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EXCAVATIONS AT BRITOMART, AUCKLAND

Simon Bickler, Barry Baquie and Rod Clough
Auckland

Introduction

The development of the Britomart Transport Terminal, which finished in 2003 provided the opportunity for archaeological investigation of the area reclaimed between 1879 and 1885 for a new Railway Station at the heart of downtown Auckland, including the historic Customs Street sea wall and the location of early wharves and jetties.

The 19th century station was to provide an integrated transport solution for Aucklanders. Ferries and ships docked at the wharves. Wagons and later trams and cars moved people through the downtown area, and the rail link moved people from the city to the suburbs and beyond. Until the Railway Station was moved a kilometre away in the early 20th century, fracturing Auckland's relationship with rail, this area was the hub of transport that the new Britomart Transport Terminal seeks to reinvent.

The fill for the reclamation was taken in part from Point Britomart, also known as Te Rerenga-ora-iti, the site of Auckland's early military post, Fort Britomart, and previously of Tangihanga-pukaea, an earlier Maori pa. The fill contained extensive remains relating to the activities of the city during the latter part of the 19th century.

Reclamation of Auckland Harbour

The dual factors of improved harbour facilities along with the high value of land in the centre of town drove the reclamation of the foreshore area and in 1859 the process was underway. In less than 50 years more than 50 hectares had been added to downtown Auckland, with smaller reclamations continuing in the 20th century.

The focus of this investigation relates to the 1879–86 reclamation between Customs Street and Quay Street (Figure 1). The first major reclamation between



Figure 1. Britomart Project Area.

Fore (now Fort) Street and what was to become Customs Street started in 1859 and was finished by the mid-1860s. Additional reclamation around Smale's Point was carried out in the 1870s. This put pressure on infilling the area between Point Britomart and the extended docking facilities to the west of the now significant Queen Street Wharf and integrating rail transport with these harbour facilities.

Archaeological investigations of the reclamation were initially carried out during the earthworks behind the Central Post Office (CPO). Later smaller excavations in front of and underneath the CPO provided additional keyhole information particularly of the main Queen Street Wharf. Given the quantity of material being moved, features were sampled rather than fully investigated and collections of artefacts made. These collections from within the fill behind the CPO formed the basis of the artefact analysis described below.

The objective behind the investigation of the fill was to establish any information regarding the process of the reclamation. This process generally followed this pattern:

- 1 Building of a sea wall in Quay Street area
- 2 Demolition of structures such as wharves and jetties
- 3 Demolition of Point Britomart and infilling the area behind sea wall
- 4 Use of the site as a rubbish dump to complete reclamation
- 5 Stabilisation of reclamation
- 6 New buildings on the reclamation land.

Parts of the sea wall in Quay Street were exposed during earthworks before the main excavation. Another part of the sea wall was also seen in 2003 during earthworks in front of the CPO. The seawalls formed an initial boundary for the reclamation and their construction is described elsewhere in more detail (Bickler *et al.* 2004).

The area enclosed by the seawall included the parts of the various wharves and jetties built there. Many of these extended out beyond the reclamation and additional modifications to these structures beyond the reclaimed area and Quay Street continued throughout the end of the 19th and into the 20th century. Within the reclaimed land investigations showed that most of the piles from the jetties and wharves were left *in situ*. Additional beams were seen in the fill at various locations on top of the original seabed but these may relate to timber storage on the wharves. Other structural remains were confined to the upper layers of the reclamation and were the remains of the later buildings, including the 1885 Queen Street Railway Station built on the site and then subsequently demolished in the 1930s (see below).

The flattening of Point Britomart formed the major source of fill for the reclamation. Stratigraphy from the excavations showed a relatively clean fill

material occupying circa the bottom 3 m of the sections above the original seabed. The material contained few artefacts. Above this layer the fill material was substantially modified. In some areas, later earthworks following the various building programmes carried out on the site impacted on the top 2–3 m. However, in other relatively undisturbed areas it was clear that rubbish had been dumped from nearby businesses and houses. There were also extensive volumes of sand dredgings, particularly along the northern side of the excavation. Where this dumping occurred it underlay the later deposited clay fill and artefact midden.

These artefact rich features clearly represented short-term events. They included bottle dumps or large quantities of single types of artefacts including cloth, leather and metal off-cuts, probably brought to a location in the fill by wagon and used to pack a hole or level an area.

