



# UNRAVELLING MYSTERIES FROM THE PAST

The National Museum of Australia holds a large collection of human skeletal remains it inherited following the closure of the Australian Institute of Anatomy. The collection grew with the addition of human remains from the University of Edinburgh collection. Determining where human remains originally came from is not always clear. The trail of evidence can be quite scant and conflicting information can confuse the process of repatriation. This recent example from south-west Victoria illustrates the challenge.

In 1874, Mr James Dawson delivered a number of Aboriginal skeletal remains to members of the HMS *Challenger* scientific expedition. The *Challenger* was undertaking an oceanographic survey of the Pacific. During its journey the *Challenger* collected a small number of human skeletal remains from the Oceanic region. We are unsure of the movement of these remains after 1874, but they eventually arrived at the University of Edinburgh sometime after 1886. Among the remains were those of a young Aboriginal woman from south-west Victoria.



## UNRAVELLING MYSTERIES OF THE PAST

At first glance, it may seem that Dawson was an unexpected collector of human skeletal remains. During the second half of the nineteenth century it would have been difficult to find a more compassionate and sympathetic person working toward some equality for Aboriginal people. Dawson was an avid humanitarian and supporter of Aboriginal people in the Western District of Victoria and did much to protect their rights. He was relentless in his pursuit of restoring some balance between the first inhabitants of the region and later colonists. Dawson had witnessed first-hand the fragmentation of Aboriginal society and culture. In 1883 he was personally affected by the loss of his close friend and the last member of the local tribal group in Camperdown, Wombeetch Puyun, known locally as Camperdown George. After unsuccessfully attempting to obtain donations from local squatters, at his own expense Dawson paid for the construction of an obelisk for his friend which still stands today in Camperdown Cemetery.

Dawson's great interest in the various south-west tribes led him to document many aspects of the regional culture. In Great Britain archaeology is often cited as having its origins in the works of 19th-century British antiquarians. While English antiquarians were excavating Neolithic longbarrows, Dawson was excavating Aboriginal mound sites north of Warrnambool at places such as Wooriwyrite. He drew cross-sections and provided explanations of features within the stratigraphy of these sites. While excavating large earthen features was not unique, Dawson described the contents of the mounds, attempting to explain their function through direct discussions with local Aboriginal people. Although the details of his excavations were not published, Dawson did publish the results of many of his observations on Western District Aboriginal people in 1881 in the book *Australian Aborigines: The Languages and Customs of Several Tribes of Aborigines in the Western District of Victoria*.

Like many 19th-century ethnohistorians, Dawson was interested in Aboriginal mortuary practices and documented in detail the way local tribes disposed of their dead. In his account of mortuary practices in Victoria's Western District, he stressed the importance of burying the dead in their home country, and quite often, close to their original place of birth.

He wrote: 'Dying persons, especially those dying from old age, generally express an earnest desire to be taken to their birthplace, that they may be buried there. If possible, these wishes are always complied with by the relatives and friends. Parents will point out the spot where they were born, so that when they become old and infirm their children may know where they wish their bodies to be disposed of.'

In 1991 and 2000 the National Museum of Australia received a collection of skeletal remains from the University of Edinburgh as part of the first large international repatriation from the United Kingdom. Considerable archival information accompanied the remains. In the case of one set, those from a young female skeleton, the original place of collection was difficult to determine. Archival information suggested that they were taken from either Port Fairy or Camperdown in south-west Victoria.

The National Museum of Australia does not carry out research on Indigenous remains. However, where a community requests that further research be done the Museum will assist the community in finding competent researchers. Herb Harradine, the regional Aboriginal Cultural Heritage Officer, and elders from the Framlingham Aboriginal Trust, requested assistance in determining the provenance of the remains. The best method for this is a scientific technique called "stable and radiogenic isotope analysis" to try to work out where the young woman may have lived. Essentially isotopes are atoms, containing differing elements. These elements can leave distinctive signatures in bones which can be matched with the elements from the local environment the person lived in. The isotope analysis was undertaken by Dr Wolfgang Muller from the Research School of Earth Sciences at the Australian National University. Dr Muller had developed this technique and applied it once before in the famous case of the Iceman known as Utzi. Utzi was found close to the border between Italy and Austria; to determine which country had authority over the mummified remains, isotope analysis was one technique used.

