# **Eden Uprooted**

## INVESTIGATING ATTITUDES IN THE GARDEN AT PINGLE FARM

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**Title page image:** Remnant almond tree (*Prunus amygdalus*) from the colonial era garden at Pingle Farm, surrounded by wild mustard (*Sinapis arvensis*), August 2022. (Source: Rebecca Milne)

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## **Abstract**

British colonial gardening practices in South Australia were heavily influenced by both traditional European methods and the attitudes of the colonists to the Australian landscape and flora. An analysis of colonial texts shows that colonists generally failed to acknowledge the presence of the Indigenous inhabitants and their expertise, and the home garden became a small-scale version of wider colonial land use practices. Native flora was appreciated and experimented with, but often only as a novelty, and always in combination with familiar and reliable European garden plants.

A historical archaeological investigation of the garden at Pingle Farm, including vegetation and surface survey, and high-density ground penetrating radar, reveals how attitudes can be read in the evidence left behind by the pioneer Jared family and subsequent owners of the property. The results of the archaeological investigation identified remnant and descendant plants from the nineteenth century garden and revealed subsurface features which indicated cultural activity related to gardening and agriculture, including structures and soil disturbance. Potential features from World War Two use of the site were also identified.

The combination of historic research, landscape investigation and geophysical survey has proved to be effective in revealing evidence of the former garden. When combined with a textual content analysis from an ecocritical perspective, this evidence allows a greater understanding of why gardening practices in South Australia developed in a particular manner, and the longer-term effects of this on the land. It provides a tangible record upon which to reflect as we create our 'Australian' gardens today.

## **Declaration**

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Signed:

Date: 22nd of June, 2023

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Thank you all.

### 1. Introduction

The archaeological study of gardens can be quite rewarding in understanding all sorts of human settlements, in which humans have dedicated an area to maintenance of a perfected nature.

(Malek 2013:15)

'Every man who can create a garden where once was waste ground is indirectly benefiting his fellow-citizens' opines 'Blueshirt' in the *Observer*, an Adelaide newspaper (1862:209). In the novel *Clara Morison*, Catherine Helen Spence paints this picture of colonial Adelaide when her heroine goes for a walk: 'There was an appearance of civilization and comfort in the numerous cottages on the way, each having a small garden, and generally a patch of [grape] vines' (Spence 1854:63-64).

South Australia was officially declared a colony in 1836, and British colonists immediately set out to create their version of a civilised society, based on a belief of their own superiority, and often starting with the planting of gardens. These were not only essential for survival in a land where they had no knowledge of the indigenous flora, but were also markers of improvement, defined by Adamson (2013:2) as: 'the process whereby groups and individuals transform a range of social and material conditions while acting in their own interests'.

Pioneer families in South Australia transformed the landscape for both cultural and economic reasons. As they cleared the native vegetation and planted their seeds from home, they were expressing deeply held beliefs and feelings, i.e. attitudes, about what the landscape should look like and produce. This was clear in the written texts produced during the colonial period.

The project described in this thesis investigates the garden of Pingle Farm, a farmhouse on the Fleurieu Peninsula in South Australia. It explores the extent to which British colonial attitudes towards Australian native flora, and gardens in Australia, as expressed in their writings, are evident in the site. Pingle Farm is located at allotment 104 Sauebiers Road, Seaford Meadows, within what is now the Onkaparinga River Recreation Park (Figure 1). The site is SA Heritage Place, ID 14766 (Figure 2). The

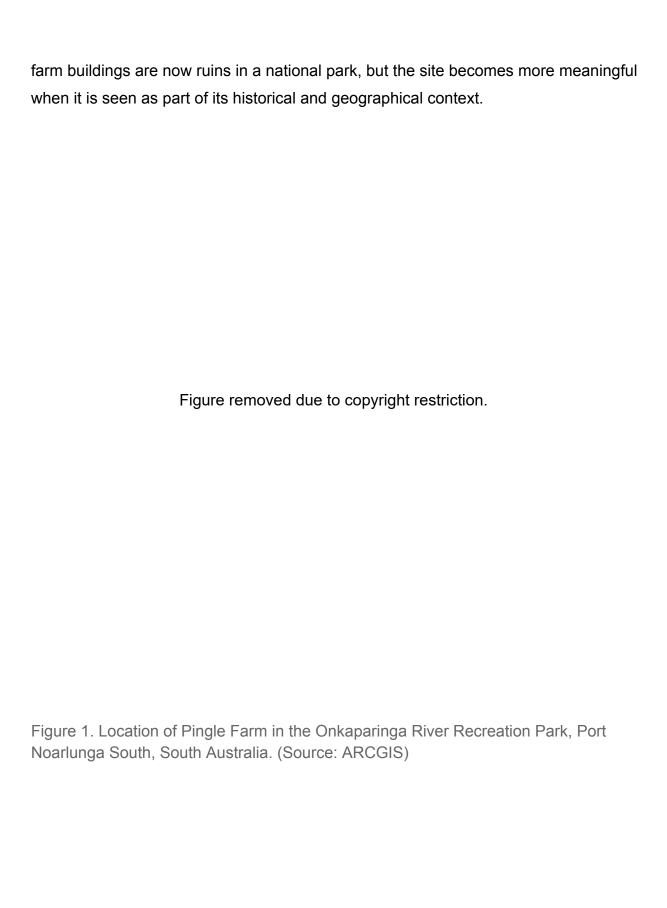


Figure removed due to copyright restriction.

