KARORI CEMETERY CONSERVATION PLAN



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prepared by

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for the

Wellington City Council

June 2003

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Cover: Karori Cemetery, looking north towards Mt Kau Kau, June 2003 (M. Kelly)

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1.0 Introduction

1.1 Purpose

This plan provides a description, assessment, policies and general remedial work recommendations to assist in the conservation of the Karori Cemetery. The purpose is to ensure that this historic place is cared for so that its meaning and importance is conserved and interpreted for present and future generations. This plan is intended to augment, and provide policy and work recommendations for, a management plan for the Karori and Makara Cemeteries currently in development.

1.2 Executive summary

Karori Cemetery has been an operative cemetery since 1891 and in the lengthy period since has been the setting for tens of thousands of interments and cremations. It was established to replace the overcrowded Bolton Street Cemetery, but such was the demand for plots, particularly prior to the widespread acceptance of cremation in the 1930s, that Karori Cemetery grew very rapidly. Within 40 years it was already approaching its envisaged capacity. By the late 1950s, Karori Cemetery had reached its present extent and it was replaced as Wellington's principal cemetery by Makara in 1965. The cemetery now receives only a fraction of the interments it once did and pre-purchased plots are the only places where burials are possible.

The physical legacy of over 110 years of burial and cremations is 35.5 hectares of graves, memorials, mausolea, columbaria, buildings of various kinds, paths and roads, trees, shrubs, gardens, fences, walls and gates. The collection of built structures and the landscape they occupy represents a unique and diverse cultural heritage landscape. As a result of the sloping and greatly varied nature of the landscape and the mixed vegetation cover, the cemetery offers a considerable range of landscape experiences in a relatively small area. The cemetery is also a place where, through plot purchase, burial, cremation and genealogical connections, most families in Wellington (and many elsewhere) have some stake in its future. Public interest in the cemetery is therefore high.

This large land area, containing a vast array of graves and accompanying natural landscape elements, presents a special management challenge. Nearly everything on show is significant heritage fabric, although taken individually, many of the elements are of relatively low heritage value. However, the combined value of the cultural heritage landscape is very great. Funding constraints mean that the management of this area will, by necessity, have to concentrate on vegetation management rather than specific conservation of structures. This plan outlines policies to help decision making on work priorities.

This plan confirms the desirability of establishing Karori Cemetery as a heritage park and recommends an extensive programme of work to help achieve that end. Specific conservation actions are recommended for the management of vegetation and graves in landscape units, with different regimes for different areas. This does, in the case of vegetation management, reinforce the regime already employed in the cemetery but formalises it in more specific terms. Grave restoration is expected to be undertaken but rarely on an intensive level. General work specifications for grave types have been prepared to guide this work.

1.3 Ownership and legal status

The land occupied by the Karori Cemetery is under the control and management of the Wellington City Council but the specific status of each parcel of land varies. They are, in no particular order [legal description / land status / current Certificate of Title]:

- 1. Part Section 33, Karori District. Land held freehold by council but only two parts, comprising 3.78 hectares, set aside for cemetery purposes. See CT 626/63.
- Part Section 31 and Part 33 Section, Karori District. Land set aside under Public Works Act 1981 (NZ Gazette 1989/2169). Not a reserve. See CT 34D/196.
- 3. Lot 30 and Pt Lost 31, DP 9848. Local Purpose Reserve (site for municipal buildings). Vested as reserve for municipal purposes (NZ Gazette 1950/1865). Later classified under Reserves Act as a Local Purpose Reserve (NZ Gazette 1980/1147). Part of reserve (Part Lot 31, DP 9848) was revoked. See CT 20D/724.
- 4. Lots 37, 38, 39, 40, 41, 42, 43, 44, DP 9848. Land acquired under Public Works Act. Land used for cemetery purposes under Section 23, Local Legislation Act, 1938. See CT 578/53.
- 5. Part Section 33, Karori District. Land held freehold by council for cemetery purposes. See CT 485/211.
- Lots 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14, 33, 34, 35 and 36, DP 9848 and Section 78 and Part Section 79, Karori District. Classified as Local Purpose Reserve under Reserves Act 1977 (NZ Gazette 1989/4484). See CT 568/5.
- 7. Section 87, Karori District. Subject to Section 59, Land Act in 1948, with reference to mineral rights being reserved by the Crown. See CT 8A/560.

Refer to Figure 1 for an illustration of the delineation of land parcels.

1.4 Relevant legislation

A number of statutes are relevant to the management of this place. They are, in no particular order:

Burial and Cremation Act 1964

The Burial and Cremation Act controls the establishment, use and closure of cemeteries and burial grounds and the process for disinterment. The use of the cemetery for burial purposes is governed by this legislation.

Historic Places Act 1993

The NZ Historic Places Trust administers the *Historic Places Act* 1993 (HPA). The HPA contains a consent process for any person wishing to do work that may affect an archaeological site. The HPA defines an archaeological site as:

Any place in New Zealand that –

(a) either –

(i) Was associated with human activity that occurred before 1900; or

(ii) Is the site of the wreck of any vessel where that wreck occurred before 1900; and(b) is or may be able through investigation by archaeological methods to provide evidence relating to the history of New Zealand (section 2, Historic Places Act 1993).



Figure 1: Land parcels, Karori Cemetery

Any person wishing to undertake work that may damage, modify or destroy an archaeological site must first obtain an authority from the New Zealand Historic Places Trust for that work. An authority is required for work on public and private land, and even if the activity is permitted under a District or Regional Plan or a resource or building consent has been granted.

As the Karori Cemetery contains burials that predate 1900 it is an archaeological site as defined by the HPA and is therefore subject to the provisions of that Act. Advice should be sought from the Trust about the legal requirements for any work that involves ground disturbance, except that associated with the normal use of the cemetery and regular maintenance.

The New Zealand Historic Places Trust also maintains a Register of Historic Places, Historic Areas, Wahi Tapu and Wahi Tapu Areas. The Register can include archaeological sites. The purpose of the Register is to inform members of the public about such places and to assist with their protection under the *Resource Management Act* 1991. Several buildings and objects in the Cemetery are on the Register (see section 3.3)

Resource Management Act 1991

Under sections 5, 6, 7 and 8 of the *Resource Management Act* 1991 (RMA) City, District and Regional Councils are required to sustainably manage natural and physical resources, and this includes historic heritage places. Wellington City Council has a schedule of heritage items in the operative Wellington City District Plan that includes buildings and objects that are part of the cemetery (see section 3.3) Work affecting these places is controlled through rules in the District Plan.

The requirements of the Plan are as follows, as per the wording in the District Plan:

<u>Permitted Activities</u> Any repair and maintenance (section 21.1).

Controlled Activities

Additions and alterations to listed heritage buildings are controlled activities in respect of the design and appearance both of the exterior and the interior work. Resource consent is required and although conditions may be imposed, consent cannot be refused (section 21.2).

In determining any conditions to be imposed the Council will be guided by the following criteria:

- 21.2.2.2.1 Whether the street elevation is altered.
- 21.2.2.2.2 Whether the main determinants of the style and character of the building are retained.
- 21.2.2.3 Whether the addition or alteration respects the scale of the original building, and is not visually dominant.
- 21.2.2.2.4 Whether there is a visual distinction between the original building and the addition.
- 21.2.2.5 Whether the restoration of missing elements on main elevations is proposed and a high level of authenticity of architectural design is maintained.
- 21.2.2.2.6 Whether the removal of additions to the building can be acceptable without altering the heritage significance of the building.
- 21.2.2.2.7 Whether modifications ... respect movable cultural property.

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- 21.2.2.2.8 Whether the minimum of historic fabric is lost.
- 21.2.2.2.9 Whether repair is favoured over replacement.
- 21.2.2.2.10 Whether respect has been shown for the patina of age of the materials.
- 21.2.2.2.11 Whether the relationship of the building with the setting is maintained.
- 21.2.2.3.1 Whether the original plan form of the building is respected.
- 21.2.2.3.2 Whether primary spaces and their sequential layout are respected.
- 21.2.2.3.3 Whether any significant architectural elements are conserved.
- 21.2.2.3.4 Whether significant finishes are conserved.

It is desirable but not an essential requirement that a conservation plan be prepared before resource consent is given to modify a listed building. Proposed adaptation of the building would then be assessed against the requirements of the conservation plan.

As part of its management of the City of Wellington, the Wellington City Council administers bylaws, grouped under the Wellington Consolidated By-law (1991). Cemetery and Cremation forms Part 5 of this schedule.

Building Act 1991

The *Building Act* 1991 controls the construction and alteration of buildings. It is administered by territorial authorities, and it is unlawful to carry out any new building work (as distinct from maintenance and repair) without a building consent. It is presumed that graves do not come within the definition of buildings.

The following matters are of particular relevance to buildings in the cemetery.

Upgrading not required

Section 8 of the Building Act states that any building that predates the introduction of the Act (in 1991) is not required to be upgraded to meet the requirements of the Act. There is therefore no requirement to carry out upgrading work on any of the buildings. The Council can however, require work to be done to a building to rectify dangerous or unsanitary conditions.

Maintenance

According to the Third Schedule to the Act, a building consent is not required for "routine maintenance, routine repairs, and refurbishment". The Council need not be informed of such work, but maintenance and repair work should still comply with the building code.

Alterations

Before issuing a building consent, section 38 of the Act requires that the Council must be satisfied that, after the alterations, the building will "comply with the provisions of the building code for means of escape from fire, and for access and facilities for use by people with disabilities ... as nearly as is reasonably practicable, to the same extent as if it were a new building".

Cultural value recognised

In issuing consents and exercising other powers under the Act, the Council is required to have regard to "the reasonable practicality of any work" and "any special historical or cultural value" that attaches to an existing building (sections 47i and j). This allows the Council some discretion where, for example, strict compliance with the code might conflict with and reduce heritage values.

All work, whether requiring a building consent or not, should comply with the requirements of the New Zealand Building Code.

Reserves Act 1977

Under the Reserves Act 1977, the Minister of Conservation is required to ensure that all reserves are properly managed, regardless of whether that reserve is vested in the Department of Conservation or not. A plan of management is therefore a statutory document and must be approved by the Department (on behalf of the Minister) before it can be formally adopted. This conservation plan will not serve as the statutory management plan but instead a separate management plan is being prepared for the reserve.

War graves and veterans' graves

No legislation guides the erection, care, maintenance and governance of services cemeteries, or war graves and veterans' graves. The Ministry for Culture and Heritage has responsibility for graves of serving soldiers who have died, in active duty in New Zealand or overseas, during the period of a war New Zealand has participated in. It is also responsible for national monuments. Its management of war graves is conducted under the auspices of the Commonwealth War Graves Commission, which the Government of New Zealand is a signatory.

Veterans' Affairs (part of the New Zealand Defence Force) cares for graves of all other serving soldiers. Any serving soldier is entitled to be buried in a soldiers' cemetery. Karori has graves for both the war dead and veterans. Services cemetery maintenance is a partnership between cemetery authorities, the Returned Services Association and central government. Cemetery authorities provide the land for services cemeteries free of charge, on the understanding central government contributes to the maintenance and development of the cemetery.

1.5 Assessing heritage values

It is proposed that for the purposes of this plan, the heritage criteria used be those employed by the Wellington City Council in its 2001 Non-Residential Heritage Buildings Inventory. (See Section 4.0 Significance).

1.6 Acknowledgements

This plan was commissioned by Hilary Harrington, Parks Planner City Development. It was prepared by Four Decades Conservation, being Karen Greig, archaeologist, Michael Kelly, heritage consultant, Chris Cochran, conservation architect, and Neil Aitken, landscape architect.

The authors would like to thank the following for their co-operation and assistance:

WCC staff, including, Stuart Baines, manager of cemeteries and crematoriums, Greg Glenn, Sexton, and Andy King, operations manager.

The staff of Wellington City Archives.

The members of the Karori Historical Society.

Brodie Stubbs and Margaret Marks of the Ministry for Culture and Heritage.

Jessie Gunn, director, Julie Woods and Philip Todd of Veterans' Affairs, New Zealand Defence Force.

1.7 Changes to this plan

Once this plan is approved, any management proposals that are not within the scope of this plan, or that conflict with its policies, will require a change to the plan before they can be sanctioned.

2.0 History of the Karori Cemetery

2.1 Historical overview

Origins and establishment

Karori Cemetery's establishment can be directly attributed to the understandable decision to locate New Zealand's first town cemeteries relatively close to populations. Bolton Street and Mount Street (Catholic) cemeteries were both established within a short distance of the centre of Wellington in 1842 and by the 1880s both cemeteries were hopelessly overcrowded. With proximity to population and overcrowding came fears of disease, particularly as both cemeteries were built on land that sloped down to the town and drainage was poor. Sanitation became an electoral issue as early as the 1850s and it only became more prominent as the century progressed.¹

In 1882 the government passed the Cemeteries Act, which set regulations for the management of all cemeteries in New Zealand. One of its requirements was that an old cemetery could not close without a new site being opened. Conscious of public fears about the overcrowded cemeteries, the Wellington City Council, under whose jurisdiction the new cemetery was to be formed, began investigating new sites. The public also offered land to the council, in many different, and in some cases outlying, locations. A site at Evans Bay was looked at, and farms were offered at Ohiro in 1882, Melrose in 1883, and at the city end of Karori.² The land in Karori was owned by James Mackenzie, former surveyor-general and his brother Sir Thomas Mackenzie, a former prime minister and High Commissioner in London. A site at Crofton, owned in absentia by some local Maori, was also temporarily favoured.

The council sought an opinion on soil types from Sir James Hector. Although he did not favour Karori, others did. One perceived benefit was that if a road could be formed from Polhill Gully, the proposed cemetery would then be equidistant from both ends of the town i.e. Thorndon and Te Aro. In 1889 the council sought offers of land from Karori landowners. Again the Mackenzies put forward their land and this time reduced their price from £70 to £55 an acre, which they were sure would comfortably beat the other offers the council received.³ By February 1890 the council had chosen three sites for a ballot. Karori won the first vote, with seven, Khandallah four and Melrose one. In a succeeding ballot Karori was favoured nine to three over Khandallah.⁴

Following the vote the council attempted to settle terms with the Mackenzie brothers. The council was only prepared to offer £42 per acre and initially the brothers turned it down, upset at the far lower offer.⁵ When it was clear the council would not budge, they reluctantly gave in.⁶ Negotiations continued over other minor matters. It took nearly another year before the sale was finalised. In the meantime, under the Wellington City Empowering Act 1889, the council raised a loan of £7500 (at 5%).

The council considered the road a necessity if the cemetery was to be useful and therefore a cost to be borne as part of the work. Nevertheless it sought a contribution from the Mackenzies and, as the road would provide access to their properties, donations of land from affected landowners. The Mcckenzies stumped up £400 of their own money to augment the council's £750, and work began in late 1890, after the consent of the various landowners was gained and the relevant conveyancing completed. It would seem that the Melrose Borough Council was also asked for a contribution but

they declined.⁷ The road was finished by the middle of the following year. Originally known, with some justification, as Cemetery Road, it was later renamed Raroa Road (meaning "sun all year" according to Irvine-Smith).⁸

In October 1890 the council established a Cemeteries Committee, comprising the Mayor (ex officio), three councillors and one other. The land purchase finally went through in early 1891; it was described in council correspondence as "recently purchased" in February that year.⁹ The 95 acres of land cost $\pounds4,000$.

However, the cemetery was close to not being established at all. Presumably as a response to the threat of disease, the Cemeteries Act also prevented the establishment of a new cemetery within the boundary of an existing city or borough. As the Karori Borough was not established until 1892, the land was still deemed to be 'rural' and the cemetery was established with only months to spare.¹⁰

The first burial at Karori was a month old infant who died on 3 August 1891. Margaret Alington, in "Unquiet Earth", wrote of this first interment:

In the midst of the vast acres of rough hillside, the ground was first broken to receive the tiny body of Frederick William Fish, a premature infant whose remains lay in isolation on the windy slopes for six months before the next burial.¹¹



Figure 2: Karori Cemetery, 1896. This photograph (with another image beneath) shows the mortuary chapel surrounded by the early graves in the Anglican, Public, Jewish and Catholic sections. (ATL F3723¹/₂)

There were two more infant burials before the new cemetery came into regular use early in 1892. For the preceding six months, available land at Bolton Street (and, remarkably, there was some) was used, there being little interest in the long trip to Karori if burials could continue to take place close to town.

The first decades

The various church burial grounds were consecrated and the first regular burials began in February 1892. The first Church of England burial was on 4 April 1892¹² and the first Catholic burial was five days later. The arrangement of the cemetery to a large extent mirrored that of Bolton Street, with the exception of the provision of an area for Catholic burials, previously provided for at Mount Street. A sexton, E. H. Nash, was appointed and for a number of years he shared staff with Bolton Street, which was still receiving interments in shared plots. The land not initially required for cemetery purposes was fenced off and leased for grazing.¹³



Figure 3: The grave of Henry Elliott with the Mortuary Chapel in the background. Date unknown, but probably 1890s. (ATL F2383¹/₂)

With burials shared between Bolton Street and Karori the increase in burials at Karori was incremental. The first interments were divided between public, Jewish, Roman Catholic and Church of England areas, all relatively close to the main entrance. As time went by, these areas filled and more of the Mackenzies former farm was brought into use. Between 1891 and 1896 there were 2,102 interments.

The first significant structure built at the cemetery was the sexton's cottage, an elegant villa with unusual, pointed arch windows, which sat on the site of the present cemetery office until the 1950s. The house was built in 1891 and was a familiar sight to mourners and visitors until it was replaced in the 1950s. It is presumed to have been designed by the city engineer or city surveyor, who also designed the cemetery shelter.

Another important early structure built by the council was a shelter for mourners, and it still stands. The proposal to build the shelter was debated by the Cemetery Committee in August 1891 but a decision was deferred. The City Surveyor, George Wiltshire (1846-1905), submitted a design for the building, and estimated the cost at £90 to £100. The lower of the two tender prices was £119.19.6, from S. Hemingway, and he was awarded the contract. Built for the use of all, it was described by the sexton as having a tower with louvres¹⁴ and it came in for heavy criticism for not being able to keep out the weather.¹⁵ In early 1892 the shelter was enclosed with windows and a door. By 1904 the building was known as the mortuary chapel. The building was later informally named the Jewish Chapel, which came about partly because of its physical proximity to the Jewish section of the building's maintenance, on the basis that they used the building almost exclusively. The building narrowly escaped demolition in 1965 and in 1967 the Jewish community paid for it to be upgraded. It was restored in 1977-78 by Parks and Recreation, at a cost of \$3000, by which time the Jewish community had moved to a new building at Makara cemetery.¹⁶

The opening of the Kelburn cable car in 1902 was considered something of a boon to visitors to the cemetery. The cable car offered the third access route to the cemetery – via horse-drawn vehicles along Upland Road, over the viaduct and through the newly constructed Karori Tunnel, which was itself a significant improvement in vehicular access to Karori.

There is a reference to a request to the council to build a crematorium at Karori as early as 1891. In April 1898, after the Citizens' Union led a deputation to the council to plead for a crematorium, the council undertook consultation to find out the extent of public support for the facility. At a ratepayers' meeting on 1 August that year, a motion put to spend £2000 on a crematorium was lost. It took another eight years before sufficient public support was raised. This time the council chose to subsidise a crematorium and offered the following in a suitably confusing resolution:

That if the amount privately subscribed for a crematorium is sufficient, together with £800, to erect one, the latter sum to be provided by the WCC and the erection undertaken.

The crematorium, including a chapel, was designed by noted Wellington architect John Sydney Swan. Six of the chapel windows were later replaced with stained glass windows designed and made in the An Tur Gloine (Tower of Glass) factory in Dublin. Five of the windows were donated by Wellington Harbour Board Engineer William Ferguson and his family over a period from 1914 onwards. The first ashes were installed in the chapel and after those niches were filled, cavities



Figure 4: The Crematorium and Chapel, date unknown, but probably early 1920s. (WCC Archives 00138_0_13454)

were built in columbaria outside. While the crematorium was half funded by public subscription – evidence of a demand for cremations – it took over two decades before the facility had any substantial impact on the overall number of interment.

