- RESEARCH REPORT -

# Death on the Goldfields: Preliminary report on excavations at the Drybread Cemetery, Central Otago

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### INTRODUCTION

In November-December 2020, April 2021 and April 2022 a team from Otago University and Southern Archaeology carried out a series of archaeological excavations at Dybread Cemetery (site G41/630) and the Drybread Diggings (site G41/621) in Central Otago (Figures 1 & 2). These excavations were the third phase of a research programme that commenced at St. John's Cemetery in Milton in 2016 (Petchey *et al.* 2022), and continued in Lawrence (Petchey *et al.* 2018). This programme intends to examine the health, wellbeing and society of historic-period settlers in the Otago region, applying a 'biocultural' approach that combines biological and cultural information, and focuses in particular on human remains and the archaeological evidence of funerary traditions, set within a wider archaeological landscape.

Drybread was a goldrush-era settlement that first came into existence in about 1863 as a temporary diggers' camp,

and the Drybread Cemetery is still in use by the local rural community. Many of the original cemetery records have been lost and although gravestones and memorials mark many graves (Figure 1) there has been ongoing uncertainty about unknown burials. The Drybread Cemetery Trustees manage the cemetery, but have been concerned that plots shown in existing plans as unoccupied and therefore available for use might actually already contain burials. A geophysical survey of the cemetery was inconclusive, and so the Trustees approached Petchey and Buckley for assistance in locating these lost graves. After considerable community consultation, including with representatives of the local Chinese community, as it was known that some Chinese burials were present, a research programme was developed and the required formal permissions were sought for an archaeological investigation.

The investigations were carried out with the permission of the Drybread Cemetery Trustees and the landowners Tony and Karen Glassford, and under Archaeological Authority No. 2020/367 issued by Heritage New Zealand Pouhere Taonga and Disinterment license No. 01/2020 issued by the Ministry of Health. Formal consultation was undertaken with Aukaha (on behalf of the relevant Kai Tahu runaka), and the Anglican, Presbyterian and Catholic churches.



Figure 1. The Drybread Cemetery in July 2019.

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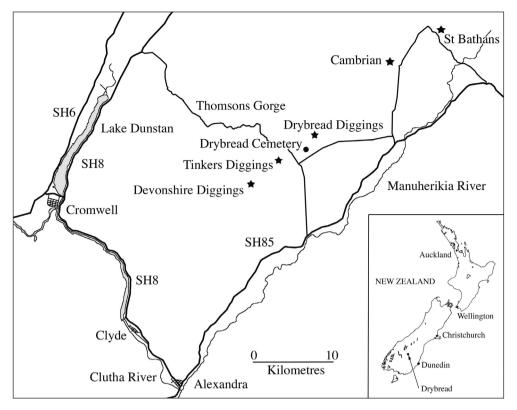


Figure 2. The location of Drybread and other places mentioned in the text.

This paper is a preliminary report that describes the overall results of the archaeological investigations at the cemetery. It provides the basic background information to support a series of more detailed analytical papers on aspects of the burials, and will be followed in due course by a full excavation monograph.

# RESEARCH OBJECTIVES

A key overarching theme of the research project is the experience of the immigrant settlers who came to New Zealand in the nineteenth century. There are various reasons why people came here: for many it was the promise of a better life than they could have at 'home' (largely but not exclusively the British Isles), and the land companies heavily promoted this idea. For those who rushed to the goldfields it was a more immediate expectation of financial gain: in many ways a similar expectation of a better life, but tied to rapid wealth rather than sustained work as a settler. One distinct group that came to the goldfields was the Chinese, who also sought financial advancement. Most came from poor rural backgrounds, and there was an expectation that they would come to New Zealand to find gold and send money back to their families in China, and finally return home as wealthy men (Ng 1993: 85).

The present research project seeks to study some of these individuals to investigate whether life on the goldfields was any improvement at all on their earlier existences. The research is intended to complement and extend on investigations carried out at St. Johns Cemetery in Milton (investigating a contemporary farming community), the two Lawrence cemeteries (gold rush and post-goldrush communities, including many Chinese individuals) and Cromwell Cemetery (two late nineteenth century individuals) (Buckley at al. 2020; Petchey et al. 2017; Petchey et al. 2018a; Petchey et al. 2018b; Petchey et al. 2022).