Figure 2. Pingle Farm Homestead and Barn, SA Heritage Place ID14766. (Source: Nature Maps)

Originally called Clear Farm, it was built by the Jared family in 1862, who came out from England in 1846 and were pioneers in the Noarlunga District. It remained in the family until it was sold in 1936. By this time it incorporated 400 acres of farmland. This land extended across the Onkaparinga flood plain to the south bank of the river, and to the cliffs above the ocean to the west (Figure 3) and was situated between the important trade hubs of Horseshoe Bend on the river at Noarlunga (now Old Noarlunga), and Port Noarlunga.

Figure removed due to copyright restriction.

Figure 3. Land owned by Jared Family. The coloured lines show different title deeds, originally all owned by John William Jared, then sold off at different times. (Source: Steele 1999:35).

Prior to the advent of the Europeans, the area was a rich hunting, fishing and foraging ground for the Kaurna people and other Indigenous groups, and evidence of their presence remains in shell middens in the sand dunes at the river mouth and along the river banks, through the presence of culturally modified trees, and burial sites (Czerwinski 2002; Draper 1991; Freeman 1993; Tindale 1968). Ceramic and glass artefacts found in Czerwinski (2002) and Freeman's (1993) studies show Indigenous people were still active in the area after European arrival, and were incorporating the colonists' materials into their lifestyles.

How much interaction the Jared Family had with the Indigenous people is not recorded, but interviews with several people about their younger years in the district from 1924 to 1933, contain these small pictures of what the Jareds may have experienced. Mrs Page (b.1837), for example, remembered that 'the blacks were very numerous around the mouth of the river at Port Noarlunga' (*Chronicle* 1924:42), and Peter Giles (b.1849) said 'in his days... Blacks came from the Murray districts by the hundred for the bream fishing season, and smoke from their wurlies was a common sight all along the river' (*Chronicle* 1929:49). A Mrs Eliza Goldsmith (b.1845), who was born in Port Noarlunga and lived there her whole life, recalled 'playing with black children who were camped along the river' (*Chronicle* 1933:48).

A 1927 photo of Port Noarlunga (Figure 4) shows the area almost completely cleared, including along the river, and gives an indication that a traditional lifestyle would have no longer been possible in many ways for the Indigenous inhabitants.



Figure 4. View of Port Noarlunga with Pingle Farm in the far distance on the left, circa 1927. (Source: State Library of South Australia B 4394)

The first John Jared built a four-room cottage at Pingle Farm, then extended this with four more rooms. His son, John William Jared, extended it again in 1877 after inheriting the property and moving there with his wife Emily and their four surviving

children. Emily bore two more children, then died at the age of thirty-four. Her sister Hannah—who had established a school in Gulnare, South Australia—then married John William, and they had two children (Figure 5).

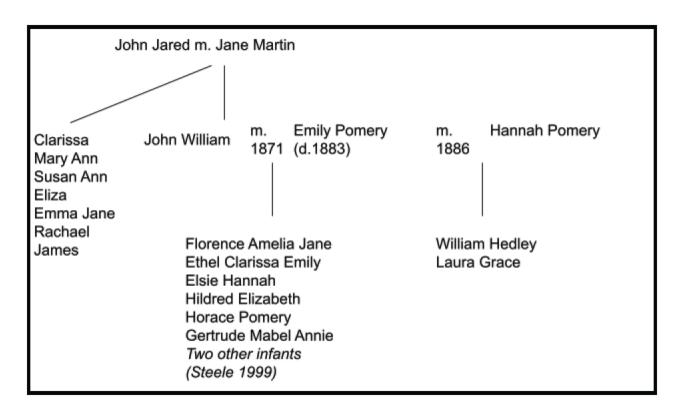


Figure 5. Jared family tree. John William's wives and children as recorded in Merrit and Pomery 1979.

It was Hannah who changed the name of the farm to Pingle Farm (Merrit and Pomery 1979:88) but in many records it is simply called Jared's Farm<sup>1</sup>. The Jared Family grazed sheep and grew wheat and barley at the property. After the 1877 extension the house remained in layout as it is today. A 1907 image shows parts of the garden around the structures (Figure 6) and is one of the only images to show details of the garden.

<sup>1</sup> Also spelled Jarred, Jarrad, Jarad in other records.

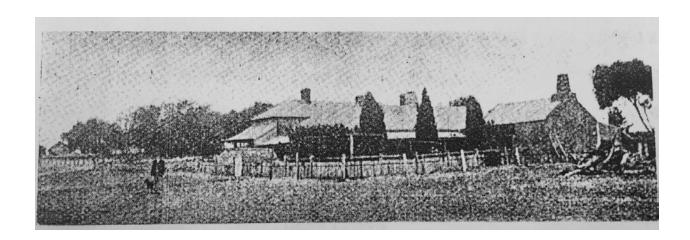


Figure 6. The farmhouse from the northwest, circa 1907. This image provides many clues to past use of the site and will be revisited later in the thesis. (Source: Burgess 1907:832)

The farm left Jared family ownership in 1936, when the Hunt Brothers of Morphett Vale purchased the property. After this, farming activities continued. An aerial photograph from 1936 (Figure 7) shows vegetation around the house site but the wider area cleared for agricultural use.



Figure 7. Aerial photo of study area and surrounds, 1936. (Source: Commonwealth of Australia (Geoscience Australia) 2021)

The house was used as a barracks for the Volunteer Defence Corps (Home Guard) in World War Two (Figure 8). During this period training camps were held at the property, which included weapons and sabotage training, at times for over 300 men. (Southern Argus 1941:1). It then went back to being a working farm, inhabited by overseers and their families until it was abandoned sometime before 1979 (Figure 9).