Other artefacts were recovered which probably derived from the original use of the harbour. They included nails and spikes either from the wharves and jetties, and tools perhaps used on the wharf or vessels using the harbour. Others may relate to the reclamation fill process itself, such as equifacts including a horseshoe and a pelham. Various food, drink and personal artefacts may relate either to the use of the wharves or to the reclamation fill.

Excavations in the area of the reclamation were instructive in illustrating the importance of the engineering considerations applied to requirements of a stable platform for the Railway Station and downtown business centre. The choice of Point Britomart to fill the area must have been made to ensure that relatively clean and compactable material was used. While upper layers of fill were used as rubbish dumps for local industries this was after the major filling had been carried out and did not impact on stabilisation. All major structures built on the land had large wooden piles which were driven through the fill material into the seabed. Forged metal tips were used to ensure this stability.

Wharves and Jetties

Gore Street Jetty

One of the most dramatic finds within the main reclamation area was the remains of the original Gore Street Jetty. Historical research by Tania Mace provided the background to the excavation of the Jetty. It had originally been designed to extend at a right angle 100 feet (30.5 m) from the quay. Already in construction in late 1864 the decision was taken that it would have to be considerably longer. New tenders were called for the construction of a 400 foot (122 m) long jetty and by February 1866 the Gore Street Jetty, had been completed at a cost of £4193 (JAPC 1864–1865).



Figure 2. Excavation of the Gore Street Jetty in 2002.

By 1879 the Auckland Harbour Board evidently had no need for the jetty. The Works and Endowment Committee resolved “That the District Engineer be requested to cause the Gore Street Jetty to be removed as soon as possible” (AHB 1873: 287). It is not clear whether the demolition work was carried out, but the reclamation for the Railway Station soon filled most of the southern end of the jetty.

In 2002 the remains of the Gore Street Jetty were exposed under around 3–4 m of fill. The location of piles and bracing elements are shown in Figure 2. The stratigraphy around the jetty remains showed that much of the wharf was buried under the Point Britomart material, with layers of cultural debris including metal, leather and cloth off-cuts, bottles and ceramics fragments between 1–4 m above the jetty. The remains of the jetty piles showed that they had been cut off just above the marine mud depth or at low tide, leaving the cross bracing elements below water level in place. The super-structure including diagonal bracing elements, decking bearers and decking were removed and probably recycled. Many of the large and small piles had forged metal tips at their end.

Queen Street Jetty

Excavations carried out in front of the Central Post Office building in QEII Square during 2003 uncovered a number of old piles as well as an old brick-barrelled stormwater culvert, which was still in use. The piles were thought to relate to the earliest part of the Queen Street Jetty. To confirm this, the piles were photographed and their locations surveyed onto the plan of the area. A GIS overlay of the wharf structure based on some of the contemporary maps was added. Although the match was not perfect, the organisation of the piles suggest that they come from the area of a small tee probably built during the 1850s. The piles were about 15 inches (38 cm) in diameter and spaced around 2 m apart. They formed a westerly tee around 10 m wide and about 25 m long.

The piles uncovered illustrate some of the basic building requirements of the wharf. The piles were relatively small in size, possibly indicative of the small structure originally envisaged. By the mid-1860s the Queen Street Wharf was overburdened. Various options to provide additional wharf accommodation were investigated and included the additional jetties constructed to the east. During the 1870s and 1880s the Auckland Harbour Board made considerable extensions to the Queen Street Wharf, and repairs were also made to the well-used structure on a regular basis (AHB 1872: 133–144, AHB 1880: 308). The southern end of the original Jetty would have been covered over during the 1879–1885 reclamation during which major renovation of the Wharf tees were carried out.

Use of the Wharves

In addition to the structural remains other artefacts relating to this early use of the waterfront were located in the reclamation fill. Most important was the remnants of a small boat (Figure 3) found approximately 50 m east of the Queen Street Wharf and about 150 m west of the Gore Street Jetty. Customs Street is about 45 m south of the find spot and Fort Street another 165 m south but given the shallowness of the harbour the water level here was not high when the boat was abandoned. The boat was badly crushed in the fill but many of the wooden fragments were recoverable and able to be identified. Also recovered was part of the metal oar ring or rowlock.