Two significant events in 1918 had a considerable impact on the cemetery. One was the end of World War I, and with it came the first burials in what became the Services Cemetery. The setting aside of specific areas for war dead followed the New Zealand Government signing the Royal Charter of 1917 between the Commonwealth (then Imperial) War Graves Commission, and the governments of the Commonwealth on the care of war graves. The government actually began allocating money for the maintenance of war graves as early as 1911 and the first Inspector of War Graves, Edith Statham, was appointed to the Department of Internal Affairs in 1913. The care of war graves grew to encompass fallen servicemen from subsequent wars, as well as local veterans. The dedication of the cemetery was followed, over time, by the construction of memorial structures, such as a lychgate (1921), the Wellington Provincial Memorial arch (1931), sundial, seats and marble steps, as well as the planting of numerous commemorative trees. Throughout the 1920s a considerable effort was made to improve the landscaping of the Services Cemetery and by the end of the decade it was beautifully presented.



Figure 5: The Services Cemetery soon after its establishment c.1921. Note the crosses and raised beds. (ATL 45825¹/₂)



Figure 6: The same scene seven years later shows the impact of a considerable amount of landscaping. The crosses are slowly being replaced by the traditional headstones. (ATL 100989)



Figure 7: The rapidly maturing landscape is evident in this view of the main drive from the principal entrance in 1927. The former Sexton's cottage is on the right. (ATL G24611 1/1)



The year 1918 was also the zenith of the influenza epidemic, which spread throughout much of the world and killed millions of people. In Wellington the peak came towards the end of the year. On one day, 19 November, 63 people were buried in the cemetery, the greatest number of interments in one day, ever. In one week – 17-23 November – 340 people were buried. November was the busiest ever month, with 708 burials. From 1 April 1918 to 31 March 1919, 1604 people were interred in Karori Cemetery.¹⁷

Images from the 1920s show a cemetery in remarkably good order. By then the tree and shrub plantings, landscaping and buildings had matured and, in the hands of an obviously attentive staff, the cemetery looked exceedingly picturesque. In particular, the 'shop-window' showed the expenditure of a considerable effort. Further afield, however, was probably another matter. *An expanding cemetery*

By 1927 there had been 27,115 burials and there was a pressing need for more land. Demand for the crematorium was initially moderate but the number of cremations grew, helping to slow the demand for the increasingly short supply of land. (See Map 2, Appendix IV). The important role the crematorium played in relieving pressure on available land was exemplified by the fact that as early as 1928 the then sexton, E.H. Harlen, was complaining about the shortage of land.¹⁸ He even suggested that if more land was not found, the cemetery would have to go to Makara, one of the first recorded suggestions to that effect. The prospect of acquiring or using other land in the immediate vicinity was not considered feasible by the city solicitor, who noted that the "creation of new burial grounds within boroughs is forbidden by Statute."¹⁹ It would be advisable, he considered, to acquire land in the County of Makara that was "useless for farming purposes".²⁰

The late 1920s was also the first period during which the cemetery came in for regular criticism for its appearance. Prior to this, the cemetery's size had been manageable, and many graves had been tended by families, but constant expansion and the passage of time was making it impossible to keep more remote parts of the cemetery tidy. The state of the roads and tracks – all unpaved, dusty and weed ridden – was also the subject of criticism from both staff and the general public. So, with the onset of the Depression, unemployed relief workers were put to work on the grounds. Sealing of paths started in 1932, but it was simply impossible to do much with the available budget and staff. More work was done in 1934 when a budget of £200,000 was allocated by the WCC to special unemployed relief works. Unemployed workers cut a track from Wilton to Karori through the bush and cemetery to allow people who had no transport to walk between Karori and the northern suburbs. It quickly overgrew.

The cemetery's expansion was prodigious. The third public area was opened in 1934, while new portions in the Catholic and Anglican areas were opening at a rate of one every two or three years during the 1920s and 30s. The cemetery had spread from a relatively small area surrounding the crematorium and Mortuary Chapel, to nearly the full extent of the Mackenzie purchase. As the lack of space loomed ever larger, drastic measures were taken to alleviate the pressure. It is not known when the practice began, but graves not paid for began to be identified and, if the family did not settle the debt, the remains of the deceased were exhumed and buried elsewhere, frequently in the gaps between abutted graves.²¹ These were also the places where many infants were buried. As was always the case with the cemetery, its incomparable records mean it is possible to identify exactly where all these remains were finally reinterred.



Figure 9: Plan of Karori Cemetery, late 1930s.



Figure 10: The lawn cemetery, 2003. (M. Kelly)

The cemetery's expansion made it more visible than ever and its connection with Karori was not necessarily appreciated by local residents. In 1937 the Karori Progressive Association asked for the name to be changed to the more "euphoneous" (sic) Western Cemetery.²² The council, mindful of confusing Wellingtonians and visitors about the absence of an 'eastern' cemetery, turned them down. For all that it seems that the name 'Karori Cemetery' was not enshrined in any gazette notice up to that point and it could more accurately have been described as 'Wellington Cemetery'.²³

While work went on cleaning up the cemetery, co-ordinated tree and shrub planting was also regularly undertaken. Unfortunately World War II intervened and a shortage of labour meant that, despite the work of willing volunteers, the cemetery quickly reverted to a wilder state. It was to be an uphill battle to get on top of it again. After the war things improved only slightly. There was still a shortage of labour and a constant turnover of staff.

In 1944 the Mayor of Wellington Will Appleton announced that a piece of land on the hill in the north-west corner of the cemetery – initially set aside for cemetery purposes in 1937 – was to be turned into a model lawn cemetery, based on Arlington Cemetery in Washington, which he had seen.²⁴ In 1945 an amendment to the by-law laid out strict provisions for the new cemetery, to be named Standen Street Cemetery (although that name does not seem to have gained any currency). The provisions included: the stipulation that there should be no protrusions above the level of the lawn, the size of the tablet, the size of the plot and the provision of a standard receptacle for flowers.²⁵ The cemetery opened two years late, in 1951, after the grass failed to take.²⁶



Figure 11: The Rev. J Baird, vice-president of the National Council of Churches, dedicating the Tangiwai Memorial, 26 March 1957. (ATL 15281¹/₂)

The state of the cemetery attracted a great deal of adverse publicity during 1948 and 1949, but the sexton was powerless to do anything about it, except clean up the grave or path that was the subject of a given complaint. At the beginning of 1949 a *Dominion* article reported that there were 11 permanent staff, but that something like 25 were needed, for 12 months, to clear the cemetery.²⁷ Along with families failing to tend graves, a lack of committed staff was highlighted as an issue, with the report lamenting that farmers' sons from Makara and Karori, once the mainstay of the workforce, were no longer on the staff.

One response to the constant criticism was the decision to spray large areas of the cemetery to kill off all growth, weeds or otherwise. It is not certain when the weed control regime began but its effect was brutal. It appears to have been largely used on the eastern slopes of the cemetery, above Western Park, and the regular use of poisons meant that when a planting regime began in the 1970s the ground was too toxic to take most plantings. Its effectiveness was illustrated in a photograph in a *Dominion* article in 1972, which shows nothing but bare ground around the graves in that area.

The Tangiwai disaster, when 151 people lost their lives in a train derailment at Tangiwai bridge on Christmas Eve 1953, had its sequel at the cemetery when 76 of the victims were buried in a mass grave. The Duke of Edinburgh attended the funeral of the victims at Karori Cemetery, Wellington, on 31 December 1953. A few months later the grave was exhumed when it became clear that a number of the bodies had been wrongly identified. In 1957 the Government unveiled a plan of a memorial to be built at the mass grave. Designed by Government Architect F. Gordon Wilson, the memorial was opened by Prime Minister Sidney Holland on 26 March 1957.

A crowded hillside

The siting of the Tangiwai grave and Memorial, at the far north end of the cemetery, aptly demonstrated the accommodation problems the cemetery was experiencing. In 1956 a survey of remaining unused ground suitable for burial revealed that the Catholic portion had 75 plots, Anglican (Church of England) 18, Public 70, Greek Orthodox, 250, Jewish, 200 plots and Undenominational, 2,200. In addition there were 2,000 unpurchased plots, which were presumably later exhumed and reinterred elsewhere to provide more room. Makara Cemetery was not to open until 1965 so yet more ways of crowding graves into the place were needed. The size of the cemetery, and its bewildering layout, led to the Lions Club suggesting to the Mayor, in 1960, that each road be numbered, in a manner similar to Manhattan, New York. The idea was never taken up.

Funeral directors gained a considerable boon during the 1950s with the introduction of automatic, hydraulic coffin lowering equipment. The council purchased several models of the 'Oshkosh' variety and then made them available to the various firms who plied their trade.

The popularity of cremation grew slowly but steadily during the first half of the 20th century, but increased dramatically shortly before World War II. In 1911, for instance, cremations made up just 1.3% of the combined total of burials and cremations, and even by 1930 the figure was still only 7.5%. But just six years later the figure had jumped to 24.4%²⁸ and by 1947-48 it stood at 45.7%.



Figure 12: The newly completed chapel in the late 1950s. (WCC Archives 00158_0_1050a)

There were about 1500 burials a year. The pressure on the crematorium at Karori, then the only one in Wellington, became immense. The sheer number of cremations meant that the first exterior columbarium was constructed in 1937; niches were previously provided inside the chapel. A new crematorium and chapel was mooted in 1937 and again in 1942, but not necessarily at Karori. After the war, the matter was raised again and this time planning began in earnest.

An elevated site was chosen at the cemetery on a vestige of the Mackenzie estate, above the services cemetery. It was to be reached independently via Rosehaugh Avenue. William Gray Young, of Gray Young, Morton and Young agreed to draw up plans in 1947. Tenders were not called until 1954 and work itself did not finish until 1957, at a cost of \pounds 34,926. Unfortunately, leaking windows meant the chapel did not open until 1960, and even by then the problem had not been fixed. It was not until 1966 that the matter was finally resolved, after numerous attempts at reglazing, protection and sealing. It was a saga that exasperated all involved and was a source of great embarrassment to the council at a period when the chapel and crematorium were sorely needed to meet a demand that ran to as many as 14 cremations a day.

Allied to the construction of the chapel was the laying of a Garden of Remembrance. Various plans were drawn up and inspiration was sought from overseas examples, such as Lawns Wood at Leeds Crematorium.²⁹ In 1966 a plaque was installed in the garden. It read:

This garden is a resting place for all those wishing to linger and remember their loved ones who have passed on.

In 1960 the Director of Parks and Reserves suggested the establishment of a rose garden near the entrance to the cemetery. Constructed at an estimated cost of £1875, with £750 for piping of water, it involved the removal of a toilet block and its reconstruction at the far end of the garden. A remembrance monument was built abutting the western fence. Work finished in October that year. The monument and toilet still stand but the garden was replaced by a new arrangement in 1990.

Karori Cemetery's northern aspect remained a mixture of forest and rural farmland nearly 70 years after its establishment and there were occasional complaints of sheep in the lawn cemetery. It was traced to a boundary gate left open by the adjacent farmer.

Two cemeteries

On 23 March 1965, Makara Cemetery opened for its first burial. The land had been bought during the 1940s in expectation of the day Karori closed to new burials, which seemed to have been anticipated for decades. The handover had been put off for a long time but even in March 1965 there were still 1000 plots left for purchase at Karori.

With burials predominantly taking place at Makara, management of Karori altered, as did public perceptions of the cemetery. Burials still took place, many in pre-purchased family plots (as they still do), but the emphasis shifted to stabilisation of the existing and the future of the cemetery without burials. There was still not enough money to manage the cemetery and the drop in income from burials did not help. Beautification though became a higher priority, especially after the council once again received complaints about the cemetery's appearance.



Figure 13: Wilton Tip (now Ian Galloway Park) with the "stark and unattractive" graves behind it. The pine trees on the right were planted in the north-east corner in 1927 to screen the cemetery from parts of Wilton. (WCC Archives 00004_48_4-6-1 pt3 - 32b)

In 1970, having sensibly waited until the nearby Wilton Tip had closed, the Wilton Residents' Association made their views known about the view of the cemetery from their suburb. The suburb was expanding quickly and the association wanted the "stark and unattractive" cemetery beautified. It floated several possibilities for how that might be achieved, including tree planting or the removal of the gravestones. The Northland Residents' Association soon weighed in as well. In 1972 the Wilton Residents' Association specifically called for the gravestone laden cemetery to be turned into a lawn.³⁰ This brought inevitable protests from people who had erected more traditional headstones.

The prevailing vegetation management regime, which had left the gravestones looking so stark, was described by Ian Galloway, longstanding Director of Parks and Reserves, in 1972:

The continual spraying with total weed killer at the Karori Cemetery has been necessary over the last few years to control the very heavily overgrown areas of the cemetery. This has denuded quite a large portion of land and the spraying to date has been the cause of some erosion of almost vertical banks in the steeper areas of the cemetery.

Galloway did not see the removal of the gravestones as viable, so the council's response was the institution of a tree-planting programme, despite the residents complaining that it would take too long. Some 4,670 trees and shrubs were planted during the 1975 growing season.³¹ In some areas only eucalypts were able to survive in the toxic soil, but they were successful to such an extent that today they present their own management issue.

On 19 July 1974 another milestone in the cemetery's history came with the belated closing of the "Main Denominational and Roman Catholic" areas to new plot purchasers. Other plot purchases were to continue but they also eventually closed. Today only pre-purchased plots are used for burials.

The 1970s and 80s were a time of increasing vandalism to graves, a problem that has plagued the cemetery from early in its history. One of the worst such incidences was the damage to 50 headstones in the Chinese section in February 1988. There was speculation that it may have been racially motivated, but Chinese community leaders regarded it as something less sinister.

That same year the council received a serious proposal to build a large mausoleum in the cemetery. The Auckland firm involved, Wingmore Investments, proposed to build a 3,000 burial mausoleum (with room for a further 500 cremations urns) in a "valley" somewhere in the crowded cemetery.³² The structure was intended to last many hundreds of years. It was an ambitious proposal, but it gained guarded approval at first. Later, however, the sheer cost per burial (\$7,425), the lack of a confirmed market or interest in the concept, and the possible loss of revenue from traditional burials or cremations led the council to reject the concept.³³

In 1991 the cemetery celebrated 100 years of operation. The Rose Garden was redeveloped by contractors Horokiwi Paving Specialists to a design by the council. The final cost of the revamp was \$45,257. A remembrance monument in the garden was retained. The main gates and those at the Standen Street entrance were rebuilt to designs by landscape architect Neil Aitken that same year. The cemetery held an open day and, as part of the celebrations, located and restored Frederick Fish's grave, the cemetery's first.

In 1991 scenes filmed in the cemetery for Peter Jackson's third film Brain Dead had their repercussions the following year when a close-up of a tombstone appeared in one scene. The family in question objected and the matter ended up in court. The outcome is not known.

The most significant change to interment arrangements in recent years came in 1994 with the decision to allow the spreading of funerary ashes in the rose garden beds and the mounting of bronze plaques as memorials to cremated individuals.

In 2001 a quality management system for the cemeteries and crematoria was developed by Telarc Ltd and certification to ISO 9001 was gained in September 2001.

The Karori Historical Society has taken an increasing interest in the cemetery in recent years and helped put together a thematic walk based on the graves of those who perished during the sinking of the *SS Penguin* in 1909. The walk was opened in 2003. The Society has also helped identify graves of significant people.

Other community associations have developed through voluntary clean-ups by various groups, ranging from schoolchildren to Karori Lions. Cemetery staff have engaged local schools as a way of introducing the cemetery's resources and history to children and encouraging their lifelong interest. The council has held clean-up days of its own when Wellingtonians have been encouraged to bring their own tools for the job. Work continues to this day on the transformation of the cemetery into a park.

2.2 The public and the cemetery

The cemetery's managers have always had one difficulty in common, from 1891 to the present day – attempting to meet public expectations. The cemetery rarely received plaudits. During research for this plan, only a handful of compliments to staff could be located in cemetery files.

The vast majority of correspondence, other than requests for information about a deceased person, were complaints, and generally they were criticisms of the state of the cemetery. As stated above, the cemetery appears to have been in particularly good shape in early 1920s – well maintained and attractively presented. But the sheer size of the cemetery, the lack of staff, the loss of interest by families in their plots, and many competing demands, all contributed to the decline in the cemetery's appearance. As time went on, graves, paths or even whole areas were frequently cleared on demand rather than as part of a systematic clean-up. It was more than likely they would be in as poor a state as ever within a few years.

More often than not, a specific criticism would be linked to an attempt to locate a family grave. One, very typical, example was a letter to the Town Clerk from Mrs R. Lee, of Northland, in 1969.

My sister and I went over to visit my parents' grave...at Catholic part – Karori Cemetery last Monday and found it most difficult to get there, with blackberries all over, both paths and graves. Had to hold them aside many, many times to get through and then to fly back on us. We are both in our seventys (sic) and found it most difficult.

Could not some of the unemployed lend a hand to clean it up, as it would be big help to senior citizens to find their way without the paths being blocked. It is a long way round to have to make out through all those blackberries.

Trust you will look into the matter and have something done.³⁴

As always, the Town Clerk sought a response from the sexton, who in this case told him (as he often did) "as this letter came to hand, the whole block in this portion of the cemetery was being scythed." As the sexton indicated he would follow up with the usual dose of weedkiller, the Town Clerk was able to confidently tell Mrs Lee that she would have no difficulty reaching the grave next time she visited. The reference to the unemployed was also a regular theme of letter writers from the 1930s onwards. It was inconceivable to many that those out of work could not be usefully employed on such work.

Newspapers also made much of the state of the cemetery. During particular periods, such as 1948-49 and much of the 1970s the cemetery came in for particular attention. Newspapers would monitor the condition of the cemetery, and would delight in horror stories about overgrowth or broken graves, but the situation at Karori was invariably no worse than any other cemetery in the wider Wellington region.

A smaller but no less interesting form of communication with cemetery officials came with the outfall from family disputes. In time-honoured fashion, families frequently fell out over funerals, and some even disputed the right of a particular family member to be buried in a family grave. This occurred with any kind of grave, even vaults. Without considering the propriety of involving the Town Clerk, sexton, or his staff in these bitter altercations, some members of the public would put pen to paper and occasionally divulge the most extraordinarily intimate matters.



Figure 14: By the late 1950s the main entrance and driveway had changed markedly from the less formal approach taken in the 1920s.(WCC Archives 00158_0_1049b)



Figure 15: The Mess and Toolshed in 1927 soon after its completion (and before its additions) reveals the quality of the City Engineer's building designs. The growing macrocarpa and pine trees were by then becoming a maintenance issue. (ATL G247521 1/1)

2.3 Planting and beautification

Records of co-ordinated planting are sporadic. It is impossible to know whether this reflects a similarly haphazard approach to planting or incomplete records, but it is sometimes difficult to distinguish a regular schedule of planting. For all that, comments on file, such as "next year's planting", and instructions to plant more of a certain variety suggest that yearly planting was a key part of cemetery management for long periods. This was certainly so of the period 1933-1948, as correspondence files show, and the period 1972-75, when tree planting took place on a level never seen before or since.

Karori Cemetery was indeed windswept and bleak in the 1890s and an urgent requirement was the planting of trees to provide shelter and visual interest. The first trees – pines it is thought – were planted very early on, some as markers at the end of rows. This planting was done by staff but occasionally augmented by families. In the case of the latter, they were primarily concerned with improving appearances around a grave. Some macrocarpa must have been among early plantings as the *Dominion* reported in 1950³⁵ that "giant" macrocarpa were being felled at the cemetery, some of 200 to be felled over the ensuing three years.