Figure 8. View of house from the east being used as Home Guard barracks, 1941. (Source: State Library of South Australia B 62413/47)

Figure removed due to copyright restriction.

Figure 9. View of the house from the west in the 1979 heritage survey, which notes that it was 'in a ruinous state' and was being used for stabling horses (Source: Lester et al. 1979:27).

Pingle Farm was incorporated into the Onkaparinga River Recreation Park in 1986. Since then, extensive revegetation on the property has occurred, but the grounds

around the house have not been part of this revegetation process. No obvious traces of garden infrastructure remain, and the house is in a ruined state and is prey to vandals (Figures 10 and 11).



Figure 10. The front of the farmhouse (from the east) in May 2021. (Source: Rebecca Milne)



Figure 11. View of the house in August 2022 from the same angle (northwest) as Figure 6. (Source: Rebecca Milne)

This project focuses on the time the site was inhabited by John William Jared and his first and second wives, then his son William Hedley Jared, his wife Olive and their children (1877-1936). The few images and records of the site hint at a busy family life where the eight children of John William were educated at home by a governess. John William was a prominent member of the local community. Burgess (1907:832) describes him thus:

Among other improvements, Mr Jared has enlarged and beautified the comfortable homestead erected by his father on the property, and here he resides, being one of the best known and most widely-respected residents of the neighbourhood. For many years he served as a member of the Noarlunga District Council, and takes a keen interest in all matters of public moment.

Although no descriptions of the garden at Pingle Farm have been found, there are some clues. Recollections of life at the house in an interview with William Hedley's daughter, Mavis (Steele 1999) make mention of a garden and tennis court. The Teakle family were neighbours of the Jareds at Noarlunga. Their family history notes that 'orchards and gardens were established on most farms' (Teakle 1979:25), and 'David Teakle's garden produced pie melons' (Teakle 1979:26). Clarissa Jared, sister of John William, 'had a reputation with the boys for the delicious melon pies she made for dessert. But getting rid of the seeds was more than a joke in a busy kitchen and Clarissa went on strike. The boys protested without success so they compromised. They didn't mind a few seeds in a melon pie; in fact they could have fun and games in battles across the table by ejecting seeds from between their teeth' (Teakle 1979:26-27).

The Jareds were a settler colonial family who prospered in the new country.

Figure 12 shows a carved wreath of exotic blooms on the headstone of the first John

Jared and his wife Jane, erected in 1877. This is an evocative image, especially when

compared to what is found in the garden at their farm now. It also represents a vision of

Eden that was totally at odds with the natural environment found by the colonists in South Australia.



Figure 12. The wreath of exotic blooms carved on the headstone of John and Jane Jared at Willunga Uniting Church cemetery. (Source: Rebecca Milne)

How did the Jareds feel about the landscape they found themselves in? What were their attitudes to the natural environment and the local flora? What can investigating the garden with historical archaeological methods add to our understanding of the thought processes of people now gone? And how does their thinking compare with the attitudes of their fellow British colonists?

This research originated from a desire to challenge attitudes about how we garden in Australia, as these attitudes reflect a wider struggle to understand and nurture our natural heritage (Collingwood-Whittick 2008; Gaynor 2016).

It is therefore not the intention of this thesis to single out the Jared family as 'better' or 'worse' than other colonists in their gardening practices and the attitudes

these may imply. During this research the researcher has come to respect the struggles of this family, particularly the women, in their efforts to survive and prosper in their new home. Their property, in being an example of ordinary people's lives (as opposed to a grand home), and relatively undisturbed since it was established, is useful in providing information for a discussion of wider historical themes that relate to issues we face as a nation today; themes such as pioneering, settlement, and peopling of communities, which influence perspectives, ideas and behaviours in the present time.

Are there lessons contemporary Australian society can learn in reflecting on gardening traditions from early colonial times, traditions that were established when our understanding of the Australian environment was much more limited? Lynch (2014) asserts that colonialism is ongoing in societies such as the United States and Australia, and 'continues to be manifested in traditions that persist', for example, gardens. 'These alien gardens', he concludes, 'serve to delay the inevitable adaptation required to develop an ecologically sustainable society' (Lynch 2014:394).

For comparative purposes, it is important to explore contemporary attitudes in Australia to gardening with native plants. Holmes (2011) describes a growing concern in Australian society for the loss of native species from the time of Federation onwards. Coupled with emerging national pride, a small but consistent movement to encourage the use of native species in gardens began. However, she also concluded that the 'European garden aesthetic still dominates' in southern Australia, and that, while 'the realities of drought and the ravages of climate change ... in recent years have forced more Australians to rethink their gardening culture and aesthetic' (Holmes 2011:129) would 'the return of water' (after the drought broke) mean a return to colonial traditions?

Bird (2011:104) claims that the open space planning schemes of new urban developments in South Australia, such as Monarto, which in the 1970s intended to use predominantly native species, are a sign that 'within the space of 140 years attitudes towards native plants had come full circle'. In contrast, she describes how the initial efforts to rehabilitate creek beds and create nature reserves at Golden Grove in the 1990s were then followed by a 'backlash against native gardens' (Bird 2011:115). This was due to a number of factors, one of which appears to be the popularity of houses

with 'a design pastiche of historical features' (Bird 2011:115), which called for a return of the English-style cottage garden.

