

GREEN BURIALS IN AUSTRALIA AND THEIR PLANNING CHALLENGES

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INTRODUCTION

Understanding the environmental, sociocultural, economic and legal contexts are crucial for the provision of burials in a very multicultural Australia. A range of modern-day factors are now directly influencing how we plan and provide for the deceased – some of which include the consideration of an ageing population, a pluralistic society, limited land availability for traditional cemeteries, and a sustainable framework for much of our society's social practice. A recent global trend of 'green burials' has emerged in response to these factors. Green burials, [the term used in this paper] also known as organic burials, natural burials, woodland burials and bushland burials, are now being provided for in seven locations across Australia, with development proposals for more currently emerging. Despite this, there are no standard practice guidelines for those dealing with the burial location environment and the burial process itself. There is also relatively little research being conducted in this area.

This paper briefly discusses the concept of death and burial practice in Australia. It defines green burials and uses a case study to showcase a NSW green burial site currently in operation. The paper argues that planning authorities and planners face real challenges with land availability for cemeteries and social practice around this burial method. Features of three of the seven Australian green burial sites are used to illustrate the legislative environmental, sociocultural, and economic aspects of the green burial concept. To be considered a feasible burial alternative there is a need to document and respond to planning challenges in order to guide existing and future green burial sites and practices within Australia.

GREEN BURIALS: DEFINITION

Death is a universal experience. At some stage in every human life cycle, we all die and our remains need to be managed. At its simplest, Chidester acknowledges "in terms of human biology, death is the cessation of life" (2002, 5). However, how society farewells the deceased is dictated by cultural values, religion and belief systems. It is these values and beliefs that personalise and individualise the experience of death. "The way in which people deal with death is an important aspect of the way in which they relate to and make use of their culture, just as religion, a fundamental part of culture, makes death comprehensible, understandable, and interpretable" (Collier 2003, 727).

The concept of a green or natural burial is not new. Charmaz, Howarth and Kellehear (1997) argue that green burials are simply a return to 200 year old, post-colonial Australian experience of death, whereby pioneers were merely buried 'in the bush' or 'on the land'. However, the contemporary concept and practice of a green burial is emerging in Australia. As of 2010, there were only seven green burial sites in operation: one in South Australia, Tasmania and Western Australia, and two in NSW and Victoria. Overseas however, the concept has already been embraced in the USA and UK since 1998 and 1993, respectively.

Regardless of which of the many working definitions of green burials is used, there must be an appreciation of two distinct components: the burial environment and the burial process itself (Parliament of South Australia 2008). The Australasian Cemeteries and Crematoria Association (ACCA) defines a green burial "as the interment of a body that conforms to the usual or ordinary course of nature and adds to the biodiversity of the area" (ACCA 2008, 5). Green burial sites are "a type of 'green' cemetery, where the occasion of death and the burial of human bodies provides an opportunity to repair the environment through establishing native bush on cleared land" (The Parliament of South Australia 2008). Stowe Jr, Schmidt and Green (2001) elaborate on the cremation aspect to include the scattering and interment of cremated remains within the scope of a green or very natural environment.

Valigra (2005) comments on the burial process itself suggesting that, regardless of whether the burial is a cremation or full-body burial, no embalming fluids or other chemicals should be used in the burial method. McMahon (2009, 10) adds "the idea was simple: bodies could be buried in coffins made of wood, cardboard, wicker or any easily biodegradable material..." such as a shroud.

A relatively advisory organisation in the USA, The Green Burial Council, has attempted to define green burials by establishing standards for 'green cemeteries' (Parliament of South Australia 2008). This categorisation system is based on three levels of environmental objectives and benefits. The Green Burial Council in the USA uses these standards to certify green burial sites across the country, with each level of certification being in addition to the previous-level(s) requirements.