#### **BACKGROUND HISTORY**

## First Human Settlement

The first human explorers and occupants of Central Otago were Māori who traversed the area from the 14th century onwards in search of food and resources (Bunbury *et al.* 2022). The location that is now Drybread is near the southern end of Thomson's Gorge, which was a traditional route between the upper Clutha (Mata-au) and the Manuherikia Valley (Anderson 1986; www.kahurumanu.co.nz/atlas). Resources that were sought included moa (in the early years of settlement), weka, eels and lithics (Hamel 2001: 14–29, 48–58). The economic opportunities associated with European coastal settlement from the end of the eighteenth century probably meant that the seasonal inland population decreased, but various small groups are known to have been living there as late as 1836 when Te Puoho's raiding party traversed the area (Anderson 1986, 1998).

# First European Settlement

Prior to the goldrushes what was to become the Drybread area was part of Run 223 Matakanui Station, which was first taken up by R.F. Filleul in 1858, but he relinquished it to H.P. Morse who had stocked it with sheep in 1859. The run then quickly passed to Webster and Thompson, and then in 1864 the Glassford brothers (James and Henry) purchased it for £39,250 (Moore 1953: 9; *Otago Daily Times* 2 April 1864: 4). Gold mining started in the area while Webster and Thomson still held the run, but the Glassfords took it over soon afterwards.

# Goldmining

The major rushes to the Otago Goldfields occurred in 1861 (Gabriel's Gully) and 1862 (Dunstan), and were followed by over 40 years of continuous or episodic working of the various goldfields. The first workings in the Dunstan district were at Welshman's Gully (now Cambrian) (*Otago Daily Times* 29 June 1868:5), and further along the foot of the Dunstan Range, Thomsons diggings, of which Drybread was a part, was well established by late 1863 (*Otago Witness* 6 February 1864:19).

Exactly when work began at Drybread is uncertain, but it is likely to have been at much the same time as the other local diggings. One the earliest mentions of the Drybread was in November 1865 (*Dunstan Times*, quoted in *Evening Star* 29 November 1865: 2). In February the following year there was news of a rush to Drybread Gully, considered

to be part of Thomson's Diggings (*Otago Daily Times* 17 February 1866: 4). These diggings consisted of three main gullies: Tinkers, Devonshire and Drybread (*Otago Daily Times* 18 April 1866: 6).

In 1869 artist Andrew Hamilton visited Drybread and sketched the settlement (Figure 3), shortly after an *Otago Daily Times* correspondent had described his visit there in June 1868 (*Otago Daily Times* 29 June 1868:5):

Drybread lies immediately under the Dunstan Ranges, near the headwaters of the Lauderburn... It is not such an unproductive place as its name would imply... At Drybread, the miners are doing remarkably well; I question very much if there are many better places for getting gold in Otago. The population numbers about 120, 60 of whom are actively engaged in mining operations. Then there are Tinkers and Devonshire gullies, supporting a population of some sixty or seventy persons, and, from my personal knowledge, all are doing well. Drybread boasts a snug little township, and business seemed pretty brisk at the time of my visit. The workings are all of that description known as ground sluicing... Notwithstanding the frost, the supply of water was uninterrupted, and the miners were working away merrily, bringing down great falls of earth with the hydraulic hose, as if the weather was as warm as summer, and the patches of snow lying upon the grass and upon the sides of the paddocks were May blossoms.

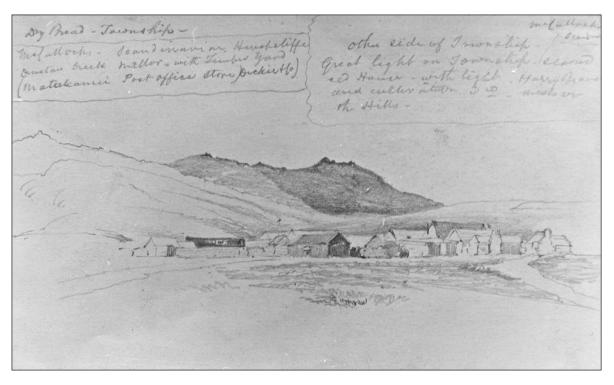


Figure 3. Andrew Hamilton's 1869 drawing of Drybread (Lakes District Museum & Gallery).

A decade later, in 1878, a correspondent for the *Dunstan Times* visited Tinkers and Drybread, and he described the settlement which was beginning to show signs of decline (*Dunstan Times* 12 July 1878: 3):

Drybread does not seem such a prosperous place as Tinkers, there being now only some nineteen miners at work. There is one hotel and store, and a butcher's shop in this township, and some very nice dwelling houses with plots of ground attached.

