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Obituary: Stephen Mark Free (23 March 1966–9 May 2014)

Obituary: Herman Mandui (1969–2014)
A Kaurna burial, Salisbury, South Australia:
Further evidence for complex late Holocene Aboriginal social systems in the Adelaide region

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Abstract
In 2011 a burial was disturbed during work in Salisbury, a northern suburb of Adelaide, South Australia (SA). Subsequent archaeological excavation revealed a male human interment in a deep alluvial context with a number of unusual characteristics, including a bone point and several ‘binding’ hearths. A sample of femoral bone was submitted for AMS radiocarbon dating and bone collagen stable carbon and nitrogen isotope analysis. Dating determined that the burial was relatively recent (380±30 BP), contemporary with proposed shifts in the Kaurna’s economic systems when ‘mound sites’ were inhabited, that is, over the past 1500 years. Stable isotope results indicated the individual consumed a distinct diet based on terrestrial foods, with an absence of marine protein. The location, mode and stratigraphic context of the burial, coupled with the stable isotope results, suggest this individual had a different diet to contemporary Kaurna men. The ethnographic record and knowledge provided by traditional owners suggested that his diet may have been connected to his status and position within Kaurna society as a ‘medicine man’ or ‘sorcerer’.

Introduction
There is considerable evidence supporting the notion of late Holocene hunter-gatherer sedentism and territoriality in coastal and riverine South Australia (SA) over the past 5000 years (see Pate and Owen 2014). The archaeological and ethnographic evidence suggests that coastal and riverine locations in SA provided sufficient reliable food and water to support larger populations of peoples in settled village lifeways without the necessity for agriculture. During the later Holocene, the development of food extraction techniques and the intensification of subsistence strategies to improve the yields of wild foods, combined with food preservation and storage methods, allowed hunter-gatherers to accumulate food surpluses (see Berndt and Berndt 1974:46, 1993:74–96). During the colder and wetter winter months half the number of food items were available compared to the summer months; thus food surpluses could be used to even-out the availability of wild foods over the year (Owen 2004:89–91) and provide reliable long-term food sources. In turn, this allowed the development of complex social and economic systems (Littleton 1999; Littleton and Allen 2007; Littleton et al. 2013; Lourandos 1997; Owen 2004; Pardoe 1988, 1994, 1995; Pate and Owen 2014; Pate et al. 2002), which then provided additional mechanisms to reduce risks associated with variability in food availability (David et al. 2006; Eyre 1845; Gamble 2008; King 1978; Lourandos 1985, 1988, 1997; Matson and Coupland 2009; Myer 1846; Owen 2004; Pate 2006; Price and Brown 1985; Taplin 1874, 1879).

Stable Isotopes in the Lower Murray Environment
Carbon and nitrogen stable isotopic values have been distinguished for modern bioregions in SA, where the geographic distributions of species have been related to climatic zones (Anson 1997; Hattersley 1983; Murphy and Bowman 2007; Owen 2004). Over the past 32 years baseline data has been gathered for faunal species at different trophic levels across numerous SA bioregions (Anson 1997; Dawson 1989; Heaton et al. 1986; Hume 1982; Owen 2004; Pate and Anson 2008; Pate and Nobel 2000; Pate and Owen 2014; Pate and Schoeninger 1993; Pate et al. 1998b; Sanson 1982), revealing that environmental provenances (Laut et al. 1977) can be characterised through stable carbon and nitrogen isotope values (Owen 2004:121–129). One key outcome found that stable nitrogen isotope (δ15N) values are more positive in fauna inhabiting semi-arid and arid interior habitats where C4 grasses become more prevalent (Ambrose 1991; Anson 1997; Heaton et al. 1986; Pate and Nobel 2000; Schwarcz et al. 1999; Sealy et al. 1987). Pollen evidence from southeastern wetlands (Dodson 1974, 1975, 1977) and stable isotope analysis of kangaroo bones from stratified rockshelters in the lower Murray River Basin (Roberts et al. 1999) have shown that the local climate was relatively stable over the last 5000 years. As a result, the isotopic values distinguishing modern biogeographical zones or environmental provenances should reflect fixed values that can be applied to the late Holocene. Comparisons between human archaeological bone samples should reflect patterns of mobility or sedentism, given that regional diet will reflect bioregional food consumption.
Baseline stable isotope data from the bone collagen of key Australian mammals with distinct diets can be used to examine ancient human dietary variability, landscape occupation and use. The southern coast of SA is a C3 environment; as such, stable carbon and nitrogen isotope values can be used to distinguish between marine and terrestrial diets (Pate and Schoeninger 1993). The earliest isotopic investigations into patterns of late Holocene sedentism in SA revealed differences between human diets over locations with a wide geographic extent (Collier and Hobson 1987; Hobson and Collier 1984; Pate 1995, 1997, 1998a, 1998b). These investigations provided the impetus for investigating more localised, intratribal, isotopic variations across bioregions where sufficient dietary variability was found to exist as a consequence of sedentism, against a context of the available baseline food groups. It has been found that an identifiable isotopic signature is a consequence of a dietary shift between coastal, riverine and arid land foods (Owen 2004; Pate 2006, 2008b; Pate and Owen 2014; Pate et al. 2002, 2011).