- Level 1: Hybrid Burial Grounds: "A Hybrid Burial Ground is a cemetery that operates a facility accommodating both conventional practices as well as green burial. In some instances a "Hybrid Burial Ground" simply allows for 'vault less' burial on its premises. In other instances, a Hybrid Burial Ground may incorporate tenants of a Natural Burial Ground [level 2] including engaging in sustainable landscape design and natural memorialisation" (Parliament of South Australia 2008, 4).
- Level 2: Natural Burial Grounds: "A Natural Burial Ground is a cemetery that encourages sustainable and ethical practices but does not involve an established conservation organization as long-term steward, and does not necessarily further a landscape-level conservation purpose" (Parliament of South Australia 2008, 5).
- Level 3: Conservation Burial Grounds: "A Conservation Burial Ground is a cemetery that encourages sustainable and ethical practices and maximizes the potential of the burial process to facilitate ecological restoration and landscape-level conservation. A Conservation Burial Ground must always involve an established conservation organization as a long-term steward" (Parliament of South Australia 2008, 6).

Based on the various definitions above, for the purposes of this paper, first and foremost, green burials must contribute to the local ecosystem with minimal disturbance to existing vegetation. Other characteristics fundamental to the green burial concept include the following:

- Biodegradable materials that contain a body can be in the form of a simplistic, natural coffin or shroud and can include natural biodegradable clothing.
- Interred bodies must not be embalmed.
- Loose soil is used to backfill the grave to facilitate natural decomposition.
- Grave markers are natural materials (e.g. a headstone made of rock) or nature elements (e.g. a tree).
- Plots are accurately geographically plotted for the future identification of a burial location.
- The scattering of cremated remains occurs in a very natural area.
- The interment of cremated remains must be in a biodegradable container.

From a definition comes the question of why this burial practice has recently come into favour. From a sociocultural perspective and in light of the relatively environmental movement, it is undeniable that individuals have become increasingly aware of the impact they have on the environment. This awareness has driven many to adopt sustainable daily practice with the intention of reducing their ecological footprint. Green burials provide individuals the opportunity to "allow the body to rejoin the elements, to use what remains of a life to regenerate new life, to return dust to dust" (Harris 2007, 1). Stowe Jr, Schmidt and Green (2001, 1817) suggest that some believe society has commercialised death and that "we have institutionalized and ritualized an expensive and ecologically harmful burial process" causing adverse environmental impacts. For some, "green burials may re-establish an ancient, powerful connection to these landscapes" (Stowe Jr, Schmidt and Green 2001, 1818) – a more spiritual connection than an ecological or religious one.

The Funeral Consumers Alliance, profiling the Ecopod notes the "green burial is not about what you buy, it's about what you don't buy...it's about simplicity and economy as much as it is about being environmentally friendly" (cited in Butz 2009, 34). With the waning popularity of organised religion in western culture (Howarth & Leaman 2001), some individuals are opting for an atheist rather than a religious burial or a very practical funeral.

GREEN BURIALS: A SITE DESCRIPTION

The BushLand Cemetery is part of an existing cemetery – the Lismore Memorial Gardens. The site is located within the Lismore Council Local Government Area (LGA) located approximately 700km north of Sydney. The land comprising the Lismore Memorial Gardens is Crown Land i.e., owned by the NSW state government but managed on behalf of the state by Lismore Council. Besides the BushLand Cemetery, the site accommodates the Lawn Cemetery, a crematorium, funeral directing company and a small chapel. People from all religious and cultural groups are welcome to use the Lawn and BushLand Cemeteries.

The BushLand Cemetery was the first green burial site to emerge in NSW and opened in July 2008. It has a total area of 3.2 hectares of which one-third is currently used for burials. It is anticipated that the total area will yield approximately 3,000 graves equaling 937 plots/hectare. Whitney (2010 pers. comm.) advised that

“there is no number of plots planned because of the random structure of the layout and the fact the trees will come and go over time. It is impossible to put a grid overlay and say we have ‘x’ number of graves we can utilise in the area.”