Analysis of the remains showed that it was a lapstrake/clinker constructed inner harbour working boat, which had perhaps been re-figured from a whaling vessel. It would have been rowed by oars, and possibly had rigging for sailing. The size of the keel suggests it was about 9 m long with a beam of around 2 m (Darren Wilcox pers. comm.). This suggests that the vessel had been of considerable size and weight for its type. It was manufactured from local woods and was used



Figure 3. Remains of boat found in reclamation fill. Keel, sternpost and bracing element in position; strake pieces are to the rear.

around the wharves, jetties and regions of the inner harbour, and possibly the Hauraki Gulf as a whaler in earlier times. Just what caused the abandonment of the boat is not known and no records have been located at this time to enlighten us.

One of the more dramatic items recovered was a Shipwrecked Mariners “Medal” (Figure 4) found during pouring of concrete in the main excavation. Research by Vicky Spalding from the New Zealand National Maritime Museum identified the item as a membership token from the Shipwrecked Fishermen and Mariners’ Royal Benevolent Society in the UK. The tokens, which were re-issued annually, would have been worn around the neck on a ribbon or chain. In the event of a shipwreck they could be traced back and assistance given as necessary. This particular example was issued by the Shipwrecked Mariners’ Society in

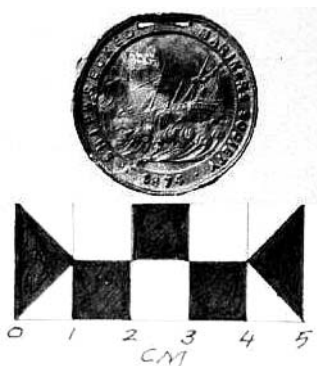


Figure 4. Shipwrecked Mariners membership token.

return for an annual subscription of 2/6d. It is made of a base metal. On one side it carries the inscription “Shipwrecked Mariners Society 1874” and has an engraving of a ship in distress with a lighthouse in the background. On the reverse it is inscribed “England expects every man will do his duty” and an engraving of Lord Nelson. “Davis” or “Davie” is inscribed under the figure (Joyce Eves email communication to Vicky Spalding 2002).

Queen Street Station

There have been four railway stations serving the centre of Auckland. The original Point Britomart station was built east of the new Queen Street Railway Station described here and was a small wooden structure for passengers. This building was moved onto the new 1885 site and used as a guard station. The 1885 railway station sited on the 1879–85 reclamation was a significant building in Auckland’s history and provided easy access to the growing city centre and Queen St. Changes to the 1885 station were carried out around 1908 with the building of the Central Post Office shortening the track somewhat, but still providing a crucial nexus for Aucklanders. This station was demolished after a new station was opened in 1930 almost a kilometre away. In 2003 the new Britomart station opened beneath the original location of the 1885 station.

The history of the 1885 Queen Street Station began in late July 1884 when Dunedin contractor William Ahern was named the successful tenderer for construction of the new railway station. The price for the work was £12,165 but the work included all the sheds, yards and the foundations required for the station. According to the records these foundations consisted of 36 foot (11 m) long piles with thick concrete pads on top designed to carry the weight of the station, freight, and trains. Contemporary press commented: “the best of his [the contractor’s] work, like the doctor’s, is underground” (New Zealand Herald, 26 October 1885: 4). Thirty foot (9 m) long totara piles were driven into the bedrock to support concrete eight feet (2.4 m) high on the building before brickwork was used to finish the main building (New Zealand Herald, 26 October 1885: 5).

The main building had two floors with a central clock tower. It housed rail management, engineers, guards and ticketing staff. Passenger facilities included two bars and a left luggage room as well as ticket booths. Contemporary press was flattering in both the construction and finish of the building (e.g., New Zealand Herald, 26 October 1885) despite logistical difficulties such as the shortage of bricks of sufficient quality for the project. In contrast the Beach Road Station that replaced the Queen Street Station in 1930 was met with relatively negative response.

The demolition of the 1885 Railway Station building was thorough and with the new bus station built on the site the only remnants of the railway station

recovered constituted some debris and foundations. Piles and beams exposed during earthworks and were cleaned down and photographed, and the ends located on the site plan. These points were surveyed in then compared with the historical map information and suggest that the bulk of those left were in the area of the “tower” (Figure 5).