Records researched have revealed the following, in chronological order:

Pines were planted in the Wilton Road area in 1927 as a screen. These pines, many of which still stand, were planted towards the northerly end of the eastern boundary.

In 1935 the Beautifying Society asked for gates to be built at the cemetery. A sketch plan was drawn and the cost of the work was estimated at $\pm 160.^{36}$ It would appear that the plan was not actioned.

In 1938 the cemeteries committee instructed the Sexton to plant "more ornamental and flowering trees and shrubs".³⁷ The response was that as soon as, for example, pohutukawa were planted they were stolen. That same year the sexton reported the following to the cemeteries committee:

The season's planting has now been completed and comprised the planting of 100 pinus insignis in replacement of failures in last year's work in connection with gorse extermination, 200 macrocarpa and 500 eucalyptus viminalis (sic) planted on waste land in areas suitable for large trees and pohutukawa, karo, and acacia longifolia (sic) in belts between burial blocks. Hedges in the Soldiers' Cemetery have been completed by the planting of escallonia exoniensis (sic) and further planting has been made of pohutukawa, karo, veronica (sic), clianthus (sic) and retinospora plumosa (sic). Steep windswept slopes on which it has been found difficult to establish indigenous trees have been planted with acacia decurrens (sic), which when established will afford shelter for native varieties.³⁸

In 1939 the Town Clerk reported that it was the policy of the council to screen the cemetery boundaries, although this was obviously not felt necessary on the eastern boundary facing Western Park, until residents complained in the early 1970s. For all that, the Standen Street boundary had no plantings on it as late as the 1930s.

In 1948 a list of trees, shrubs and hedges, planted from 1933 onwards, was prepared. It was as follows:

Cupressus Lawsoniana (sic)	240
Cupressus macrocarpa	350
Cupressus Benthami (sic)	6
Pinus insignus (sic)	1,700
Eucalyptus viminalis	600
Italian cypress	12
Acacia longifolia (sic)	42
Acacia decurrens (sic)	100
Phittosporum nigrescens (sic)	50
Phittosporum crassifolium (sic)	50
Karaka (most destroyed by hares)	110
Rhododendrons	46
Pohutukawa	24
Lonicera nitida (hedge) (sic)	300
Escallonia exoniensis (hedge) (sic)	482
Escallonia pendula (hedge)	200

90 assorted flowering and ornamental shrubs (azalea, protea, cotoneaster, Japanese cherry, lasiandra, erica, ceanothus, acacia Baileyana (sic), euc. Ficifolia (sic), erythina (sic) etc.)

Does not include Arbor Day planting by outside bodies or trees and shrubs raised at cemetery or obtained from Prison nurseries, no record kept of these.³⁹

Tree felling (of macrocarpa), which began in 1950, continued into 1951. There was more in the mid-1950s.

In 1972, as discussed in the history above, the Wellington City Council announced a massive treeplanting project in the cemetery. A report in the *Dominion* summarised the Director of Parks and Reserves, Ian Galloway's intentions by saying that "…a variety of trees would be planted. As well as beautifying the area they would help the erosion problem and would provide a canopy for the cemetery from the housing areas expanding on the surrounding land."⁴⁰

As noted above, some 4,670 trees and shrubs were planted during the 1975 growing season and the intensive planting continued for the next few years. Tree and shrub pruning, removal and planting continue to this day.

One side affect of maturing trees was the destruction caused by falling limbs or whole trees. Vulnerable graves were frequently badly damaged by such events, often leading to complaints from the public about damage to family headstones and memorials.

One notable but relatively unheralded feature of the beautification of the cemetery has been the use of stonewalls as revetting for banks, as borders to paths and roads, and as structural support for roads. This stonework, now widespread throughout the cemetery, received little comment in official files but has done a great deal towards improving the appearance of the cemetery.



Figure 16: World War II soldiers' graves in front of the brick columbarium below Rosehaugh Avenue, 1944. (ATL 1928¹/₄)

2.4 Services cemetery

The establishment of the Services Cemetery (this is the expression used in this document to refer to the site of war graves and veterans' graves) in Karori Cemetery in 1918 was an early example in New Zealand of the way official war graves were created within public cemeteries. Most comparable overseas countries have dedicated war cemeteries. At Karori, the Government has always contributed to the upkeep to part of the cemetery as part of its responsibilities as a signatory to the Royal Charter of 1917 between the Commonwealth (then Imperial) War Graves Commission and the governments of the Commonwealth.

The Services Cemetery received special attention, despite frequently falling into a poor state at various times. When the cemetery road was first paved in the early 1930s, it was extended only as far as the soldiers' graves and no further. Initially, graves were marked with white crosses. Eventually these were replaced with the characteristic (and identical) simple headstones.

The Services Cemetery was initially confined to the area bounded, on the west, by the road, to the east by private land, to the south by the narrowing land and to the north by the Crematorium. The South African veterans' cemetery was directly behind the Crematorium. In the late 1930s, the purchase of private land on Rosehaugh Avenue, the balance of the Mackenzie land, was mooted. Comprising some 1.5 hectares, the land was acquired in 1942 and then augmented by the purchase of an unused, private section (sold 10 years earlier) in the middle of it. This eventually allowed the extension of the Services Cemetery at a time when New Zealand soldiers were dying in an overseas war, and the eventual construction of a new crematorium and garden in the late 1950s. (See Plans 3 and 4, Appendix IV).

The cemetery contains two kinds of soldiers' graves: those on regular duty who died within New Zealand during wartime, and all other veterans. Until 1999 both types of graves were managed by the Ministry for Culture and Heritage and its predecessor, the Department of Internal Affairs. From that date, veterans' graves became the responsibility of Veterans' Affairs, a branch of the New Zealand Defence Force, and the Ministry retained the balance. Karori is one of 177 services cemeteries in New Zealand. If a service person's death is deemed to be attributable to war service then the headstone is provided free of charge by Veterans' Affairs. A service person's death not attributable to war service is entitled to a memorial or plaque a subsidised rate.

Over a period of time, a number of features have been added to the Services Cemetery to commemorate those buried there, and overseas. A lychgate was constructed in 1921, the Wellington Provincial Memorial arch in 1931, as well as a sundial, seats and marble steps. Numerous commemorative trees were also planted.

Every year on ANZAC Day, veterans, their families and supporters come to lay wreaths and commemorate their fellow dead soldiers.

Management of the Services Cemetery is today paid for partly by a grant from Veterans' Affairs to the Wellington City Council. The majority of graves in the Services Cemetery are veterans' graves. The Ministry for Culture and Heritage is fully responsible for 268 WWI and 124 WWII headstones,



Figure 17: The Crematorium and Chapel, date unknown, with columbaria just visible to the side and rear. (WCC Archives 00158_0_624-12)

35 cremation plaques (some on the walls by the small Crematorium Chapel and some on the back brick wall on Rosehaugh Avenue) and the Wellington Provincial Memorial, which straddles the two sections of the soldiers' headstone portion.

Cleaning of headstones, repainting and repairs of war graves are all done in situ to specifications written by the Ministry. All work is done by relevant trained professionals on-site.

Graves in areas under Veterans' Affairs are cleaned and relettered as part of an annual capital works programme. This work is always done on-site and by suitably trained persons. Veterans' Affairs does not have written specifications for standards and methods of cleaning and maintaining graves. A leaflet is supplied to families to guide the care of memorials they purchase; these are subsidised by Veterans' Affairs.

2.5 Crematorium, chapels and columbaria

Crematorium and chapels

Cremation is an ancient custom. It has been continually practised in a number of eastern countries, but was abandoned in many countries that converted to Christianity. The modern cremation movement began in Europe in the 1870s. In 1974, not long after an efficient cremation oven was perfected in



Figure 18: The main chapel interior, date unknown but probably 1960s. (WCC Archives 00340_0_1223)

Italy, Queen Victoria's surgeon, Sir Henry Thompson, founded the Cremation Society of England. He saw cremation as a means of fighting disease. The first crematorium in Europe was built at Woking, England in 1874.

The first crematorium at Karori, a chapel and oven behind, was designed by John Sydney Swan and opened in 1909. It was New Zealand's first. The practise took some time to be adopted and even though the crematorium was partly funded by public subscription, cremations made up just 1.3% of all disposals in the first year. In fact it took until the late 1930s before cremations seriously rivalled burials as a means of disposal.

The sudden spurt of enthusiasm for cremation meant that the first crematorium could not cope with the demand and before World War II ended, a new crematorium was suggested. War intervened and in 1947 it was proposed that the existing crematorium be extended. In raising the need for the new building, the Town Clerk told the Cemeteries Committee:

The existing chapel was designed in 1909 when cremation was looked upon as a doubtful innovation. It is now inadequate in floor space, in accommodation for mourners and has a very doleful atmosphere internally. There is room to double the floor space and to provide a more cheerful internal affect.⁴¹

When it was realised that land could be secured behind the existing structure, designs for a new chapel were commissioned from Gray Young Morton and Young. (See Plan 1, Appendix IV). But it took another 10 years before the building was finally completed. The first difficulty was securing the land, and as a result it took until 1954 for tenders to be called. Cremation would continue to be done in the oven behind the old chapel, with coffins moved there on a conveyor belt through a tunnel.

The chapel was, for all intents and purposes, completed in 1959 but did not open immediately because of persistently leaking windows, the source of which proved impossible to determine. With demand for ceremonies impossible to meet, the chapel opened in 1960, but the leaks continued. The architects and the council tried everything they could to fix the problem but in the end the council took matters into its own hands and covered the windows with a false outer layer of glazing.⁴² By 1973 the chapel was handling up to 14 disposals a day. In more recent years, with the proliferation of private cremation facilities at funeral homes, use of the building has been reduced to perhaps three a week.

The first crematorium chapel meanwhile was revealed to contain significant art works in its fabric. In 1984, Ian Galloway, Director of Parks and Recreation, was informed that the chapel windows were an historic set of An Tur Gloine (Tower of Glass) stained glass windows created as memorials to members of the family of William Ferguson, Wellington Harbour Board engineer. The windows are considered among the finest created by the studio outside Ireland. The Dublin based studio produced some of the finest stained glass work of the 20th century. Two of the windows, "Faith" and "Hope", created in 1914, are the work of Wilhelmina Geddes. Three more, "Charity" (1930), "Love" (1931) and "Wisdom" (1947), were made by Michael Healy. The final window, "Gethsemane" (1939), was designed by Hubert McGoldrick. Stained glass restorer Fiona Ciaran restored the windows at a cost of \$13,000 in 1984.



Figure 19: The columbarium to the immediate north of crematorium chapel nearing completion, 1949. (WCC Archives 00009_266_7-2-1 pt .1)

Columbaria

The first ashes were stored inside the chapel and it was some time before an exterior columbarium was required. Like the new crematorium, its construction was a response to the sudden increase in demand for cremations in the late 1930s. In the end five separate columbaria were built.

Erected behind the old crematorium in 1937, the first columbarium was designed by the City Engineer's office and built by contractor A. Lemmon for $\pounds 1276.18.3$.⁴³ Two years later, additions to the columbarium, "additional niches, marble slabs" were done by Hickmott and Sons, monumental sculptors.⁴⁴

In 1939 the council ordered the construction of memorial tablets for the new niches and monumental mason H. Glover was the successful tenderer. The cost was $£259.3.6.^{45}$

Photographs taken late in World War II show a new brick columbarium above the services' cemetery. There is no file record indicating the date of construction of this particular columbarium.

In 1948 more niches were required and a plan was prepared by the City Engineer for 560 niches (1120 boxes), to be built to the side of the old chapel. Only one tender was received – from A.
Lemmon – and as their price (\pounds 1242) was within the suggested estimate, they got the job.⁴⁶ It was completed in October 1949. The marble plaques were provided by Fletcher Construction, at a cost of \pounds 619.⁴⁷

The next columbarium wall was planned for the entrance to the Services Cemetery, near the Lychgate, with the back of the wall used for the ashes of deceased ex-servicemen. The accommodation was to be five bays with 1,190 niches, the largest yet. The successful tenderer was Jones-Rees, Structural Engineers and Contractors. Work was completed in 1955.⁴⁸

The next wall was proposed in 1960. It was to be built further down the drive, not far from the Mortuary Chapel. Work began in 1962 and this time it appears to have been done by the council itself, again to a design by the City Engineer, with the principal building materials being concrete blocks made by the council itself.⁴⁹

Finally, sometime in the 1980s,⁵⁰ the brick columbarium built near the second chapel, abutting Rosehaugh Avenue, was extended.

2.6 Chronology

1842	Bolton Street and Mount Street Cemeteries established.		
1882	Cemeteries Act passed.		
1890	Karori wins a ballot for the site of the new cemetery. Mackenzie brothers agree in principle to accept council offer for their land. Council raises loan of £7500 for new cemetery.		
1891	Mackenzie brothers and council sign sale agreement. Work completed on new road from Polhill Gully to Karori.		
August 1891	Frederick William Fish, an infant, is first burial at Karori Cemetery.		
C	Public shelter built in cemetery, later to be named Mortuary Chapel.		
February 1892	First regular burials at Karori. Church burials consecrated. Sexton E.A. Nash appointed.		
1892	Shelter converted into chapel.		
1903	Second public burial section opened.		
1909	Crematorium built to a design by John Sydney Swan.		
1913	Second Church of England (Anglican) burial section opened.		
1918	World War I ends. First organised burials of soldiers in cemetery. Influenza epidemic claims hundreds of Wellingtonians and cemetery has busiest period of its history, with 63 people buried on one day in November alone.		
1921	Lychgate built in Services Cemetery.		
1931	Memorial Arch built in Services Cemetery.		
1932	Sealing of main road begins. Other roads and paths progressively sealed over following decades.		
1934	A large group of unemployed workers is put to work in the cemetery. Walking track from Wilton to Karori built through cemetery land. Third public burial section opened.		

38	Karori Cemetery Conservation Plan		
1937	WCC land near the Standen Street gates set aside for cemetery purposes. Later		
used	for Wellington's first lawn cemetery.		
	First columbarium constructed behind crematorium. Construction of new		
	crematorium mooted.		
	First Greek Orthodox burial section opened.		
1944	Mayor of Wellington, Will Appleton, announces the establishment of a lawn		
	cemetery.		
1945	Second Catholic burial section opened.		
1947	Gray Young, Morton and Young draw up plans for new crematorium chapel, to be		
built	above Services Cemetery.		
1948-49	Second columbarium constructed alongside old crematorium chapel.		
1951	Lawn cemetery at Standen Street opened.		
1953	76 of the victims of the Tangiwai Disaster are buried in cemetery.		
1955	Third columbarium built between road and Services Cemetery.		
	Second Greek Orthodox burial section opened.		
1957	Tangiwai Memorial opened in cemetery.		
1959	New crematorium chapel finished but not opened until 1960.		
1960	Rose garden established near main entrance.		
1962	Fourth columbarium built alongside main drive near Mortuary Chapel.		
March 1965	Makara Cemetery opens for burials.		
1966	Garden of Remembrance opened alongside new crematorium.		
1972	Decision made to plant trees on cemetery slopes facing Wilton and Northland,		
	after complaints from local residents' association.		
1973	A peak of crematorium use is reached, with up to 14 disposals a day.		
1974	Main Denominational and Roman Catholic areas closed to new plot purchasers.		
1984	Internationally significant stained glass windows in old crematorium chapel restored.		
February 1988	50 headstones in Chinese section vandalised.		
1991	Cemetery centenary. Rose Garden redesigned and rebuilt. New gates installed at		
	main entrance and Seaforth and Standen Street entrances. Open day held and		
	Frederick William Fish's grave, the first in the cemetery, located and restored.		
1990s	Fifth and last columbarium built alongside Rosehaugh Avenue crematorium chapel.		
1994	Permission given for ash disposal and bronze plaque mounting in rose garden.		
2001	Certification to ISO 9001 was gained in September 2001 after quality management		
	system for the cemeteries and crematorium was developed by Telarc Ltd.		
2003	SS Penguin walk opened.		



Figure 20: A plan of the cemetery by religious affiliation, including the dates of the first burial. (H. Harrington, WCC)

3.0 Physical description

3.1 Introduction

Karori Cemetery is a cultural heritage landscape composed of a number of interrelated, significant natural and cultural physical features and spaces. The cemetery sits on the lower slopes of Johnson's Hill, the last peak in a spine of hills stretching south from Johnsonville. The character and form of the cemetery has been strongly influenced by the landforms it sits amongst. The slopes, ridges, gullies and streams form a topography that has shaped the character of the cemetery. The layout is dictated by that topography, which has in turn been transformed by the imposition of a cemetery, with all its many and different facets, over the top of it. To that has been added 100 years of landscaping, tree planting and removal, culverting and building construction.

Cultural features include graves and vaults, purpose-built cemetery buildings (incl. crematoria), columbaria, monuments, open spaces, gardens, fences, seats, walls, roads, paths, tracks and stairs, together with purposely planted trees and shrubs, modifications to the stream and the formed grassy areas. The relationship between these features and the natural environment has been progressively established over the entire history of the cemetery, particularly in the period prior to the opening of Makara Cemetery in 1965. The spaces between the features are also an important part of their meaning. The whole is a unique assemblage of heritage and a place of high cultural significance.

This section describes the natural environment that exists within the cemetery, the graves and memorials, the buildings, road and other facilities, and finally considers the interrelationship of these features in a landscape context.

3.2 Natural environment

Setting

The Karori Cemetery is 35.5 hectares in area and is roughly triangular in shape with its base facing north. Abutting land uses comprise regenerating indigenous forest, which is part of Wilton's Bush to the north, recreation use of playing fields to the east, and residential housing to the west and surrounding the apex of the triangle at the southern end

In terms of surrounding landform, the cemetery is "contained" by the strong landform of Johnston Hill and the associated ridgeline to the north and north-west. Further to the east, the west-facing "backslope" of Tinakori Hill forms the skyline, diminishing in height to the south-east as the suburb of Northland, continuing south to Highbury. Immediately to the east the extensive sports fields of Western Park and Ian Galloway Park occupy the valley floor some five to 10 metres below the Cemetery. Further south this valley becomes narrow and contained by the flanking hills. Immediately to the south-west, the eastern extremity of Karori sits on a spur, which overlooks the Karori Sanctuary.

The environment has been greatly modified from the original bush clad rolling hill country. Remnants of the natural environment are confined to the gully and natural drainage system within, basically, the northern half of the cemetery. This is largely "undiscovered" and supports indigenous bush and



Figure 4: Karori Cemetery, landscape units and nodes. (Neil Aitken)

lowland forest similar to that clothing the hills in Wilton's Bush. However, within the Cemetery, the pattern of indigenous vegetation is much more linear and confined. Landform has been altered to accommodate roads with some quite major cuttings. The prevailing pattern of planting is very much determined by the layout of graves, grassed open space and patterns of circulation.

The stream is quite deeply incised forming, in places, steeply-walled gullies up to 35 metres deep at the northern boundary of the Cemetery. It is a sinuous element originating near the top of Standen and Nottingham Streets, curving in a loop to the south, and then curving north, progressively deepening as the northern boundary of the Cemetery is approached. The stream system very much imposes an atypical, or counter pattern, on the geometry of the Cemetery.

Landscape Character

The landscape character of the cemetery is extremely diverse. The cemetery has been divided into nineteen "Landscape Units" based on a prevailing character and five nodes of particular interest. These are described as follows and are shown on the Landscape Units & Nodes Plan.

On the plan, the units are intentionally delineated with a dashed line because, frequently, the boundary between units is indeterminate.

Landscape Unit 1

This unit occupies the lowest north-west corner of the cemetery, and also a small, roughly triangular space at the Southern end of Unit 2. Although the graves are predominantly overgrown and neglected, a lighter more open canopy than that of unit 2 makes it less shaded and more inviting – especially the north-west corner which is a north-facing slope. The lighter canopy is due to a relative absence of the eucalypts so prevalent in unit 2.