By 1886 the Goldfields Warden commented that the diggings 'once famed for its rich deposits' had become almost deserted, with just twenty miners remaining (AJHR 1886 C4A:30). By 1899 just six men were working at Drybread (AJHR 1899 C3A:67). By the turn of the twentieth century the settlement had effectively disappeared, with just the locality name surviving to the present day at a spot nearby where the Matakanui Welcome Hotel was established in 1893 and still stands as a partial ruin (*Dunstan Times* 3 November 1893: 2).

#### Chinese Miners

One important group in the goldfields was the Chinese, who were predominantly Panyu Cantonese from the Province of Guangdong in Southern China, although many who came to New Zealand had previously been in the Victorian Goldfields in Australia (Ng 1993). The Chinese began to arrive in Otago in numbers in 1866 after being invited by the Otago Provincial Council that saw Chinese immigration as a way of boosting population and economic activity.

By December 1867 some 1185 Chinese were at work in Otago, rising to a peak of some 4200 in early 1872 (Ng 1993: 134). They tended to work together in parties linked by kinship ties and home county associations, and a number of Chinese camps or settlements grew up, including at Cromwell, Arrowtown, Lawrence and Macraes Flat. There were Chinese miners at Matakanui (Tinkers) and Drybread in the 1870s to the 1900s, but by 1911 only a sole Chinese miner was left at Drybread although some Chinese were employed on local farms (Ng 1993: 114, 176, 277, 300). Although the intention of many was to return to China as rich men, the reality is that many grew old and died in New Zealand, and were buried in local graveyards; James Ng (1993: 66) estimates that there were possibly 1000 Chinese deaths in New Zealand prior to 1900.

In keeping with Chinese custom that a person should be buried in the soil where they were born there were two mass exhumation events in Otago, where Chinese burials were to be returned to China. In 1883 some 230 bodies were repatriated, and in 1902 a further 474 graves were lifted but the SS Ventnor sank off the Hokianga Harbour on the return voyage and only ten coffins floated ashore (Ng 1993: 66). Excavations at the Chinese section of the

Lawrence Cemetery in 2018 found many cases of graves that had been historically exhumed.

# The Drybread Cemetery

An essential part of any settlement is a cemetery: gold mining was a dangerous business. On November 29, 1872, Thomas Mellor of Drybread was drowned in a water race (AJHR 1875 H37:2), and in 1879 two men were killed at the Blue Duck claim (at Tinkers), one a shareholder and one a wages man. The workings were described as being very dangerous (AJHR 1880 H26:28), and further research is ongoing into local deaths.

The Drybread Cemetery was surveyed in 1878 (Figure 4), but existed informally prior to that: there are records of deaths in the wider Dunstan area from 1862, and the oldest known interment at Drybread itself was of infant Thomas Greenbank in 1870 (Drybread Cemetery Records; *Otago Witness* 3 January 1863: 2). The 1878 plan shows a small fenced area in the NE corner of the formal boundaries, and this is the most likely location of the earliest graves as the surveyor (A. Mackay) would have mapped the cemetery as he saw it, and then provided space for expansion. Because the settlement of Drybread shrank and disappeared this extra space was never required.

The cemetery is located on a low hill at the foot of the Dunstan Mountains, with the graves extending from the top of the hill down the slope to the south (Figure 1), and is reached by a track from Glassford Road. The surrounding

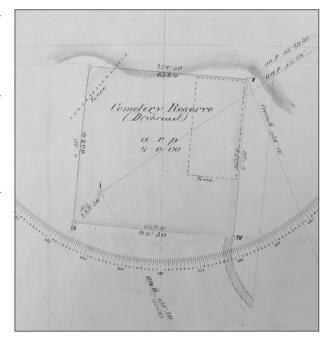


Figure 4. Detail from the 1878 formal survey of the Drybread Cemetery. The cemetery was probably in use over ten years before this (S.O. 4858, Crown Copyright, Toitū Te Whenua Land Information New Zealand).

area is farmland, Dougalston Farm, owned by Tony and Karen Glassford.

# **Archaeological Excavations**

Three seasons of excavation were conducted at Drybread: three weeks in November-December 2020 that focused primarily on the cemetery but with some exploratory work in the area of the Drybread diggings; one week in April 2021 to excavate one last grave at the cemetery (this proved to be empty) and to investigate settlement sites at the diggings; and two weeks in April 2022 to continue to investigate settlement sites. This paper concentrates on the cemetery investigations.

