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A Nineteenth Century Settlers' Graveyard: Preliminary Report on the Excavation of St. John's Cemetery, Back Road, Milton, Otago

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Introduction

In December 2016 an Otago University team undertook an archaeological investigation at the historic St. John's Cemetery near Milton in Otago (Figures 1 & 2) in a bioarchaeological and archaeological joint project that aims to study the lives of some of New Zealand's early European settlers. It is a research-driven project that combines a variety of analyses of the human



remains and an archaeological interpretation of both the funerary practices at the cemetery and the wider archaeological landscape that these people inhabited, to build up a complete picture of these people; the first time that such a research programme has been attempted on an early European population in New Zealand.

Figure 1. The location of Milton in South Otago.

St. John's Cemetery is an Anglican graveyard (Archaeological site H45/56) that was established in 1860, has been disused since 1926, and was formally closed in 1971. For many

years it has been in a state of disrepair, and recently a local community group, Tokomairiro Project 60 (TP60), was formed with the aim of restoring the cemetery. Their intention was to repair the remaining headstones (which has been completed with the help of the Historic Cemeteries Conservation Trust), to identify the extent of graves within the cemetery (as the existing post and wire fence does not follow the legal or actual boundaries of the original cemetery), and ultimately create a well-maintained lawn cemetery. The TP60

group contacted Dr Petchey and Professor Buckley to seek assistance in defining the actual cemetery and finding the ‘lost’ graves, and the outcome was an opportunity to investigate an early farming community from archaeological and bioarchaeological perspectives.

After extensive public consultation, an archaeological authority (No. 2017/171) from Heritage New Zealand and a disinterment licence (No. 17-2016/17) from the Ministry of Health were obtained, and the archaeological excavation of part of the cemetery took place between 28 November and 16 December 2016. The excavation was preceded by a blessing by Bishop Kelvin Wright and whakawatea by Rachel Wesley on 27 November, and closed by a blessing by the local Vicar, Vivienne Galletly, on 16 December. Vivienne also performed a brief blessing for each burial as it was uncovered and prior to it being lifted.



Figure 2. St. John's Cemetery prior to the 2016 archaeological investigation.

Research Questions

One of the current themes in New Zealand historical archaeology is the examination of identity, and how this is expressed in the archaeological

record (Jones 2012; Petchey & Brosnahan 2016; Smith 2004, 2008). Recent work by historians has examined the British origins of many early settlers, and how they adapted to their new home (Andrews 2009; Holland 2013; Phillips & Hearn 2008). New Zealand was often portrayed as offering opportunities for a healthier and more prosperous future than life in Britain (Phillips & Hearn 2008: 23-25), but was this the experience of the early settlers on the Tokomairiro Plain? Were those born and raised in New Zealand healthier than their immigrant parents? While historical research can answer some questions about the early settlers around Milton, historical records can be incomplete, misleading or simply incorrect (Campbell 2013: 2), and many aspects of the early settlers origins, health, diet and family associations are best addressed by a combination of historical research, archaeological investigation and bioarchaeological analysis.

Bioarchaeology is the analysis of human skeletal remains from archaeological sites, and is uniquely placed to address questions about the biological life histories of these early settlers. A variety of analytical techniques can be used to examine the lives of these individuals, including standard osteological examination of the bones, strontium isotope and calculus analysis of teeth, stable isotope and trace element analysis in hair and DNA analysis (Buikstra & Ubelaker 1994; Hillson 1996; Katzenberg & Saunders 2008; Larsen 2002; Price *et al* 2002). The exhumation of graves and analysis of human skeletal remains from historic period cemeteries has been carried out in Europe (eg Brickley & Buteux 2006; Miles & Connell 2012), the US and Australia (eg Anson & Henneberg 2004), but the motivation for these projects has invariably been to move the graves due to development. This type of project has been carried out in New Zealand, but again the requirement to move burials for a variety of reasons has driven the projects, and the opportunities for analysis of the skeletons has often been minimal or non-existent.