Landscape Unit 2

This is the most overgrown part of the cemetery along its eastern boundary. There is a continuous high canopy of mainly eucalypts with some deciduous trees interspersed throughout. Beneath is an emerging understorey of native and rampant exotic plants.

Due to the nature of the canopy there are dense drifts of leaves, shredded bark and, in places, fallen branches. Most of the plots and aisles are inundated with fallen litter and there is a prevailing feeling of impenetrability and decay.

The eucalypts, in particular, are physically destructive of the concrete walls surrounding plots, with root and bole expansion cracking and displacing the concrete work.

Landscape Unit 3

This unit has a more open canopy but the plots tend to be overgrown with dense planting, some of it being weed growth. A steep slope above the road along the eastern and north-eastern boundaries of this unit makes it less accessible for maintenance.

The mown grass aisles within the northern and southern ends emphasise the overgrown plots.

Landscape Unit 4

This unit, although it has quite a dense vegetation canopy, has many well maintained and predominantly open planting within and between plots. This makes it inviting.

Landscape Unit 5

This is an open grass sward (without graves) bisected by Seaforth Terrace. While it is not part of the cemetery 'proper', it constitutes an important open space interface between units 3, 4 and 6.

Landscape Unit 6

This unit is typified by the strongly regimented servicemen's graves and intervening well-mown grass, axial tree patterns and an angled columbarium wall to the east along the Rosehaugh Avenue frontage. This provides partial enclosure before terminating to allow the grass sward and carriageway to interflow.

Landscape Unit 7

The rose garden is unique within the context of the cemetery. It introduces the cemetery in a very positive way with its strategic location just inside the main gate. It and the main spinal road with its avenue of trees fuse together strongly. Seasonally, the roses provide a colour statement that is not found elsewhere.

Landscape Unit 8

This unit comprises the elongated space backing on to the residential development of Standen Street. A strong and continuous buffer of trees separates the two. The plots are well planted with predominantly exotic shrubs and herbaceous plants and this theme also flows east of the spinal road, where the planting is strongly indigenous.

Landscape Unit 9

This unit comprises the servicemen's ashes beams and intervening well-mown grass. While the regimentation of unit 6 is present, it is on the horizontal plane and not the vertical. Therefore from a distance, the flowing grass sward predominates.

Landscape Unit 10

A large proportion of this unit is overgrown with low-level planting and a canopy as such is absent. Where it slopes down to the spinal road, the plots are not overgrown and where it abuts unit 9, the planting within plots is well-cared for and attractive.

Landscape Unit 11

Although bisected by the stream corridor, this unit is typified by steep topography ascending from the spinal road, then downcut by the stream, then ascending to form a knoll. The road defines the western and northern flanks of this unit by sitting on an embankment supported by rock-faced vertical walls.

Near the spinal road the planting of successive rows of *Banksia* running north-south introduce regimentation in planting using only 1 species, which is unique. The slope down to the footbridge immediately east of the *Banksia* planting is well maintained but the level of maintenance declines on the steeper slope to the east of the stream.

Landscape Unit 12

Here, because of the steep slope leading up to a distinctive spur, the regimented graves themselves slope in response to topography. The top of the spur has recently been planted with indigenous species.

Landscape Unit 13

This is the lawn cemetery, which is at the highest elevation in Karori Cemetery. It has well-defined enclosure provided by both exotic and native vegetation. The grass sward is regularly mown, which heightens the sense of enclosure and the contrast between trees and grass.

Landscape Unit 14

This unit also occupies a high elevation within the cemetery and is in marked contrast to unit 13, with its densely-packed, well-maintained and established graves marching along the slope over undulating topography. Planting within and between plots is predominantly sparse. The slope is particularly steep below the line of pines separating this unit from Unit 13.

Landscape Unit 15

This unit comprises the north-facing slope at the northern boundary of the cemetery. The slope ends at an inaccessible stream in quite a steep ravine. The stream supports dense indigenous bush which "flows" upslope into the cemetery dividing this unit into two.

The western end tends to be neglected with evidence of erosion and invasion by gorse. Further east, the plots are in better condition but, overall, there is a lack of planting.

Immediately west of the tongue of indigenous bush the slope becomes very steep and assumes the form of an amphitheatre and this landform occurs again immediately east of this bush.

Within both amphitheatres there is an apparent sparseness of plots.

Landscape Unit 16

This unit has the same high density of graves as unit 14 but they are also not as well cared for. It also has more planting within plots and has a stronger sense of enclosure due to its lower elevation and surrounding coniferous trees.

Landscape Unit 17

This is in marked contrast to units 14 and 16 due to a perceived sparseness of graves occupying a fairly steep concave (in both areas) and uneven slope due to subsided graves, and with intermittently mown grass. In reality, however, the graves are dense but the general air of benign decay counters this.

Landscape Unit 18

This is an elongated and indented wedge running north-south below the stream corridor. Although the plots are dense, the perception of grave density is not as high as that of units 14 and 16 because of the presence of lower vegetation within and between plots. The unit is bisected longitudinally with a main axial path requiring a number of broad steps in certain areas.

Landscape Unit 19

This is the sinuous stream pattern, which enters the cemetery near the northern end of Standen Street and leaves the cemetery near its north-east corner. A minor tributary enters the cemetery at the northern end of Standen Street.

For most of its length the stream has down-cut to form a distinctive steep-sided ravine and for its entire length the stream corridor supports native vegetation. However, most of this vegetation is over-topped with a canopy of mature, large-scale pines and macrocarpas.

A stream also defines the northern extremity of the cemetery.

All the steams are tributaries of the Kaiwharawhara Stream.

Landscape Nodes

There are five nodes worthy of mention shown on the drawing as 'A', 'B' 'C', 'D' and 'E'. While their influence is more localised than that of landscape units, they are important punctuation and reference points within the cemetery.

Node A is the Main Chapel and its precinct, which makes a singular statement within the context of the cemetery.

Node B is the Crematorium and Chapel, associated columbarium walls and open space strongly defined by planting and topography to the south.

Node C is the Y intersection of the main spinal road surrounding the centrally placed Jewish Chapel. Clumps of large-scale mature trees reinforce and contain 'the distinctiveness' of this intersection.

Node D is the small Greek Orthodox portion of the cemetery with concreted aisles between plots.

Node E is a small, elevated grassed area with a seat.

Node A is very much an open and public statement, while nodes B and C are of a smaller scale with a richness and detail that, in a low-key way invites the experience of discovery.

Node D introduces a unique element, which, although visually 'hard' by comparison with the remainder of the cemetery, gives this area some prominence in spite of its small size while eliminating a potential maintenance problem.

Node E, which is relatively remote being at the northern end of the cemetery, offers a fine view down the Kaiwharawhara Stream valley.

The role of the coniferous trees

The pines and macrocarpas, and, to a lesser extent, the Lawson cypresses, constitute a very strong element within the southern part of the cemetery. They follow the sinuous stream corridor and

highlight its existence from a distance. They follow the road alignment on the higher ground at the north-west corner of the cemetery and they form a dense buffer along the eastern boundary of the cemetery at its northern end.

These trees provide a sense of scale with a characteristically darker green hue than the indigenous bush and forest on the hills to the north and Northwest. And in this sense, they are the most significant planted statement in the cemetery even though they are exotic.

3.3 Graves and memorials

Karori Cemetery contains a bewildering range of grave types. Broad categories of graves are identified below, although these could be expanded and amplified if there were the resources for a more detailed study. They range from the very simple to the very formal and elaborate, while many graves are not marked in any physical way. In general, we have identified seven different types of grave, although within the definition of the standard grave there is an extraordinary range of designs and materials.

1. Standard Graves

The most common form of grave in the Karori Cemetery is a plain rectangular structure, built in concrete and plastered in fine-grained grey cement plaster. These graves extend over the whole of the cemetery, even into areas that are steep. Their size is generally one standard plot size (1.1 metres wide by 2.1 metres long), but can vary from a third or a half of this width, to double or triple plots. Many of these include multiple burials. Most of the graves consist of a flat concrete slab (some with small areas left uncovered for planting) with a low wall around the perimeter; the top of the wall can be level or profiled with curves.

Other materials

This standard grave is occasionally found executed fully in marble. There are some examples of pebble-dash finish, and at least one that is left as raw unplastered concrete. Tiles are occasionally found on the floor of the grave.

Surrounds

This standard grave type is distinguished in some cases by low railings around the perimeter. These are commonly in wrought iron, although there are still several in timber. (It is thought that timber was a common material, but this material has not survived as well as wrought iron.) There are also examples of surrounds executed in rough (uncut) stone.

Headstones

Again within this general form of grave, there is a huge range of headstones, mostly in stone with a few examples of cast bronze. No timber head boards are presently known to exist, although they must have been common in the early years of the cemetery. Headstones commonly rest at the head of the grave within the outer edging, although many are set into the inside face of the wall at the head of the grave.

Most headstones are plain and rectangular in shape, although there is a variety of shaped tops – Gothic or pointed tops are common. Some graves are distinguished by quite ornate headstones,



Figure 22: The Underwood Vault. (M. Kelly)

which can have a base supporting a shaft and cross, an obelisk, a figure such as an angel, or an urn with or without drapery. Headstones sometimes sport special carvings - a kauri tree, a bible, an anchor and chain, or two shaking hands - which are examples of quite specific remembrance.

Lettering

Lettering on headstones is commonly lead let into incisions in the stone. It is sometimes simply carved without leading, sometimes painted, or rendered in gold leaf.

The design of graves over time

A remarkable feature of the graves in the Karori Cemetery is the consistency of form over time of the standard grave – as described above, a plain rectangular masonry structure finished with a finegrained plaster. There are differences in detail in the profiles and shapes of the surrounds, but there are graves dating from the 1890s that have their counterparts in parts of the Cemetery which were developed in the 1930s.

It is possible that, while fashion appears to have changed very slowly, differences arose as much from the wealth or status of the person or family, and the consequent desire to elaborate on the basic theme of grave design. Such elaboration is clearly seen in some headstones and in features such as crosses, obelisks and allegorical sculpture. Some sculptural elements are significant works of art in their own right, and would have been expensive to commission. Graves that are richly ornamented tend to be concentrated in the early sections of the Cemetery, but continued to be built occasionally until the 1950s. A noticeable uniformity of very plain graves permeates the part of the Cemetery

developed during the Depression of the 1930s, graphically reflecting the economy of the time. In more recent years, headstones have tended to be similar to those in erected at Makara cemetery - often an inscription etched in a simple, tilted slab of marble.

In general terms the Cemetery does demonstrate the passage of time, taste and funerary fashion in the style of its graves, which range from the elaborate late Victorian and Edwardian structures, to the more austere and unadorned of its latter history.

2. Vaults

Vaults form a distinctive grave type in the cemetery. There are 24 of them altogether, scattered but with a concentration of them near the Mortuary Chapel. One of the most distinctive views in the cemetery is the group of four contiguous vaults (Ranish, George, Jupp and Plimmer), which are themselves very interesting items of Gothic and Classical design. The Underwood and Biggs vaults are also very distinctive structures and are landmarks in the cemetery.

The uniform material for the vaults is plastered concrete.

3. Services Graves

The Services Cemetery is entered through the Lychgate from the main driveway. Graves in this area are characterised by identical headstones arranged in concentric circles (World War I) and in serried rows on the gentle slope behind (World War II). The headstones are set in concrete beams in a lawn setting with steps, seats, pools and trees, and in particular the Servicemen's Arch (see below). This part of the cemetery is ordered, symmetrical and tidy, and quite distinct in its character from most of the rest of the cemetery.

The headstones themselves have a rectangular outline with polished face, and rough hewn edges to the stone. Some service personnel are commemorated in columbaria with niches and bronze plaques; a particularly conspicuous columbarium, built in brick, forms the high eastern edge (alongside Rosehaugh Avenue) to the main part of the Services Cemetery.

4. Columbaria

The cemetery contains five columbaria i.e. walls with niches containing ashes. As well as the services columbarium mentioned above, and another further north on the main drive, there are two more alongside the crematorium and chapel. With their matching materials they form an appropriate setting for the old chapel. The older of these (1937) is set into the bank behind the crematorium, while the other, built in 1948, is freestanding on the north side the chapel. It is built in brick with a tiled roof and it has marble and cast bronze plaques to the niches and walls; its design and materials complement those of the chapel.

5. Lawn Cemetery Graves

Opened in 1951 with a view to the kind of cemetery that would later be built at Makara, the lawn cemetery is located in the far north west corner of the cemetery. It is literally all lawn, although surrounded by trees. Within the lawn parallel concrete beams are laid, with regularly placed bronze plaques set flush with the concrete. It thus has a very different character from any other part of the cemetery.

6. Special Graves

The cemetery has a number of special graves that don't fit into the descriptive categories above. Of particular note in this category is the memorial grave of Prime Minister Peter Fraser. There is one mass grave, that containing the bodies of those who perished in the Tangiwai rail disaster in 1953; a special memorial marks this grave.

7. Unmarked and Pauper's Graves

There are a large number of graves that have never been marked in any meaningful way, those of some children for example who were buried between plots, or of paupers. Cemetery records make it possible to locate some of these graves and who was buried in them, but some are in areas now overgrown or tightly squeezed between rows of plots. There are also a number of graves that are so badly decayed that fragments only remain.

Memorials

Although not graves, there are two memorials that deserve special mention. In the Services Cemetery there is the Servicemen's Arch commemorating those soldiers from the Wellington Province who died in both World Wars. A less well known memorial is that recently constructed to remember stillborn children; it is located at the far north of the cemetery, near BP3.

3.4 Buildings

The Karori Cemetery contains a number of buildings, all related to the functional and commemorative requirements of the place. Several have special heritage values, and have been listed by both the New Zealand Historic Places Trust and the Wellington City Council on the operative District Plan.

Office

The Office is just inside the main gates on the right of the drive. It was built as the home and office of the Sexton, and probably dates from the 1950s. The building has no special architectural or historic merit, but functions adequately in its present role as offices. The main materials are brick, with timber joinery and a Decramastic roof. There is a timber garage nearby with access from Old Karori Road.

Toilet and Rose Garden Vault

These are two small buildings at the far end of the Rose Garden on the left side of the main drive. The toilet contains men's and women's toilets, is timber-framed, and is clad in weatherboards and Decramastic roof.

The Rose Garden Vault is built fully in concrete, and is used as a tool shed. This structure is clearly of some age, and may have some historic interest; this should be researched.

Lychgate, 1921

The Lychgate stands on the right side of the main drive and forms the entrance to the Services Cemetery. It is a small, well-proportioned structure, with heavy timbers standing on a brick plinth forming open walls; the gable ends are half-timbered with textured stucco between vertical timbers. An inscription over the gate reads "Peace with Honour".

Registered Category II under the Historic Places Act, and listed on the District Plan. See Appendix for Heritage Inventory Sheet, OLDK 2, 2001.

Crematorium and Chapel, 1909

Further down the main drive, the Crematorium and Chapel forms the historic and functional heart of the cemetery. It is a beautiful Arts and Crafts style building, built in brick with a Marseille tile roof. Stained glass windows are a very special feature of the Chapel – these were made by the An Tur Gloire studio in Dublin, are rare examples of their work, and are of a very high aesthetic standard. The building was designed by architect John Sydney Swan. While it serves the public function of a chapel where last rites are observed, it also has a crematorium attached; the large square chimney behind is indicative of this function.

Registered Category I under the Historic Places Act, and listed on the District Plan. See Appendix 1 for Heritage Inventory Sheet, OLDK 1, 2001.

Mortuary Chapel, 1902

The former Mortuary Chapel forms a focal point further down the main drive at the junction of several important paths. It is a small timber-framed and clad structure, a Greek cross in plan, with perky gables to each arm of the cross and a central turret roof giving the building a landmark quality.

Registered Category II under the Historic Places Act, and listed on the District Plan. See Appendix for Heritage Inventory Sheet, OLDK 3, 2001.

Mess and Toolshed

This building stands opposite the Mortuary Chapel. It continues in a modest way the Arts and Crafts style of the lychgate and the Chapel, being built of brick to window sill level with textured

stucco above. The main gable facing the drive is of half-timbered construction. The very steeppitched roof is sheathed in Decramastic tiles; these replace what was most probably the original cladding of Marseille tiles.

A tractor shed added to the north side of this building was opened in December 1992; it matches the style of the original building.

Main Chapel, 1959

The Main Chapel is accessible from Rosehaugh Avenue on the eastern side of the cemetery. It is an interesting modernist building, designed by the important Wellington architects Gray Young, Morton and Young, with the foundation stone laid on 25 March 1959. It is built in in-situ reinforced concrete with plain plastered finish; the roof is sheathed in clay tiles.

This building is recommended for inclusion in the Wellington Heritage Building Inventory, and subject to a detailed assessment, for listing on the District Plan.

3.5 Roads, paths, gates, walls and other facilities

The cemetery has a complex network of roads and paths that make the whole place accessible. They range in design from the wide sweeping main driveway which gives access to the Services Cemetery and the Chapel, to remote paths that are narrow and unsealed.

The main entrance gates are fabricated in aluminium and they hang from brick piers that are part of the walls that mark the boundary at the south end of the cemetery. There is another gate, in timber, that is part of the lychgate, and this gives access to the Services Cemetery. There is also a gate at the Standen Street entrance, similar in style and construction to the main gates.

The cemetery has numerous other built structures, many of them small but important in defining edges or acting as retaining walls. Examples are the brick edgings to driveways and paths; pools and seats, especially those in the Services Cemetery; and the numerous stone walls, including those supporting the main drive where it crosses the stream. The brick and timber pergola in the Rose Garden, with its brick-paved courtyard and stone sculpture, deserves special mention.

3.6 Cultural landscape

The cultural landscape at Karori Cemetery, which reflects human induced changes to the natural environment, is very diverse. The factors that influence this diversity are the:

- form/nature of artificial surfaces as a (built) expression of interment / remembrance
- purpose of this expression; individual or collective
- age of this expression
- outlook; the view beyond
- "inlook"; the view within
- religious / belief / ethnic origin of this expression
- proximity to more frequently-used accessible areas
- topography as a determinant or influence
- purpose / nature / scale / characteristics of planting
- particular approach to maintenance; objectives / resources / realities

It is the combination and arrangement of these factors that make contemporary Karori Cemetery the place that it is in spiritual, biological, experiential and physical terms.

The built expression of interment determines the cultural heritage landscape; for instance:

- Columbarium walls introduce enclosure and define space, en frame views, create axes and can interrupt/disrupt flow.
- Ashes beams at ground level create the opportunity for flowing lawns and a feeling of space.
- Servicemen's graves with headstones only impose a rigid symmetry, either straight or curved, on grassed areas. These are clearly expressive of their purpose the collective magnitude of loss.
- Individual and family plots express ownership with their kerbing or edging, reinforced with a headstone; its purpose being to express individuality within the tight confines of each plot. When seen en-masse, this can appear discordant. Sloping terrain introduces the plots as a series of tiered levels marching up (or down) the slope, separated by mown (predominantly) or paved aisles.
- Mausolea and larger plots or structures (usually to acknowledge a collective tragedy such as the Tangiwai Disaster) as well as assorted buildings for various purposes, punctuate and provide reference or focal points within the Cemetery.

Planting as a non-built expression has been used in various ways throughout the Cemetery:

- to formerly define avenues or axes typically within grassed areas or paralleling roads
- as a unifying element of remembrance such as the rose garden near the main entrance
- to visually soften the edges of plots especially where there is an awkward-to-maintain low bank or change in level
- within plots which screens and counters the dominance of built emergent elements
- as a higher level forest canopy above graves
- as a buffer between abutting residential land use and the cemetery Standen Street being a conspicuous example.

An adequate and appropriate level of vegetation management is the glue which, in a sense, sticks all this together and makes the Cemetery more inviting and reassuring and "discoverable".