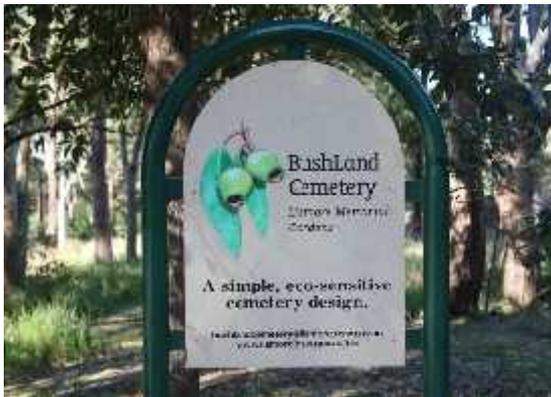


Figure 1: Entrance Sign to BushLand Cemetery (Source: Rounds 2010).



Figure 2: BushLand Cemetery burial lands (Source: Rounds 2010).

In stark contrast to the order and symmetry of the lawn cemetery, the BushLand Cemetery retains an authentic natural bush character with its towering gums, native grasses and primary koala habitat. The distinct smell of eucalyptus and earth is prevalent. Mown tracks serve as informal footpaths. There is the ultimate intention to create formal footpaths throughout the site, including an elevated walkway over the creek so as to minimise damage to the area. There is no formal seating provided in the BushLand Cemetery, however, the natural environment provides visitors informal reflection areas. Whitney (2010, pers. comm.) acknowledged that there are plans to develop a cleared hillcrest into an open-air funeral service area – an appropriate development for a natural area.



Figure 3: Lawn cemetery burial area (Source: Rounds 2010).



Figure 4: Natural rock grave marker (Source: Rounds 2010).

As trees are naturally scattered throughout the bush area, so too are the graves. The location of plots is very much dictated by the natural environment. However, careful measures are taken to ensure that the location of burials does not interfere with the trees, with a clearance distance being maintained around the trees so as not to disturb their roots in the grave digging process. Grave markers are natural rock or an artificial rock (created from concrete) both with an option to attach plaques.

The plot dimensions in the BushLand Cemetery are the same as standard burial plots, being 1.2m wide by 2.4m long. Some graves are a depth of 1.5 to 1.6 meters so as to allow the stacking of two bodies in the plot. Whitney (2010, pers. comm.) advised that the digging of graves may be manually started, if that is the family's wish, but the digging process must be completed mechanically due to Occupational Health and Safety issues. Families may then backfill the grave by hand. Whitney notes that “by using the techniques of ‘lift and deepen’...a single plot where you can place one person, you can actually perpetually, over centuries of time bury many people” in a “continual recycling of the plot itself” (2010, pers. comm.).

In terms of locating the exact latitude and longitude coordinates of a grave, Global Positioning System (GPS)

technology is used – families are provided with a 6-point coordinate of the plot location. Family members are then required to use their own hand-held GPS device to locate the grave. Whitney (2010, pers. comm.) does acknowledge that this form of identification is reasonably inaccurate when compared to the precision of a surveyor, as the GPS coordinates do not actually define the precise plot dimensions and positioning. Council surveyors measure each plot and accurately mark out the four corners of the plot which are then overlaid onto a map. Inserted into the centre of every grave plot is a recycled plastic survey peg containing ceramic magnets. The centre position of every plot can then be found using a hand-held metal detector as used by surveyors (Whitney 2010, pers. comm.).

Although Council staff are responsible for a very small amount of maintenance, most of the land management is conducted by a class of local TAFE students (studying land conservation and bush regeneration) and a local volunteer group. With limited funds (the cemetery does not receive funding from the state), having these volunteers carrying out the majority of the maintenance assists the operator in minimising maintenance costs.

GREEN BURIALS: PLANNING CHALLENGES

When managing the deceased and burial processes, beyond ensuring the availability of cemetery lands in a master planning and land use process, there are a range of planning considerations for the provision of burials. These include: legal and statutory frameworks; environmental trends and standards; and varying religious and sociocultural burial needs of a pluralistic Australian society. Finally, a real challenge facing planners is that they are unaware of the emerging green burial practice – they are being put into positions of authority to deal with this land use without any knowledge or protocols for best practice. Each of these is discussed below.