The excavations at the cemetery were planned to meet the Trustee's requirements for information, and to avoid disturbing any identified graves. The surviving cemetery records were reviewed to determine the locations of all known graves, both marked and unmarked, and the areas for which there were neither monuments nor records were then investigated. In some cases topsoil was stripped from areas where unmarked but tentatively identified graves were thought to be located in order to confirm their locations, but these graves were not disturbed any further.

Figure 5 shows the areas that had topsoil stripped, and the locations of the burials that were investigated. Thirteen graves were excavated (D1 to D13, Table 1), of which 10 contained human remains: one Chinese burial (D5) had been historically exhumed, an infant burial (D10) had completely broken down, and one grave (D13) had never been used, probably because it hit bedrock before it was deep enough. Six Chinese burials (D3 to D8 inclusive) were located in a row in the south-east corner of the cemetry. Notably this matched exactly the family account that Tony Glassford had been told by his grandfather.

Table 1. Details of the graves investigated at the Drybread Cemetery in 2020 to 2021.

Burial	Grave depth	Coffin	Human remains	Other material	Comments
D1	5'4" (1.63m)	Timber, plain, black fabric covering	Well-preserved skeleton (male) with hair		Gravelly grave fill, very wet.
D2	6' (1.83m)	Timber, black fabric, coffin plates, iron handles	Well preserved skeleton (female) with hair	Milk glass buttons	Gravelly fill, moist. Coffin plate: ' Aged 68 years.'
D3	6' (1.83m)	Timber, black fabric, coffin plates, iron handles. Coffin completely intact (lid still in place)	Well preserved skeleton (male) with hair (queue). Chinese.	Full clothing well preserved.	Coffin plate reads 'Ah Won Aged 63 years'. Coffin filled with water.
D4	5'2" (1.58m)	Timber, black fabric, coffin plates, iron handles.	Moderately well preserved skeleton (Male) with hair. Chinese.	Clothes moderately well preserved. Plant sprig (hawthorn?) in R hand.	Coffin plate reads 'Ah How Aged 72 (year)s'. Very wet.
D5	5'10" (1.78m)	Timber coffin, broken up	Historically exhumed	Clothes bundled back into grave	Exhumed (presume Chinese)
D6	4'3" (1.3m)	Timber, very poor preserva- tion. Decayed coffin plate. Mismatching iron handles	Skeleton preservation very poor. Only teeth present.	Some evidence of fabric or clothing. Buttons and buckle at pelvis	Gravel & clay fill.
D7	3'6" (1.07m)	Timber, very poor preservation. Poss. coffin plate. Mismatching iron handles	Skeleton preservation poor, limb bones present. Hair and teeth present.	Clothing present, including striped blanket, waistcoat, red socks. 6 coins in pocket: dates 1882 to 1903.	Gravelly clay fill. Wet at coffin level.
D8	3' (0.92m)	Rectangular timber coffin, very poor preservation.	Skeleton preservation poor.	Clothing present. One Wellington boot with foot inside. Small celluloid box.	Gravelly clay fill.
D9	5'1" (1.55m)	Small timber coffin, fabric covered.	Infant. Skull and femur fragments.		Gravelly clay fill.
D10	4'6" (1.37m)	Small timber coffin (infant size)	Infant: no human remains survived.		Gravelly clay fill.
D11	6'3" (1.9m)	Timber coffin, black fabric cover, iron handles. Coffin plate (lead?)	Well preserved skeleton of very robust male.	No clothing survived.	Gravelly clay fill.
D12	6'4" (1.93m)	Timber coffin, black fabric cover, iron handles, chest, head and feet plates.	Moderately well preserved adult skeleton.	Rubber pipe with pin over pelvis.	Gravelly clay fill, very wet.
D13					Empty grave (never used)

#### Burial D1

Burials D1 and D2 were found next to each other at the northern end of the cemetery, near the top of the hill. Burial D1 was of a robust middle aged male, and the skeleton was very well-preserved and beard and head hair was present. The coffin had been fabric covered, but was poorly preserved.

