to have survived generally tend to be those that received religious veneration. One of the most enduring themes that stimulated the emergence of a historic consciousness in the field was the interrelationship of conservation and mass warfare, which took place from the 16th century onwards.

However, the conservation movement as we know it started to take shape in 19th century Western Europe. In the 1840s, the French architect and author Eugène Viollet-le-Duc was a symbol of the restoration movement with his philosophy of the ‘scientific’ restoration of heritage buildings: “to restore a building is not to preserve it, to repair, or rebuild it; it is to reinstate it in a condition of completeness that could never have existed at any given time.” That said, Viollet-le-Duc sought to recover a building’s authenticity, idealizing it. As this movement might be considered rather utilitarian, other opinions on how to treat heritage buildings began to develop. In the 1850s, Protestant anti-restoration ideas were introduced by the English social activists John James Ruskin and William Morris. They saw restoration ideas as the destruction of authenticity and considered preservation the only way to treat heritage buildings.

Both theoretical approaches have informed modern conservation approaches and provided the theoretical grounds for architects practicing different types of restoration in the current field.


The massively destructive impact of World War II was a catalyst for raising awareness of the need to protect cultural heritage not only in Europe, but also worldwide.

2.1.1 Current conservation guidelines

It is essential to be aware of the current rules and regulations when it comes to dealing with architectural heritage. The International Council on Monuments and Sites (ICOMOS), which is the largest and most influential body for heritage preservation, is a global non-governmental organization associated with UNESCO. Its mission is to promote the conservation, protection, use and enhancement of monuments, building complexes and sites. Charters developed by ICOMOS provide guidelines for everyone involved in conservation work.

In general, a place needs to serve a useful purpose. Sometimes, a use is no longer integral to its cultural heritage value and therefore a change of use may occur. In this case, the effect of the change should be minimized and compatibility with heritage values retained. “Intervention should be the minimum necessary to ensure the retention of tangible and intangible values and the continuation of uses integral to those values.”

ICOMOS defines intangible and tangible values as the abstract cultural heritage value (historical, social, symbolic) and physically observable cultural heritage value, respectively.

Degrees of intervention for conservation purposes exist, shown below in ascending order:

(i) Preservation is essentially a reference to the anti-restoration theory and was introduced by John Ruskin and William Morris in the 19th century. It encourages using as little intervention to heritage fabric as possible, and not removing the patina of age. Preservation includes work on stabilization, maintenance and repair, preferably using traditional methods and materials.
(ii) Restoration focuses on returning an object to its former position, based on a proper analysis of historic evidence. The process typically involves the reassembly and reinstatement of the existing structure, using the same materials. It may also “involve the removal of accretions that detract from the cultural heritage value of a place”. The roots of restoration theory stretch back to the 1840s, when Eugène Viollet-le-Duc popularized it.
(iii) Reconstruction is considered as almost the same as restoration, the only difference being the former involves “the introduction of new material to replace the material that has been lost”.
(iv) “Proposals for adaptation of a place may arise from maintaining its continuing use, or from a proposed change of use.” Adaptation proposals may involve change of use and can be accompanied by substantially reversible alterations and additions.
ICOMOS introduces the term ‘interpretation’ as a guide to actively enhancing public understanding of all aspects of places of cultural heritage value and their conservation.¹⁷

According to New Zealand practice, the relevant cultural protocol for historic places is The New Zealand Heritage List/Rārangi Kōrero, which provides information on significant heritage places throughout the country. Entry on the list, however, does not equal automatic protection, although it recognizes a place of historical or cultural heritage significance or value.¹⁸

Another organization looking into the country’s cultural heritage is INTBAU New Zealand - The International Network for Traditional Building, Architecture & Urbanism. It represents one of 30 national chapters and addresses the understanding of the ‘tradition’ of bi-cultural settlement history in New Zealand (Māori and Pākehā / British). INTBAU NZ prioritizes the creation of built environments that support social, cultural and ecological systems capable of self-organization, learning and adaptation.¹⁹

2.2 History and possible future of Tokomaru Bay

This literature reviews the historic evidence of the town’s major historic events. The overview is divided into three parts, discussing recent and distant history, and a possible future.

2.2.1 Industrial past of the East Cape

The most comprehensive informant on the history of the meat freezing industry in the Gisborne region, and the source for the literature review, is a book written by Sheridan Gundry, Making a Killing. Here historic facts are organically interwoven with the memories of the local people, giving an insight into the region’s past.

The independent freezing industry enterprise in the Gisborne district can be traced back to the 1850s. By 1880, sheep outnumbered people: there was a 13 million strong flock and just over half a million citizens. At the same time, on the other side of the globe meat was in scarce supply, and Britain’s population was already 35 million. This was a good reason to try to make a profit on frozen meat exports.²⁰

Although the long-term preserving of meat used to be a challenge for meat-producing countries, the first successful shipment of a vessel full of frozen meat from New Zealand to London took place in 1882. This meant an end to the years of colossal meat wastage for New Zealand farmers.²¹

Freezing works complexes were usually built next to a riverbank or had direct access to the sea. Such locations settled a point about shipping, as inland routes were in poor condition and were only starting to be developed. Layouts of the complexes were similar to one another, where

The industry celebrated prosperity between 1889 and the late 1920s, and at some point there were these independent freezing works operating in the Gisborne district alone. Bush burning took place on a grand scale in order to clear land for pastures. As the years passed, the industry became more and more centralized, and soil fertility was depleted²² However, by 1983 there was only one facility left working in the region.²³

More information on structures is discussed in Chapter 5.1 – Historic and cultural context and Chapter 5.2 – Physical context.

This analysis confirms that the industrial past has left an indelible, if not to say devastating, imprint on the East Cape, leaving remains of former glory hidden in overgrown bush among unfruitful land. It is doubtful that anyone would like to reiterate that scenario and moreover, there is now a brilliant opportunity to fill the gaps with action.