Land Supply and Land Use Challenges

Nicol (1994) acknowledges the ageing of Australia's population and the increasing necessity for land developers and planners to consider burial land needs in the future. In Australia, "the older population is increasing – both in number and as a proportion of the total population...they are projected to form almost one-quarter (24%) of the total population by 2051" (ABS 1999, 1). The shortage of and availability of land for burial is an issue which governments and land management authorities are dealing with across Australia. Several states in Australia are currently experiencing shortages.

For example, it has been projected that all currently available grave sites in the Sydney Greater Metropolitan Area may be used by 2050 (NSW Department of Lands 2008). "Experts estimate that in 40 years the city will have run out of public burial land unless something is done now" (Thomas 2010, website). "As the population of New South Wales has grown, so has the demand for the state's finite land resources" (NSW Department of Lands 2008). The NSW Department of Lands (2008) acknowledges that as the Sydney Greater Metropolitan Area has expanded, the utilisation of available land for other purposes such as housing, infrastructure, open space and essential public facilities has taken precedence over the use of land for burials. Furthermore, rising land values have increased the cost of acquiring large sites for cemeteries making it almost cost-prohibitive.

To ensure demand does not exceed supply there is the need to consider the potential of alternative burial methods and approaches. When considering the most appropriate use for a collective burial site, Sussna (1989, 114) acknowledges that "careful thought has to be directed at the short- and long-term consequences of land-use options."

For planners and developers, competing land uses raise questions of how to determine the most appropriate use for a given site. One means of assessing this is with the paradigm of 'highest and best use' which is "often identified as the key concept supporting real estate use and value decisions" (Dotzur, Grissom, Liu & Pearson 1990, 17). Sussna (1989, 113) defines 'highest and best use' as being a use which "is legally and physically possible and results in the highest land value." If land uses are solely determined using this paradigm, cemetery lands would not be designated – they serve a social purpose but rarely, if ever, result in the highest return on land investment (i.e. its highest and best use based on land economics). As such, the securing, provision and operating of burial lands relies on the principles behind public infrastructure and policy; that is, the state provides infrastructure and services that capitalist ventures will not provide due to the lack of money they make for the provider and hence become a public asset and liability.

Some public cemeteries in NSW are owned by the state while in other states, such as Victoria, others are administered by local government. Economic considerations for land management authorities can range from the costs associated with acquiring land for burials to the operational aspects, including the supply-

demand and maintenance costs for the local council operating the site. Balancing the cost of land with the costs associated with providing affordable burial sites has the potential to pose an economic and hence a provision challenge for state and local government authorities.

The allocation of lands for burials, including green burials, is typically done by planners – it is part of a complex planning and public infrastructure nexus. The NSW Department of Lands (2008, 34-35) identifies the following impediments to the use of existing or potential land sites for burial [relevant to all states]:

- the proximity to a residential area,
- the degraded nature of the site from previous land uses,
- the proximity to water catchment,
- the poor drainage and soil condition,
- the impact on native vegetation, and
- the impact on threatened species.

Planners consider the above impediments in relation to the issues associated with burial land and determine how they may or may not be affected. These considerations are equally as applicable to the use of land for green burials, as they are to the use of land for conventional cemeteries. The ecological benefits of the green burial concept may in fact assist these obstacles and reverse the potential negative impact into a positive externality. For example, many lawn cemeteries require the removal of vegetation in order to facilitate the rows of burials and plaques, whereas in a green burial, burials are undertaken in a manner which works towards retaining the vegetation. A natural bushland cemetery may enhance an area and its natural vegetation. A case in point: The land of the Lismore Memorial Gardens is currently zoned to permit cemetery development. Whitney (2010, pers. comm.) noted that operating the BushLand Cemetery (as opposed to a conventional lawn cemetery) is a very complimentary land use especially as the area is a primary koala habitat (for which a Koala Plan of Management has been prepared).