#### Burial D2

Burial D2 was found beside D1, and was a gracile elderly female. The skeleton was well-preserved, though damage from a large root through the coffin destroyed much of the thorax region. The coffin was covered in fabric and detailed with coffin lace (decorative embossed metal strips), iron coffin handles and chest, head and foot plates. The

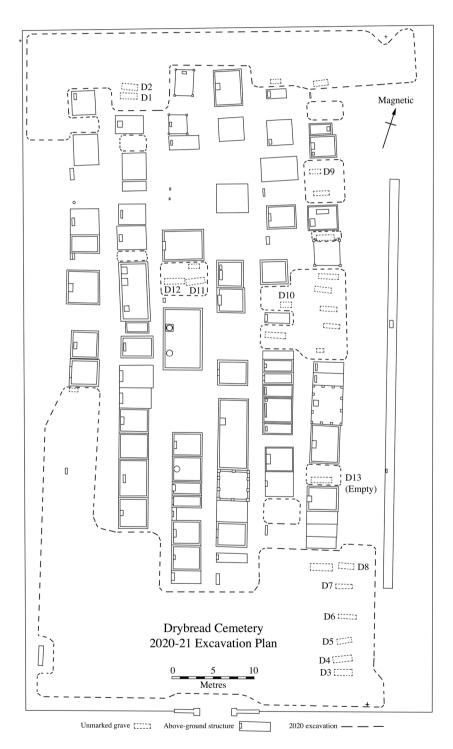


Figure 5. Plan of the Drybread Cemetery showing the existing headstones and monuments, the areas that were stripped of topsoil, and the graves that were investigated in 2020–21 (labelled D1 to D13) (field plan by Jeremy Moyle & others).

chest plate was partially legible, reading 'Au...Aged 68 years'. The proximity of the two burials may suggest that they were husband and wife, but in the absence of other evidence this can not be proven.

## Burial D<sub>3</sub>

Burial D3 was at the southern end of the row of six Chinese burials. The individual was identified by a legible coffin plate: 'Ah Won, Aged 63 years,' who died in 1895 (also known as Wah On, *Otago Witness* 31 October 1895: 23). The entire burial (coffin, clothes, skeleton) was very well preserved, to the point where the coffin lid was still intact and in place without having collapsed down. The coffin was full of water. The well-preserved skeleton was of an elderly man, with his hair plaited into a queue that had been lengthened by plaiting cord into the end. In-situ this queue extended to his waist. He was dressed in a dark suit with a double breasted jacket, a lapelled waistcoat and a knitted garment underneath.

## Burial D4

Burial D4 was the second in the row of Chinese burials, and was also identified by his coffin plate: 'Ah How, Aged 72 years,' who died in 1895 (*Otago Witness* 31 October 1895: 23). The coffin was well-preserved, although the lid had collapsed in, and was fabric covered with coffin lace and iron handles. The clothes were reasonably well preserved, and included a black jacket. The skeletal remains were moderately well preserved, and were of an elderly male. His arms had been crossed over the waist and there were remains of plant fibres over the chest area. Within the bones of his right hand were twiggy plant remains, which may have been of a flowering shrub such as hawthorn.

# Burial D5

Burial D5 was the third in the row of Chinese burials, and contained a disturbed wooden coffin and clothing that had been screwed up into a bundle, but no human remains. This is the grave of a Chinese individual who had been historically exhumed and sent back to China. The coffin was plain, with no decoration. The clothing included a waiscoat, a knitted woollen sock (worn out at the toe and heel), and fragments of a knitted jersey and plaid shirt.

#### Burial D6

Burial D6 was the fourth in the row of Chinese burials, and both the coffin and the human remains were very poorly preserved. No timber remained from the coffin, but there were four mismatched iron handles and a very rusty coffin plate. Clothing evidence was poorly preserved, and consisted of a coarse weave fabric, buttons and an iron buckle. The only human remains were permanent tooth crowns.

## Burial D7

Burial D7 was the fifth in the row of Chinese burials, and was very shallow (only 3 feet 6 inches, 1.07 m deep). The

coffin was poorly preserved, and had mismatching iron handles. A striped blanket had been placed over the body inside the coffin, and there was also some clothing, including a black jacket, a double breasted waistcoat and red socks on the feet. There were six (British) coins in the left jacket pocket: 1882, 1891, 1900, 1900 shillings, 1900 sixpence, and 1903 florin. The coins were progressively worn with age, and the florin was only minimally worn suggesting a date of burial very soon after 1903. The human remains were relatively poorly preserved, but the cranium, dentition and limb bones were in reasonable condition, while the thorax region was present but extremely friable. There was hair down to the collar. The forearms were crosssed over the waist.