Imagined nostalgia rather than environmental concerns, still has a stronger hold on the general public in regard to their gardens. Shaw et al. (2017:323) state that 'despite hundreds of studies, no definitive answers have been found to explain the gap between environmental attitudes, awareness and knowledge, and pro-environmental behaviour'. They identified several possible reasons for this and suggest that 'to be successful in encouraging people to adopt native gardens, efforts would have to address the cultural norms and conventions that structure residential landscapes' (Shaw et al. 2017:323). Their study, a survey of residents in Melbourne to ascertain attitudes to native gardens, showed that while many people were positive about the idea of having more native plants in their gardens, 'aesthetic appeal is a strong factor' and that people are more likely to plant native species if they think that native gardens are fashionable (Shaw et al. 2017:327).

It is essential that we don't let nostalgia, fashion and habit, or worse, a lingering ignorance, continue to maintain practices for which the negative impacts are now clear, such as loss of biodiversity and local and global climate change (Shaw et al. 2017). In discussing the importance of archaeology to such realisations, Henson (2004:28-29) stresses the need to link it to current environmental concerns. He offers this extended definition of archaeology as 'the study of material culture in its relationship to human behaviour... it is also concerned with the environment in which mankind has developed and in which man still lives'.

The study therefore takes into consideration Kintigh et al.'s (2014) 'grand challenges for archaeology', in this case by exploring how spatial and material reconfigurations of landscapes and experiential fields affect societal development (Kintigh et al. 2014:880). Garden archaeology's early associations with antiquarianism have now changed to 'concern with a larger set of issues in contemporary historical research' (Malek 2014:96), with 'the potential to provide insight into critical questions about relationships between people and 'nature' (Gaynor 2013:6).

The question guiding this thesis is: To what extent are British colonial attitudes towards the Australian landscape and flora evident in the garden at Pingle Farm?

Other questions are:

- What was the extent of the garden at Pingle Farm?
- How much of a former colonial garden can be discerned using non-destructive techniques?
- How does the vegetation which is at the site today present a story of change over time?

This thesis has two main aims: one, to examine texts from the colonial period in order to construct a context for British colonial attitudes to the Australian landscape and flora, and two, to ascertain through archaeological geophysics, landscape investigation and historical data, the specific features of the garden at Pingle Farm and reflect on how these may demonstrate certain attitudes and their change over time.

The study is valuable in several ways. Although previous garden studies have aimed to gather information about original garden and plantings from a certain period in order to recreate a specific space (e.g. Broadbent 1985 for Elizabeth Farm in New South Wales), this project instead aims to encourage reflection on how our growing understanding of the Australian environment has changed approaches towards, and appreciation of, the distinctive flora and landscapes of this continent. In a postcolonial world, heritage management should find a balance between preserving the past and pointing to a more sustainable future.

The telling of Australian history has been described as 'overwhelmingly masculinist' (Cramer and Witcomb 2019:128). However, 'women are central to the past – to the making of history. Not only are the 'famous' women part of our history, but also the vast numbers of those who worked in the home and in the paid workforce' (Cramer and Witcomb 2019:128). In the few records we have of Pingle Farm, it is the men's activities that are highlighted. By combining a study of women's voices in nineteenth century literature and discovering material evidence of the 'domestic sphere' at Pingle Farm, of which the garden was generally considered to be part (Martin 2001), the lives and perspectives of South Australian pioneer women come into focus.

The investigation involves the largest high density ground penetrating radar survey done on a garden in Australia. The equipment used to carry out the survey is the only one of its kind in this country and so provides unique insights into the subsurface of Pingle Farm that could not be obtained using conventional archaeological survey. The detail of the subsurface at various depths that is produced will be a valuable reference for future investigations of colonial farms, as well as an example of the usefulness of the technique for historic garden investigations.

Pingle Farm now sits on the fringes of the Recreation Park which adjoins a new housing estate, part of the southern suburbs of Adelaide that have grown rapidly over the last forty years. It is a danger that in such areas the evidence of the past is obscured, and a sense of 'no culture' and no responsibility for nurturing the land can develop. Understanding why we do what we do in our gardens nowadays, and how this is the result of past attitudes and traditions, (as well as larger forces such as capitalism), helps people develop a connection to the past but also empowers them not to be an unwitting victim of it. There is an excitement in discovering how one's life is part of a larger picture of human development, in understanding where we have come from, and there is also a feeling of responsibility when one can see the consequences of the actions of our ancestors. This should not create a feeling of helplessness but inspire problem-solving and hope for the future.

Applied benefits of this study include adding to the information in the historical record about colonial life in the Noarlunga region that is being used by National Parks and Wildlife Services (NPWS) to inform restoration work at the site and to create a future interpretive trail. Another benefit is that the numerous schools in the area where the researcher currently works will have increased access to knowledge about the site and how it may enrich their curriculum.

#### Thesis structure and outline

#### Chapter Two: Literature Review

This chapter provides a detailed analysis of attitude definitions, examines how literature can be used as an historical source, and reviews ecocriticism as a theoretical perspective for literary analysis. Historical archaeological approaches involving global

and local perspectives are examined. International and Australian literature on garden archaeology is discussed in light of how attitudes can be revealed in the design, planting and use of gardens.

#### Chapter Three: Methods

This chapter provides archival material on colonial rural gardens in South Australia. This sets the scene for the methods used in the content analysis of colonial literature for British colonial attitudes towards the Australian landscape and flora, and gardens in Australia; and for the methods used in the archaeological investigation of the garden at Pingle Farm.