4.0 Significance

The criteria used below to asses heritage significance are those employed by the Wellington City Council in its 2001 Non-Residential Heritage Buildings Inventory.

4.1 Historic value

Is the place associated with important or representative aspects of national, regional or local history?

Karori Cemetery is undoubtedly one of the most significant historic places in Wellington and a nationally important historic place. As the location of nearly 80,000 graves and thousands of cremation repositories it constitutes the largest such cemetery in Wellington and one of the largest in New Zealand. Burying the dead, and other mortuary procedures, have a most important role in society and this activity, however prosaic, imbues a place like Karori with very great historic significance.

The cemetery is remarkable for the scope and accuracy of the information it contains. Through its written records and grave inscriptions the cemetery offers social commentary on types of mortality e.g. infant and early deaths, accidents and epidemics. The types of monuments reveal much about taste, affluence (or otherwise) and the impact of a death on grieving relatives.

Is the place associated with events, people, groups of people or institutions which are of importance in national, regional or local history?

The graves and resting places of some of the most important New Zealanders of the 19th and 20th centuries, as well as the ordinary citizens of Wellington, are contained within the cemetery's boundaries. Among them are Prime Ministers, politicians, church and community leaders, prominent sportsmen and women, explorers, business leaders, civil servants and soldiers. The role that the Services Cemetery plays at Karori is one of its special features. But cemeteries are, to an extent, egalitarian places, in that the distinguished lie alongside thousands of people who never achieved any prominence in society but who lived lives of meaning and fulfilment.

Among the many graves are special monuments or places that commemorate events that shaped the lives of New Zealanders. The Tangiwai disaster of 1953 is remembered in the mass grave and monument constructed at the northern edge of the cemetery. Peter Fraser, a successful 20th century Prime Minister, has his own monument.

The special connection that churches and cultural groups have with cemeteries is expressed at Karori with the historic allocation of burial areas. Death has a significant role in religious ceremony and many of the tens of thousands of burials that took place at Karori were religiously based. In addition, specific plots were purchased for the burial of religious.

Does the place have rarity value as a particular type of place or for its age or style?

Karori Cemetery is in some ways entirely typical of any cemetery of its kind in the country or even in the western world, but it is also unique, as a record of life and death in Wellington over a period of a century or more. The cemetery is a testament to the life experiences of generations of Wellingtonians. It contains the graves of a number of remarkable and surprising people and it is a special place for anyone with a passing knowledge of Wellington history and social life.

As time passes the cemetery will become even more significant. Already the form of graves, monuments and columbaria in use in modern cemeteries has changed. This kind of cemetery will not be constructed again. This will only enhance the rarity value of the cemetery and its individual features in the future.

4.2 Social value

Is the place held in high public esteem?

The Cemetery is generally held in very high public esteem by most in the community as exemplified by the other social criteria below. The Cemetery has come in for its fair share of criticism in the past, mainly for overgrown vegetation obscuring graves and paths, but the recent vigorous vegetation management programme has gone a long way to restoring public favour and support. This will only increase over time.

Does the place have high symbolic, commemorative, traditional, spiritual or other cultural value for groups within the community?

Symbolic, commemorative and spiritual values of the Karori Cemetery are extraordinarily high, especially for those whose forebears are interred within its boundaries. Many families in Wellington, and well beyond, feel a special reverence for the place – many have taken part in the last rites of loved ones and friends in the Chapels or at the graveside, and many visit graves to reflect and remember. The presence of the Services Cemetery and Servicemen's Arch adds a war commemorative value to the Cemetery. Distinct cultural and religious groups are acknowledged in different parts of the Cemetery, often in a visually clear way because of different styles of burial.

Does the place have amenity value, either for its use, or for the role it plays in defining the identity of the community?

Amenity value is clearly evident in the way the Cemetery is fulfilling its commemorative role. More particularly, services in the chapels, cremation and interment still take place in an environment that is entirely appropriate to this important social function. The Cemetery also provides recreational opportunities for the community.

4.3 Aesthetic Value

Does the place have architectural or artistic value because of its design, form, scale, materials, colour, patina or quality of space?

The Cemetery has very significant architectural and artistic values. These values reside in the individual components of the place – the graves, vaults and other funerary monuments, as well as in the buildings. There is a wide range of artistic expression in the graves, some of which exhibit very high levels of craftsmanship and design, not just in the special features of stone carvings but also in

the lesser details of construction, finishing and inscriptions. The Chapel is an important architectural work, and is enhanced by stained glass windows that are of international interest. Taken as a whole, the Cemetery is the repository of significant artistic achievement, stretching over more than a century, and it is a unique cultural artefact for this reason.

Is the place a good representative example of a particular style of architecture or period?

The Cemetery includes representative examples of most styles and types of late 19th and 20th century graves and memorials. Amongst the buildings, the Arts and Crafts style of the early 20th century is well represented by the Chapel, and the modernist style by the Main Chapel. Vaults provide extremely interesting essays in the Classical and Gothic styles, and many graves exhibit details of these and other styles that repay detailed study.

Does the place have townscape value for the part it plays in defining a space or street, in providing visual interest, for its role as a landmark, or for the contribution it makes to the character and sense of place of Wellington?

Townscape values are evident in all parts of the Cemetery, where a complex mix of built objects (buildings, graves, vaults, memorials, walls, paths and roads) and natural features (grass, trees, streams and natural landforms) provide vistas and views and juxtapositions of great visual interest. Here and there, landmarks in the form of obelisks or raised statues act as landmarks and visual reference points. The natural – albeit modified – environment is expressed principally through the stream corridor with its sinuous pattern, landform and indigenous vegetation.

Is the place part of a group of buildings, structures or sites that, taken together, have coherence because of their age, history, style, scale, materials or use?

Despite the huge diversity in the component parts of the cemetery, there is a visual coherence to the place because of its underlying purpose, the way in which all parts play a role in safeguarding and commemorating the lives of the past. There is a physical coherence in the materials, colours and textures of the built objects, and the soft landscaping plays a major role in tying the different parts of the place together.

4.4 Scientific Value

Does the place have a technical value in its structure, or for the choice or use of materials, or is it a good representative example of a particular building technique?

Technical values are evident in the structures in the cemetery, and in the range of materials that have gone into their making. Although the condition of some structures is poor, the level of authenticity is high (see below) which enhances technical values.

Is the place authentic, retaining significant fabric from the time of its construction, or from latter periods when important additions or modifications were carried out?

The level of authenticity of the place is very high. This is partly because throughout its 110 year life, the cemetery has been subject to small scale change as the area covered with graves has expanded and facilities have grown to accommodate usage. There has been no "completed" stage in the sense

that a new building might be considered to be complete, but rather there has been a constant growth which only slowed when burials in new plots ended. This slow change is an important characteristic of the place.

Does the place have archaeological value for its ability to provide scientific information about past human activity or life style?

Karori Cemetery has considerable archaeological value. The changes through time in the physical fabric of graves, headstones, memorials and the cultural landscape provide evidence about past attitudes to death and changes in fashion and taste. Decorative elements provide information about symbolism and cultural beliefs and the analysis of materials used to construct graves can provide information about the role of personal choice and socio-economic status in funerary customs. The burials themselves also possess important archaeological values. Osteological studies of human remains can provide information about age at death, sex, ethnicity, nutritional and reproductive history, general health, disease and trauma. Cemeteries are a sensitive type of archaeological site, however, as their potential to provide valuable information about the health and composition of past populations needs to be placed within the wider context of their cultural value.

Note: The Karori Cemetery thus, remarkably, meets all 13 criteria for inclusion in the Heritage Building Inventory.

5.0 Threats to heritage

A key aspect of the management of heritage places is the management of threats. The principal categories of threat at Karori Cemetery are summarised below. The management of many of these threats is addressed by policies in Section 6 and work recommendations Section 7.

5.1 Loss of use or purpose

The possible loss of a sustainable use or purpose for this cemetery would pose a significant threat, as identified in article 7 of the *ICOMOS New Zealand Charter*. This would lead to lack of support and funding, allowing other threats to manifest. The cemetery has at present a minor use for interments (and for public visitation) but to ensure its continued care and maintenance, a new use must be developed and maintained. That new use is expected to be as an historic park, open to the public and, hopefully, well patronised and supported. This will help ensure the long-term survival of this important historic place.

On a specific level, the use of the crematorium is expected to continue, although the proliferation of private facilities at funeral parlours has placed its future in some doubt. It will need more patronage to remain viable.

5.2 Natural or decay processes

The threats to the cemetery from natural processes are many and varied. Heavy rain, flooding, erosion, and high winds are not unusual occurrences, and all have an effect on the stability and condition of a place as exposed and vulnerable as the cemetery. General weathering from sunlight, acid rain and rising damp will also play a part.

Karori Cemetery is steep in places so erosion or landslide is a possible threat and, in the past, minor slips have exposed graves. Even small earth movements can expose graves. Streams, especially in flooded condition, can cause serious erosion.

Vegetation threats to the graves and vaults are complex. There is a range of vegetative cover throughout the cemetery. Where graves are situated within grassed areas, this grass provides a good surface cover that limits erosion and allows good visibility. Where this can be maintained detrimental impacts from vegetation can be minimised for much of the cemetery. Threats to the grass cover include loss of vegetation by fire, erosion and vegetation changes due to successional processes or weed invasion.

In some parts of the cemetery there are tree canopies, ground covers such as ivy and plant pests including gorse growing over areas of graves. The roots of large trees and shrubs can grow through graves and cause fracturing and uplift. Trees, branches or limbs can fall and break grave stones, statuary or monuments. Ground covers can also mask underlying problems with the condition of graves or soil erosion. Vegetation also retains moisture, as do shady areas, which can contribute to decay. Excessive growth can also obscure graves and headstones which can compromise visitor experience. The growth of lichens and mosses on head stones do not generally pose a structural threat, although they can obscure inscriptions and decorative details.

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Those threats associated with the graves and vaults are :

- mechanical damage caused by the growth of plants beside or inside the plots, by tree or branch fall, by subsidence of the ground both within and without the graves, by land sliding and erosion, and by earthquake;
- damage caused to stone, joints in stonework, inscriptions, wrought iron, timber and other materials by exposure to the atmosphere, by rain and sun, and by lichen and other surface growths.

(Note that mechanisms of decay are dealt with more fully in Appendix IV, Maintenance guidelines and work specifications.)

These threats are compounded by the fact that graves are privately owned, and their maintenance and repair is the responsibility of the families that own them. Given the huge spread of responsibility, it is little wonder that many graves are left untended and are in poor condition.

Threats associated with the buildings are typical of all buildings – in the absence of regular maintenance they will decay. All buildings in the cemetery are owned by the City Council, they are well maintained and are today, generally, in a very good state of repair.

5.3 Disasters

Although most graves are built of permanent materials, in particular concrete, fire can still inflict a great deal of damage and remains a risk, especially in dry summers and where there is a large amount of vegetation.

Wellington is an earthquake prone city and the main Wellington fault runs relatively close to the cemetery. Excessive earth movement, if it happens, represents a major threat both to the ordered sequence of graves and to individual interments; even minor earthquakes might damage unreinforced concrete structures.

5.4 Visitor impacts

General wear and tear to surfaces, climbing on unsound structures, or accidental damage from vehicles can cause detrimental effects to the fabric of the place.

Vandals – those intent on doing damage – are a special sort of visitor. Intentional damage can range from arson to graffiti, to the purposeful breaking of graves and the entering of vaults.

5.5 Management impacts

Inadequate quality of management at an historic place may constitute a threat. This includes poor planning, delays in commencing work, undertaking inappropriate remedial work or maintenance; the erection of inappropriate new structures; and the failure to act on known threats.

5.6 Information loss

The destruction of important archival sources such as old documents and photographs, and the loss of unrecorded oral history sources constitute a threat.

Loss of inscriptions on head stones can result in the loss of genealogical information. This threat is best met by careful maintenance and repair, and by taking photographs and transcripts.

5.7 Lack of public support

Some visitors may interpret vegetation overgrowth, lack of visitor facilities and lack of interpretation and signage as an indication that the Council is not taking its management responsibilities seriously and does not care appropriately for its heritage. It is important that visitors are encouraged to treat the cemetery with care and respect and a failure to care and maintain areas, or explain their appearance, might encourage a negative public reaction.

6.0 Management Policies

6.1 Appropriate standards

The most appropriate conservation standards for use in New Zealand are those set out in the *ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value*. (ICOMOS stands for the International Committee on Monuments and Sites.) The charter has been formally adopted by the Historic Places Trust and a number of territorial authorities. Important conservation principles contained in the charter are explained below and the full text of the charter is provided in Appendix II.

Carry out regular maintenance

Regular maintenance is essential to the long life of historic places. If maintenance is not carried out on a planned basis, repairs become progressively more difficult and expensive, and fabric of heritage value can be lost, thus diminishing the significance of the building. A well maintained historic place will survive the effects of earthquakes, storms and other natural disasters better than one that is poorly maintained.

Repair rather than replace

When repairs are necessary, cut out and replace only decayed material. It is better to have fabric that is worn and carefully patched than modern replica material, however faithfully copied.

Repair in compatible materials

In carrying out repairs, materials matching the original should generally be used if they are available. Work to a higher technical standard is good practice in some circumstances, and may be required by the Building Code.

Restore with care

Restoration of lost features should be carried out only if there is clear evidence of the original form and detail. Such evidence could come from original drawings, early photographs or elements relocated to other parts of the place. Detailed examination of the fabric of the place can often reveal information that is not available from other sources.

Keep change to the minimum

Where additions and alterations are carried out to fit a place for a new use, change should be the minimum necessary to suit the new functional requirements. There should be the least possible loss of fabric of heritage value.

Find a compatible use

Ideally, the original use of an historic place should be continued. As this is often impracticable, a compatible and economically feasible use should be found. A compatible use is one that can be incorporated into the building without excessive change, and without significant reduction of heritage significance. (See Approved use).

Make new work reversible

Where possible, new work should be reversible, so that change back to the present form remains a possibility should this be required in the future. This can sometimes be difficult, particularly with major work such as earthquake strengthening. Recycle or store early fabric that has to be removed, and make new junctions with the old fabric as lightly as possible.

Respect alterations

Additions and alterations to historic places can have historic or aesthetic significance in their own right. Returning a place to its original form is recommended only when the significance of the original place is outstanding and later alterations have compromised its integrity.

Distinguish new from old

Growth and change are natural parts of the life of any place. Major changes, especially additions, should be able to be seen as such so as not to confuse the new with the old. Compatible design, where the new does not dominate or conflict with the old, should be the aim.

Document changes

Changes should be fully documented in drawings and photographs, with the latter taken before, during and after conservation work. New materials should be identified by date stamping.

Respect the patina of age

Patina, the visible evidence of age, is something to protect carefully. Historic places should look old as they mature, as age is one of the qualities we value them for.

Respect the contents and setting

The contents and setting of an historic place can often have heritage value in their own right and both should be regarded as integral with the place.

6.2 Cultural diversity

Commentary

The cemetery is an important place to many groups in the community. The cultural needs of ethnic groups, whether European, Maori, Chinese, Greek or others are represented by clusters of graves, also religious groups, must be acknowledged and catered for.

Policy

In the development of work recommendations and programmes, the active participation of ethic and religious groups that have a stake in this important historic place will be sought. Consultation will ensure that no proposed action is contrary to the beliefs and requirements of any such group.

6.3 Heritage landscape

Commentary

It is acknowledged by most users of the cemetery that it comprises a unique heritage landscape. The management of the many features that make up this landscape requires carefully specified policies that recognise those special characteristics.

Policy

All management programmes and new developments and buildings in the cemetery shall acknowledge and build on the special character of the heritage landscape. Original cemetery design and layout should be respected wherever possible.

Landscape areas identified in this plan should be managed to preserve and enhance their individual character, which means different management regimes will be valid in different parts of the cemetery. Views in and out, and visual barriers with neighbours, will be considered.

6.4 Significant fabric

Commentary

It is important to distinguish between significant heritage fabric and non-heritage fabric so that conservation work can be properly targeted where it is needed. It is also important to distinguish between levels of significant fabric so that priorities in management can be established. This is particularly important for graves, where limited funds can be allocated to conservation work.

Policy1 – Significant fabric

All graves and memorials (as described in section 3.2), and the historic buildings (as described in section 3.3), being the products of their time and each having their own attributes of design and commemoration, will be regarded as important cultural objects. All conservation work to these historic elements and to the place as a whole will be undertaken to ensure the minimum intervention with these historic elements, commensurate with ensuring their long life and usefulness.

Increasing levels of intervention – after non-intervention – are defined by ICOMOS as maintenance, stabilisation, repair, restoration, reconstruction and adaptation. These words are defined in the ICOMOS Charter, which is included as Appendix 2.

Policy 2 - Criteria for assessment of graves of the greatest significance

Does the grave:

- 1) Contain a significant person or persons or family?
- 2) Have an association with a significant event, institution or theme e.g. the wreck of the *Penguin*, a significant sporting team, 1913 or 1951 general strikes, construction of a famous structure etc?
- 3) Demonstrate ornate, rare, distinctive or beautiful features?
- 4) Demonstrate rare or unusual fabric or visible construction techniques?
- 5) Form part of an area of exceptional visual or historic interest?
- 6) Date from before World War I?

6.5 Remedial work

Commentary

Where threats have been allowed to manifest over a long period, significant fabric may have deteriorated to the point where significant remedial work will be required.

Policy

Remedial work will be undertaken where necessary and in keeping with the heritage conservation principles of this Plan, to stabilise features and slow the rate of deterioration. Given the fact that places in the cemetery vary in condition from excellent to derelict, it is expected that a range of remedial work, from stabilisation to restoration, will be appropriate. Levels of intervention at graves is defined in 6.4.

6.6 Regular maintenance

Commentary

Regular maintenance is essential to the long life of historic places. Regular inspection and maintenance ensures that minor faults are identified early, thus avoiding the need for major repairs in the future; a well maintained historic place will be better used and enjoyed than one that is neglected, and is less likely to suffer damage in the event of a natural disaster.

Policy

Regular maintenance will be carried out to maintain the cemetery in good condition, noting that different parts of the cemetery may be maintained to quite different standards according to their character and management regime. Maintenance regimes in different areas will apply to all components of the area - access ways, graves and monuments, and vegetation.

The Services Cemetery will continued to be managed in conjunction with Veterans' Affairs, NZDF, and the Ministry for Culture and Heritage, and maintenance regimes managed by those organisations will continue to be supported.

6.7 Vegetation management

Commentary

Karori Cemetery is a cultural heritage landscape composed of a number of interrelated, significant natural and cultural physical features and spaces. An adequate and appropriate level of vegetation maintenance is the glue which, in a sense, sticks all this together and makes the Cemetery more inviting and reassuring and "discoverable".

The key to successful maintenance and its outcome is appropriateness. In many areas, especially those with individual plots away from main thoroughfares, a lower level of maintenance is quite acceptable. In fact, with plots that are falling into a state of disrepair, a higher level of maintenance would emphasise this while a lower level would soften the edges and absorb the blemishes. However, a lower level of maintenance to public monuments or sweeping areas of mown grass is immediately apparent and detracts markedly from the feeling of care and attention we would expect in such places.

Policy

Vegetation work programmes will recognise and provide for the special character of the cemetery, through the application of appropriate levels of maintenance.

6.8 Disaster

Commentary

The cemetery is vulnerable to various forms of natural disaster – flooding, high winds, fire and earthquake for example.

Policy

The risk of damage posed by these events will be analysed, and where possible, action will be taken to eliminate or minimise the damage that might be caused by such events.

6.9 Approved use

Commentary

It is envisaged that the Karori Cemetery will continue to be used for interments for some time yet but a new use will have to be established to complement this long term traditional use (which is declining). The most appropriate use appears to be that as an historical park, and this concept has been provisionally endorsed by council staff. As described to the authors of this plan, the park concept would involve the transition in management from a cemetery (still occasionally in use for interments) to a place actively promoted for its high historical and recreational values, used both by visitors to the graves and the general public. Some aspects of how this historical park could be managed and developed should be the subject of a separate plan. This change of use is endorsed by the authors of the plan.