Owen (2004:96–135) presented isotopic values for a variety of food groups across a number of environmental provinces. These baseline data have been used to determine stable carbon and nitrogen isotopic values for different protein groups that could have been consumed by Aboriginal people inhabiting different regional areas through the late Holocene (Owen 2004:Table 3.20). Pate and Owen (2014) have provided an overview of human biogeographic zones and presented stable isotope data for distinct late Holocene human populations, classified as the Southeast Coast (the Coorong), Coastal Murray River Mouth (the brackish waters at the junction between the Murray River and Lake Alexandrina), Inland Murray River (Swanport) and Semi-Arid Murray River (Roonka). Over the past two decades, isotopic studies have contributed to analyses of intratribal dietary variability, examining potential modifications to diets across the Holocene and correlating dietary shifts with other archaeological and ethnographic changes. This research has provided evidence for the movement and possible activities of individuals both during their life and, possibly as a consequence of Aboriginal tradition, following their death (Pate and Owen 2014). The current study utilises isotope results presented in Pate and Owen (2014), and Owen (2004) to determine the diet of the Salisbury burial, placing this individual within the wider stable isotopic landscape, and to infer his social status.

The Kaurna Late Holocene Cultural Landscape and Mound Sites

The erosional landform of the Adelaide Plain is a gently undulating plain with extremely low relief and very gently inclined slopes (Speight 1984). Small ephemeral drainage channels cross the plain between the larger watercourses, such as Dry Creek, North and South Para Rivers, and the Gawler River. The presence of wide-scale and repeated flooding is demonstrated by the nature of alluvial outwash deposits, fans and terraces stretching between the Adelaide Hills and the coast (Tweedale 1976:50). Climatic data from the Adelaide Parafield weather station show an annual mean rainfall of 475 mm/year (average 39 mm/month), with the majority of the rain falling during the four coldest months (May–August), which receive 50% (235 mm) of the annual precipitation, with rain falling on one out of every three days (BOM 2013). This climatic pattern is likely to have resulted throughout the late Holocene in periodic, possibly annual, flooding across the Adelaide Plain during the winter months, the time of year when the variety of foodstuffs was most limited (Owen 2004).

The Aboriginal people who occupied the Adelaide Plain, eastern Mount Lofty Ranges and Fleurieu Peninsula are today known as the Kaurna (Edwards 1972; Groome and Irvine 1981; Hemming 1990). In pre-colonial times there were more than 20 local clans across the plain, from Crystal Brook in the north to Cape Jervis in the south (Edwards 1972; Groome and Irvine 1981; Hemming 1990). The earliest accounts to describe the Kaurna’s habitation patterns indicated that they lived in numerous semi-permanent sites:

Dwellings are the most simple habitations perhaps known, being only a few branches placed in a semicircle during the summer months, under which they lie with a fire in the middle, and in the winter months the same form is retained, only made more substantial by the sides being heightened and supported by a few sticks, meeting at the top and covered over with bark, earth, or grass, which forms when finished a domicile in the form of a half dome. When an encampment takes place the ‘wurilies’, as they are called, are generally made close together and in rows (Cawthorne 1844:20).