Port Fairy is on the coast, and Camperdown is more than 100 kilometres inland. It is likely that people living in these two different areas subsisted on different resource types and would most likely demonstrate different isotopic bone signatures. While migration between the coast and inland areas was common among many Aboriginal groups, the area where the person spent most of his or her time should provide an overriding isotopic signal. In addition to varying food resources (in particular, seafood), there are differences in the isotopic composition of the local geology and hydrology ingested via food and water. By studying the isotopic signature found in an individual's bones and teeth, scientists can deduce where the person may have lived.

A small sample was taken from the femur (bone of the lower leg) and humerus (the bone from the upper arm) of the female remains to compare with isotope signatures from the areas around Port Fairy and Camperdown. Strontium, oxygen and carbon isotopic data were gathered from the two bones of the female skeleton.



Framlingham Aboriginal Elder, Joey Chatfield, Wolfgang Müller, Michael Westaway, and Herb Harradine at the Research School of Earth Sciences ANU.  
photo: Dragi Markovic

# STUDENTS HELP IDENTIFY REMAINS

Soil and water samples from the two regions from which the woman may have originated were required. Local students were asked to help, and under supervision of Mr Bob Beekhof at Port Fairy Consolidated School and Mr Graham Arkinstall at Camperdown College in Victoria's South West, they did so.

Students were instructed to gather water from likely natural sources that did not include recent run-off. These samples provided an indication of the oxygen isotope signature. Local soils were also collected to check local strontium and lead isotopic signatures. Isotopic variations in nature are often very small; however, they provide a very characteristic fingerprint of certain elements. Carbon signatures from the bone gave an indication of what foods the person had been eating – terrestrial inland plants or shellfish.

With the available isotope data gathered by the students, the different signatures were compared with the bone samples. The strontium isotopic composition obtained from the two bones was 0.7084 and 0.7085. The soil samples collected by the students revealed quite different strontium isotopic compositions from the two areas, 0.7086 for Port Fairy and 0.7071 for Camperdown.

The information from the soil hinted toward Port Fairy. The oxygen isotope signature from the bones indicated that the woman had ingested water with an isotopic composition of minus 4.2. Although oxygen isotope signatures weren't available for Port Fairy, there are known values for coastal stations at Adelaide at minus 3.9 and Melbourne at minus 4.6. The signature for Camperdown yielded a heavier value of minus 5.1. As the bone oxygen isotope signature was intermediate between Adelaide and Melbourne, this again pointed toward Port Fairy as the most probable origin for the woman. Finally, the carbon isotopes indicated a value of approximately minus 25, suggesting that the person probably subsided on marine resources. The combined strontium and oxygen record is consistent with the person living in the area near Port Fairy along the coast. Carbon isotopes also hinted in this direction.

With this information in hand, the cultural heritage officers from the region, Herb Harradine and Joey Chatfield, were able to make an informed decision as to the most appropriate way to rebury the woman's skeletal remains. In November 2003, during a large reburial ceremony involving more than 200 people from the local Aboriginal community and the wider community of south-west Victoria, her remains were laid to rest in the Framlingham Aboriginal Cemetery alongside other people from the Port Fairy area. 📍

*Michael Westaway, National Museum of Australia.*

When the Environment Group students of Camperdown College were given a chance to participate in the returning of Aboriginal remains, I saw it as a wonderful thing to do and straightaway volunteered to help. Our job was to take soil and water samples from three local sites, Lake Corangamite, Lake Purrumbete, and Mt. Leura. These samples would then be sent off and tested so that it could be determined whether the remains had originated from our area.

Two other students from other levels and I had volunteered and we set off the next morning with Graham Arkinstall, the Environment Group teacher, and Linda Morgan, school lab technician. The first site we visited was Lake Corangamite. Greg Farmer, who owned the land, met us and took us down to the lake's edge to show us where we could take soil samples where the land hadn't been disturbed by cattle. We went to a nearby natural spring and took a water sample. Our next stop was Lake Purrumbete, where we took a soil sample from public land and a water sample from the lake. At Mount Leura there was no natural water source so we took only a soil sample.

A few months after we took the samples five of us were invited by the Framlingham Aboriginal community to the return of their ancestral remains. We considered ourselves lucky to be invited to such a significant event. I was very happy to go to the funeral because I knew that I had helped in the returning of something that means a lot to the Aboriginal people of our area ... I hope that this will bring both the Aboriginal communities and other communities in our area closer together. 📍

*Yonie Tiljak is a Year 10 student at Camperdown College, Camperdown, Victoria.*



Greg Farmer (left front), Ashley Bamford (far left), Linda Morgan (behind Greg), Katrina Joiner, Yonie Tiljak (right) taking a soil sample at Lake Corangamite.  
photo: courtesy Yonie Tiljak