In facilitating this new use, the ongoing functions of cremation and burial, along with increased visitor enjoyment of the place, should be balanced with the need to conserve the heritage values of the cemetery. In fact, conservation aims are seen by the authors as complementary to the various functions mentioned.

Policy

Karori Cemetery will be used in a way that is viable whilst balancing a respect for heritage values.

6.10 Skills

Commentary

Karori Cemetery is a place where a range of skills can be used in the care and maintenance of heritage fabric, but in some cases conservation planning and work will require special skills.

Policy

Where the relevant conservation skills are available within the Wellington City Council, they may be utilised. Otherwise suitable outside specialists will need to be engaged. The skills of special relevance to this project are monumental masonry (or stone masonry), various building trade skills, and material conservation skills such as those associated with stained glass, wrought iron and timber.

While stone masons will be required for some of the specialist maintenance and repair work of graves, volunteers and private owners will be able to, and should be encouraged to, carry out much of the regular maintenance required, such as weeding, vegetation control and basic cleaning following maintenance guidelines.

6.11 Visitor facilities

Commentary

The establishment of an historical park implies a greater degree of interaction with the public on many levels and a range of new visitor facilities could be considered.

Policy

Any new visitor facilities should be designed to maximise the quality of the visitor experience, while avoiding any adverse impacts on the place. New structures should be designed to fit comfortably within and enhance the general environment, be placed in appropriate locations and be the minimum necessary.

6.12 Interpretation

Commentary

With the gradual introduction of the historical park concept, interpretation will assume a far greater importance in visitor management. To acknowledge the change of use, the cemetery's name should also change.

Policy

Future interpretation of this place will be designed to maximise the quality of visitor understanding, enjoyment and support. This in turn will encourage visitors to respect the place and enhance the quality and effectiveness of maintenance.

7.0 Work recommendations

7.1 Statutory obligations

Burial and Cremation Act 1964

All work relating to the use of the cemetery for burial purposes must comply with the provisions of the Burial and Cremation Act.

Historic Places Act 1993

As the Karori Cemetery contains burials that predate 1900 it is an archaeological site as defined by the HPA and is subject to the provisions of that Act. Advice should be sought from the New Zealand Historic Places Trust about the legal requirements for any work that involves ground disturbance, except that associated with the normal use of the cemetery or regular maintenance as identified in this Plan.

Resource Management Act 1991

WCC operative district plan rules will apply to alterations and additions to the heritage buildings in the cemetery.

Building Act 1991

All alteration and building work must comply with the relevant provisions of the Building Act.

Reserves Act 1977

A plan of management should be written and be approved by the Department of Conservation before it can be formally adopted.

For more detail on the relevance of these acts, see section 1.4 of this plan.

7.2 Statutory identification and protection

It is recommended:

- THAT the Karori Cemetery (in its entirety) be proposed for registration as a Category I Historic Place in the NZ Historic Places Trust Register / Rarangi Taonga.
- THAT the Karori Cemetery (in its entirety) be included in the Wellington City Council Heritage Building Inventory, and be listed as an historic area on the District Plan.
- THAT two buildings in the cemetery the Main Chapel and the Servicemen's Arch be fully researched and included in the Wellington City Council Heritage Building Inventory. Subject to a detailed assessment, these two buildings should be listed on the District Plan.

THAT the two columbaria (adjacent to the crematorium and old chapel) be fully researched and included in the Wellington City Council Heritage Building Inventory. Subject to a detailed assessment, the columbaria should be listed on the District Plan.

7.3 Recommended maintenance and repair work programme

It is recommended :

THAT Maintenance Plans be developed for all buildings, but with special attention paid to the maintenance requirements of the historic buildings :

Lychgate Chapel and Crematorium Columbaria (alongside and behind Chapel) Mortuary Chapel Main Chapel Servicemen's Arch

- The plans should set out maintenance work over a 10 year period, specify appropriate repair materials and methods, and set standards for the work.
- THAT where not already installed, an early warning detection system and / or an automatic sprinkler system be installed in the cemetery's historic buildings.
- THAT certain restoration works be considered for the historic buildings. These works would be identified during the preparation of the Maintenance Plans (see above), and would include such things as :

Re-roofing the Lychgate with original material (presumed to be Marseille tiles, but this is subject to research). Restoring the Mortuary Chapel to its original function as a shelter and resting place.

Such work is to be carried out according to District Plan heritage rules.

- THAT Council encourage owners to undertake maintenance and repair by such means as preparing Repair Specifications and Maintenance Guidelines (see below), and aiding work by clearing surrounds and access ways.
- THAT a set of Repair Specifications and Maintenance Guidelines be prepared for the use of those undertaking the maintenance and repair of graves and vaults. Such specifications and guidelines would aim to maintain the character and fabric of the graves; where missing, to replicate materials, details, textures and colours as closely as possible to the original, and generally to maintain the integrity of the original design. A list of monumental masons and other craftspeople knowledgeable about materials conservation could be kept to aid those wishing to repair graves.

- THAT where graves are in particularly poor condition such that general guidelines do not suffice, the Council make available expert advice to guide repair work.
- THAT general levels of grave restoration and maintenance in the various landscape units (see Landscape Character in 6.2) be introduced and maintained in the manner described in section 7.5 General management.

7.4 Vegetation management

Overall the vegetation management of Karori Cemetery is carried out, systematically and well. Landscape Units referred to in the discussion below are shown in Figure 21 (page 39). Recently, increased attention has been paid to selectively thinning and pruning ornamental plants within and between plots. Herbaceous planting has greatly enhanced the main spinal road where it flanks unit 8.

Clearly, the effective management of vegetation – in all its forms – should be the primary focus in the conservation of Karori Cemetery. In all cases the management of vegetation involves its removal – either partial or total – the degree based on the levels of intervention proposed. After all, it is only when this is done that the true condition of the graves themselves would be revealed as a pre-requisite for their assessment for restoration or repair in terms of the assessment criteria proposed.

Allowing the 'reversion' of former asphalt aisles to mown grass is a positive move and the construction of low retaining and facing walls to stabilise and screen difficult-to-maintain and eroding clay banks is, likewise, a very positive, practical and attractive solution.

As one moves progressively north along the eastern boundary, the level of management declines.

The stream corridor is neglected but has very real potential as a walkway which already exists over some sections.

Unit 2 is the most neglected part of the cemetery due, no doubt, to its location, the fact that it is the lowest part of the cemetery; its remoteness – perceived and actual – the fact that it 'falls away' to a boundary and another land use (active recreation); and the fact it is effectively screened and hidden from both within and without.

Obviously, in the past, quite major planting endeavours have been carried out – some with variable success. Therefore, not all plants have established successfully for a variety of reasons; some obvious, some obscure. The alders forming the avenue along the main spinal road is an example of successful planting in both design and horticultural terms. The failure of the karaka avenues within the serviceperson's area is in stark contrast to this. It may be a question of plant choice because karaka tend to grow naturally in free-draining, sandy or rocky soils in coastal situations, although they are not limited to the coast. Characteristically they also grow in clumps and this affords mutual protection. An avenue in an open, formal and "cultural" situation runs counter to this.

It is recommended :

- THAT the selection of all plants, and trees in particular, be given careful consideration based on their natural habitat. For instance, altitudinal range, proximity to coast, soil type/drainage preference, acidity or alkalinity, hardiness (wind and temperature) anticipated size when mature, stability (wind-throw, shedding of limbs) the latter 2 factors applying to trees.
- THAT a visual survey of trees growing within the cemetery and in the immediate surrounding neighbourhood be undertaken and systematically recorded as a guide to suitability.

THAT the following practices be continued:

- Allowing aisles to 'revert' to mown grass.
- Planting carefully selected, predominantly smaller scale ornamental plants within plots that are conducive to this treatment.
- Selectively removing and pruning unsuitable and misshapen or 'out-of-scale' plants within plots.
- THAT consideration be given to the use of low-reflectivity concrete mowing strips at the interface between plots and grassed aisles to facilitate mowing and to avoid conspicuously rank grass/ weed growth along this notoriously difficult-to-maintain situation usually requiring a weed-eater.
- THAT in situations where erosion and stormwater runoff control is required, the preceding is widened and re-profiled as a v- or dished channel to collect and dispose of stormwater to an appropriate piped inlet, sump or dispersal point.
- THAT the programme of constructing low facing/retaining walls to stabilise and face clay banks be continued, using appropriate materials to forge a sense of unity between walls. Currently there is quite a disparate range of materials used.
- THAT the 'hidden' graves in unit 17 be carefully revealed as far as practicable and, when this is done, the slope be regraded to remove irregularities and make it more amenable to mowing. Selected small-scale ornamental planting within and between plots can be introduced as appropriate.
- THAT work towards achieving a management regime in units 1, 2 and 3 of the same standard as that of unit 4 is programmed. This would involve:
 - Removal of all accumulated rubbish and litter.
 - Selective thinning of canopy trees where they are crowded or where they are mechanically rupturing graves through bole and root expansion.
 - Selective pruning of canopy trees where branches cross, chafe or inhibit access and visibility.
 - Selective removal of emerging and invasive understorey plants; removing invasive exotic plants as a first priority and then assessing the worth of the native plants remaining prior to their removal.

THAT levels of vegetation management in landscape units be progressively introduced in the manner described in section 7.5 General management.

7.5 General management regimes in landscape units

In a very general sense, the most significant area historically is that surrounding the Mortuary Chapel. In the immediate environs are the earliest public, Jewish, Anglican and Catholic graves. Some of the most visually interesting graves can be found in this area too. A particular emphasis should be placed on this area but it must be recognised that not every grave in this area can, or should, get special treatment and that many other areas contain graves of significance. Criteria for assessing significance of graves is provided in section 6.4.

Another key area for special treatment should be main arterial routes i.e. roads intended for cars as well as any other thoroughfares deemed significant. Graves should be cleared, restored and managed along these routes so that the 'shop front' looks its best. This approach would overlay landscape unit management as described below.

Services graves are managed in a particular way and with the strong input of the relevant government departments – Ministry for Culture and Heritage and Veterans' Affairs (New Zealand Defence Force).

Management regimes for each landscape units is provided in Table 1.

Unit	Vegetation Management Level	Grave Management Level
1	2	3
2	1	3
3	2	2/3
4	3	2
5	Not applicable	Not applicable
6	4	4
7	4	4
8	3	1
9	4	4
10	3	1 / 2
11	2	2
12	3	2
13	4	4
14	3	2
15	3	2
16	3	3
17	Not applicable	3
18	3	3
19	Not applicable	Not applicable

Table 1:Management Regimes in Landscape Units
Grave Managemnt Levels:

- Level 1 full or largely complete restoration of graves, very sparingly used
- *Level 2* repair of obvious broken features such as tombstones, statuary or fences, but no intensive restoration or general repair of surrounds
- *Level 3* no repair but basic clearing and cleaning e.g. removal of forest litter, general vegetation management as outlined below
- *Level 4* special places such as the Services Cemetery, lawn cemetery with specific maintenance issues.

Vegetation Management Levels

Notes:

(i) Removal of weed growth is assumed with all levels of intervention.

(ii) Removal of all trees and shrubs, from aisles and paths within Levels 1) 2) and 3) is assumed <u>other</u> than specific plants which make a contribution to environmental quality and do not hinder access and maintenance and will not damage the graves because, typically, such plants would be growing in the interface between grave and aisle/path under tight spatial constraints.

Level 1

- removal of all trees physically damaging graves
- substantial thinning and/or pruning of canopy
- removal of a substantial number (in the order of 50-75%) of smaller trees and shrubs from within and between graves
- shaping the remaining small trees and shrubs to enhance eye-level visibility

Level 2

- removal of all trees physically damaging graves
- removal of a lesser number (in the order of 25-50%) of smaller trees and shrubs from within and between graves
- lesser thinning and/or pruning of canopy
- shaping as in level 1 <u>as</u> required

Level 3

- removal of all trees physically damaging graves
- removal of up to 25% of smaller trees and shrubs from within and between graves
- shaping as in Level 1 if required.

Level 4

On a plant-by-plant basis following evaluation as to its contribution to environmental quality and anticipated longevity to meet specific requirements, for the serviceperson's area, rose garden, lawn cemetery, miscellaneous lawn areas and road corridor, in terms of:

- removal or transplanting to accommodate development or change
- potential windthrow danger
- de-stabilising slopes due to wind-heave and resulting root disturbance
- safety e.g. sight distances, if pruning is not an option.

7.6 Future tree planting

A discerning choice will need to be made about the planting of trees in future: why, where and what.

It is recommended:

THAT a tree-planting strategy be developed to guide furture plantings. It should consider:

- Location and purpose (design underpinning)
- Whether new (additional) or replacement trees are used
- Species and reasons for selection
- Specific arboricultural requirements if any

And also address particular issues:

- The main entry, which is now somewhat nondescript and dominated by the adjacent Karori Fire Station building
- Replacing the drifts of distinctive pines at the northern end of the cemetery in particular, some of which were planted in the 1890s
- Introducing an open pattern of indigenous planting into Landscape Unit 15 to meld the vegetated hillside to the north more effectively with the cemetery
- Introducing an open woodland theme to Landscape Unit 17 with deciduous trees and possibly spring bulbs in the infrequently-mown grass sward, to further reinforce seasonal change.

7.7 Visitor facilities

It is recommended :

- THAT a new toilet block be built, one that is more visible and more easily accessible than the present one below the Rose Garden. Such a facility could possibly be associated with the Office.
- THAT other visitor facilities be investigated, designed and built. These might include many more directional signs, more seats (for rest and appreciation of important views) and drinking fountains.
- THAT means of improving access be investigated and built. Improvements might be effected by such means as building handrails alongside flights of steps or on steep slopes, improving surface finishes, and providing alternatives by means such as ramps in addition to flights of steps. This recommendation applies to the buildings as well as the open spaces of the cemetery.

7.8 Interpretation

It is recommended :

- THAT the name of the Karori Cemetery be changed to Karori Cemetery Historical Park or Karori Cemetery Heritage Park or a similar title.
- THAT a range of interpretative material is produced to provide information for visitors, educational groups and the community about the significant aspects of the cemetery.

The following types of material are suggested:

Leaflets

Thematic handouts on the cemetery's history, sculpture, funerary monuments, ecology, significant people etc. should be prepared and supplied to visitors and made available for other public requests for information. Leaflets oriented specifically to children's interests should also be prepared.

History of the Cemetery

There is little doubt the cemetery has a wonderful story to tell. A book on the history of the cemetery would greatly improve the visitor experience and would have a captive market, in the form of all the visitors who use the office for information and directions. This could augmented by a slimmer coffee table book on decorative features of the cemetery.

Interpretation panels

Interpretation panels should be placed at key focal and vantage points. Some suggestions include; the Services Cemetery, Vaults/Mortuary Chapel, Lawn Cemetery loop road overlooking cemetery, Fraser Memorial, eastern public block. There are many other possibilities.

Audio tapes

A self guided walk based on commentaries delivered at key nodes. With the addition of good directional signs this could be popular with the more motivated visitor. It could only be offered when the office is open.

Exhibition

Should room ever become available, a small part of the office could be turned over to an exhibition area detailing the history, grave types, historic buildings, ecology etc. of the cemetery. This could be a permanent or changing display. Again it could probably only be offered when the office is open.

Promotional ephemera

Interpretation could also take the form of small, promotional ephemera such as posters and postcards that provide illustrated information to visitors and for other public enquiries.

Visual representation

A well designed logo, encapsulating an important aspect(s) of the heritage values of the cemetery, be designed and used on all promotional material.

7.9 Further research

Karori Cemetery's sheer size, 110 years of history and remarkably comprehensive records mean that it has simply been impossible to do justice to the information available on the cemetery in the time available. Just a fraction of the hundreds of correspondence files were able to be perused, and many other sources had to be ignored for the sake of completing the plan within the budget and time constraints. Approximately 100 of the most obvious and productive files were given a priority and of those, it was possible to examine no more than 30.

With more time it would have been desirable to extend the search in different directions. In no particular order they are:

- 1) The remainder of the 100 most pertinent files, with the addition of more if possible. (WCC Archives)
- 2) Karori Cemetery records: The cemetery passed a great deal of information to WCC Archives in 2000 and 2001 and this material will almost certainly contain much of interest and relevance. It was not possible to view any of this material.
- 3) Early correspondence files. These are arranged in individual letters and can only be found through time consuming searches in registers. Only the period 1888-1902 could be covered. The period 1902-1927 remains largely untouched. (WCC Archives)
- 4) Wellington City Council minute books. These were not viewed at all but will be a key sourceof information. (WCC Archives)
- 5) More photographic, map and plan research at Wellington City Archives and elsewhere.

6) The history of the land occupied by the cemetery before its purchase in 1891.THAT consideration is given to further research opportunities about the history, development and use of the cemetery as outlined above.

7.10 Documentation of work

It is recommended:

THAT conservation work undertaken by the council at the cemetery is documented, including any invasive work to determine work needs and priorities. Any place being worked on should be fully photographed before work begins and all work documented in writing, and photographed. Any subsequent remedial work should be similarly documented. Thought should be given to video recording particularly significant aspects of restoration, both for documentation purposes and for publicity should it be required.

7.11 Security

As public appreciation of the cemetery grows it is anticipated that vandalism will diminish but the threat is likely to always be a management issue.

It is recommended:

THAT the on-going threat of vandalism be ameliorated by greater lighting, more frequent visits by security services, fencing easily accessible parts of the cemetery, and encouraging local residents to be alert to disturbances at night.

Notes

¹Alington M. 1978, *Unquiet Earth: A History of the Bolton Street Cemetery*, Wellington City Council / Ministry of Works and Development, Wellington p.77, pp.81-82

² Alington pp.85-88

³ 00233:33:1889/?, James Mackenzie to Town Clerk, 9 December 1889, WCC Archives

⁴ Alington p.88

⁵ 00233:22:1890/234, James Mackenzie to Town Clerk WCC, 17 February 1890, WCC Archives
 ⁶ 00233:27:1890/407, James Mackenzie to Town Clerk, WCC 3 March 1890, WCC Archives
 ⁷ 00233:34:1892/314, Town Clerk, Melrose Borough Council to Town Clerk, WCC, 2 March 1892, WCC Archives

⁸ Irvine-Smith F.L. 1948, *The Streets of my City*, A.H and A.W. Reed, Wellington p.225
 ⁹ 00233:30:1891/154, City Solicitor to Town Clerk, 5 February 1891, WCC Archives

¹⁰ Section 74, Cemeteries Act, 1882

¹¹ Alington p.97

¹² Church of England 1, Burial Index / Card Index, Karori Cemetery records. The same source provided the first Catholic burial date.

¹³ WCC Minute Book, 18 September 1891

¹⁴ 00233:34:1892/774, Rev. Coffey to Town Clerk, WCC Archives.

¹⁵ Ibid.

¹⁶ History of Mortuary Chapel taken largely from Alington M. 1991, "Mortuary Chapel, Karori Cemetery",

prepared for WCC

¹⁷ Sexton's Notebook and Diary 1929-1939, Karori Cemetery records

¹⁸ 00001:453:7/25 Pt 1, Cemetery Karori (General), 1927-1935, WCC Archives. Memo to Town Clerk,

3 May 1928

¹⁹ 00001:453:7/25 Pt 1, Cemetery Karori (General), 1927-1935, WCC Archives. City Solicitor to Town

Clerk 19 May 1928.

²⁰ Ibid.

²¹ Pers. comm. Greg Glen, Sexton, Karori. Specific references to the practice are very difficult to find in

correspondence files.

²² Ibid. Pt. 2 1935-1940. Karori Progressive Association to Town Clerk, 19 May 1937.

²³ Ibid. Memo to Town Clerk, 19 May 1937.