#### Chapter Four: Content Analysis Results and Interpretation

The results and interpretation of the content analysis of colonial literature is presented in a separate chapter due to its data being widely different from the archaeological investigation. It will be brought together with the other datasets in the discussion and conclusion. The frequency of attitude variables in the selected texts is presented and interpreted to provide an overview of common attitudes amongst British colonists towards Australian landscape and flora, and gardens in Australia.

#### Chapter Five: Archaeological Survey Results

The Pingle Farm garden site was surveyed for vegetation, surface artefacts and features, soil characteristics, and subsurface features using ground-penetrating radar. The datasets of each survey are presented.

#### Chapter Six: Discussion

In this chapter, history and archaeology are combined to discuss what the colonial era garden at Pingle Farm may have looked like, and the possible reasons why it was designed and planted in a particular way. How the garden may reflect what is known about the Jared family, and then the attitudes of British colonists in general, is considered.

#### Chapter Seven: Conclusion

The research question is revisited, and an answer is offered. The wider implications of these findings are described. Avenues for possible future research are suggested.

## 2. Investigating Attitudes in the Garden

#### 2.1 Introduction

For the British colonists in South Australia, their attitudes were formed as they straddled two worlds, and therefore reflected the values of both: one, with a familiar and long-established culture, now far away, and the other, demanding transition, adaptation, letting go, and forming a new society.

This review begins by exploring the definition and importance of attitudes in a group of people. It argues for the use of literature as a source of historical information and explains how an ecocritical reading of texts, which Bradfield (2020:15) describes as 'a lens that asks readers to focus on how humans relate to non-human nature or the environment', can identify attitudes towards the environment.

Theoretical approaches supported in this thesis are discussed, and finally, examples of investigations which demonstrate how attitudes may be observed in material evidence in the cultural landscapes of colonial gardens are provided.

### 2.2 Attitude and attitude theory

A simple definition of attitude is 'an association between an act or object and an evaluation' (Burton et al. 2018). This downplays the ongoing debate about the precise nature of attitudes in social psychology, however, which started early in the twentieth century when Allport (1935:803) defined attitude as a 'mental and neural state of readiness'. Researchers now believe this to be inadequate, as it focuses solely on the behavioural component of attitude: the response to stimuli, rather than the 'inner tendency' where the core of attitude lies (Eagly and Chaiken 2007).

To address such lapses, Triandis (1971) described attitudes as having three components: cognitive, affective and behavioural. Attitudes begin with an idea or category, then an emotion which charges the idea. This then leads to a predisposition to action (Triandis 1971:2-3). In Eagly and Chaiken's (2007:582) definition, the key

features of attitudes are the psychological tendency (the idea/emotion already held), the entity (or 'attitude object') and the evaluation (or the action that follows).

A key debate in attitude theory is whether attitudes are stable or temporary judgements constructed in specific contexts (Bohner and Dickel 2011). Eagly and Chaiken (2007) argue that 'instability' is mainly evident in the evaluation of an attitude's expression, and that people will make a judgement about how to respond that is sensitive to the context (see also Albarracín and Shavitt 2018), even though their 'inner tendency' may not have changed. An example of this is in Heberlein (2012), where geographers in Topeka, Kansas, found people's attitude was that it was safe to build homes on a floodplain after the construction of a dam, despite a map being produced that showed the area was still in danger of flooding. Their behaviour—their evaluation—only changed after a law was introduced which required developers to have extra insurance when building in that area. People's 'inner tendency' was not affected, but they made a pragmatic choice when financial pressure came into play.

The idea that attitudes are stable and enduring (Heberlein 2012; Sam 2013), on the other hand, is of particular relevance for this study. Attitudes develop in a variety of ways, but their power lies in providing a 'cognitive schema' (Sam 2013) that helps 'us to adjust to the environment' by establishing a repertoire of reactions and 'providing a certain amount of predictability' (Triandis 1971:5). Albarracín and Shavitt (2018:306) highlight the fact that 'attitudes are embedded within a network of values that must be taken into account to understand the influence of attitudes on behaviour'. In other words, people need to have a concept of something before they can have an attitude towards it (Triandis 1971:3), and such concepts can be slow to change. People therefore hold on to attitudes for security, for a sense of belonging, and for the simple reason that they help them know what to do, say, or think in particular situations or as they go about building their lives. Change, on the other hand, requires new thinking, which takes time, new experiences and often external influences, as the example above from Heberlein demonstrates. For this reason, attitudes are both significant and able to be identified and categorised.

This study adopts a definition of attitude as 'ideas, emotions and/or actions towards an entity', based on Triandis (1971). It will use an exploration of primary

sources, including colonial literature, to unpack the way that nature and the Australian landscape were conceptualised by the British colonists, how this reflected their values, and the attitudes which were formed in response to this.

#### 2.2.1 Literary works as evidence of attitudes

While the use of primary documentary sources is standard in historical archaeology, literary works of fiction have only recently begun to draw the attention of historical archaeologists as important evidence for exploring social contexts (Wilkie 2009:1320). They are created for the public and can be used for different purposes, yet they provide an insight into the prevailing attitudes of the time, to what was appealing and acceptable to society. Hughes-D'Aeth (2017:3) supports 'the particular value of creative writing as a document of record... [because] Literature offers something different, which is the interior apprehension of how life feels to people.' Bachani (2022:172) also notes the value of literature for historical study, as it provides a more complex view of 'history, as it is being made', than what might be officially recorded or later recalled.