The examination of mortuary ritual, and in particular gravestone design, has been a fruitful subject for many years (eg Deetz 1967, Mytum 2003). More recent archaeological excavation of cemeteries has allowed the buried trappings of Victorian funerary practice to also be examined, and there is a growing body of information about burial practice and coffin furniture (eg Brickley & Buteux 2006; Miles & Connell 2012). While bioarchaeological analysis may be able to determine the origins and health of the interred individuals, consideration of the funerary practices can help shed light on their cultural identity, and in particular how funerary traditions followed or differed from those of their homeland.

Background History of the Back Road Cemetery

Two events are often linked to the early European settlement of Otago: the arrival of the first immigrant ships the Philip Laing and the John Wickliffe in 1848; and the series of Central Otago goldrushes in 1861-1862 that powered a commercial boom in Dunedin and a population boom in the wider province. However, it was the establishment of farming that was essential for the long term viability of settlement, as the fledgling city of Dunedin needed a productive hinterland to provide food, and the easily won gold soon ran out leaving the miners two options: move on or settle down. The first settlers on the Tokomairiro Plain arrived there in 1850, by 1857 a flour mill was at work with a fledgling community growing up close by, and in 1860 this settlement was formally surveyed and named 'Milton' (Sumpter & Lewis 1949). Sumpter & Lewis (1949: 13) stated that most of the early settlers on the Tokomairiro were Scottish, but the English were always a notable presence in the early Otago settlement; tensions between the Presbyterian Scots and the Anglican English led to some of the latter being dubbed the 'Little Enemy' by the former (McDonald 1965: 19).

In order to serve the local community an Anglican chapel and associated burial ground were established in 1860 on Back Road near Milton on land gifted by John Dewe, a local farmer. However, at the same time a public cemetery was also opened nearby at Fairfax, and only a few years later the Anglican chapel and cemetery became redundant after the Otago gold rushes of the early 1860s drew the road traffic away from Back Road and along the more direct route through Milton (Findlay et al 2015). The chapel was removed in about 1868, and by 1898 the trust that administered the St. John's Cemetery was requesting that it be closed. According to the burial register only 5 burials were undertaken after 1900. The last known burial was of John Moore in 1926, and the cemetery ground fell into disrepair and the boundaries were lost. The cemetery was formally closed in 1971 and the control and management was vested to the Dunedin Diocesan Trust Board. The area of marked graves was fenced off, and the balance of the land was leased to a local farmer, who built a hayshed where the chapel had stood. There are 124 surveyed plots in the cemetery and there are early reports of 'about 200 burials' there, although the actual number is likely to be less than this, and the TP60 group have found records of 68 burials of known people. In 2016 only seven graves remained marked with headstones, and as is discussed below, the archaeological excavation found an eighth headstone.

Methodology

Excavation was undertaken in three areas (Figure 3): the area over the back of the existing cemetery fence, the parallel area on the south side of the central farm track (where no graves were found), and an area within the fenced cemetery that had grave depressions but no headstones. Excavation was carried out by using a 13 ton digger to strip back large areas of topsoil in order to identify grave cuts, and then the same machine was used to excavate down around each grave until the level of the coffin was reached, after which work continued by hand. Archaeologists on the team were generally responsible for the excavation of the main grave fill and exposure of coffins and coffin furniture, while the bioarchaeologists exposed, recorded and lifted the human remains. Each grave cut and each individual interment was given a unique context number, so that in the case of a double interment in one grave there were three context numbers (one for the grave and one for each interment).

One complicating factor during the digging was the presence of a Telecom telephone line that had been run around the outside of the cemetery fence, but (as we discovered) was inside the actual area of interments. Chorus kindly moved the phone line at no cost, but its presence complicated the systematic excavation of the site.