Fig. 5. Operating freezing works, ca 1911-1917. The addition closer to the hill on the left is not yet built

²³ Ibid, 194
2.2.2 Recent past

This chapter is a discussion of two small yet brilliant books by an influential figure in the New Zealand studio pottery movement, Helen Mason. The first book is a memoir, Helen Mason’s Scrapbook — Fifty years as a backyard potter, and the second is Waimā of Tokomaru Bay. These books represent an overview of life in Tokomaru Bay in the 1970s and 1980s when Helen resided there.

When she arrived to live in the Bay in 1974, the village ‘was very run down, only children and their grandparents were there and the whole place seemed to have lost confidence’. However, this did not stop Helen making a connection with the local Māori through the medium of crafts and becoming a welcomed part of the community.

The following words help to understand the position of the renowned ceramicist to the practice of crafts: “In these days of high technology I believe the craftsman has something special to give to the world. Watching the way the pottery movement grew out of our backyard kilns and the meeting of kindred spirits, sharing knowledge and ideas, taught me a lot about people and their need to build a balanced life. So too did the Māori people with the way they always put people before money and can create something with meaning and purpose within their own traditions.”

In 1984, the small township of Waimā in Tokomaru Bay was a home to craftspeople as well as to local Māori people. Back then, the wharf was already partially dilapidated, however it was still attractive to visitors and residents for fishing and walking on. Small boats also paid a visit to the area and found it a haven.

More discussion on the area’s cultural heritage is in Chapter 5.1 Historic and cultural heritage.

From the previous analysis it can be confirmed that despite the remoteness and overall neglect, Tokomaru has the potential to become a striking place for both the residents and visitors. The cultural background of the town is strong; however, job opportunities are required to improve the economic situation in the Bay.

2.2.3 Possible near future of Tokomaru Bay

The section is an overview of the Tokomaru Bay Heritage Site Project (TBHST), a document that was prepared as part of an initiative that aims to draw attention to preserving the town’s heritage and to promoting tourism. The project is a feasibility study presented by the Tokomaru Bay Heritage Trust, a dedicated band of people whose aspiration it is to reconcile the voices of the past with a new and dynamic future.

The philosophical basis for the project can be described as “helping a struggling community with a very low socioeconomic base to help themselves”. The community believes that indigenous tourism along with potential economic activities is the best opportunity for economic growth and employment throughout the East Cape. Acknowledging the industrial past of the region, this project has been designed to cover most of the original parts of the former freezing works complex and is divided into four stages:

1. Restoration of the wharf’s concrete jetty piles;
2. Rebuild of the wharf’s wooden section;
3. Restoration of the NZ Shipping Company Building;
4. Construction of a walkway around the freezing works ruins.

At this stage, the Tokomaru community’s concern for its heritage is a voice in the wilderness. Although many people and organizations support the initiative in words, it is a long journey to raise the funds.

The document also points out the benefits of the relative isolation of the East Coast, where the economy is basically dependent on Māori and Pākehā working together, a cooperation that extends into everyday life today, as it has for the last 150 years.

Tokomaru Bay’s community activists have formed the Heritage Trust, as they are concerned about the fate of the area’s cultural heritage. The Trust has its own aspirations for the treatment of the ruins and has an overall idea of how to preserve and make the maximum use out of them.

Tourism is common in New Zealand; however, this statement is usually applicable to the cities and the already popularized places of interest. The country’s hidden gems such as the East Coast often struggle during the off-peak season, particularly if they rely on the leisure industry. That said, there needs to be an activity taking place in the background to ensure a permanent source of income where possible, as maintaining a tourist spot is requires constant attention and sufficient funds.

25 Mason, Helen. Helen Mason’s Scrapbook - Fifty Years as a Backyard Potter. Waipukurau: Fine Print Company, 2005, 21
26 Ibid, 49
27 Mason, Helen. Waimā of Tokomaru Bay. Tokomaru Bay: Tauira, 1984, 7
30 Ibid, 11 - 15
31 Ibid, 5 - 7
32 Ibid, 9
3. PRECEDENT REVIEW

The precedent study examined the physical material available in the field and enriched the supporting analysis for the research outcome. The following precedents for this review include national and global examples and represent a variety of approaches to the design.

3.1 Programme: Auckland Studio Potters

Established in 1961, Auckland Studio Potters Society (ASP) is a large ceramics facility located in South Auckland. The Teaching Centre offers members and students, both professionals and novices, studio and firing facilities, support and social contact. A field trip and interview with the administrator in 2017 provided insights into the process of making pottery pieces, which generally includes these steps:

a. an artisan throws clay on a pottery wheel and gives it a desired shape;

b. the shaped piece dries out and undergoes its first biscuit fire in a kiln;

c. then the piece is taken back to the studio for the finishing touches: glazing, waxing, etc.;

d. the piece is returned to the kiln for the final firing.

A pug mill (a mill for grinding and mixing materials to a desired condition) and clay baths are used to recycle leftover clay and broken pieces.

Despite the wide range of equipment and spaces in ASP, the circulation between the facilities is quite complicated. The studio was initially located in a heritage villa in the heart of the complex and as the place grew organically, the reception area eventually took up much of the villa’s space, which led to the addition of a new studio building. The villa in the middle is now separated by the studio and the kiln shed.


Exhibition and shop areas at the ASP are rather small due to the generally small size of the pottery pieces and are in the villa, together with the reception and exhibition spaces.

For the best allocation, the studio, the kilns and the storage need to be located in close proximity. Also, ASP is a studio and not a manufacturing facility, so there is no need for a large store to display the designers’ items. However, the sizes of the ceramic works of art can vary from kitchenware to outdoor sculptures and may require a larger space than is available currently.
Pewabic is a ceramic studio and a non-profit educational institution, founded in 1903, which is located in the city of Detroit, Michigan, USA. The collaboration of two of its founders and their blend of arts and technology happened to coincide with the International Arts and Crafts Movement in America. In light of this, many notable buildings throughout the United States are decorated with architectural tiles covered with iridescent glazes - a hallmark of the Pewabic founders.