Literary works also provide more diversity of perspectives than traditional historical accounts or documents. In the Australian colonies, authors such as Catherine Helen Spence and Henry Lawson both gave vivid portrayals of working-class life based on their own experiences. And in nineteenth century Australia, women's voices were most strongly represented in the writing of fiction, especially novels. And yet women's novels have been considered second class, for both their literary value and historical significance (Giles 1987; Sheridan 1995; Martin 2003). According to Sheridan (1995:xii), "lady novelists'... had plenty to say about the directions that colonial life was taking', and, although their perspectives were quite different to those of male writers, 'it was nonetheless a 'part of the cultural production of their times'. Spender (1988:xvi) agrees, noting that 'the novel has allowed them [women] to construct and question their own reality, free from the interference of men'.

Sullivan (2016:95) encourages the use of literary texts for historical research and provides suggestions on how to approach them. She concludes that literary sources are not set apart from historic sources by literary critics, so a text is what the individual

makes of it. She advises that the historian has to 'develop a sensibility to the form and function of a text, bearing in mind debates both then and now about the possibilities for making meaning' (Sullivan 2016:104).

Archaeologists have argued similarly, advocating for a position that archaeologists should approach texts by considering that they had efficacy in the past, and are not just evidence of it (Moreland 2006), dismissing concerns about literary texts being produced by the élite, and therefore being 'tools of oppression'. This can depend very much on the context, however. For example, in the Australian colony of New South Wales, literacy rates in 1841 show that, on average, 60% of British immigrant adults could read and write (Richards 1999). Unpacking this statistic further reveals inequalities, e.g. between gender and ethnicity, but shows that literacy amongst the white population in general was both desired and encouraged. To a certain extent the voices in Australian colonial literature provide perspectives from a cross section of people of white, British heritage.

#### 2.2.2 Ecocriticism

Attitudes towards the physical environment in literature have begun to be studied through the lens of ecocriticism, a mode of analysis which is particularly useful for this thesis. While it does not adopt a purely ecocritical approach, this perspective offers a helpful starting point in thinking about the context in which texts will be analysed.

Rueckert (1996) was the first to use the term 'ecocriticism' as a means 'to find the grounds upon which the two communities—the human, the natural—can co-exist, co-operate, and flourish in the biosphere' (Rueckert 1996:107). Garrard (2011:3) has defined it as: 'the study of the relationship of the human and the non-human, throughout human cultural history, and entailing critical analysis of the term 'human' itself'.

In terms of what texts are analysed, Kerridge (1998:5) says 'the ecocritic wants to track environmental ideas and representations wherever they appear, to see more clearly a debate which seems to be taking place, often part concealed, in a great many cultural spaces'. This would suggest that an ecocritical approach can be applied to a variety of texts, not just literary ones. In addition, an author may not be intending to

communicate primarily about the environment, but an ecocritical approach examines texts for themes reflecting human-nature relationships.

Ecocriticism is the critical study of environmental literature, yet its implications, and indeed its goals, may be more far reaching. Definitions such as Garrard's are particularly relevant when considering the features of settler colonialism, one of which was the elimination of the Indigenous population. Lynch (2014:377) contends that this was often applied to the flora and fauna, as well as people. If Indigenous people were considered to be more animal than human by colonial peoples<sup>2</sup>, then any critique of environmental attitudes may also reflect themes present in attitudes to Indigenous peoples.

#### 2.2.3 Studies of attitudes in colonial Australian texts

Various studies have analysed colonial texts to understand the range of attitudes exhibited by Australian settlers to the environment in their new home. Zhang (2016:111) discusses excerpts from Australian colonial literature dating from the early years of colonisation through to post-Federation, and notes that 'many early colonists characterised the Australian landscape in terms of certain stereotypical features, defining it in ways which expressed both differences from the West and inferiority to it', what Lynch (2014:382) describes as 'discourses of deficiency'. Zhang's method for analysing texts is not explained, and their use of the term 'early colonists' is sometimes confusing, as they refer to authors from the late nineteenth century and beyond. They conclude that 'in Western aesthetics, there is a deep-rooted negative attitude towards untamed nature, especially the wilderness' (Zhang 2016:115).

This apparent hatred of the wilderness may have been more superficial than Zhang concludes. Aitken (2010) draws on a variety of primary source material and describes the early years of the British colony in Australia (1820s-1840s) as a time of appreciation of the novelty of exotic flora, and an 'experimental and responsive' phase in landscape design (Aitken 2010:54). But as fashions changed in England, so things changed in the colony, and the 'emulation of wild nature' (Aitken 2010:68) fell out of

<sup>&</sup>lt;sup>2</sup> Although the widely-held belief that before the 1967 referendum Aboriginal people were part of a flora and fauna Act is not accurate, nevertheless, "We were treated as animals," says Professor Marcia Langton (Das 2018).

vogue. A key observation is that the context of the analysis must be clear for interpretations to be useful (see Krippendorf 2018:37). Both negative and positive attitudes can be discerned depending on the perspective and goals of the analyst.