In 1908 The Advertiser reported ‘An Old Aboriginal Rendezvous’ in the Little Para River/Salisbury area:

Further evidence of the fact that the natives used to congregate there has been found on many occasions by the turning over of small hillocks on the slopes near the creek, which had been built up by generations in the process of baking the game and fish on which the blacks used to live. The remains of numerous Aboriginal ovens have been unearthed and the soil, which was little else but decomposed vegetable matter and ashes, has been spread over many of the gardens as manure.

One of the last of these mounds has only recently been reduced to the level of the surrounding land on Douglas Park, the farm of Mr Ward Mc. and the material carted away consisted of ashes and rotten vegetable substances, which had been piled up little by little probably for a century.

In addition to these facts the discovery of Aboriginal skeletons and skulls at various times along the Para has proved beyond doubt that the place was a burial ground also long before the white man took possession of the country (The Advertiser 05/11/1908).

Stratigraphical analysis of excavated mounds demonstrates that, through the repeated accumulation of occupation debris, these habitation sites eventually became distinctive, artificial ‘mounds’ in the landscape (Draper and Mott 2001, 2004; Draper et al. 2000; Littleton et al. 2013). Dating of interments and stratigraphic layers within the Gillman Mound has provided evidence that mounds were places used repeatedly over hundreds of years (Littleton et al. 2013). As such, they are considered a tangible component of the Kaurna’s mode of late Holocene semi-sedentism.

Kaurna mound sites comprise organic and soil matter, frequently with interred burials. They can measure up to 80 m in diameter, and the largest are regularly over 1 m in height (e.g. the Gillman Mound was 12 m in diameter and 3.5 m high [Walshe et al. 2011]). Radiocarbon dating of archaeological materials and burials from these mounds indicates that they were constructed and occupied over
the last 1500 years (Draper and Mott 2004; Draper et al. 2000; Littleton et al. 2013; Walshe et al. 2011). The seven burials in the Greenfields Mound were dated to between 706 and 243 BP (Furniss and Habberfield-Short 2011: Table 10.1) and the 12 burials from the Gillman Mound to between 1200 and 750 BP, with the reuse of the area as an occupation site occurring after 500 BP (Littleton et al. 2013; Walshe et al. 2011:16). In the Elizabeth to Salisbury region—the focus of this study (Figure 1)—numerous Kaurna burials (the exact number is unknown because multiple burials were recovered by the SA police during the 1940s) and seven mound sites have been identified to date; these features are connected by landform and geomorphological contexts. Other types of archaeological evidence (such as stone artefact concentrations) are located at a distance from the mounds and burials; thus site patterning possibly suggests structured use of the landscape (acknowledging issues associated with the time-space recording of archaeological sites, such as the contemporary nature of site formation and longevity of use, site boundary issues and the continuity of a site’s use etc., cf. Darvill 1999).