The only other artefacts recovered that could be directly related to this building were a small number of bricks. The most distinctive were a number of white ornamental bricks many of them stamped with “G. Boyd”, recovered in the fill. Of particular interest was a Boyd brick recovered with scoria mortar. Boyd had applied for a patent for this mortar in 1864 (S. Best pers. comm., New Zealand Government Gazette 1864: 352). The New Zealand Herald article in October 26 1885 indicated that two local manufacturers supplied the project, G. Boyd and J. Kane. Boyd apparently supplied the white bricks used around windows while Kane probably made the large number of wire-cut red bricks used for the bulk of the building. A few of these red bricks were also recovered (Figure 6).

Artefacts

The Britomart excavations consisted of areas of the reclamation fill, so feature by feature analysis of the artefacts is not presented here, and the objects are considered as a relatively tightly dated (1879–85, tending towards the later boundary) assemblage. Sampling such a large rubbish pit also makes counting and minimal number estimates less important than in other contexts, but details are provided in Bickler *et al.* (2004).

The likely sources for the bulk of the artefacts include nearby commercial establishments such as hotels and restaurants, small businesses located near or on the wharves, the larger warehouses and trading stores, and industrial waste from nearby factories. Other more personal items may have come from individuals and residents nearby. Breakages would have been common in this environment and this is reflected in the material recovered: large pieces often thrown together in reasonable concentrations.

Food and Drink

By far the most common items recovered were late 19th century ceramics and bottles relating to food and drink. Mica Plowman carried out analysis of the ceramics and bottles were analysed by Marianne Turner. A summary of their findings is presented here.

The ceramics assemblage is relatively typical of historic Auckland sites with the majority being tableware. Analysis of patterns on the pottery suggests that “Asiatic Pheasants” predominates but a large number (over 100) of ‘new’

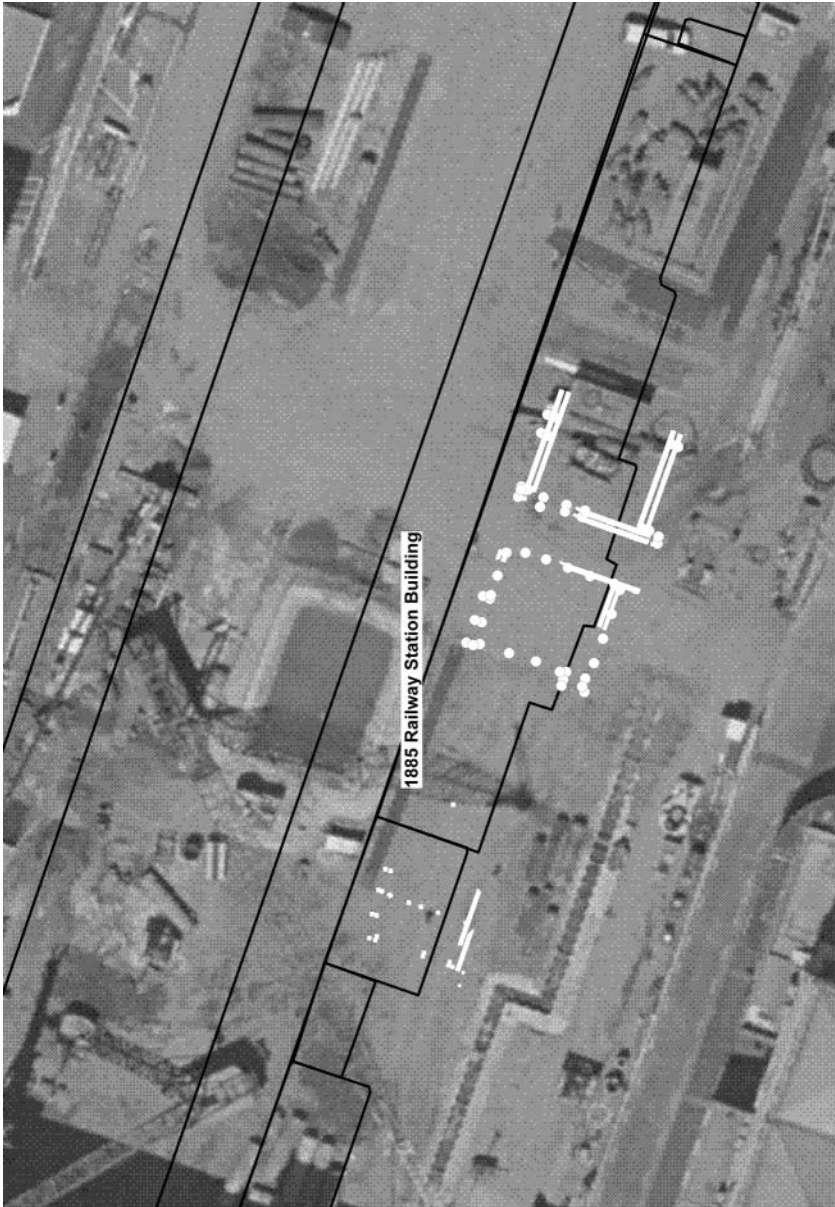


Figure 5. Location of piles and beams relating to the Queen Street Station.