#### **Burial D8**

Burial D8 was the sixth and northernmost in the row of Chinese burials, and was very shallow (only 3 feet, 0.92 m deep). The rectangular wooden coffin was poorly preserved, as were the human remains. The right foot was in a rubber wellington boot. There was no evidence of a left boot or foot present. The forearms were crossed over the waist similar to D4 and D7. A small celluloid box was over the chest area (probably placed in a pocket).

## Burial D9

Burial D9 was located in the north-east (uphill) part of the cemetery. It was the burial of a child in a small timber coffin that was covered in fabric. The humans remains consisted of fragments of the skull and long bone fragments, possibly of the femur.

# Burial D10

Burial 10 was located in the middle of the cemetery. It was probably an infant burial, based on the grave size and the evidence of a small coffin (outlined by nails), but no human remains survived.

#### Burial D11

Burial D11 was found in the middle of the cemetery end-to-end with Burial D12. The timber coffin was covered in black fabric and had iron handles. The human remains were in excellent condition, and were of a very robust young adult male. The late fusing growth plates of the medial clavicle, sacrum and pelvis were unfused but, paradoxically, the jaws had almost complete antemortem tooth loss. There were developmental anomalies in this individual that suggest some form of skeletal dysplasia that will be the focus of future research.

# Burial D12

Burial D12 was found in the middle of the cemetery endto-end with Burial D11. The timber coffin was covered in black fabric and had iron handles. The human remains were generally well preserved, and were of an adult, with gracile cranial features, possibly female. A short length of rubber pipe (9 mm outside diameter) with a pin through it was found at the waist.

## Burial D<sub>13</sub>

The grave was found to be empty, and unlike D5 which contained clear archaeological evidence that it had been exhumed, D13 had never been used. The grave shaft hit a shelf of rock at a depth of 1.3 m, and it appears that the gravediggers simply gave up and dug somewhere else.

# Coffin Design & Furniture

All of the individuals were buried in wooden coffins, most of the standard 'single break' form (narrow at the head and feet and wider at the shoulders) except for D8 who was in a rectangular coffin and D10 an infant in a coffin too small and too poorly preserved to describe accurately. The preservation of the coffin timbers was variable, but samples from eight coffins (two samples from D11) were taken and were identified by Dr. Rod Wallace (Table 2).

Table 2. *Drybread Cemetery: coffin timber samples.* 

Burial	Sample description	Timber identification
D1	Poor condition, still wet	Conifer too degraded to ID
D2	Poor condition, dry	Totara
D3	Good sample, damp	Exotic Conifer – Pinus sp?
D4	Good sample, damp	Kauri
D5	Good sample	Totara
D8	Poor sample, slightly damp	Rimu?
D9	Poor sample	Exotic Conifer – Pinus sp?
D11 (1)		Kauri
D11 (2)		Rimu

This variety of native and imported timbers is similar in nature to that found at the Milton and Lawrence cemeteries. They were all timbers that were commonly used in the construction industry, and as observed in the case of Milton, coffins were often made by a local carpenter or joiner (Petchey *et al.* 2022). The best preserved coffins (D3, D4) allowed the carpentry to be examined, and were constructed using plank sides bent at the shoulders using kerf cuts, and horizontally nailed to the bottom boards. The lids were plain boards nailed or screwed down to the sides.

There was a degree of inconsistency in the ornamentation of the coffins: only D2, D3 and D4 had fabric covering, coffin lace, handles and coffin plates, and thus fitted the typical late nineteenth century funerary tradition observed at St Johns Cemetery in Milton (Petchey *et al.* 2022). Seven coffins were fabric covered, and seven coffins had iron coffin handles, but two of these (D6, D7) were mismatched. Three coffins had legible or partially legible coffin plates: Ah Won (Burial D3, 63 years old) and Ah How (Burial D4, 72 years old) were clearly identified, while Burial D2 was a woman aged 68 years but her name could not be read.

The coffin of Ah Won (D<sub>3</sub>) was the best preserved found during any of the excavations in the present research programme, and is an excellent example of late nineteenth century (in this case 1895) coffin fashion, with its fabric covering, coffin lace, and head (angel), foot (vase and flowers) and chest plates (Figure 6).