Although Detroit has gone through a major economic and demographic decline in recent decades\textsuperscript{35}, the modest crafts facility is still going strong. During its 115 years of operation, Pewabic stands by its principles: to make art, share the art of making and enhance the cultural fabric of Detroit.\textsuperscript{36} As Gregory Wittkopp, the Director of the Cranbrook Center for Collections and Research suggests, the reason Pewabic endures is that it has always favoured a combination of creating vases and architectural tile components. Vases fall in and out of favour, but tiles for home foyers, fireplaces, and accents on buildings continue to be loved by one generation and the next and the next.\textsuperscript{37}

Pewabic represents a sustainable facility in the industry of crafts. It has found its niche and promotes crafts while staying true to its mission. Craftsmanship allows it to survive the fluctuations of fashion and economics.

### 3.3 Reuse: Mill City Museum

One among many flourishing examples of the adaptive reuse of an abandoned industrial site can be found in the state of Minnesota, USA. The Gold Medal Flour mill on the banks of the Mississippi river stopped functioning in 1965 when flour milling no longer depended on water power and could be done closer to the wheat fields.

The empty building experienced a devastating fire in 1991, which left it in ruins. Fortunately, the incident drew the attention of the community and three years later, the Minneapolis City managing authority re-envisioned the site as a catalyst for the area’s redevelopment. It was eventually turned into a Mill City Museum.

When working on the project, the architects (Meyer, Scherer and Rockcastle) wondered how to design a building that incorporates disparate fragments. What should be retained and what

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should be demolished? As a result, most of the building was preserved, including the rail corridor, the turbine pads and even the steel columns twisted by the fire; they became a part of the design. The architects noted that “the design seeks to engage the body in the tangible experiences of the old and new by choreographing movement through diverse and varied spaces”.

The urban location dictated the particular terms of the design and in order to connect the residential development located on one side of the former mill with the recreational riverfront on the other, the Museum was designed to be spatially porous. With this permeability it eventually became an urban public space integrated into the life of the residential development.

During the early 20th century, the predominant material for construction in the industrial sector was brick. Nowadays, when a lot of these buildings are still in good shape and have become subject to adaptive reuse, the common practice is to juxtapose heritage and modern fabrics. For instance, a glass surface is clear and smooth and distinct from the rough surface of brick, therefore this method can be used effectively to emphasize the distinction between the materials and to create sensuous spaces. This precedent also shows that stabilized ruins can be an asset and can be livened up with night-time illumination.

Often the extensive use of glass in historic industrial sites adapted to a new use is determined by the lack of the light, due to the generally small openings in the external walls.

3.3 Fabric: Crystal Houses

MVRDV is a Netherlands-based architectural practice that engages globally in providing solutions for contemporary architectural and urban issues.

One of the architects’ successful projects is the so-named Crystal Houses, a flagship brand store located on Amsterdam’s shopping street, PC Hoofstraat.

Figure 14. Celebrating the beauty of ruins in the case of the Mill City Museum

Figure 15. Dissolving facade of the Crystal Houses and the translucency of the glass bricks

The street is predominantly comprised of historic buildings and apparently the new development was obliged to maintain the existing character of the surroundings, even though the owners sought a more traditional approach for the retail industry design.

The architects came up with a brilliant idea by combining Dutch heritage and international architecture. The near full-glass façade mimics the original Dutch frontage, and stretches from transparent solid glass brick at the bottom to eventually dissolve into a traditional terracotta layout at the top. The residential upper level seems to be floating above the contemporary window surface, an essential feature for a retail store.

Although the fabric, made from seamless glass bricks, is a new technology developed specifically for the Crystal Houses project, there are other examples where the blocks are put together with a common brick joint. This does not usually affect the translucency of the façade; however apart from holding the bricks together, the joints can play another important function and conceal the structural elements required for the stability of the glass brick facade.


4. CONCLUSIONS OF THE LITERATURE AND PRECEDENT REVIEWS

This chapter summarizes the knowledge derived from the policy guidelines from the literature related to Tokomaru Bay and from the case studies, and provides a conclusion. The strategies described will help to approach the design in an informed way.

The intangible values related to the freezing works facility include memories of a prosperous industrial era and the cultural activities that came after its end, and extends to the modern symbolic character and dark romanticism of the ruins. Tokomaru has been described as ‘not a ghost town yet, but there are many signs of falling population’ (Ell, 1994). The ruins as a structure, along with the wharf and other buildings in the complex, including the remains of tramway tracks, represent the tangible value.

This research discusses adaptive reuse and the ICOMOS New Zealand Charter accepts adaptation as a possible intervention for conservation purposes, although a less desirable one. This is plausible, because maintaining the authenticity of the heritage fabric and layout is the predominant concern when dealing with architectural heritage conservation. In the case of the meat freezing works facility, adaptive reuse is viable because this research considers the possibility of unlocking the potential of Tokomaru Bay. Some parts of the abandoned complex require deeper intervention than others. More information supporting this statement is discussed in the Conclusion on Context chapter.

ASP, the precedent defining the programme of a pottery in New Zealand, gives an insight into the best allocation of its main facilities: a studio, a space for indoor kilns, a storage and a display space. Hence the four spaces need to be in close proximity. There is only one way to organize them among the freezing works ruins and that space is shared between the former freezing chambers, the boiler house and the boiling down room process, the manure works and the store buildings in the heart of the complex.

The size of the proposed craft-making facilities in Tokomaru Bay is relatively large when compared to the existing pottery studio at Auckland’s ASP. This research makes a stand for the place accommodating not only the production of ceramic pieces of art, but also other types of crafts. The reason that the pottery programme was studied in detail is that among other techniques of crafts production in Tokomaru Bay, pottery can be considered the most labour-intensive. For instance, flax weaving (raranga), working with leather and knitting do not require extra facilities to produce the work.