Collingwood-Whittick (2008) offers a more comprehensive analysis in her discussion on 'the origins and evolution of the Anglo-Celtic population's troubled relationship with the landscapes of Australia' (Collingwood-Whittick 2008:60), which compares Indigenous ways of seeing 'country' with European perspectives. While Indigenous peoples had a 'fusional relationship' with the physical environment (Collingwood-Whittick 2008:62), the post-Enlightenment European attitude was one of distance from the natural world, of humans as observers with the power to intervene and transform the land into the desired space to inhabit. In her analysis of explorers' records and the literature used to market immigration to the Australian colonies, Collingwood-Whittick notes the 'omission of markers of Aboriginal existence', and the ways in which the land was depicted as 'an Eden before the fall' (Collingwood-Whittick 2008:66). In their descriptions of their new home, however, Anglo-Celtic settlers used an English that 'originates in a physical environment which is quite different from that in which they actually live' (Collingwood-Whittick 2008:68), which meant everything from colours to rainfall patterns and fertility ended up having negative connotations when compared to the country they were familiar with.

Other studies on the literature of the 'settler colonial project' (Lynch 2014) have moved from analysing attitudes to the landscape to understanding what the planting of gardens signified, particularly through the style of garden adopted and choice of plants.

Lynch (2014) has gone as far as to apply 'an ecocritically informed analysis' to what he considers to be nostalgic settler-colonial narratives; written in the 21st century. While some might consider this to be postcolonial analysis, Lynch (2014:377) argues that the process of colonisation is still active in countries such as Australia and the USA, and therefore the term *post*colonial is not appropriate. He distinguishes between extractive colonialism: 'take what you can and go home rich' (2014:376-377), and settler colonialism, which plans to make the colony home. Lynch (2014) focussed on the use of the phrase 'there was nothing but...', or equivalent, in descriptions of the landscape. He

argues that this foregrounding of an empty landscape metaphorically cleared the ground 'for the subsequent physical imposition of a new landscape regime' (Lynch 2014:376).

#### 2.3 The 'glocal' approach in archaeology

There has long been a debate in historical archaeology as to the best way to explore local contexts within wider global processes.

One approach to historical archaeology has been Orser's (1999) 'modern world archaeology, which is defined as: globally focussed, mutualistic, multi scalar and reflexive. Orser distinguishes 'modern world archaeology' from traditional historical archaeology, which he says was practised in the United States with the goal of reconstructing sites significant to national ideology, and in concert with the developing heritage tourism market (Orser 2008). Modern-world archaeology 'openly searches for global connections' and does not end analysis at the single site level (Orser 2008:183-4).

Yet, while Orser's definitions of historical archaeology 'have been now widely accepted' (Leone and Knauf 2015:4), concerns have been raised about how a global focus can 'distract historical archaeologists from the real strengths of historical archaeology, which is the diversity and complexity arising from its methods and materials' (Adamson 2013:11). Wilkie and Bartoy (2000:748) suggested an approach 'that more openly considers persons as conscious of the system in which they live' and able to enact agency within this system. Wilkie (2009) terms this paradigm interpretive historical archaeology and summarises it as intrinsically multi scalar, data driven, and seeking to illuminate the textures and nuances in society rather than create blanket characterisations of the past. There is an emphasis on the small and the local, and an exploration of the lived experience of diverse peoples.

Yet there are also elements of Orser's (1999) 'modern world archaeology' approach that are relevant for an understanding of Pingle Farm, such as attempts to understand the site within a broader social context. This is a feature of both Wilkie's (2006) and Orser's (1999) approaches. The multiscalar nature of Orser's model

describes scale in terms of both time and space. The researcher may not know at what time period their research ends, as 'they are working backwards in time to understand the historical roots of a subject that is pertinent today' (Orser 1999:281), and, while it is 'globally focussed', this does not preclude the study of a single site. In comparing behaviour at one site to known patterns at others, one begins to see how far the influence of global forces extended.

Many archaeologists have advocated for using the local/global nexus to comment on contemporary problems, issues and solutions. Orser encourages the archaeologist to be reflexive, to 'think about the contemporary contexts of their research and to understand that their interpretations can have an impact on today's historical actors' (Orser 1999:281). Wilkie's approach is about 'using a variety of lines of evidence to create a new historical narrative that has resonance with our experiences of contemporary society' (Wilkie 2009:1295). Both are focussed on the relevance of archaeology for present day peoples and society. Referring to living with the dilemmas of capitalism in the present time, Leone (1989) laid a foundation for this focus on modern relevance with his argument that archaeologists who are studying the recent past have a 'special burden', as they are investigating the places where 'these dilemmas took on modern form' (Leone 1989:46). Gardening in Australia today, with its constantly changing trends fed by a plethora of magazines and television shows, is the product of a process begun when British colonists established their first settlements—a process most definitely driven by capitalistic forces (Mentan 2018).

The study of Pingle Farm is also concerned with 'the small scale, the commonplace' (Adamson 2013:11). The Jared family need to be understood in relation to the global process of colonisation, and at the scale of the local, through their occupation as a household at their farm in Noarlunga. In contrast to the discussion of cultural landscape theory found in Stuart (2005:9), which describes 'broad regional assessments', this thesis is focussed on a single site, and adheres to the assertion by Jones and Payne (1998:1) that 'every garden is a cultural landscape', as well as Branton's view (2009:227) that 'landscapes may be as small as a single household or garden'.

Adamson (2013) and Terry (2014) emphasise the value of a small-scale approach to individual sites, as it 'sharpens focus and allows personhood to emerge' (Terry 2014:14). Adamson investigated the remains of the homesteads of two labouring class families at Taranaki in New Zealand. Her subjects appeared to exhibit behaviours that suggested they aspired to become more 'respectable'. Terry's subjects took on roles outside of the norms of the time. She investigated the lives of two women pastoralists in Queensland to demonstrate how assumed gender roles in Australia in the late Victorian period did not always apply to women, who often had to fulfil various roles when their husbands were absent or deceased.