## The Human Remains

The human remains at Drybread were consistently in better condition than at St John's Milton and the Lawrence cemeteries, although the two infant burials follow a similar pattern of very poor preservation. Of the nine adults where

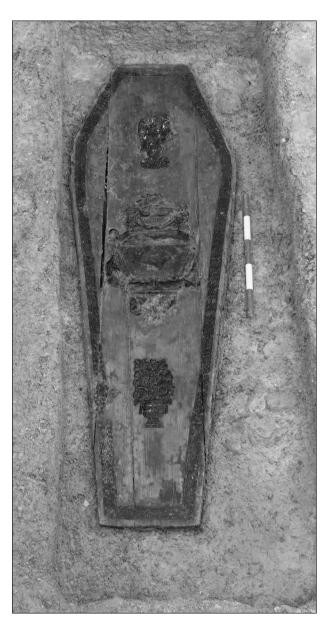


Figure 6. The coffin of Ah Won (Burial D3) who died in 1895. This is an excellent example of typical late nineteenth century coffin fashion as observed in New Zealand cemetery sites.

sex could be estimated, only one is definitively female. As expected the Chinese burials were all male which was either determined osteologically or from their male clothing. A full report on the osteological findings, including chemical studies of the origins of the people is in preparation. A number of the individuals exhibit skeletal evidence of significant infectious and developmental disease. These individuals' health experiences require full diagnoses of the conditions that cannot be fully discussed in this short preliminary report. However, from the field observations, a similar pattern of ubiquitous very poor oral health, pipe smoking (including in D2 the elderly female), and evidence of perimortem and antemortem trauma is similar to our findings in the other cemeteries (Buckley *et al.* 2020; Petchey *et al.* 2022)

## The Chinese Burials

The Chinese burials were all together in a single row (Figure 7), supporting common statements that Chinese were often buried separately in colonial-era cemeteries. However, all were inside the formally surveyed cemetery, and

while not in what appears to have been the 'prime' site at the top of the hill, they were nevertheless close to the cemetery entrance and were not hidden away.

The confident identification of D3 (Ah Won) and D4 (Ah How), both of whom died in 1895, and the dating of D7 to a year or two after 1903 based on the coins in his pocket (Figure 8), may suggest that all of the Chinese burials were relatively late, occuring when these men had begun to age after coming to the Otago goldfields some decades earlier.

One Chinese burial had been exhumed (D5), and the archaeological evidence matched exactly the historically-exhumed graves at the Gabriel Street Cemetery in Lawrence, where the clothes of the deceased and the broken coffin lid had been discarded back in the grave, but all of the human remains had been carefully gathered up: during the present project not a single human bone has been found in any previously-exhumed Chinese grave. This is a testament to the care taken by those tasked with the repatriation to China (see Ng 1993: 67). Aspects of the burials that appear to be different from contemporary European burials were the inclusion of coins in D7 and the common placement of the arms crossed over the waist.



Figure 7. Looking up the line of Chinese burials, showing D3 (closest to camera), D4, D5 and D6.



Figure 8. The six coins found in the pocket of Burial D7. All were British silver coins, with the oldest (1882 shilling) on the left and most recent (1903 florin) on the right.

The variation in apparent affluence amongst the Chinese graves is of note. Burials D3 and D4 (Ah Won and Ah How) were two of the three most apparently affluent burials investigated at Drybread and bore all of the hallmarks of typical late nineteenth century funerals, with the coffins decorated in the contemporary late Victorian style, complete with painted coffin plates, and graves dug to an appropriate depth (6 feet and 5 feet 2 inches, 1.8 and 1.57 m). However, from newspaper accounts of their deaths it is known that both were living in small huts (Otago Witness 31 October 1895: 23), so they were probably not wealthy men. Burials D7 and D8 appeared poor and very shallow (3) feet and 3 feet 6 inches, 0.9 m and 1.07 m), and D8 had the simplest coffin found, of a basic rectangular shape. Burial D6 was also very simple, and only a little deeper at 4 feet 6 inches (1.37 m). Burials D6 and D7 did have iron coffin handles, but these were mismatched and may have been odd items that the undertaker could not sell at full price. Complicating this discussion somewhat was the fact that despite being a 'poor' burial D7 had six silver coins in his pocket (a total of 6 shillings and sixpence), which was by no means a lot of money, but was the largest amount found in one grave during the entire present research project.

The Chinese burials will be explored in more detail in future research. Here it is posible to observe that the Chinese were buried apart from the Europeans, but were within the formal cemetery although not at the prime spot at the top of the hill. One burial (D5) had been exhumed for repatriation to China, and this had been carried out with typical care. The other five Chinese displayed a wide variance in burial style, from simple wooden boxes in shallow graves to ornate coffins buried at full depth. All were buried fully clothed in European style garments, although only one (D8) had footwear.