Figure 6. Bricks from the Queen Street Railway Station.

patterns represented by a small number of sherds were also identified and illustrated the formation of the rubbish tip.

Archaeological recovery of the tableware at Britomart indicated that plates were by far the most common single vessel form in the fill, typical of most archaeological sites in the area (e.g., Plowman 2000: 85). More detailed examination of the form and function of the items included an assessment of dinner and tea services that may have derived from particular sources. The most common dinner services represented included in descending order “WS3” (Plowman 2000, Silber and Fleming 1990: 9), “Asiatic Pheasants”, “Rhine”, “Rouen” and “Willow”. The “WS3” dinner material was mostly found in blue. The forms represented by the dinner services included those expected from the ordering books although intriguingly bowls are rare and poorly represented in the collection. Tea and coffee services (Figure 7) were often in the same patterns as the dinner services and at Britomart included “WS3”, “WS1” and “Imitation Jasper” (Plowman 2000). Importantly, though, the “WS3” material here was predominantly red. “WS1” is a relatively plain banded ware which is suggestive (in this context) of commercial establishments while the more elegant gold on



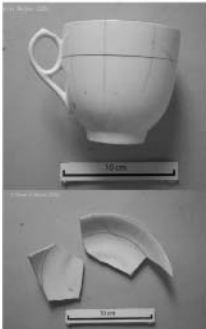
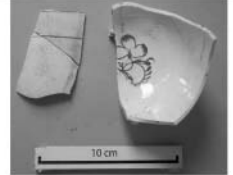
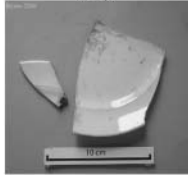
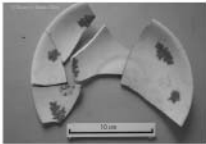
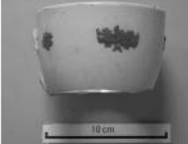




Pattern	Cup/Saucer	Other
WS3		 <p data-bbox="667 360 820 379">Sugar or slop bowl</p>
WS1		 <p data-bbox="725 568 762 587">Cup</p>  <p data-bbox="703 766 785 785">Side plate</p>
Imitation Jasper		 <p data-bbox="725 938 762 957">Cup</p>
Eggcups	 <p data-bbox="456 1114 505 1133">Cable</p>	 <p data-bbox="725 1114 773 1133">Plain</p>
Milk jug	 <p data-bbox="437 1353 493 1372">Seaweed</p>	 <p data-bbox="725 1353 773 1372">BR33</p>

Figure 7. Ceramics from Britomart fill.

white “Tea Leaf” or WS1 pattern is more refined and perhaps more closely associated with wealthier households.

Other food related items included kitchenware such as large white ware mixing bowls and mustard-yellow baking dishes. The remains of at least one metal roasting dish were also recovered from the Britomart fill. However this was in poor condition and only one end was present. Food was also represented in the bottle collections with a large number of containers for sauces, chutneys, relishes and pickles.

The bottle assemblage, however, was dominated by a large number of drink bottles. These included both alcohol bottles (both glass and stoneware) and aerated water. Both types were often found in dumps and suggest their origin was the large number of drinking establishments around the waterfront. The aerated water bottles included seven different patents types which, given the relatively tight timeframe for deposition, is intriguing for those relying on patent types for chronological ordering in historic sites. Details of manufacturing and bottling are provided in Bickler *et al.* 2004.

Over 240 alcohol bottles were identified and all were handmade and imported. Unlike aerated water bottles most 19th century alcohol bottles were not embossed with contents or manufacturers’ details until the 1900s (beer bottles mainly). This allowed many bottles to be continually recycled. Despite this the proximity of a large number of hotels near the Britomart dump and the bulk dumping nature of the deposit suggests that the sample is probably a reasonable representation of the primary use of these bottles. It was decided to compare the results of the sample with historical records presented by Elred-Grigg (1984: 261, 283).