“It should be noted that if degraded sites such as waste depots were landscaped and beautified prior to the sale of any burial sites, they may make excellent locations for cemeteries” (NSW Department of Lands 2008, 35) Recommendations made by the Parliament of South Australia (2008), include the government considering incorporating green burial grounds as a secondary use in areas designated for revegetation as buffers between conservation and other land uses, and for public open space reserves. Where conventional cemeteries can comprise row upon row of ornate headstones constructed of synthetic materials such as marble, a green burial site incorporates natural grave markers which are not nearly as visually obtrusive as many conventional headstones. The use of natural materials, such as rock for grave markers in a green burial site affords a greater potential for green burial sites to be married with other land uses, including the use of land for recreation, such as parks.

Harris suggests, based on case studies from the USA, that the idea of preserving a natural area by using it as a green burial site can “also serve to actually preserve land threatened by the bulldozer” (2007, 159). From a land use perspective, green burials in effect can maintain and improve the condition of the land, whilst at the same time preventing it from being ‘destroyed’ by other forms of development.

Monaghan (2009) acknowledges that in the UK, entrepreneurs have identified opportunities to enter the green burial niche, noting that farmers in particular have looked to green burials as a means of diversification or as a complete alternative to conventional farming where the latter has proved to be financially unviable. The concept of green burials potentially opens the door for land owners to capitalise on a relatively new land use for unproductive rural areas in Australia whilst retaining a green ethos.

For planners, these suggestions and recommendations pose the question of whether or not the use of degraded sites or rural and semi-rural land for green burial purposes can be considered viable. The challenge for planners will be in assessing the present and future benefits and cost implications of the use of land for green burials.

Legislative Challenges

Regardless of the burial practice, green or otherwise, there are legal parameters controlling and regulating burial practices. Like any other land use, the use of land for burials is one which legislation plays an important statutory role in guiding what can legally be considered permissible and an acceptable use. Planners play an important role in regulating such land uses through the use of plans and planning specific legislation.

In NSW, burials and cremations are regulated by a number of NSW government departments including Health, Fair Trading and Local Government. Public cemeteries owned by the state are controlled by

legislation managed by the NSW Department of Lands. In Victoria, cemeteries and crematoria are publicly owned and self-funding. They are primarily administered by voluntary trusts, with some administered by local government councils (Funeral Comparisons 2008).

Whitney (2010, pers. comm.) notes: “there is a real lack in the law of about how you define a burial plot and how you regulate and manage such a thing.” The green burial concept is a land use and in order for planners to consider its permissibility it is necessary to formulate a definition of the use. From this emerges a fundamental challenge for planners – how to assess the permissibility of the use of land for green burials. The Lismore BushLand Cemetery case study involved the addition of a green burial area to an existing cemetery, with the use of the land for green burials being deemed an ancillary use – this may not always be the case. International examples of green burial sites are often stand alone land uses.

The actual green burial process requires a medical doctor burial order and other documentation as per any other burial. NSW legislation requires that bodies must be buried in a coffin unless a separate application has been made to NSW Health seeking an exemption for specific cultural or religious reasons. If a person wishes to be interred in a biodegradable shroud, an application must be made to NSW Health and be accompanied by either cultural or religious reasons, not simply because it is ‘personal preference’ or an idiosyncratic pronouncement (NSW Health 2004). Whitney (2010 pers. comm.) acknowledges that the “[NSW] Department of Health are aware of that problem [the environmental, religious and cultural restrictions] and they are trying to work around a solution where people will be able to easily be interred in the shroud.”

The newness of the concept, coupled with the absence of planning legislation dealing with burials and the lack of a legal definition for the use, poses an issue for determining authorities and the planners working on the project. McMahon (2010, pers. comm.) confers and acknowledges that “the guidelines [for green burials] are as what we create, so we are setting the standards.”

Sociocultural Challenges

Australia has a diverse cultural fabric. This diversity is largely attributable to overseas migration – one result of this pluralism has been the emergence of a multitude of cultural and secular groups in Australian society with varying practices, rituals and beliefs regarding death and burial. Hence, there are a number of religious, spiritual and philosophical approaches to birth, life and death. A range of factors influence how a society copes with death and farewells the deceased. These factors range from individual and personal aspects of personal grieving informed by a belief system, or lack thereof, to the practical aspects of burial including the availability of land and legislation that regulates the funeral industry.