Adaptation of the former freezing chambers will involve additions to the existing ruins. This research suggests using material that is distinctive from the existing clay brick. Contemporary glass material, formed in the same shape as the original bricks, would celebrate the masonry construction while providing the proposed studio space with sufficient diffused daylight.

The conclusion is that in the case of the Tokomaru Bay freezing works ruins, sometimes it is not economically feasible to reconstruct or adapt ruins that are in a poor state. However, in order to save a valuable heritage structure, ruins can be stabilized and preserved. New activities can flourish around the preserved ruins, or they can be turned into a landmark and used as a marker of local events for instance, when illuminated in the dark.

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Ell, Gordon. *New Zealand ghost towns and glimpses of the past.* Auckland, New Zealand: THE BUSH PRESS, 1994, 63
5. CONTEXT RESEARCH

This chapter is a study of the site from the historical, cultural, physical and social points of view. The results of this study will be a better understanding of the different aspects of the site and how the narratives derived from the research influence the design outcome.

Tokomaru Bay is a coastal township located 90 kms north from Gisborne, in the middle of the East Cape of the North Island of New Zealand. The places ‘out East’ are where major historic events have occurred, including the New Zealand Wars, Captain Cook’s first New Zealand arrival and the extensive industrialization of the area starting from the 19th century. The Bay was involved in the industrial history of the country, particularly in the meat production sector.

5.1 HISTORIC CONTEXT

The development of Tokomaru’s community can be divided in three major phases: pre-industrial, industrial and post-industrial. In pre-industrial times, Tokomaru was a well-populated settlement. In the early 19th century, farming was the predominant source of income for the township. Shore whaling was a common hunting practice, while farmers grew flax, maize, wheat and later, sheep. Massive wood clearing took place in Tokomaru in order to create more grazing areas. From the 1880s onwards the area began to experience the effect of significant industrialization.

The development that helped New Zealand to overcome the economic depression of the 1880s was the success of shipping frozen meat to Britain. In 1909, in response to the issue of surplus stock, a group of pioneer farmers established the Tokomaru Freezing Co Ltd and within two years of establishment of the company, they had built a large killing and meat freezing facility in Waimā, at the northern end of Tokomaru Bay. An existing wharf was extended to accommodate overseas cargo ships and enable the meat products to be exported.

Although similar types of meat processing facilities were established north and south of East Cape, the prominent location for the freezing works in the centre of the coast was more convenient for local farmers than to take stock to Gisborne’s freezing works. There were very few roads in those days, and most people and goods came up the coast by sea.

41 Sheridan Gundry, Making a killing. (Gisborne, New Zealand: Tairawhiti Museum, 2004), 86
43 Sheridan Gundry, Making a killing. (Gisborne, New Zealand: Tairawhiti Museum, 2004), 87
44 Sheridan Gundry, Making a killing. (Gisborne, New Zealand: Tairawhiti Museum, 2004), 19
45 Mason, Helen. Waimea of Tokomaru Bay. (Tokomaru Bay: Tauira, 1984), 2
Due to work opportunities and the income generated there was an increase in the population, which led to the development of a variety of leisure and sports activities within the community. A surprisingly lively rural area, Tokomaru Bay accommodated the pub, the theatre, the Sports and the Library Club in the first part of the 20th century. However, an improvement in overland transport routes and the loss of overseas shipping from the Tokomaru Bay wharf in the early 1940s meant that there were fewer reasons for local farmers to take their stock to the Tokomaru Bay freezing works. This affected the community financially and the facility eventually closed down in 1952. Some parts of the complex, including the pumice-filled walls of the freezing chambers, were salvaged and either moved to other places or sold.

The post-industrial life of the Bay could mostly be characterized in terms of gradual decline, with a lack of jobs and a population decrease from 1240 residents in 1952 to just 390 in 2013. Brief periods of growth occurred during this period - the town was buzzing with creative activity in the 1970s, when the hippie movement brought young city people attracted by the creative energy to the isolated East Coast. Nowadays, locals say that the small community of Tokomaru Bay swells threefold in the summer months because of the sun, surf, fishing, seafood and the laid-back style of the place. Apart from this periodic tourist activity and small private businesses, no major industry is left in the town.

The graph showing the list of the significant events in the history of Tokomaru Bay can be found in Appendix 1.

5.2 CULTURAL CONTEXT

Māori culture is a strong influence throughout the East Cape. The Gisborne Region’s Māori population ranks sixth in size out of the 67 districts in New Zealand. The local tribe is Ngāti Porou, one of whose greatest assets is their isolation and strong sense of sovereignty - ‘mana motuhake’ - meaning ‘autonomy, independence’. Nevertheless, ‘in the 21st century Ngāti Porou’s main challenges are maintaining contact with the large tribal membership, keeping the home fires burning (ahi kā), and maintaining a secure and vibrant cultural base’. In Māori, the East Coast is called Te Tai Rāwhiti, which means ‘Coast of the Sunrise’, reflecting the fact that it is the first part of the New Zealand mainland to see the sun rise.

During the 1970s cultural movement, Tokomaru was a place to live for many talented people. One is Baye Riddell, a renowned Māori ceramicist and the co-founder of Ngā Kaihanga Uku (the national organization of Māori Clay Artists). He continues his practice of creating unique pieces of art in his studio near the wharf in Waimā. Riddell sources local clay for his artworks and runs pottery workshops.