A second complication was the high ground water level due to a very wet spring in Otago, and the variable ground conditions that were encountered. Some of the excavated area was heavy orange clay, through which ground water hardly passed, but which retained any rainwater that ran into the grave shafts: even after ca. 140 years the backfill in these graves had not consolidated and tended to be soft and waterlogged. Other parts of the excavated area consisted of gravel, through which the ground water flowed freely. Two burials (B1 and B6) needed to have sumps dug beside the grave cut, and a pump was used to control the water inflow.

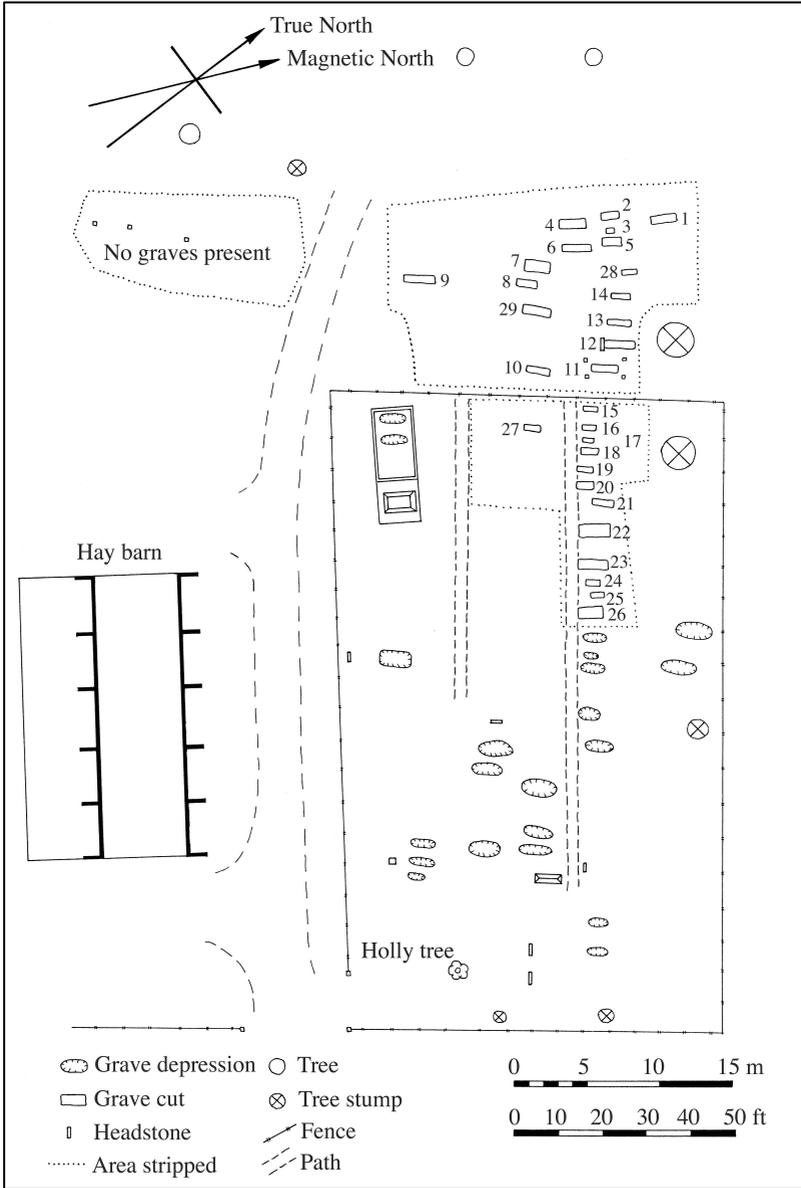
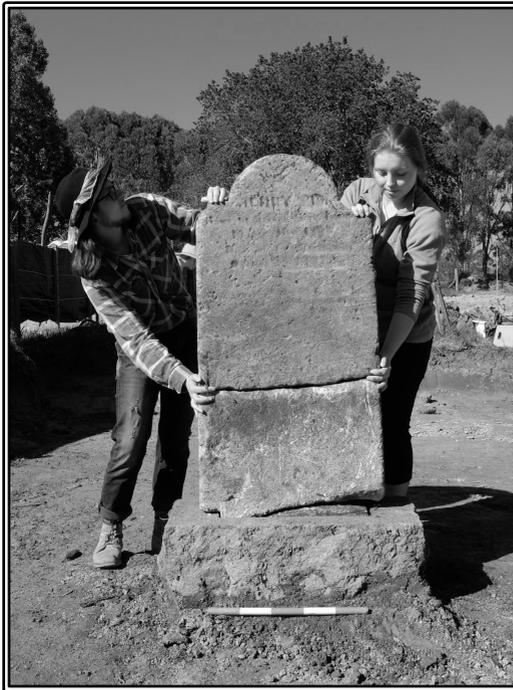