Analysis of the organic contents of the mounds has highlighted that these deposits provide direct evidence for a varied diet based on a large range of marine, terrestrial and freshwater food groups. Fauna identified in the Gillman and Greenfield Mounds included snapper, mulloway and bream, birds, shellfish, including freshwater mussels, abalone, and cockles, crabs, reptiles, kangaroos, wallabies, bettongs, bandicoots, emu shell and several smaller mammals. Dingo bones were also common, some of which had been butchered, burnt and discarded with other food remains (Draper and Mott 2001; Draper et al. 2000; Walshe et al. 2011). This archaeological evidence provided a context from which to commence reconstruction of late Holocene Kaurna diets. The initiation of mound construction, the use of mounds for habitation activities, possibly as markers in the landscape, as food preparation and consumption zones, for ceremony and as burial locations provides evidence for significant change to the Kaurna’s use of landscape and highlights modifications in socio-economic patterns and mechanisms. One key aspect associated with mound use was the ability to occupy the flat and flood-prone Adelaide Plain (Draper and Mott 2001, 2004; Draper et al. 2000; Littleton et al. 2013), which would have allowed economic practices associated with the exploitation of wetland landscapes for longer periods during the year. We hypothesise that, although they were likely formed by repeated visitation and the discard of food refuse, the mounds may have provided a specific economic function during the wet winter months. Habitation of the mound sites would have allowed domiciliary spaces (Memmott 2007:37, 121) to be located above winter floodwaters, and also provided convenient access to wetland areas when the plains were inundated. The creation and consequential habitation of mounds may have followed, and allowed adherence to, traditional rules and laws governing the social use of space within camp areas (Memmott 2007:114–120). The occupation of the Adelaide floodplains during winter concurs with anthropological accounts that the Kaurna generally moved inland to more sheltered locations adjacent to the Mount Lofty Ranges, foothills and into ‘villages’ along the coastal streams at this time of year (Campbell 1988:21; Tindale 1987:10). Clarke’s review of the Kaurna’s cosmological beliefs pinpoints the appearance of the autumn star, Parna, as a sign that the seasons were changing and that ‘large waterproof huts needed to be built in the Adelaide foothills for the coming winter’ (Clarke 1990:6). Thus it is suggested that, over the late Holocene, Kaurna people tended to occupy inland locations during the winter, with habitation of coastal places more frequent during the much warmer and drier summer months.

On the Adelaide Plain, mounds have been recorded between Glenelg (in the south) and Middle Beach (in the north), with concentrations between Mawson Lakes and Salisbury, and further concentrations near Port Gawler (Littleton et al. 2013:Figure 1; SA Register of Aboriginal Sites). Of those mounds archaeologically excavated, around half contain burials, with burial pits or shafts cutting through those mounds archaeologically excavated, around half contain burials, with burial pits or shafts cutting through the mound stratigraphy. Temporally similar burials outside of mounds appear to be positioned within a landscape context that is in close proximity to mound locations, thus suggesting that the ‘mound was a symbol’ (following Pardoe 1988), and that, apart from their economic uses, mound sites and associated burials may both have functioned as landscape markers denoting a traditional and social purpose through the last 1500 years. This suggests an evolution of designated landscape markers during this period. Thus, consideration of cultural and social evolution connected to flood plain bioscapes (Pardoe 1994) must account for both burials and mounds as keys to understanding Kaurna socio-economic systems. When combined with bioarchaeological studies of human skeletal remains it should be possible to commence addressing complex behavioural questions about past social systems and landscape use (Bentley et al. 2005; Budd et al. 2003, 2004; Katzenberg 2000; Pate 1997, 2008a, 2008b; Sealy et al. 1995; Thomas 1973).

A Kaurna Burial—Discovery, Burial Context and Skeletal Analysis

In January 2011 work resulted in the disturbance of a Kaurna burial at RAAF Base Edinburgh in Salisbury.
A Kaurna burial, Salisbury, South Australia

Consequently, Kaurna traditional owners, GML Heritage and ACHM undertook archaeological excavation and recording of the burial in February 2011 (Furniss and Habberfield-Short 2011). The burial was located beneath an existing road at a depth of 1.2 m below the modern ground surface. The geomorphological context of the burial’s location suggested that it had been interred in sandy alluvium adjacent to the edge of a naturally infilled palaeochannel (Furniss and Habberfield-Short 2011:18–20).

The mode of burial suggested that a shallow grave, orientated east-west, had been excavated through the soft alluvial silt/sand (Figures 2 and 3). The base of the grave was flat, onto which the burial had been placed, most probably in a flexed position, with the hands drawn up in front of the chest. The precise arrangement of the burial could not positively be inferred due to disturbance during site work prior to archaeological excavation, resulting in only the metacarpals remaining completely undisturbed and in situ (Figure 4). Following interment the burial was filled in with sandy alluvium; over time, slow and repeated alluvial deposition had covered the burial location and remains of the palaeochannel.