“Tokomaru Bay was eviscerated, its community discarded like an offal down a chute.”
Sheridan Gundry, writer

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53 Cowan, James. Its Māori name, Te Tai Rāwhiti, means the Coast of the Sunrise, reflecting the fact that it is the first part of the New Zealand mainland to see the sun rise. Auckland, 1926, 179-180

Another remarkable person who lived in the Bay in the 1970s and 80s was Helen Mason (1915-2014) - an influential figure in the New Zealand studio pottery movement. Before her arrival in Tokomaru Bay, she looked into the possibilities of living in a Māori village and using the crafts as a bridge between cultures. That in fact happened as, supported by local Māori activist Ngoi Pewhairangi, Helen opened the Tauira crafts centre and took part in festivals and craft exhibitions of works by both Māori and Pākehā.

By acknowledging the events, intangible heritage that has shaped the history of Tokomaru Bay, it can be preserved as a narrative for future development. Once the Bay was an industrial centre, later, a magnet for the creative community. It no longer has a predominant industry, however the two most important aspects of local history could be combined to form something new. An example could be a crafts centre with a small manufacturing facility, which would be designed for the location and related to the evidence discussed in the Cultural context chapter.

In addition, deeply informed by the industrial history of the East Cape, it seems reasonable to accumulate the historic evidence related to the extensive industrialization of the area separately from the general knowledge of the region. Currently most of the documentation related to the Gisborne District is stored in the Tairawhiti Museum in Gisborne. This thesis argues that Tokomaru Bay’s central position among other historic industrial sites is an asset that can be used in proposing a museum of the East Cape’s industrial past in Tokomaru’s township of Waimā.

5.3 PHYSICAL CONTEXT
Tokomaru Bay is a small town in the Gisborne District with 390 residents as of 2013. The town stretches along a beautiful coastline and is surrounded by a chain of hills.

State Highway 35 is the transport corridor for the East Cape and travels past Tokomaru Bay. The highway enters the town in the centre of the Bay, where the community’s social and commercial activity is concentrated, including the marae, the school, the local supermarket, accommodation, the skate park and more.

The residential area of Tokomaru is far-flung along the Bay and does not differ much from the other rural housing areas in New Zealand.

However, the particular place of interest for this research is the small township of Waimā, located at the northern extremity of the Bay.

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11 Mason, Helen. Helen Mason’s Scrapbook - Fifty Years as a Backyard Potter. (Waipukurau: Fine Print Company, 2005), 20

The Tokomaru Freezing Works were built on the shore under the tall cliffs of Waimā (which has another name, Hautanoa). Backed by steep hills, the facility commanded what is arguably the most spectacular setting for a freezing works in New Zealand.\(^{56}\) The Works represent a group of plastered and concrete buildings, some of which line up facing the Bay and form a continuous façade.\(^ {59}\)

The company that won the contract to build the Freezing Works and the New Zealand Shipping Offices and Wool Store was Bull Bros. of Napier, who were ‘Builders, Contractors, Timber Merchants’, and proprietors of the Napier Brickyard.\(^ {60}\) Other buildings were erected by the company, and apparently the brothers were neat craftsmen. They were the main builders of the Hastings Municipal Theatre (1915) and the Scinde Building in Napier (1932), both of which are registered in The New Zealand Heritage List as Historic Places, Category 1 and Category 2 respectively.

When the Works started going up in 1910, sufficient sanitation and ventilation were taken into consideration and the entire complex was built of concrete floors and solid brick walls. The bricks were either shipped from Napier or were made locally, at a brickworks south of Tokomaru Bay. The construction used around 1 200 000 bricks, and the plant used the latest steam powered machinery.

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\(^{60}\) Linda Pattison, NZHPT. "Information Upgrade Report for New Zealand Shipping Company Offices and Wool Store (Former)." 2013
The nearby Waihi stream was a source of water for the facility and functioned as a dumping place for offal, which the stream took directly to the sea. Eventually, much to the local fishermen’s delight, a wide range of fish started to come to Waimā bay, driven by the feast of farming by-products.

The initial layout involved all the facilities that are required to process meat. The action would start at the killing shed and end with putting carcasses in stocking wrappers and cooling them in the freezing chambers (see Appendix 2 for the freezing works chain). Wool and valuable co-products were processed and put in storage to be packed and shipped later.

In 1912, a short railway was built at Waimā to carry wool and carcasses from the facility down to the wharf and a cargo back up. The initial plan of the tramway connected all the buildings related to the freezing works.
Studying the physical context of the site further, one can spot that nowadays the old railway line has only partially survived. The roadworks must have destroyed the connection between the office building and the wharf, while the incline apparently collapsed because of its age and, probably, the erosion of the Waihi stream’s banks. However, the rusty rails of the tramway can still be seen among the ruins and on the wharf, reminding the visitor of the historic industrial transportation system.

Through the context analysis, certain areas where the highest concentration of activities previously existed, there are now just forms remaining, which were noted. For instance, the streetscape elevation above the Waihi stream is where the railway makes a turn into the former storage building. Here, the lost incline would have started its way down to the wharf. The missing connection, however, could be restored in another way.

5.4 ARCHITECTURAL ANALYSIS

The following analysis studies the buildings from the functional, structural and aesthetic points of view and considers the potential for their future development. From the observations made on site, the following scheme was established:

**TOKOMARU BAY FREEZING WORKS RUINS + WHARF + NEW ZEALAND SHIPPING COMPANY OFFICES AND WOOL STORE (FORMER)**

Waimē Road, Waimē, Tokomaru Bay, Gisborne District, New Zealand

**Listed in the New Zealand Heritage List | Rārangi Kōrero in 1984 as Historic Places Category 2**

– historic places are of historical or cultural significance or value

The architectural analysis includes five buildings and structures: the former New Zealand Shipping Company offices and wool store; the former boiling down room, the manure works and the store building; the former boiler house; the former freezing chambers and store; the former store, and the wharf.

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A. The New Zealand Shipping Company offices and wool store (former) was built in 1912, as a response to the increasing opportunities generated by the freezing forks operation and the export shipping from the wharf. It is a single-story building, located slightly apart from the main operation facilities, and it has an astonishing façade possibly art deco in style with a high aesthetic value. It is unusual given the industrial purpose of the complex.