Figure 3 Plan of St. John's Cemetery, showing the results of the 2016 archaeological investigation.

Results

The excavation exposed a total of 29 grave cuts (Figure 3) and excavated 25 graves to recover the remains of 27 individuals (two of the infant/child burials contained double burials (graves 3A and 3B, and 20A and 20B)). Three grave cuts that were exposed after topsoil removal were not excavated due to lack of time (B24, 25, 26). Finally, a broken and buried headstone was found that identified the individual (B12, whose name is yet to be released) (Figure 4), and as the permissions were for unmarked and unidentified burials, this burial was left untouched. Sixteen of the graves were found in the area to the rear of the fenced cemetery, confirming everyone's suspicions that the cemetery was larger than the fenced area. The layout of these 'lost' burials continued in the rows from the known cemetery,



in particular alongside the northern of the two gravel paths that once ran the length of the graveyard.

Figure 4. The headstone being held in place by Alana Kelly and Teina Tutaki after it was found during topsoil stripping. Prior to the discovery of this headstone there was no record of the individual concerned having been buried in this cemetery.

The preservation of the human remains was highly variable across the site, partly due to equally variable ground conditions described

above. The condition of the skeletons ranged from completely intact to nothing preserved but the dentition. However, a sufficient sample was retrieved to begin to consider in some detail this population. Based on preliminary field recording, the breakdown of age and sex found was; 10 infants, 4 children (over 1 year of age and less than 15 years); 1

adolescent/young adult and 11 adults. Amongst the adults 5 were female, 5 were male and 2 could not be determined. The burials were all aligned on a north-south (magnetic) axis (aligned with the formally surveyed cemetery plan), and all except one (Burial 19, a child) had the head to the south. An intensive laboratory examination of the skeletal remains is underway and includes chemical and molecular analyses of bones, teeth and hair.

All of the interments were in wooden coffins, and once again their preservation was variable. However most survived well enough to allow some detailed description, enabling consideration of the funerary traditions practiced at this cemetery in the late nineteenth century. All were of similar construction, made from timber nailed together with simple butted joints. Most were of the single-break form, where the widest point of the coffin is across the shoulders, and it tapers towards the head and feet. The exceptions to this were generally the smaller infant coffins that were straight-sided. Most of the coffins were covered in black fabric (initial examination indicates these fabrics are woollen), with pressed metal (probably zinc) decorative strips tacked around the edge of the lids and along the sides (Figure 5).



Figure 5. Decorative pressed zinc strip on the coffin lid of Burial 6. This strip is 1.5 inches (38mm) wide.

Iron coffin handles were present on the adults' and some childrens' coffins, and these varied in the degree of ornamentation, from simple plain handles to a set of cast iron handles embossed with a cherub's face. Many of the adult burials had pressed iron coffin breast plates on the coffin tops, and four of these were still legible, allowing the confident identification of the individuals (once again, these names have yet to be released). Even at this very early stage of analysis matches have been made between coffin plates found in the St. Johns Cemetery and examples found in British excavations (eg see Miles & Connell 2012: Fig. 38). In general the funerary material culture appears to reflect 19th century British tradition, both in Britain and in other British colonies, and fits into the 19th century 'Beautification of Death' movement (Cowie *et al* 2008; LeeDecker 2009; Miles & Connell 2012; Pearson *et al* 2011).