Very unusually, the individual’s hands were positioned under, and adjacent, to two small hearths (Figure 5). Two further hearths were identified equidistant north and south (Figure 2). Located in situ within the grave was a bone unipoint, fashioned from a macropod fibula, ground at one end with apparent pitting and gnawing along its length, and a small stained circular area near the broken end of the bone. The two recovered broken pieces had a combined length of 149 mm, a third section was not recovered and therefore the total length could have been greater. A range of quartz manuports, a quartz core and a hammerstone were also recovered from the burial. Further excavation to the immediate west of the burial (over a distance of 20 m) identified a series of small hearths that were stratigraphically contemporary with the burial, and a large portable grinding stone.

Methods

Analysis of the skeletal remains included an inventory of elements, a determination of age (based on tooth wear), sex (from the morphology of the pelvis and crania, with reference to other reported Kaurna burials) and pathologies; analysis was undertaken following Bass (2005), and Buikstra and Ubelaker (1994) (Furniss and Habberfield-Short 2011:21–29). Following morphological analysis, the remains were re-interred adjacent to the original location following a traditional burial ceremony undertaken by Kaurna elders.

A piece of femoral cortical bone, which had been fractured from the mid-shaft during the initial disturbance, was selected for radiocarbon and isotopic analysis. In the past femoral cortical bone has proven suitable for such analysis and is less likely to have suffered from diagenetic processes than spongy bone, such as ribs (Owen 2002). The bone sample was submitted to the Beta Analytic Laboratory for standard collagen extraction, target preparation, $\delta^{13}C$, $\delta^{14}C$ (AMS radiocarbon) and $\delta^{15}N$ analysis, following methods described in Ambrose (1990), Coplen et al. (2006) and Sealy (1986). Acid insoluble extracts were identified as collagen by measuring C/N rations (DeNiro 1985). Calendar ages were determined using INTCAL09 (Hood 2012).

Results

The majority of skeletal elements were recovered through sieving following the initial disturbance. The cranium and mandible were incomplete and some vertebrae and phalanges were missing. All long bones were present, although none remained intact, with broken or absent epiphyses preventing an estimate of stature. Seven teeth remained in the mandible, with a further 11 recovered from the sieve. A total of 104 separate bone elements were recovered. The skeletal remains were generally in a moderate to good condition, albeit encrusted with sand, showing only early signs of bone degradation.

The burial was of a single male, aged 25–35 years. Pathologies identified included a ‘deformity of the [sacral] S1 neural arch and one spinus tubercle (S3) on the medial sacral crest [that] appears to be blunt, worn and oriented perpendicular to the longitudinal orientation of the sacral crest tubercles. These may be indicative of degenerative bone disease, such as arthritis’ (Furniss and Habberfield-Short 2011:27). One of the ribs exhibited a small bulbous bony growth, suggesting a healed fracture.

AMS radiocarbon dating of the bone provided an age estimate of 380±30 bp (Lab No. 328339). Calibrated dates
exhibited a 170 year range, from 1450–1500 AD, 1500–1510 AD and 1600–1620 AD (1 sigma), or a 190 year range from 1440–1520 AD and 1560–1630 AD (2 sigma). The age of the Salisbury burial is thus late Holocene, prior to European arrival, and firmly fixed within the period when mound sites were adopted as a mode of economy and subsistence. This date provides time depth for the analysis of palaeodiet and allows contrasts to be drawn between ethnographic accounts and archaeological data from the excavation of mound sites.

Evidence of local diets, as reconstructed through archaeological remains from the Gillman and Greenfield Mounds, and ethnographic sources, suggests that the late Holocene Kaurna would have consumed a balance of terrestrial plants and meat, freshwater plants, fish, birds and shellfish, as well as marine proteins. Indeed, a Kaurna diet with a balanced consumption of these foodstuffs should hypothetically present stable isotope values of approximately -18 (\(\Delta^{13}C\)) and +11 (\(\Delta^{15}N\)), (based on projections in Owen 2004, published \(\Delta^{13}C\) in Littleton et al. 2013:Table 1, and unpublished \(\Delta^{13}C\) and \(\Delta^{15}N\) data held by the authors).