²⁴ Dominion 12 October 1944

²⁵ 00063:20:1945/63, Standen Street: Cemetery: Bylaw (Extension Karori Cemetery) (TC File 5/ 48)

²⁶ Dominion 14 January 1949

²⁷ Ibid.

²⁸ Ibid. n.d. but presumably 1944.

²⁹ 0001:451:7/5/7, Cemetery: Karori: Crematorium Chapel: Garden of Remembrance, 1929-75. See

booklet on file.

³⁰ 00001:453:7/25 Pt 8, Cemetery Karori (General), 1973-1982, WCC Archives. Wilton Residents'

Association to Town Clerk, 8 July 1974.

- ³¹ Ibid. Memo from Director of Parks and Reserves (Galloway), 1 September 1975.
- ³² Ibid. Pt.9. Director Parks and Recreation to Town Clerk, 26 August 1988.
- ³³ Ibid. Mausoleum Sub-Committee to City Secretary, 26 March 1990.
- ³⁴ 00001:453:7/25 Pt 7, Cemetery: Karori (General) 1969-1972, WCC Archives. R. Lee to Town Clerk, 3 February 1969
- ³⁵ Dominion 24 March 1950
- ³⁶ 00001:453:7/25 Pt 2, Cemetery Karori (General), 1935-40, WCC Archives. Beautifying Society to Town Clerk, 21 December 1935.
- ³⁷ 00001:454:7/26 Pt 1, Cemetery: Karori Trees, 1927-1950, WCC Archives. Report of Cemeteries Committee, August 1938.
- ³⁸ Ibid. Sexton to Cemeteries Committee, 1 September 1938. Note the large number of misspellings.
- ³⁹ Ibid. 11 June 1948. Prepared presumably by sexton. Again, note the large number of misspellings.
- ⁴⁰ Dominion 1 March 1972
- ⁴¹ 0001:450:7/5/2 Cemetery: Karori: Crematorium Chapel (General) Pt.1, WCC Archives. Memo to Chairman, Cemeteries Committee, 29 January 1947
- ⁴² Ibid. 13 December 1966.
- ⁴³ 0009:266:7/2/1 Pt.1, Columbarium Karori Cemetery, City Engineer's Department, 4 March 1935
- ⁴⁴ Ibid. 17 September 1937, Memo to City Engineer.
- ⁴⁵ Ibid. 13 July 1939.
- ⁴⁶ Ibid. 19 October 1949.
- ⁴⁷ Ibid. 17 July 1949.
- ⁴⁸ Ibid. 6 May 1954.
- ⁴⁹ Ibid. 1 October 1962.
- ⁵⁰ More precise date required.

Sources

Secondary sources

Alington M. 1978, *Unquiet Earth: A History of the Bolton Street Cemetery*, Wellington City Council / Ministry of Works and Development Irvine-Smith F.L. 1948, *The Streets of my City*, A.H and A.W. Reed, Wellington Wellington Heritage Building Inventory 2001, Non-Residential Buildings and Precincts

Primary sources

Wellington City Archives

Early correspondence registers (see relevant footnote for details) WCC Minute Books (various – see relevant footnote for details) Correspondence files: 00001:453:7/25 Pts. 1-9, Cemetery Karori (General), 1927-1935, 1935-1940, 1940-1948, 1948-1958, 1959-1962, 1946-1968, 1969-1972, 1973-1982, 1982-1994 00063:20:1945/63, Standen Street: Cemetery: Bylaw (Extension Karori Cemetery) (TC File 5/48) 0001:451:7/5/7, Cemetery: Karori: Crematorium Chapel: Garden of Remembrance, 1929-75 00001:454:7/26 Pt 1, Cemetery: Karori – Trees, 1927-1950 0001:450:7/5/2 Cemetery: Karori: Crematorium Chapel (General) Pt.1-3, 1924-60, 1960-64, 1965-1987 0009:266:7/2/1 Pt.1, Columbarium – Karori Cemetery, City Engineer's Department, 4 March 1935

<u>Karori Cemetery</u> Burial Registers - Card Index Sexton's Diary, 1929-1939

<u>Newspapers</u> Dominion 12 October 1944, 14 January 1949, 24 March 1950, 1 March 1972

<u>Oral sources</u> Greg Glenn, Sexton Andy King, Operations Manager

Other Cemeteries Act 1882 Alington M. 1991, "Mortuary Chapel, Karori Cemetery", prepared for WCC

Appendix I: Heritage Inventory Sheets



Old Karori Road Crematorium and Chapel

History

Cremation has been a custom of some cultures for centuries, but has only been used relatively recently in New Zealand. At the beginning of the twentieth century cremation was becoming increasingly common in England and the idea soon spread to New Zealand.1 The Karori Crematorium, built in 1909, is thought to be the first such facility in the Southern Hemisphere.² The building was designed by John Sydney Swan and constructed by J. Priddey.⁹ It cost £1433, more than half of which was provided by public subscription.4 This suggests that there was keen public interest in the new facility. Its most prominent external feature was a 50 foot chimney that towered above the building.

The crematorium used the latest English equipment as recommended by the London Crematorium Society. A cokefired furnace, made by the Carbon-Oxide Company, produced temperatures in excess of 1500 degrees Fahrenheit. Soon after its installation it was reported that "forty eight cremations have taken place and the efficiency of the furnace has been thoroughly and satisfactorily demonstrated."3 It may have been this innovative equipment that first attracted the interest of Wellington engineer William Ferguson. Between 1914 and 1939 he and his family donated a series of six stained-glass windows to the chapel. Each was dedicated to the memory of a family member, except Gethremane which is a memorial to James MacRae and Percival Parr. The windows were made in Dublin, by the An Tur Gloire Studio, where the engineer had spent his student years. In 1990 another window was installed, recalling the death of John Butt at Sidi Rezegh in Libya during the Second World War.

In 1959 a new larger chapel was built just to the north of the crematorium. But cremation still occurs in the original building. At the end of a service in the new chapel the coffin vanishes behind curtains and then is transported via a 35 metre long underground tunnel to the original furnace. Nowadays the flames are fed by gas, rather than coke, but otherwise the equipment remains the same. The only significant alteration occurred in 1968 when the huge chimney was reduced to half its size.

Description

The crematorium and chapel building at the Karori Cemetery has a timeless quality about it - the beickwork of the walls is covered in ivy, and the Marseille clay tiles of the roof are covered in lichen. This is no doubt a quality sought by the architect, John Sydney Swan. In giving the building as much a domestic as a church character, he was perhaps making it approachable to people of all faiths or of no faith.

The chapel forms the front part of the building. It has a steep-pitched gable roof with a symmetrical facade of central doorway and window on either side. The doorway has an arched tympanum above, with the date 1909 inscribed in plaster. Horizontal plaster bands relieve the plain, but extremely well-built brickwork, while the side walls are buttressed, with round-headed window openings between the buttresses. These contain the six stained-glass windows mentioned above.

The middle part of the building, with a lowered but matching roof, contains the original incinerating chamber made by the Carbon Oxide Company of London. The back part of the building, with a roof line matching that of the chapel, contains the modern chamber, and it has a square brick chimney of similar height to the original one. This later addition (of 1938) matches the earlier part in materials and detailing. There are niches for ashes both within the chapel and in walls beside and behind it. Trees and lawns also contribute to the setting which is appropriate for the special purpose served by this building.

References

- 1. The New Encyclopedia Britannica Vol.3, 1989, University of Chicago p.726
- NZHPT Building Record Form 1399
- 3. On cit.
- 4. Municipal Handbook, Provincial District of Wellington, 1909 p.68
- 5 Ibid.

Last Updated: 5/98 CC/CM Photograph number: 185

OLDK 1 WELLINGTON CITY COUNCIL HERITAGE BUILDING INVENTORY 2001

Old Karori Road



Architect: Not known
Date of Construction: 1921
Material: Stone and timber

NZHPT Register: District Plan: Legal Description:

Category II reference 1400 Map 14 reference 164/2 Karori Cemetery, Pt A316 Lot 3 DP 3647 12348 etc

Statement of Significance

Built in 1921 and bearing the inscription, "Peace with Honour", the Karori Cemetery lychgate has historic significance as a war memorial. It forms the entrance to a large open area with the headstones of war dead, making it a place of great symbolic and commemorative value to a large part of the community. It provides shelter and a place to sit in meditation.

The lychgate has **aesthetic** value as it remains prominently sited alongside the main thoroughfare of the cemetery, a good example of half-timbered construction. It is **technically** interesting for its exposed timber frame, neatly jointed in an Arts and Crafts manner, and it is authentic but for the roof sheathing which has been replaced with modern pressed metal tiles.

Old Karori Road Lychgate

History

In the years immediately following the First World War, memorials were erected throughout New Zealand to honour those who were killed.1 Most were sited in prominent places such as town centres or crossroads but memorials were also built in many cemeteries because the bodies of some of those who died were returned to New Zealand. Later, as the surviving servicemen (and women) aged and died, they were buried in special sections of cemeteries reserved for them.

The lychgate at Karori Cemetery is a typical example of this type of war memorial. It was built in 1921 and bears the inscription "Peace with Honour." It was intended to be a shelter as well as the formal entrance to an extensive memorial garden that includes a number of diverse monuments. To the north of the lychgate is a large marble archway in memory of members of the New Zealand Expeditionary Force from Wellington who died and were buried at sea between New Zealand and overseas bases. To the east is a sundial commemorating Colonel Matthew Holmes and to the south lie a set of marble steps "in memory of those who fought and fell in defence of the world's peace" erected by the Women's National Reserve, Girls' Branch. Nearby is a memorial cherry tree, planted by members of the US Navy, and a memorial kauri,1

During the past 70 years the prominence of these memorials has diminished as trees in the vicinity have grown up and the lawns have gradually been filled with semi-circular lines of uniform military headstones. Only the lychgate retains its original prominence.

Description

The lychgate is a small structure, 3.0 x 2.7 metres in plan, built carefully with several distinct building materials. The foundation is concrete. The lower part of the walls are limestone blocks supporting an open structure of large section timber posts, and the roof is timber framed with shaped rafters and modern Decramastic tiling as sheathing. The gables at either end are half-timbered with stucco infill panels between the timber. The structure is open on the cemetery side, with a gate on the road (west) side, and there is a seat on either side under the shelter of the roof.

The half-timbering in the gables mark the structure as Elizabethan in style. There is an Arts and Crafts influence in the timberwork, with posts and beams held together with timber dowels, and wedged joints between the top plates and the gable barge boards. It is in relatively original condition with the only apparent change being the modern roofing material (the original was possibly clay pantiles). The top parts of the roof finials at each gable end may have been removed when the roof was replaced.

The structure has a prominent location on a rise alongside the main driveway into the cemetery.

References

1. Maclean, Chris, and Phillips, Jock, The Sorrow and the Pride - New Zealand War Memorials, G.P Books, 1990, p 69-111.

2. "Karori Cemetery", Karori Historical Society, 1983.

Last Updated: 5/98 CC/CM/MB Photograph number: 186



Old Karori Road Jewish Chapel

History

Wellington's 19th-century cemeteries reflect the city's growth from a small harbourside settlement to suburbs. This charming colonial icon is a reminder of that growth and the increasingly diverse composition of the capital's population.

The first cemeteries were established on high ground behind the town soon after the immigrants arrived. In 1842 two sites were set aside. A public cernetery of 18 acres between Bolton and Sydney Streets was designated with specific areas allocated to a variety of religious denominations based on their proportion of the population (as indicated by the inaugural census). A second, smaller, area on a hill above the Terrace was allocated for Catholic burials. This was known as the Mount Street Cemetery.1 Within 50 years, however, both were full so a new cemetery - for all faiths - was laid out at Karori. A photograph, taken at the time, shows a bleak windswept expanse devoid of trees except for a receding line of native forest on a ridge behind the surrounding farmland.² Given the exposed location of the new cemetery it is not surprising that a small building was soon erected to provide shelter for mourners and visitors in inclement weather.

The Karori Cemetery opened in 1891.3 The chapel is featured in the photograph previously mentioned (apparently taken in 1896), but another source suggests it was built in 1902.4 Regardless, it is clear that the small shelter was the centrepiece of the cemetery. A number of paths radiated out from the chapel like the spokes of a wheel. As the burial ground grew specific precincts developed, reflecting the city's increasing ethnic diversity. The Chinese section lay to the south east while the Jewish area was immediately adjacent to the chapel. Because of this proximity the building became known as the Jewish Chapel or Prayer House although it was open to use by all denominations. In the early 1950s the Wellington Hebrew congregation took responsibility for the upkeep of the structure which accentuated their association with it.3 They maintained it for some years. Nevertheless, the Jewish Chapel began to show signs of age and in 1977 the City Council decided to restore it at a cost of \$2500.*

The chapel still stands today but in the century since it was built its environment has changed. The cemetery's originally bleak outlook is now softened by trees and the small shelter is encircled by mature pohutukawa which all but obscure it from view. Its previous prominence has been further diminished by a number of other structures built nearby - in particular a number of mausoleums, some almost as big as the shelter, the crematorium and chapel (1909) and the larger chapel (1959) on the crest of a hill close by.

Description

The Jewish Chapel has the plan form of a Greek cross, with the inner corners splayed at 45°. One arm of the cross has a pair of double doors with trefoil decorations on each side, while the other arms each have two lancet windows contained within a larger Gothic pointed frame. Each arm of the cross has a gable roof with decorated barge boards, and the crossing is surmounted by a square turret set at 45° to the main axes of the building, so that the chapel has an intricacy of form and geometric shapes that belies its small size.

Materials are timber framing, rusticated weatherboards with corner boards, and corrugated iron roof. Each arm of the building is 2.2 metres wide with an overall footprint of some 5.8 metres square.

The building has survived relatively unchanged from the time of construction; early photos show a cross surmounting each gable that is no longer there, and clear glass in place of the present frosted glass. The setting of the chapel has changed dramatically, with mature pohutukawa trees now surrounding it but it is still seen through the trees and is a focal point in this part of the cemetery.

References

- 1. Ward, L.E., 1928, Early Wellington, Whitcombe and Tombs, Wellington, p 371, 372.
- 2. Fearnley, C., 1977, Early Wellington Churches, Millwood Press, Wellington, p 216, 217,
- 3. Ward, op.cit., p 241.
- 4. "Karori Cemetery Some Points of Interest". Karori Historical Society, 1983, p 2, No 7.
- 5. New Zealand Historic Places Trust, Buildings Field Record Forum No 1362, 1981.
- 6. Norwester, 2 August 1977.

Last Updated: 5/98 MB/CM/CC Photograph number: 187

OLDK 3 WELLINGTON CITY COUNCIL HERITAGE BUILDING INVENTORY 2001

Appendix II: ICOMOS New Zealand Charter

ICOMOS NEW ZEALAND CHARTER FOR THE CONSERVATION OF PLACES OF CULTURAL HERITAGE VALUE

Preamble

New Zealand retains a unique assemblage of places of cultural heritage value relating to its indigenous and its more recent peoples. These areas, landscapes and features, buildings, structures and gardens, archaeological and traditional sites, and sacred places and monuments are treasures of distinctive value. New Zealand shares a general responsibility with the rest of humanity to safeguard its cultural heritage for present and future generations. More specifically, New Zealand peoples have particular ways of perceiving, conserving and relating to their cultural heritage.

Following the spirit of the International Charter for the Conservation and Restoration of Monuments and Sites (the Venice Charter 1966), this charter sets our principles to guide the conservation of places of cultural heritage value in New Zealand. It is intended as a frame of reference for all those who, as owners, territorial authorities, tradespersons or professionals, are involved in the different aspects of such work. It aims to provide guidelines for community leaders, organisations and individuals concerned with conservation issues. It is a statement of professional practice for members of ICOMOS New Zealand.

Each section of the charter should be read in the light of all the others. Definitions of terms used are provided in section 22.

Accordingly this charter has been adopted by the New Zealand National Committee of the International Council on Monuments and Sites at its Annual General Meeting on 4 October 1992.

1. The Purpose of Conservation

The purpose of conservation is to care for places of cultural heritage value, their structures, materials and cultural meaning. In general, such places:

- i. have lasting values and can be appreciated in their own right;
- ii. teach us about the past and the culture of those who came before us;
- iii. provide the context for community identity whereby people relate to the land and to those who have gone before;
- iv. provide variety and contrast in the modern world and a measure against which we can compare the achievements of today; and
- v. provide visible evidence of the continuity between past, present and future.
- 2. Indigenous Cultural Heritage

The indigenous heritage of Maori and Moriori relates to family, local and tribal groups and associations. It is inseparable from identity and well-being and has particular cultural meanings.

The Treaty of Waitangi is the historical basis for indigenous guardianship. It recognises the indigenous people as exercising responsibility for their treasures, monuments and sacred places. This interest extends beyond current legal ownership wherever such heritage exists. Particular knowledge of heritage values is entrusted to chosen guardians. The conservation of places of indigenous cultural

heritage value therefore is conditional on decisions made in the indigenous community, and should proceed only in this context. Indigenous conservation precepts are fluid and take account of the continuity of life and the needs of the present as well as the responsibilities of guardianship and association with those who have gone before. In particular, protocols of access, authority and ritual are handled at a local level. General principles of ethics and social respect affirm that such protocols should be observed.

3. Conservation Practice

Appropriate conservation professionals should be involved in all aspects of conservation work. Indigenous methodologies should be applied as appropriate and may vary from place to place. Conservation results should be in keeping with their cultural content. All necessary consents and permits should be obtained.

Conservation projects should include the following:

- i. definition of the cultural heritage value of the place, which requires prior researching of any documentary and oral history, a detailed examination of the place, and the recording of its physical condition;
- ii. community consultation, continuing throughout a project as appropriate;
- iii. preparation of a plan which meets the conservation principles of this charter;
- iv. the implementation of any planned work; and
- v. the documentation of any research, recording and conservation work, as it proceeds.

GENERAL PRINCIPLES

4. Conservation Method

Conservation should:

- i. make use of all relevant conservation values, knowledge, disciplines, arts and crafts;
- ii. show the greatest respect for, and involve the least possible loss of, material of cultural heritage value;
- iii. involve the least degree of intervention consistent with long term care and the principles of this charter;
- iv. take into account the needs, abilities and resources of the particular communities; and
- v. be fully documented and recorded.

5. Respect for existing evidence

The evidence of time and the contributions of all periods should be respected in conservation. The material of a particular period may be obscured or removed if assessment shows that this would not diminish the cultural heritage value of the place. In these circumstances such material should be documented before it is obscured or removed.

6. Setting

The historical setting of a place should be conserved with the place itself. If the historical setting non longer exists, construction of a setting based on physical and documentary evidence should be the aim. The extent of the appropriate setting may be affected by constraints other than heritage value.

7. Risk Mitigation

All places of cultural heritage value should be assessed as to their potential risk from any natural process or event. Where a significant risk is determined, appropriate action to minimise the risk should be undertaken. Where appropriate, a risk mitigation plan should be prepared.

8. Relocation

The site of an historic structure is usually an integral part of its cultural heritage value. Relocation, however, can be a legitimate part of the conservation process where assessment shows that:

- i. the site is not of associated value (an exceptional circumstance); or
- ii. relocation is the only means of saving the structure; or
- iii. relocation provides continuity of cultural heritage value.

A new site should provide a setting compatible with cultural heritage value.

9. Invasive Investigation

Invasive investigation of a place can provide knowledge that is not likely to be gained from any other source. Archaeological or structural investigation can be justified where such evidence is about to be lost, or where knowledge may be significantly extended, or where it is necessary to establish the existence of material of cultural heritage value, or where it is necessary for conservation work. The examination should be carried out according to accepted scientific standards. Such investigation should leave the maximum amount of material undisturbed for study by future generations.

10. Contents

Where the contents of a place contribute to its cultural heritage value, they should be regarded as an integral part of the place and be conserved with it.