Initially, the building housed the Tokomaru Harbour Board offices and an extensive wool shed. Later it also used as a function room for community events.

Structure:
The one-third glazed saw-tooth roof transfers its load to steel universal beams and then to thin universal columns. There are no loadbearing walls apart from the external ones, which are built from solid brick, so this allows a well-lit open-plan space inside. The floor is cast-in-place concrete.

Current use:
storage.
B. The boiling down room, the manure works and the store (former) were built in 1911, at the same time as the rest of the freezing works complex. It is a large building that contained three facilities under one roof. The largest part is three-stories high, while the rest of the building is double-storied. The building was operated by the Tokomaru Meat Co and had a gut hall, a fat house, and a blood and bone store. During the hippie activity in the Bay in the 1970s, a rock band aptly named ‘The Ruinz’ had a practice room on the top floor at the back of the building.62

![Boiling down room and manure works facades facing Waimā Street](image)

Structure:
Solid brick external and inter-facility walls, concrete slab on ground and timber inter-story floors, gable end roof.

Current use:
storage.

![The former practice room of The Ruinz](image)

C. The boiler house (former) was constructed in 1911 between the manure works and the freezing chambers and was pretty much the heart of the freezing works. Back in the days when Waimā was bustling with work, electricity was the motive power for all the machinery, and was generated by a large dynamo driven by steam power.63 The boilers were fired in this building with coal brought in by ship and stacked in the small shed, which was the mechanics shop next to the boiler house.64 The engine house where the dynamo machine once was, is now ruined. The former boiler house is no longer in use.

![The former Boiler House in 2017](image)

Structure: Solid brick loadbearing walls on the perimeter, concrete slab on ground, gable end roof with protruding skylight (probably served for ventilation purposes, as it has traces of the louver windows).

![Inside of the building](image)

62 Mason, Helen. Waimā of Tokomaru Bay. Tokomaru Bay: Tauira, 1984, 4

63 Poverty Bay Herald. “Fire at Tokomaru Bay.” Volume XL, Issue 13165, August 27, 1913

64 Mason, Helen. Waimā of Tokomaru Bay. Tokomaru Bay: Tauira, 1984, 4
D. The freezing chambers and store (former) was erected in 1911 and is now almost completely gone, with small parts of the walls remaining at the four corners. This is the most ruined part of the freezing works; however, this was not a natural disruption due to weather conditions or poor construction. The walls of the chambers were built out of two layers of bricks with a cavity in between, which was filled with 700 tons of pumice – a pure yet costly insulation material. Therefore, when the works went defunct, the pumice was salvaged from the walls.

Figure 40. The gap where the freezing chambers once were

E. The store (former) was built in 1917 for extra storage during the First World War, when the shipping was troubled. Straddling the Waihi stream, the large three-story extension continued the line of the adjoining facades of the freezing works. The building’s main façade facing the road and the sea is divided into two parts: the upper one has a completely blind façade with the only décor a ‘1917’ embossed up on the gable, while the lower half is almost completely open. The overall impression is that the building is floating above the stream. The bush crawling among the concrete columns and the murmuring Waihi stream at the bottom add a certain degree of charm to the ruins.

Structure:
The former Storage building is probably the most fascinating in the complex from the structural point of view. It is the only one made from concrete and not from brick. Apparently, the location high above the stream dictated the terms and the six metre tall columns, strip foundations and retaining walls were provided to support the structure. Unfortunately, there damage has affected the structure. The stream has slowly eroded away the earth under the foundations and some of the store’s columns are cracked and require proper stabilization.

Figure 41. The initial facade of the freezing chambers, the extension on the right is yet to be built

Figure 42. The former store above the Waihi stream

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65 Poverty Bay Herald. "Fire at Tokomaru Bay." Volume XL, Issue 13165, August 27, 1913

The wharf at Waimā already existed in some state and was used for coastal shipping before 1910, when the construction of the freezing works commenced. A year later, the existing timber wharf was extended to accommodate larger ships. In 1912 a 0.9-metre-wide railway was constructed to carry cargo to and from the lighters at the end of the wharf and a small steam locomotive was used to transport the goods from the ships to the freezing works.

In 1937 Mr. R.A. Cornish of Auckland won a tender to reconstruct the wharf and in three years the new concrete and timber wharf was commissioned. The 1940 version of the wharf is the one that exists in Waimā today, although the marine environment has severely affected it. The wharf’s timber section is in an unsafe condition and the concrete piles are in need of a thorough repair.

5.3 SITE SURVEY

As no information could be found on the size of the buildings and ruins of the former freezing works facility, in March 2017 a field trip was made to inspect and measure up the site. The outcome of the trip was not limited to observations and as-built plans but was also a chance to dive into the social part of Tokomaru Bay’s life by being in immediate contact with local residents.

The brief yet fulfilling informal interviews were held with some of the community members, including the TBHT representative, a community activist and a local goldfish farmer. None of them were planning to leave the town and live somewhere else. Speaking of the difficulties they have to cope with in general, they listed the following as the most obvious problems that should be addressed: the lack of community income, unemployment and low tourist activity.

Also, young people intending to leave Tokomaru was identified as an issue. The development of tourism might be the improvement that could fix the problems mentioned before and enhance the quality of life in the town.

To sum up, it can be stated that people enjoy living in the bay and currently rely on the tourism industry.

The site was surveyed and measured to investigate the spatial potential of the works. A laser distance metre and a measuring tape helped in undertaking the site survey (See Appendix 3 for an as-built sketch). The measurements, along with photographs and an overall sense of the place, were among the key elements to support the decisions about the design outcomes for this research. The information was later used to create a precise digital model of the complex.

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The observations of the site included an overall exterior study along with a study of the details at the smaller scale. The outcome of this investigation was a better understanding of the existing heritage fabric and its possible future use.