The carbon isotope results from the burial suggest that the dietary protein focus was a balance of terrestrial meats and plants, derived from species on the Adelaide Plain as well as adjacent higher rainfall zones. The nitrogen isotope values are distinctive and indicate an absence of seafood or nitrogen-enriched (higher trophic level or from arid country) terrestrial meats in the diet. Elevation of the nitrogen isotope value above that observed for C₃ herbivores, such as koalas +3.1 \(\Delta^{15}N\) (Owen 2004; Pate and Owen 2014).

**Interpretation**

The carbon isotope results from the burial suggest that the dietary protein focus was a balance of terrestrial meats and plants, derived from species on the Adelaide Plain as well as adjacent higher rainfall zones. The nitrogen isotope values are distinctive and indicate an absence of seafood or nitrogen-enriched (higher trophic level or from arid country) terrestrial meats in the diet. Elevation of the nitrogen isotope value above that observed for C₃ herbivores, such as koalas +3.1 \(\Delta^{15}N\) (Owen 2004; Pate and Owen 2014).
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and Schoeninger 1993; Schoeninger et al. 1983), indicates a trophic enrichment from the consumption of terrestrial meats, along with a small component (>10%) of freshwater plant, fish, bird and shellfish protein. Early historical period non-Aboriginal Adelaide diets were composed of 60% terrestrial meat, 32% seafood and 8% terrestrial vegetation (Pate and Anson 2012). The Salisbury burial and the historical period diet have a similar stable carbon isotope value, indicative of consuming similar terrestrial protein sources; whereas the difference in stable nitrogen isotope values indicates the absence of seafood in the Salisbury burial’s long-term diet.

The results of the isotope analysis were unexpected given the bioregion of the Adelaide Plain and present a further geographically distinct diet, different from that consumed by people on the southeast coast, the coastal Murray River mouth and all inland riverine environments (Figure 6). The results show that the Salisbury individual was not consuming food from the arid inland or the riverine landscape, lending further credence to the notion of late Holocene widespread sedentism and territoriality across temperate and coastal SA. The substantially different dietary isotopic values between those individuals buried in nearby mound sites and that exhibited by the Salisbury man (Figure 6), demonstrates deliberate dietary selection and complex social behaviour within Kaurna society during the late Holocene.

Given the unexpected stable isotope—and, by implication, dietary—result, possible cultural reasons for the difference need to be explored. Interpretation of the burial has suggested that the Salisbury man may have been a ‘medicine man’ or ‘sorcerer’. Kaurna elders described the traditional name for a medicine man as ‘warrawarra’ and ‘warrara’ for a sorcerer. There are three strands of archaeological evidence for this burial potentially being that of a sorcerer: the presence of the bone point; the hearths within the burial over the hands; and the location of the burial near a known mound site but not interfered within the mound.

Kaurna elders immediately interpreted the bone point recovered from the burial as a ‘pointing bone’ associated with magic, as described in early ethnographic accounts by Meyer (1846:13–14), Taplin (1879a:23–31,1879b:36–37), and Berndt and Berndt (1993:256–260). Meyer (1846:14) described the magic and medicine of the Encounter Bay Tribe (whom he referred to as the ‘Adelaide tribe’), where sorcerers called ‘Melapar’ were believed to ‘have the power of transforming themselves into birds and trees ... Both young and old are very much afraid of these Melapar, and in consequence do not like to be away from their huts after sunset’. Berndt and Berndt (1993:256–266) corroborated Meyer’s account and elaborated further details of sorcery, albeit relating to the Yaraldi tribe of the Ngarrindjeri. Diseases and illness were frequently attributed to the effects of ‘enchantment’ produced by sorcerers, with three fundamental mechanisms of delivery. The most covert involved procuring a bone from a duck, parrot, cockatoo or a Murray cod consumed by an intended victim. Meyer (1846:13) stated that the sorcerer would keep this bone ‘and fixes [it] with grass tree resin upon the end of a small needle-shaped piece of kangaroo bone about three inches long. This is the “ngadungnge”, which he places near the fire, in order to produce illness and death’. While it is acknowledged that differentiation between utilitarian bone points and pointing bones is difficult (Walshe 2008: Table 2), the attributes of the bone point recovered provide some correlation with key attributes identified by Walshe (2008) and suggest that this was a bone point connected with sorcery.