11. Works of Art and Special Fabric

Carving, painting, weaving, stained glass and other arts associated with a place should be considered integral with a place. Where it is necessary to carry out maintenance and repair of any such material, specialist conservation advice appropriate to the material should be sought.

12. Records

Records of the research and conservation of places of cultural heritage value should be placed in an appropriate archive. Some knowledge of place of indigenous heritage value is not a matter of public record, but is entrusted to guardians within the indigenous community.

CONSERVATION PROCESSES

13. Degrees of Intervention

Conservation may involve, in increasing extent of intervention: non-intervention, maintenance, stabilisation, repair, restoration, reconstruction or adaptation. Where appropriate, conservation processes may be applied to parts or components of a structure or site.

Re-creation, meaning the conjectural reconstruction of a place, and replication, meaning to make a copy of an existing place, are outside the scope of this charter.

14. Non-intervention

In some circumstances, assessment may show that any intervention is undesirable. In particular, undisturbed constancy of spiritual association may be more important than the physical aspects of some places of indigenous heritage value.

15. Maintenance

A place of cultural heritage value should be maintained regularly and according to a plan, except in circumstances where it may be appropriate for places to remain without intervention.

16. Stabilisation

Places of cultural heritage value should be protected from processes of decay, except where decay is appropriate to their value. Although deterioration cannot be totally prevented, it should be slowed by providing stabilisation or support.

17. Repair

Repair of material or of a site should be with original or similar materials. Repair of a technically higher standard than the original workmanship or materials may be justified where the life expectancy of the site or material is increased, the new material is compatible with the old and the cultural heritage value is not diminished. New material should be identifiable.

18. Restoration

Restoration should be based on respect for existing material and on the logical interpretation of all available evidence, so that the place is consistent with its earlier form and meaning. It should only be carried out if the cultural heritage value of the place is recovered or revealed by the process. The restoration process typically involves reassembly and reinstatement and may involve the removal of accretions.

19. Reconstruction

Reconstruction is distinguished from restoration by the introduction of additional materials where loss has occurred. Reconstruction may be appropriate if it is essential to the function or understanding of a place, if sufficient physical and documentary evidence exists to minimise conjecture, and if surviving heritage valued are preserved. Reconstruction should not normally constitute the majority of a place. Generalised representations of typical features or structures should be avoided.

20. Adaptation

The conservation of a place of cultural heritage value is usually facilitated by it serving a socially, culturally or economically useful purpose. In some cases, alterations and additions may be acceptable where they are essential to continued use, or where they are culturally desirable, or where the conservation of the place cannot otherwise be achieved. Any change, however, should be the minimum necessary and should not detract from the cultural heritage value of the place. Any conditions and alterations should be compatible with original fabric but should be sufficiently distinct that they can be read as new work.

21. Interpretation

Interpretation of a place may be appropriate if enhancement of public understanding is required. Relevant protocol should be complied with. Any interpretation should not compromise the values, appearance, structure or materials of a place, or intrude upon the experience of the place.

22. Definitions

For the purposes of this charter:

adaptation means modifying a place to suit it to a compatible use, involving the least possible loss of cultural heritage value

conservation means the processes of caring for a place so as to safeguard its cultural heritage value

cultural heritage value means possessing historical, archaeological, architectural, technological, aesthetic, scientific, spiritual, social, traditional or other special cultural significance, associated with human activity

maintenance means the protective care of a place

material means physical matter which is the product of human activity or has been modified by human activity

place means any land, including land covered by water, and the airspace forming the spatial context to such land, including any landscape, traditional site or sacred place, and anything fixed to the land including any archaeological site, garden, building or structure, and any body of water, whether fresh or seawater, that forms part of the historical and cultural heritage of New Zealand

preservation means maintaining a place with as little change as possible

reassembly (anastylosis) means putting existing but dismembered parts back together

reconstruction means to build again in the original form using old or new material

reinstatement means putting components of earlier material back in position

repair means making good decayed or damaged material

restoration means returning a place as nearly as possible to a known earlier state by reassembly, reinstatement and/or the removal of extraneous additions

stabilisation means the arrest of the processes of decay

structure means any building, equipment, device or other facility made by people and which is fixed to the land.

Appendix III: Maintenance guidelines and repair specifications - graves and vaults

1 Introduction

One of the recommendations included in Section 7 is:

THAT a set of Maintenance and Repair Guidelines be prepared for the use of those undertaking the maintenance and repair of graves and vaults. Such guidelines would aim to maintain the character and fabric of the graves; where missing, to replicate materials, details, textures and colours as closely as possible to the original, and generally to maintain the integrity of the original design. A list of monumental masons and other craftspeople knowledgeable about materials conservation could be kept to aid those wishing to repair graves.

2 Guidelines

2.1 "Pleasing decay" or in need of repairs?

The first issue to address when considering the maintenance or repair of a grave is how much work to do. One of the significant aesthetic attributes of the Karori Cemetery is the visible evidence of the passing of time, of age, and of patina. Maintenance and repair should aim to retain the patina of age where this does not conflict with the long life of the grave.

The decision to carry out work at all should be made by a group comprising people with technical expertise in repair, with an appreciation of the aesthetic qualities of the place, and with a knowledge of its history.

The decision to carry out work will be influenced by the answers to the following questions.

Will repair work:Slow deterioration of the grave?Significantly lengthen the life of the grave?Enhance the historical value of the grave and cemetery?Enhance the aesthetic value of the grave and cemetery?Enhance understanding and appreciation of the grave itself?

Positive answers to these questions will suggest a hierarchy of action in carrying out maintenance or repair work.

Cleaning is also something that needs to be considered in the context of repair. Cleaning may be necessary where excessive build up of dirt or growth is affecting the integrity of the material, where it is unsightly, or where it is obscuring important parts of the grave. Graffiti is another reason why cleaning of graves may be required.

Notes on cleaning are included in the section on Repair Materials.

2.2 Maintenance and repair philosophy

A repair philosophy, based on the ICOMOS Charter, has been outlined in Section 6.1 Appropriate Standards. This is repeated here, in modified and expanded form, with particular reference to the maintenance and repair of graves.

Carry out regular maintenance

Regular maintenance is essential to the long life of graves. If maintenance is not carried out on a planned basis, repairs become progressively more difficult and expensive, and fabric of heritage value can be lost, thus diminishing the significance of the grave. A well maintained grave will survive the effects of weathering and time better than one that is poorly maintained.

Repair rather than replace

When repairs are necessary, cut out and replace only decayed material. It is better to have fabric that is worn and carefully patched than modern replica material, however faithfully copied. This method of repair maintains the maximum amount of the original fabric, thus ensuring the authenticity of the grave.

Repair in compatible materials

In carrying out repairs, materials matching the original as closely as possible should generally be used if they are available. Work to a higher technical standard is good practice in some circumstances, for example, ground retention timber (treated H5) should be used for the replacement of timbers set in the ground.

Restore with care

Restoration of lost features should be carried out only if there is clear evidence of the original form and detail. Such evidence could come from original features found near the grave, simply needing reinstatement, or sometimes from early photographs or records. Detailed examination of the fabric of the place can often reveal information that is not available from other sources.

Restoration would normally only be carried out in special circumstances such as in the case of the grave of an important person or a grave of particular aesthetic significance.

2.3 Repair materials

This section outlines the decay mechanisms of the various materials found in the Karori Cemetery graves, with recommendations for appropriate repair materials. Repairs should only be effected after the cause of failure is identified and rectified. Important considerations in this respect include growth within and outside graves; the drainage of water from inside graves and from its constituent parts, and the ground conditions around and under graves.

Concrete and brick masonry

Generally the decay exhibited in the concrete components of graves relates to subsidence. Because the concrete and masonry is apparently unreinforced, it has limited capacity to span over foundation material that is either weak, or non-existent because of subsidence of the ground below. Thus graves walls have cracked and slumped over time, and in some cases large portions of the masonry have broken away. Similar damage is caused by expanding tree root systems.

Earthquake forces may in some cases have hastened the breaking up of the masonry components of graves, especially where columns, obelisks and other features reach a height of more than say a metre.

Where large tress are removed from within and close to graves their location should be recorded and monitored for "root-tube" erosion where the former anchor roots can leave a radial pattern of voids. On sloping terrain these can allow ingress of water and cause soil erosion. Where this occurs it may be necessary to inject, under pressure, a cemititious grout of a coarse consistency into the affected tubes to arrest further erosion.

To match original material in strength. Ordinary grade concrete up to
20MPa with sand and aggregate to NZS 3108 Concrete
ordinary grade.
To match original material in strength, colour and texture. Chose
aggregate and formwork to give colour and texture to match
None, unless the original has reinforcement or in special
Where visible, to match the original in colour and texture. Otherwise,
bricks to NZS 366 Clay building bricks.
Where visible, mortar to brickwork to match the original in colour
texture. Sand to NZS 3103 Sands for mortars and external
to BS 890 Pigments if needed to NZS 3117 Pigments for
A possible mix is, 1:6 cement : sand

Samples

The reproduction of a repair mortar to match existing work can only be done with the carrying out of trials. It is essential that samples be prepared, using sands of different sizes and colours; that they be allowed to dry, and that they then be compared with the original work to obtain a close match. It is expected that the choice of sand, which imparts colour as well as texture to the mortar, will be critical in achieving a good match. Samples and recipes (including the source of the sand) should be kept as reference material.

Plaster

Most of the graves built in concrete or masonry have a plastered finish. Plaster finishes will crack and break as the underlying structural material of concrete or brick breaks, and the plaster will always need repair when the underlying materials breaks.

Plaster can also become "drummy", losing its bond to the underlying material, and falling away. This process is hastened when cracking has occurred, the cracks allowing water into the sub-strate; this in turn will allow plants to establish, and/or frost damage to spall the plaster off.

REPAIR MATERIALS

Plain and textured plaster	To match original material in strength, colour and texture. Sand to
NZS	3103 Sands for mortars and external plasters. Lime to BS 890
Pigments	if needed to NZS 3117 Pigments for Portland cement
Typical mixes	Bond coat 2 : 3 cement : sand Flanking and finish coat 1 : 1 : 6
cement :	lime : sand
Workmanship	To NZS 4251 Code of practice for solid plastering.
Profiles	Mouldings and profiles to match existing.
Finish	Sponge, wood float or steel trowel as appropriate
Pebble dash finish	1:3 flanking coat of plaster with carefully selected pebbles to match
thrown	on.
Mortar for crack repair	Flexible silicone rubber sealant (Expanditie Silaflex RTV or similar).

Samples

The reproduction of a repair plaster to match existing work can only be done with the carrying out of trials. It is essential that samples be prepared, using aggregates of different sizes and colours; that they be allowed to dry, and that they then be compared with the original work to obtain a close match. It is expected that the choice of sand, which imparts colour as well as texture to the plaster, will be critical in achieving a good match.

Samples will not need to be prepared for each grave, since there is some uniformity between graves. Samples and recipes (including the source of the sand and aggregate) should be kept as reference material, and in due course the preparation of samples will not be necessary except in special circumstances.

<u>Marble</u>

Marble is a hard recrystallised limestone composed predominantly of calcium carbonate, is capable of taking a polish, and is often of red, brown or grey colour which derive from impurities. While there are some graves built entirely in marble, most examples of its use are for headstones and monuments.

Graves built in marble, or indeed any stone, can suffer structural damage in much the same way, and for the same reasons, as for those built in concrete and brickwork. There are also a number of other mechanisms of decay, which include:

- the action of soluble salts leading to efflorescence on the surface of stonework, or to spalling in some circumstances (salts may derive from the stone itself, from adjacent materials, from the atmosphere, or by capillary action from the ground in the absence of any damp proof course);
- the growth of mosses and lichens on surface of stone, which can over time affect the surface finish of the stone;
- the growth of weeds, small plants and even trees which might take hold in mortar joints, eventually loosening and dislodging stones;
- the expansion of tree roots from nearby trees which can cause structural cracking and damage as they push up parts of a grave;
- the leaching of mortar from between joints in the stone which can gradually affect the stability of the stonework;

• the rusting of the iron cramps which are often found as the mechanical fixing of stone to stone, caused by the ingress of moisture (rusting iron can expand up to ten times its original volume);

• the shading of nearby trees which can slow the drying out process, encouraging higher than normal moisture levels in and around graves, thus aiding the establishment of plant growth;

- spalling when wet masonry is exposed to frost conditions, since spalling of stone can result when freezing water expands (such damage may result only after a number of freeze/thaw cycles);
- inherent defects in the design and workmanship of the grave which may lead to slow deterioration (such matters might include the laying of the stone off its natural bed, or the use of a too weak or too strong mortar).

As with all repair, the cause of the decay should be established and rectified before repairs are carried out.

Repair Materials	
Marble	To match original material in strength, colour and texture; for preference, stone should be obtained from the same source as the original.
Mortar	To match original material in strength, colour and texture. A possible mix is, $1:2:8$ of cement : lime : sand
Dowels for assembling	
components	Non-ferrous, preferably bronze.

Other stone

Other stone found in the Cemetery includes granite, a hard crystalline coarse-grained rock comprising more than 65% silica, which is capable of taking a polish, and limestone, composed of calcium carbonate, a soft sedimentary stone that is easily carved stone; although porous, it is nevertheless durable when properly laid and maintained. Mechanisms for the decay of these stones are similar to those listed above. Granite however, is relatively immune to decay caused by the ingress of moisture or the formation of soluble salts, while limestone is more prone to decay from these causes. The presence of clay in limestone can accelerate weathering. All are susceptible to mechanical damage.

Repair materials

Granite, limestone, sandstone, etc	To match original material in strength, colour and texture; for
	preference, stone should be obtained from the same source
	as the original
Mortar	To match original material in strength, colour and texture. For
	granite, a possible mix is, 1 : 3 : 8 of cement : lime : sand For
	limestone, a possible mix is, 1 : 3 : 10 of cement : lime : sand
Dowels for assembling component	Non-ferrous, preferably bronze.

Samples

The reproduction of a repair mortar to match existing work can only be done with the carrying out of trials. It is essential that samples be prepared, using sands of different sizes and colours; that they be allowed to dry, and that they then be compared with the original work to obtain a close match. It is expected that the choice of sand, which imparts colour as well as texture to the mortar, will be critical in achieving a good match. Samples and recipes (including the source of the sand) should be kept as reference material.

Wrought and cast iron

Wrought and cast iron components are generally found as railings around the outer edge of graves. These materials rust as part of the general weathering process, but this mechanism of failure is very slow. More significant damage has been as a result of mechanical breakage, perhaps by vehicles or by careless use of tools.

Sometimes wrought iron components have become dislodged (and then lost) because the slumping of the grave has pulled rails away from their posts.

Repair materials

Wrought ironHand worked to matchCast ironCast to match (moulds can be taken from existing remnants)

<u>Timber</u>

General weathering of timber has lead to decay. More particularly, timber posts in the ground (even of totara which was the commonly used timber) have a limited life, say up to 50 years. With the rotting of posts, railings fall down and will decay more quickly.

Repair Materials	
Timber in the ground	Radiata pine, treated H5, sawn or dressed to match
Timber rails, pickets etc	Radiata pine, clears grade, profiles and surface finish (usually dressed)
to	match
Fixings	Galvanised
Paint finish	3 coat paint finish, waterbourne exterior gloss (Resene spec 2e 1.1 or similar)
Paint colour 046	Ascertain from paint analysis, will generally be off-white, say BS 4-

Lead lettering

Lead lettering is common on headstones. Although the material has a very long life in terms of oxidation, it tends to fail by the loss of the mechanical key that holds the lead in the reveals in the stone. Workmanship, the parent stone, and the degree of shelter/exposure influence how long lead lettering will survive.

Repair material should match the original.

Bronze

Several bronze plaques forming headstones remain in very good condition, although with a heavy patina of surface corrosion.

Repair material should match the original.

Tiles

Ceramic tiles have weathered well. Where they need repair is in those graves where the sub-strate of masonry has failed, loosening the bond with the tiles.

Repair Materials Tiles Bedding and pointing

To match original tiles as closely as possible To match

2.4 Washing

Washing of all materials that make up the Cemetery graves is best carried out with clean water. Pressure washing or steam cleaning may be required in some instances, for instance for the removal of graffiti, and a suitable non-ionic detergent may also be employed. Care should be taken not to use excessive water, and surfaces scrubbing should be done with a soft (non-ferrous) brush to protect surface finishes.

Abrasive blast cleaning of any sort is not recommended because of the potential for damage from pitting of surfaces, loss of mortar etc.

Washing MaterialsAll materialsReeson QuadcleanStain RemovalAll materialsReeson Powerkleen

2.5 Some examples

Following are some typical examples of failures to common grave types, with recommended repair procedures.





Photo 1

Fault – Tree growth within grave. *Reason for repair* – To prevent structural damage in the future. *Repair* – Remove tree carefully at ground level; leave roots. Monitor for root-tube erosion.

Photo 2

Fault – Tree growth outside grave. *Reason for repair* – To prevent further structural damage.

Repair – Remove tree carefully at just above ground level, taking care to protect cross. Carry out repairs to grave – see below. Monitor for root-tube erosion.



Photo 3

Fault – Cracking to walls and floor *Reason for repair*–To keep water out of the grave; note that repair will not prevent the cracking from getting worse. *Repair*–Rake out the cracks to form neat V-shaped joints. Fill cracks with silicone rubber sealant.





Photo 4 *Fault* –Cracking to floor only. *Reason for repair*–As above. *Repair*–As above.

Photo 5 Fault – Missing floor. Reason for repair – To keep water out of the grave. Repair – Cut concrete to neat edge; cast new concrete slab on compacted hardfill.



Photo 6 Fault – Half missing floor. Reason for repair – To keep water out of the grave. Repair – Cast new concrete on compacted hardfill; note colour and texture to be matched.



Photo 7 Fault — Falling headstone Reason for repair — To prevent collapse of headstone.

Repair Carefully remove headstone and base; form new concrete foundation on compacted hardfill, casting headstone in.



Photo 8 Fault — Sinking headstone. Reason for repair — To prevent deterioration of the stone. Repair As above. Surrounding floor may need repair at the same time.



Photo 9 Fault — Missing headstone. *Repair* Do nothing, unless headstone is found, in which case re-attach.



Photo 10 Fault — Structural collapse of wall and floor. Reason for repair — To prevent further collapse.

Repair Remove broken components on left side of grave (retain most of floor slab); cast new concrete wall on compacted hardfill; plaster to match. Consider cleaning of whole grave.



Photo 11

Fault — Collapsed timber fence. *Reason for repair* — To prevent loss of fence and improve appearance.

Repair Fix new corner post to match; make up and fix new railings with pickets to match; clean down all timberwork and paint.



Photo 12

Fault — Missing wrought iron railing.Reason for repair — To improve appearance.Repair Make up new two new wrought iron railings to match; fit in place.



Photo 13 Fault — Fallen/broken components. Reason for repair — To save elements from loss and to improve appearance. Repair – Carry out repairs to walls and floor of grave; clean, repair and reassemble fallen components in original locations.

Many graves have a combination of defects.



Photo 14

Faults — monument tilting, wall of grave broken, components of wrought iron railing missing.



Photo 15 :

Faults – monument tilting, wall of grave cracked, plaster missing, floor of grave slumping, components of wrought iron railing missing.



And many graves are in perfect condition, photos 16 and 17.

Photo 16



Photo 17

Appendix IV: Historic maps and plans

1. 00001_450_7;5;2 pt 1-1: Architect's plan for main chapel, with proposed columbarium (not built), September 1949 (WCC Archives)

2. 00001_453_7;25 pt 2-1: Plan of Karori Cemetery, March 1928 (WCC Archives)

3. 00001_461_7;140 pt 1-1: Plan Showing Area for Chapel and Garden, Soldiers Cemetery, Karori, 1945 (WCC Archives)

4. 00271_0_4-1: Soldiers Memorial Cemetery, Karori (date unknown) (WCC Archives)