## CONCLUSIONS

The archaeological investigations at Drybread achieved the intended aims, by providing the Drybread Cemetery Trustees with a plan that accurately shows the locations of marked and unmarked graves and unused plots, and by enabling the examination of a selection of Drybread's early settlers, both European and Chinese. Only two individuals have been identified to date, both Chinese men who died in the 1890s. The burial practices displayed in both the Chinese and European graves were consistent with the practices recorded at the other cemeteries investigated during this project (St Johns Milton, the Ardrossan and Gabriel Street cemeteries in Lawrence, and the Cromwell cemetery), ranging from ornately decorated coffins covered

in black fabric to simple wooden boxes. As it seems most likely that the individuals described here died and were buried after the initial goldrushes were over, when Drybread and the nearby diggings (Tinkers and Devonshire) had become more settled, the variation in coffin treatment was probably not the result of frontier austerity, but may be explained by affluence. The most notable expression of this was within the Chinese interments, which included both the most ornate and the poorest graves investigated at Drybread, but care is needed in simplistic explanations as the two ornate coffins were of elderly men who still lived in small huts.

The question wherther the lives of these people was better in the goldfields than in their countries of origin is one that is still being investigated. The results from St John's Cemetery in Milton (Petchey *et al.* 2022) indicate that the immigrants bought many aspects of their biosocial world to New Zealand with them, but did sow the seeds for a better life for their descendants. At Drybread the range of apparent wealth, from extreme poverty to some possible affluence, suggests that some individuals continued to struggle, some of the Chinese miners in particular.

# Acknowledgements

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# References

Anderson, A. (1986) *Te Puoho's Last Raid*. Otago Heritage Books,

Anderson, A. (1998) *The Welcome of Strangers, An ethnohistory of Southern Maori*. Otago University Press, Dunedin.

AJHR: Appendices to the Journals of the House of Representatives Buckley, H.R., Roberts, P., Kinaston, R., Petchey, P., King, C., Domett, K., Snoddy, A.M., and Matisoo-Smith, E. (2020). Living and dying on the edge of the Empire: A bioarchaeological examination of Otago's early European settlers. Journal of the Royal Society of New Zealand. 52(1):68–94.

Bunbury, M.M.E., Petchey, F., Bickler, S.H. (2022). 'A new chronology for the Māori settlement of Aotearoa (NZ) and the potential role of climate change in demographic developments.' *Proceedings of the National Academy of Sciences*, 119(46): e2207609119.

Dunstan Times (newspaper, Clyde)

Evening Star (newspaper, Dunedin)

Hall-Jones, J. (2005) *Goldfields of Otago, An Illustrated History*. Craig Printing Co. Ltd., Invercargill.

Hamel, G.E. (2002) *The Archaeology of Otago*. Department of Conservation, Wellington.

Moore, C.W.S. (1953) *The Dunstan. A History of the Alexandra-Clyde District*. Otago Centennial Historical Publications.

Ng. James (1993) Windows on a Chinese Past, Volume 1. Otago heritage Books, Dunedin.

Otago Daily Times (newspaper, Dunedin)

Otago Witness (newspaper, Dunedin)

Petchey, P., Buckley, H. Kinason, R., Smith, B. (2017) A Nineteenth Century Settlers' Grave-yard: Preliminary Report on the Excavation of St. John's Cemetery, Back Road, Milton, Otago. *Archaeology in New Zealand*, 60(1):19–30.

Petchey, P.G., Buckley, H., Scott, R. (2018a) Life, Death and Care on the Otago Goldfields: A Preliminary Glimpse. *Journal of Pacific Archaeology*, Vol. 9 No. 2: 44–58.

Petchey, P., Buckley, H., Hil, G., Kelly, A., Kinaston, R., King, C., Scott, R. (2018b) 'Life & Death on the Otago Frontier. Preliminary Report on the Lawrence Cemeteries. *Archaeology in New Zealand*, 61(2):22–40.

Petchey, P., Buckley, H., Batcheller, J., King, C., Wallace, R. (2022) Life and Death in Early Rural Otago. British Archaeological Reports, Oxford.

## Maps & Plans:

S.O. 4858(Otago Land District) Field Sketch of Section 2, Block VI Lauder District. A.R. MacKay, 16 September 1878. Toitū Te Whenua Land Information New Zealand.

## Websites:

www.kahurumanu.co.nz/atlas (accessed 30 September 2022). https://paperspast.natlib.govt.nz/ (accessed 10 October 2022).