Further evidence within the burial context of the Salisbury individual lends support to the proposition that he was a sorcerer. The two small hearths located with the burial were located above the metacarpals of one hand; a further two hearths were placed around the individual (Figures 2–4). These hearths appear to have been used to ‘bind’ the man to his grave and were identified by Kaurna elders as cultural indicators of the individual’s status, as well as relating to a specific burial practice for such individuals. The wider archaeological evidence surrounding the burial area, including a series of hearths extending beyond the burial, was interpreted by Kaurna elders as being a component of a ‘sorry camp’ connected with burial customs and the mourning period.

Discussion with Kaurna elders described the lives of the sorcerers as being ‘separate and isolated’ from the remainder
of society; they spent time in the Adelaide Hills and were not regularly involved in normal Kaurna ‘family’ life. As such, it is entirely possible that the diet of the Salisbury individual would have been different to contemporary Kaurna people. It is clear that this individual did not regularly consume nitrogen-enriched foods, he ate only very limited quantities of fish or other seafood, and his burial was very different to contemporary Kaurna burials, where interment in a mound was a common method during the late Holocene (Littleton et al. 2013).

The fact that this individual was not interred in a mound, but buried within a landscape setting that contained numerous mounds with burials, implies complex social patterning. The wider patterning of Aboriginal sites and places across the Salisbury landscape suggests a demarcation in landscape use, with specific locations for habitation (mounds), burial locations (mounds and non-mound burials), quartz sources and associated stone artefact manufacturing sites. Social control of landscape, associated with Aboriginal law, traditions and Country, may have been exercised through visible landscape markers such as mounds, and knowledge of isolated burial positions.

Thus the connections between late Holocene mound burials and non-mound burials warrant future exploration; particularly in terms of differences in the mode of burial, burial position and orientation, burial goods and the diet of those interred. Stable isotope analysis has provided evidence for semi-sedentary tribes inhabiting defined land areas and it is suggested that future research could highlight temporal changes in diet and modes of burial, determining whether a shift in diet occurs with the initiation of mound sites.

Conclusions

A burial associated with hearths and the presence of a bone unipoint, coupled with unusual stable isotope results and late Holocene date, comprise multiple strands of evidence for this individual being socially different from other Kaurna males, and it has been inferred that this man was likely a sorcerer. Furthermore, his burial was positioned on the edge of the known extent of burial sites and mounds; the frequency and location of such sites hints at social and territorial landscape markers across this particular zone of the Kaurna’s territory.

This study has shown that, beyond investigating palaeodiet, stable isotope analysis can also be used as a tool for correlating archaeological data and ethnographic records. Stable isotope analyses, coupled with chronometric dating of Kaurna burials, can provide new data for late Holocene Kaurna diets, and possible indications of interclan dietary change over the past 1500 years as the Kaurna’s subsistence base changed to exploit freshwater resources on the Adelaide Plain through the use of mound sites. These changes may also provide further indicators of both late Holocene sedentism and territoriality. Further research into such sites across the Salisbury and Elizabeth region could present new landscape evidence for Kaurna modes of habitation and subsistence.

Finally, this study has shown that a single individual is able to provide a direct connection to the past; it is not always necessary to collect large assemblages of isotopic or skeletal data to undertake a meaningful analysis. As Littleton et al. (2013:49) concluded, ‘it is in the small details… that answers to important questions might be found’. The Kaurna elders succinctly summarised the situation, noting that, whilst it was unfortunate that this individual had been disturbed, he has provided all of us with new teachings and insights into Kaurna culture.

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