Conclusions of the Context research

At first glance, the freezing works may seem to be another abandoned industrial site, however it is clear that it was created and operated by caring and creative professionals and the devil is in the detail:

- It was a well-organized complex, with the administration, production and shipping processes located separately, but not very far from each other;
- Keeping the facades of several buildings aligned created a consistent streetscape elevation, clearly visible from the sea;
- Decorative elements can be found everywhere, even on the boiler house façade, the attention to detail is strong;
- Erecting the 1917 storage addition above the stream must have been very challenging, however the structure is very sturdy and is still there, waiting for new explorers to arrive.

The former wool store has a façade of a high aesthetic value. However, the interior is also fascinating with many industrial style details. These elements can add value to the new use of the building, if it uses a similar style.

The present day freezing works complex is comprised of structures in different states of decay: while some are completely gone and others are ruined, the rest are still intact with minor disruption. The buildings' significance, location and scale along with the proposed programme will determine the most suitable degree of conservation.

The industrial site of the former freezing works stretches along Waimā Road and as was pointed out in the Tokomaru Bay Heritage Site Project before, creating a walkway around the ruins is a good way of connecting the buildings and ruins together. If the walkway traces the former railway route, it will not only bind the structures and memories together, but will also echo the past along the way, adding value to the trip.
This chapter continues to analyze the site, this time in a more detailed and precise way. The aim of this part is to utilize the narratives drawn from the Literature, Precedent and the Context reviews, explain them and evaluate the proposed responses to the issue in Tokomaru Bay.

6. DESIGN

This chapter continues to analyze the site, this time in a more detailed and precise way. The aim of this part is to utilize the narratives drawn from the Literature, Precedent and the Context reviews, explain them and evaluate the proposed responses to the issue in Tokomaru Bay.

6.1 DESIGN PHASE 1

Defining a programme

The definition of the programme was determined by and sifted through several stages: the existing state, the issue, the background and the future intentions.

This isolated community with an indigenous culture is going through hard times with a lack of jobs, opportunities and overall neglect. In this research the architectural response to the issue in Tokomaru Bay is based on the major historic events that took place in the area during the 20th century. The first event was of an industrial nature, while the other represented a pure cultural activity. The scheme presented in Figure 45 represents the strategy to be applied to the design project.

The proposed programme for adaptive reuse of the existing freezing works ruins and related buildings is a museum of the industrial history of the Gisborne District and a Crafts centre, with the option for future small-scale development for the manufacturing of artisan products.

The reasonable question of how the new use will respond to the current situation in the Bay is addressed below.

TBHT – the local community-led initiative that is concerned about both heritage and the future currently considers tourism as a predominant source of opportunities, jobs and income for the residents. In general, domestic and international tourism is popular in New Zealand and in the present-day situation people often seek an atmosphere that is a contrast to the busy urban lifestyle. Therefore, the remoteness, laid-back style and stunning nature of Tokomaru Bay comprise an asset that should be revealed.

Figure 48. The new use based on historic events
6.2 DESIGN PHASE 2

Big scale: Master plan

Starting with the initial proposal (Figure 49), the programme for the adaptive reuse has already been defined, being a crafts centre and a museum. In the search for the appropriate layout, the following schemes were preliminary iterations of the site analysis and involve switching the proposed facilities around.

The walkway was introduced during the first stage, however its path was not yet clearly defined or elaborated on. Later it was discovered that the initial manager’s office was rebuilt and it is not a part of the freezing works complex, so that house was no longer involved in the design process.

Learning from the Auckland Studio Potters programme, the proposed Studio is moved to the heart of the complex, where it is surrounded by the kilns house and storage. The proposed museum, by contrast, is now in the former Shipping Company offices and the wool store. Considering the industrial orientation of the museum, the machinery may be present as a part of an exhibition and the building provides plenty of space for this use along with big doors and matching historic décor (Refer to Figure 47).

The proposed walkway aims to create a connection within the new facilities of the site at Waimā. Essentially it is a slatted deck on jacks with a concrete base and an additional feature – two lightning cords on the sides, stretching the whole way. They refer to the lost sections of the tramway route and will also be used as a navigation feature during the night.
As long as the programme for adaptive reuse is defined, and the facilities are allocated accordingly, the degree of conservation of the heritage buildings can now be introduced (refer to Figure 52).

Figure 53. The proposed degrees of conservation of the historic buildings and structures

The conclusion arrived at by the design project is that all the existing buildings are a part of this research, and are proposed to get a change of use. However, this does not always mean it will involve an adaptation of a building, as adaptation implies alterations made to a building. Therefore, it was decided to apply the following principles:

- For the former *boiling down room, manure works and store building*: reconstruction and adaptation. The first method of conservation is required for the reconstruction of the collapsed gable on the main elevation using the same materials (brick) and providing a new roof in the initial position, keeping the shape but making the roof out of glass to provide more light to the interior. Adaptation will apply when the future development takes place in the building.

- For the former *boiler house*: restoration and adaptation. The restoration means only the same materials can be used for conservation purposes and this applies to the Boiler house, as it requires some of the walls to be restored to their original condition using the original material. Adaptation is included as a small-scale intervention may occur on the northern wall. A door is required for better circulation between the pottery facilities.

- For the remains of the *freezing chambers*: adaptation is required and the proposed new building will be the largest intervention in the complex, incorporating the remains of the heritage fabric in the new construction.

- For the former *storage above Waihi stream*: preservation. This intention evolved during the process of design and the process is described in detail in Chapter 6.3, Design Phase 3.

- For the *wharf*: restoration. The project proposes restoration of both the concrete and the timber parts of the wharf.

- For the former *New Zealand Shipping Company offices and wool store*: restoration and adaptation.

The initial streetscape elevation is comprised of the facades of the four buildings, placed in one line and facing Waimā Street, the sea and the wharf. The elevation significantly changed during the years of neglect. The 30-metre tall steel chimney was dominant among the facades.