Changing patterns in consumption of different drinks reflect changes in the colony during the 19th century. In spirits there was a steady increase in imported whisky along with steady decline in the brandy and rum consumed (Elred-Grigg 1984). Comparison with the reported national statistics and the Britomart collection (Figure 8) suggests that the bottle analysis fits with an expected date of the late 1870s based on the ratio of brandy and rum to whisky. However the bottle sample is biased by a large number of gin bottles probably indicative of the nearby bars.

Tobacco

Over 450 pipes were represented in the reclamation fill. Almost all were white clay pipes with standard bowl types and relatively thin stems. A few pipes had very ornate moulded bowls and there was at least one pipe made from brown clay. The overwhelming number of identifiable pipe fragments found in the Britomart collection came from only two manufacturers: William White and

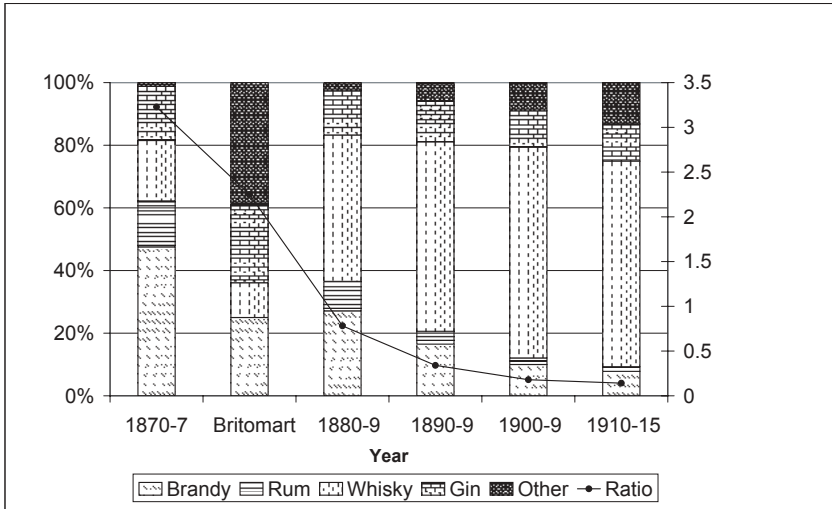


Figure 8 Proportion of Imported spirits by type from 1870–1915 (data from Eldred-Grigg 1984: 261, 283)

Thomas Davidson. Both are Scottish manufacturers who are common in New Zealand archaeological assemblages. McDougall pipes were also represented. The remnants of at least four metal matchboxes were also recovered. One was in excellent condition but had no markings. Two lids had labels with “Bell & Co. Wax vetted. 1832 London.” The date relates to the company’s start rather than the matchbox.

Clothing

Given the industrial nature of the reclamation fill the number of personal items of clothing recovered was perhaps less than might be expected given the size of the excavation. However, large off-cuts of leather and cloth (along with metal sheets) was seen in the fill. Tanneries were located nearby and were the probable source of the off-cuts. A few bits of cloth were recovered but were not particularly diagnostic. A large number of shoes and boots were unexpectedly represented in fill.

Blucher boots worn by men, and elastic-sided boots worn by both men and women were the most common style of footwear artefacts recovered from the Britomart reclamation (Figure 9). As most of these items were crafted and held together by the wooden pegging system, a method developed in the USA, it is equally probable that they may have been imported from there or possibly

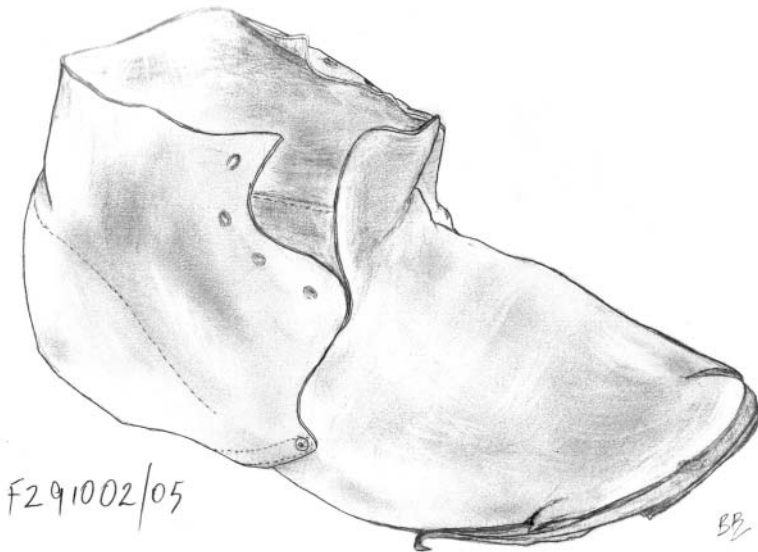


Figure 9. Blucher boot found in Britomart collection.