There was sparse evidence for clothing, in contrast to the ample evidence for coffin fabric covering. A few buttons and some non-ferrous (probably brass) eyelets were found, some small fragments of clothing fabric were found with Burial 7, and an infant burial possibly contained a woollen blanket. There are probably several reasons for this: it seems likely that many of the bodies were probably only dressed in lightweight garments such as cotton nightshirts when they were buried, and plant fibres often do not survive as well as animal fibres in archaeological contexts (eg Pearson *et al* 2011: 116). The clothing fragments that were found also suggest that the preservation conditions for all fabrics within the coffins were worse than on the outside, possibly because of the presence of the decaying body. It is telling that there was no evidence for shoes in any grave, and yet shoe leather often survives exceptionally well and is commonly found in historic sites. If shoes had been present they would have survived at least in part, and the obvious conclusion is that no-one was buried wearing shoes.

Conclusions

This is only a preliminary report, and detailed analysis has yet to be completed on the skeletons or the material culture. However, even at this early stage the project has been a success. One of the major aims of the excavation was to find the lost graves and better define the historical cemetery boundaries, and this has been achieved. The locations of all identified graves were marked with 2 inch square posts prior to backfilling of the site, and it is anticipated that the reinterment of the skeletal and artefactual material will be back into the original grave locations.

The range of skeletal and artefactual material that has been found will allow a detailed examination of the people, their origins, health and cultural traditions (especially relating to death: a Victorian preoccupation). It is already apparent that there are strong parallels with British examples, which is not unexpected in an Anglican graveyard: it is hoped that further study will determine whether British cultural traditions were simply transplanted, or whether some degree of evolution or change occurred in New Zealand. As mentioned above, four individuals have been positively identified (together with the headstone for an unexcavated fifth), which will allow bioarchaeological and detailed historical data to be compared, and detailed life histories of these people to be created. The names of these five individuals can be published once their families have been contacted and the Church and the Ministry of Health give permission. There is no set timeline yet for the reinterment of the remains, but it is expected that this will occur in mid-2017. A full excavation report and a series of papers and other publications will be undertaken in 2017.

Acknowledgements

Funding for this excavation was provided by a Grant-in-Aid from the Department of Anatomy, University of Otago. We are particularly grateful to Wayne Stevenson for the donation of his time and use of his digger, and Grant Love (the farmer) for the use of his haybarn, water supply and access to his land. Further funding has been obtained for forthcoming analyses. This project is a collaboration between many individuals and groups. The TP60 group who instigated the work at St. Johns Cemetery and provided a vast amount of background research are Robert Findlay, Kath Croy, Isobel Michelle, Mary-Anne Miller and Rev. Vivienne Galletly. Other locals provided a great deal of support, including Dudley Finch and Geoff Finch. Bishop Kelvin Wright has supported the project wholeheartedly, and provided his permission for the excavation to be undertaken. Megan Callaghan, the Health Protection Officer at Public Health South guided us through the disinterment licence process. Rachel Wesley provided Maori cultural guidance, and participated in the excavation. Richard Walter and Phil Latham of the Department of Archaeology & Anthropology provided much of the excavation and field equipment.

The field crew were: Baylee Smith, Rebecca Kinaston, Alana Kelly, Caitlin Hyde, Teina Tutaki, Eleanor Moore, Shar Briden, Stacey Ward, Lori Bowers, Anna-Claire Barker, Rebecca Adam, Naomi Woods, Koreana Wesley-Evans, Sarah McDonald, Gail Elliot, Kath Croy, Anna Willis, Greg Hil, Jonny Geber,

Rachel Wesley, Nyssa Mildwaters, Jenni Lane, Holly Brinson, Jitlada Innanchai, Charlotte King, Kate Domett, Peter Petchey, Hallie Buckley.

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