This research proposes enhancing the current situation by adding the missing elements back, but using different materials for the additions – glass bricks (or blocks). Filling the gap of the former Freezing chambers and putting in a stack made of the glass blocks will add to the rhythm of the streetscape elevation.
6.3 DESIGN PHASE 3

Medium scale: The buildings’ layouts

E. The former Storage building. Through an analysis of the best possible layout, the first intention for the former Storage building was to utilize the space of the building, extending the proposed Studio space to an Exhibition area above the beams and columns of the Storage building. As the existing concrete structure is partially damaged (Refer Figure 54), no extra load should be put onto it. Moreover, the building requires stabilization and a new supporting structure could take the load of the proposed Exhibition room.

However, this design was revised because of the two following points:

- Over time, the overgrown landscape under (and over) the beams expanded and eventually a unique environment developed behind the concrete walls. If the proposed Exhibition room is created above the beams and columns, the natural environment below it will die.
- According to the latest master plan, the proposed museum now occupies a large industrial building with plenty of space that can be shared between the pottery pieces.

The decision was made to relocate the pottery exhibition space to the proposed museum and leave the Storage building with a walkway on the perimeter of the building, so visitors can feel the atmosphere of the massive ruins among the wildly growing bush. The structure that will support the existing walls of the Storage building is proposed to take load from the walkway.
D. As was concluded previously, the proposed Studio façade will be made from glass brick. The development of the glass brick façade started with an analysis of the rhythmic decorative elements on one of the existing brick buildings of the complex. This has been developed further in terms of height and overall appearance.

The research searched for patterns around the former freezing works to use on the glass brick façade. There is a pattern that was found in the masonry walls of at least two buildings of the complex and it will be used as a narrative for the further development of the Studio façade (Refer to Figure 59).

A. In this design phase it was crucial to develop the general layout of the museum to ensure there would be enough space for all the proposed spaces: an exhibition hall, a café, a shop with some space for the pottery pieces to be displayed and sold, administration, an office and amenities.

The conclusion was that all the relevant spaces perfectly fit within the proposed museum building.
Figure 61. The layout, exterior, section and interiors of the proposed museum.
6.4 DESIGN PHASE 4

Small scale: Details

In this design phase it was of importance to make decisions about the stabilization of the ruins and the relationship between the old and new materials that will be used for the structure.

The research found that the East Cape is an area of high seismic activity. It was concluded that the brick buildings, along with the concrete building above the stream, will need to be properly stabilized and strengthened.

During further development, the research will address the issue of the detailing of the junctions between the old and new fabrics in the process of adaptive reuse. As a relevant example in the field, a detail from the Santa Maria de Vilanova de la Barca will be considered.

Figure 62. Proposed approaches of stabilization of the brick walls, gable ends and parapets

Figure 63. The interior of Santa Maria de Vilanova de la Barca by AleaOlea architecture & landscape
Initially, the aim of this research was the adaptive reuse of an abandoned facility in order to revitalise the community and promote tourism. The site visit and the interviews with the community members at the very beginning of this research helped to find the purpose and stay focused on it. The programme was determined right after the site visit and a study of the cultural background. Thus, the programme and the aim were clearly stated all the time. Answers as to how to achieve the aim varied.

The first attempts to allocate the proposed facilities were far from successful and were improved only after the site visit and an interview with the administrator of Auckland Studio Potters. Seeing the work process from the inside and knowing the stages and the challenges that should be avoided was informative, and this time the master plan took a pleasing but still rough shape. Overall, visiting a site of interest and making contact with the local people can provide essential feedback that is very helpful.

During the preliminary master plan layout, accommodation was proposed on the hill above the freezing works. Later the idea was discarded after it was seen that there is already plenty of facilities of this type existing in Tokomaru Bay. In addition, one in four houses, according to the 2013 census, remain empty. Therefore, the idea of extra accommodation has been left for future development.

The layout of the master plan was sufficiently developed to reduce the scale and to pay attention to the facilities allocated to the existing buildings. There was the fascinating way the new use was organically layered onto the existing freezing works. For instance, the Studio was proposed to take over the vacant spot where the Freezing chambers once were, the space that many years ago was related to the killing facility and the stored slaughtered beasts. The new use will be related to creation and production, which makes an interesting counterpoint with the past.

The precedent study has an example of a pottery manufacturing facility that is successfully operating despite the economic fluctuations in Detroit. In the case of Waimā, it is important to ensure constant job opportunities, especially in the off-peak season. However, while a small-scale manufacturing facility is mentioned on the plans, its further development will be left for later.

In terms of following the policy requirements, the use of a combination of ICOMOS-defined *Adaptation, Renovation, Restoration and Preservation* degrees of conservation is applied to the design strategy that deals with industrial heritage.

To sum up, the research question seems to be answered and there is also some room for future thinking.
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Video 2. Proposed freezing works site 3D flyover. Olga Pavlenko, 2018
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Figure 4. The former storage building facade is visible among the overgrown landscape. Waihi stream’s bed is at the 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APPENDIX 3 - The 2017 field trip measurements of the former wool store
APPENDIX 4 – Final drawings and model

- HISTORIC STREETSCAPE ELEVATION

- EXISTING STREETSCAPE ELEVATION, AS PER 2017 SITE SURVEY

- PROPOSED STREETSCAPE ELEVATION, 1:200
**EXPLODED ISOMETRIC OF THE PROPOSED STRUCTURE**

- **DETAIL 1 - STANDARD CONNECTION OF NEW MATERIAL TO OLD**
  
- **PROPOSED CRAFTS CENTRE FIRST FLOOR PLAN**

- **PROPOSED CRAFTS CENTRE GROUND FLOOR PLAN**

- **PROPOSED CRAFTS CENTRE, POTTERY STUDIO SPACE**