The varying perspectives of different religious and cultural groups are required to be considered in the [social] planning process to ensure that burial land is efficiently managed to facilitate the needs of these groups. Regardless of beliefs about death Chidester (2002, 224) acknowledges that modern funerals tend to include four basic elements: “the rapid removal of the corpse to a funeral parlour, the embalming of the corpse, [often] the viewing of the restored body, and the final disposition of the corpse by earth burial.” As a result of these basic elements commonly adopted in Western society, traditional death rituals have been required to be adjusted to fit within these parameters established by the funeral industry.

A challenge for a governing authority will be to embed the manifestations of the green burial concept into their current policies, guidelines and practices, so as not to diminish the meanings associated with the death rituals of various cultures through over-regulation of the concept or lack of consideration for the needs of various religions in a now pluralistic society. The emergence of the green burial concept has and will continue to have significant sociocultural implications for the general community and specifically, for the funeral industry.

A criticism of the current legislation in NSW is that it does not distinguish between various religious practices and “some people who have recently arrived in Australia from other countries may find that their expectations and practices around death are modified by the standards prevailing in Australia” (NSW Health 2004, 2). The green burial concept affords a good opportunity for planners and the industry to review current social, cultural and religious beliefs and trends and how they can work to accommodate these. Death is an intensely personal issue and planners need to be sensitive and considered in their approach to and the implementation of burial sites, including the green burial context. This will come from an informed position and with respect for religious and social difference.

Community perceptions and expectations regarding green burial sites will continue to pose a challenge for planners. For example: As the land comprising the Lismore Memorial Gardens is owned by the state, for its

development, the formal Development Application (DA) process was not required. The land is currently zoned to permit cemetery development and there are no restrictions on using the land for cemetery development. Despite the necessity for a formal Development Application submission being waived, in planning for the BushLand Cemetery a public consultation process was carried out to canvas public perceptions and concerns. Planners conducting these types of consultations need to understand the legal framework, appreciate social difference and burial preferences and potential environmental issues.

Environmental Challenges

Since the release of the United Nation's Brundtland Report in 1987 there has been an increasing awareness of the impacts our actions have on the environment (United Nations 2007). In recent years, environmentalists have criticised conventional funerals and cremations deeming them ecologically damaging "because cremations produce greenhouse gases; embalming uses harmful chemicals that can enter soil and waterways; gravestones are made of granite shipped from China; coffins are made from particle board or rainforest timber, held together with poisonous glues, lined with plastic and varnished, which pollutes the land" (Webster 2008, website). The environmental movement has influenced all aspects of sociocultural practice, including burials, which has resulted in new alternatives, such as green burials.

As mentioned, The Green Burial Council of the USA has established standards for 'green cemeteries' which indicate varying levels of 'green practice'. The absence of such guidelines in Australia poses a challenge for land management authorities – currently there are no benchmarks to assess the environmental feasibility of green burial sites. Whilst the green burial concept is still in the early stages of implementation in Australia, there is the need for these benchmarks to be established to guide existing and future green burial related planning practices.

Depending on the ecosystem of the site, some green burial grounds allow a tree sapling to be planted and to mark a grave, whilst others may only permit the use of headstones made from natural rock (Webster 2008). Other green burial sites use communal memorial stones in place of individual grave markers.

It is fair to say that the concept of green burials has opened up the discourse on death and the management of the deceased to the planning profession. As the concept of green burials continues to steadily gain exposure and acceptance, both internationally and nationally, the implications for society and the environment are conceivable. The green burial concept is challenging traditional and perhaps artificial burial practices, in favour of more natural and less ecologically damaging approaches. Green burial sites are quite literally "regreening the deathscape" (Harris 2007, 2).