England. Blucher boots were fashionable in Europe from 1820 to 1850 (Nunn 2000: 112) and were also part of the military outfit. Whether these are military or civilian footwear is difficult to say. Most were not in good condition.

Footwear recovered from the reclamation was all well worn and had obviously been discarded because repair was no longer an option. Uppers were missing from many of the soles, and inner and outer soles were separated from each other. Uppers, including informative vamps, were usually absent but some scrap remains gave indications as to their design, use, and structure.

Health and Hygiene

The 19th century saw substantial importance placed on personal hygiene and care. There were several dimensions to this, many deriving from advances during the 18th century where the development of water closets was making an impact in crowded cities. In colonial New Zealand outhouses were the norm for most domestic situations, gradually incorporated into the main building structures during the 20th Century. A whole range of hygiene and cosmetic products was also developed during this time and ranged from improved brushes, particularly the development of the toothbrush, new cosmetics, hair products and perfumes, and bathroom wares. All are these were represented in the Britomart collection

A total of 54 bottles were generally described as pharmaceutical bottles with another 15 Castor Oil bottles. Although many cannot be attributed definitively to function, association is generally based on the most common usual form of the shape. Embossed bottles make attribution more straightforward, and these included examples of an aqua-coloured panelled bottled with “Sharland Auckland” and an light blue bottle with “Dawson....Chemist. Auckland”.

A variety of containers for poisons were also recovered. Vials in particular were recovered and were usually small, round, cylindrical clear-glass bottles with pressed lips. The prescription lip was not intended to be placed to the mouth but allowed precise measurements to be made when pouring. A variety of essences and concentrates might be stored in them as well as strychnine and iodine (for cuts).

Quack products were also common and promised much. Many contained powerful drugs and chemicals such as opium, morphine, codeine, alcohol, chloroform and cannabis. The addictive nature of many of these products may have contributed to the large numbers of these bottles found in bottle dumps throughout the country. “Barry’s Tricopherous for the skin and hair” and “Davis Vegetable Painkiller” are two very common examples and were found in the Britomart fill. A single jar of Holloway’s ointment for gout and rheumatism was also found.

Discussion

The reclamation represented an enormous exercise in labour and horsepower. The whole of Point Britomart was taken apart and moved by horse and cart and dumped in the sea. Then as the available earth ran out, the area was turned into rubbish dump for the nearby industries. The large collection of artefacts recovered suggests that many of the nearby industries used the fill as a way of disposing of their everyday rubbish. Compared with other nearby sites, the Britomart collection illustrates the broadest base of material culture relating to both individual and commercial practices.

The reclamation resulted in the dismantling of the Gore Street Jetty and some of the earliest part of the Queen Street Wharf. The decking was removed although, for the most part, the piles were left *in situ*. Excavation of the piles of the Queen Street Wharf revealed that the original section of the wharf was probably smaller than what was built later as the piles were smaller than those used later.

Finally, the reclamation provided a platform to build the new 1885 Railway Station. The proximity of the Queen Street Railway Station to the downtown shopping area, the ferry building and the tram terminus brought thousands of people in and out of downtown Auckland. Unfortunately, the

building of the CPO in the early 20th century was the first phase of a plan to move the railway station to a larger site away from the downtown area. Passenger rail travel in Auckland is yet to recover from this shift but the new station at Britomart opened in 2003 and its integration with the CPO brings 21st century Aucklanders a chance to return to a Victorian heyday.

Acknowledgements

As with all large projects, a number of people contributed to the work presented here. We acknowledge the contribution of Don Prince, Tania Mace, Mica Plowman, Marianne Turner for to the fieldwork and artefact analysis. Darren Wilcox also advised on the boat remains. We would also like to thank Rod Wallace, Dilys Johns and Tim Mackrell from the Department of Anthropology, University of Auckland for their work on the identification and conservation of the wooden artefacts. The Britomart Project was carried out for the Auckland City Council.

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