The green burial concept is promoted as being a more ecologically sensitive form of burial and one which is beneficial to the natural environment. An environmental challenge for planners and land management authorities will be to determine how to best monitor and manage the environmental sustainability of green burial sites. Whether this responsibility belongs to the planners who approve such sites or falls to a body or individual who possesses some form of accreditation to monitor the ongoing environmental feasibility of sites, is a matter for consideration.

Awareness Challenges

Currently, planners have limited knowledge of the green burial concept. At this point, relatively little is known about green burials, especially in the Australian context and hence very little is taught about the subject in formal planning curricula.

In many cases, the community plays an important role in contributing to the placement, built form and operational aspects of a green burial site. In order to achieve the intended design and operational outcomes extensive community consultation and education is often needed, especially if a burial site adjoins residential land. When planning for new and often contentious developments, planners are often required to assume a mediator role, hearing and responding to the concerns and thoughts of various stakeholders. Given the newness of the green burial concept, planners may have to educate the public and manage their perceptions of this land use.

An example of when community input sought regarding a green burial site is that of Djeernongs Walk in the Lilydale Memorial Park in Victoria. A letterbox drop was carried out to all residents within close proximity to the proposed green burial site. A 'public day' was held where residents could ask questions and raise any concerns they had with the concept and its implementation. There was also a trial dig (demonstrating the form that burials would take) in the area which generated a fair amount of interest from the neighbours. This educating of the community through consultation ensured that "when they understood the approach that we

were taking and how it was going to look for them; [there were] no negatives – all the negatives dissipated very quickly” (Maguire 2010, pers. comm.).

In order to adequately respond to the community and have input into the built form and operational aspects of green burial sites, planners will need a sound understanding of the concept and have information about their legislative, land use and sociocultural aspects. Given the sensitive and perhaps the divisive nature of the topic, planners will need to adopt a somewhat objectified approach to the topic to ensure their own religious values and beliefs do not unwittingly prejudice or bias a planning-related decision (Lang 1999).

FINAL REFLECTIONS

If the concept of green burials is to have any degree of success in Australia, burial operators, land managers and planning authorities cannot simply transplant the practices employed in North America or Europe into the Australian context. Should the concept become as successful in Australia as it has already become globally, planners will need to understand the concept and its implications on the use of land for burials.

At their simplest, cemeteries are a nominated land use and planners play a significant role in regulating land uses. Planners are not only responsible for planning for the living, it is also the domain of some planners to consider and plan for the deceased. The significance of this land use can often be underestimated or not given adequate consideration by those in the planning profession. However, planning for cemeteries is not purely a land use issue in the legislative and physical sense; there are environmental, social, cultural, religious and economic issues which also need to be considered. The subject of death is a sensitive issue in society and one which needs to be handled and considered with dignity and care. From a planning perspective it is necessary to look beyond the land use laws and regulations and understand the complete suite of burial needs and preferences of various groups in society when planning for the deceased.

Green burials have the potential to become a feasible and popular burial alternative in Australia. The concept of green burials provides a solution to assist in alleviating the land shortage for burial and provides a relatively new and innovative land use. However, key planning challenges are emerging from practice and some limited research. These include: the general lack of awareness and knowledge of the concept on the part of planners and the community; the issue of defining the concept for permissibility and land use purposes; the environmental and ecological impacts; the economic realisation of highest and best use for burial lands and the social implications in a pluralistic Australian society of green burial practice.

Finally, although some international literature discussing the concept of green burials, such as Harris’ seminal book *Grave Matters* has begun to emerge in recent years, there is still relatively little written on the concept. Nicol (1994) acknowledges an increasing number of studies which have documented European and North American responses to death and the problems associated with accommodating the deceased yet in Australia, there is a deficiency of research in this area. Given the ‘newness’ of the concept of green burials there is the need for further research in Australia to contribute to the limited green burial knowledge base. Further research should consider the formulation of best practice guidelines based on green burial niche markets and land regeneration and uses in the Australian context. It is apparent that there is also the scope for further investigations into the current legislation governing burials and the potential for changes to be made to ease the realisation of the green burial concept in Australia.

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