Both studies reveal the agency of individuals as they negotiated life within wider colonial social and economic systems. Single site research and a focus on specific individuals can help to avoid the generalisations that may arise from an emphasis on 'global process'. And equally important, the stories behind statistics can be far more meaningful when we seek to make archaeology relevant to the general public (Praetzellis and Praetzellis 2015).

# 2.4 A walk in the garden

Malek (2013:15) proposes a definition of gardens as 'places that are carefully set apart from their surrounding environment and where a highly specialized ecology is maintained through constant human monitoring established to strive for a perfected nature according to a specific cultural view.' Investigating the archaeology of a garden is seeking to uncover how nature was controlled and manipulated for specific functions, and, more significantly, to signal what was valued in this most personal part of the cultivated landscape.

Gardens are often overlooked in the study of domestic dwellings (Cessford 2014), and their tendency to rapidly disappear from the landscape, or be altered repeatedly over time, can make them seem of less interest when seeking to gather meaningful data about a site. But it is this very changeability that is of value when investigating the past behaviour of a group of people. Miller (1994:82) argues that 'past landscapes are rich but largely untapped resources of knowledge that are generally accessible only through archaeological study', and their constantly changing nature 'can

provide information on cultural stability and adaptation... and people's perspective on the world' in a more nuanced way than a study of architecture, for example.

Gardens are also agents of colonisation (Holmes et al. 2008, Lynch 2014). In establishing gardens, both for sustenance and ornamentation, colonists were conceptualising their idea of 'perfected nature' on a small scale before it was wrought on a larger scale (Branton 2009:255, White 2020).

Colonists therefore 'planted a particular understanding of civilisation: gardens reflected an ordered, controlled environment, one where the history of the land and the violence of its acquisition had been erased' (Holmes 2003:173). As a result, gardens provide 'a lens in which to examine the ways that people use their environment as tools of self-definition and a means to legitimise and naturalise that identity' (Branton 2009:256).

Kryder-Reid (1994:133) discusses the way that landscapes are 'particularly powerful symbolic artifacts ... they are volumes literally entered into and experienced'. The way they are organised controls movement and directs the eye. They not only reflect the tastes and aspirations of the owner, but also influence the visitor—'colonial gardens drew on precedents to naturalize the present and to project claims on the future' (Kryder-Reid 1994:132). They contained associations with the past in their plantings, design and decoration which gave them an illusory eternal quality, an assurance of continuity of tradition and maintenance of the status quo.

#### 2.5 Mapping the garden to show attitudes

#### 2.5.1 International studies

Willes (2014:5) says that in Britain 'as far back as the seventeenth century there was a recognition that gardening was a recreation of all levels of society', and there is evidence that working class people did not just have gardens for practical purposes. Garden investigations in Britain range from mediaeval manors (for example Everson 2013), where religious and symbolic meaning was woven into garden designs, to small urban gardens of the twentieth century (for example Cessford 2014), where the remains

of flowerpots and other material culture demonstrate the ongoing desire for beauty and display.

This passion for gardens was taken to the colonies of America and Australia. Examples of garden investigations from colonial America illustrate how attitudes have been discerned in gardens.

Leone et al. (2005), for example, carried out investigations on gardens in the Chesapeake Bay area of the United States. They discuss how attitudes such as 'the proper way to organize nature' (Leone et al. 2005:139) and the desire for order as a reaction against the wilderness can be seen in the locations, designs and perspectives of 18th century gardens.

Other studies on the gardens of William Paca, one in Annapolis and one on Wye Island, were done with the intention not to discover Paca's personal taste, but rather how he used nature to construct a 'rationalized world' (Leone et al. 2005:143), a vehicle for demonstrating ideals to the emerging American society. His gardens were a product of the typical landscape design of the period, which 'deliberately shaped the land and instructed visitors in hierarchy, authority and learning' (Leone et al. 2005:143).

In the same area, Miller (1994) investigated the garden of the Country's House, St. Mary's City, which was established in the 17th century. This focused on discovering the early colonial landscape—now completely vanished beneath subsequent generations of landscapes—when 'a vernacular landscape dominated the region' (Miller 1994:66), rather than formal gardens. These spaces were work environments, 'shaped' rather than 'designed' to meet the household's needs, but were 'deeply influenced by tradition, the social setting, and the cultural perspectives of the residents' (Miller 1994:66). The inhabitants' attitudes to their new environment appeared to change constantly in these early years, according to what the archaeology has shown. Initially, an orientation to the natural setting was evident, which 'may reflect an attitude of adapting to the environment ... rather than attempting to impose order on it' (Miller 1994:79). But, as colonial society began to develop, the landscape was rearranged 'with reference to cultural features, namely, the predominant architecture'. -Buildings became the focus, and plantings were designed to complement these rather than the other way around.

Another change in this early period (1660) was the laying out of a rectangular lot with precise boundaries; in the style of a traditional British landscape arrangement: the house at one end and the outbuildings, work yards, gardens, orchards and stock pens behind it. The reason for this is surmised to be that the house lot was the first to be formally defined in the city, therefore a familiar plan was employed. By this time, the predominant attitudes were to control nature and maintain traditions from the homeland. This suggests a hypothesis that, as properties became more established, the inhabitants may have been less innovative and open to experimentation and instead followed traditions that the emerging society had now become sufficiently established to enable.

#### 2.5.2 Garden studies in Australia

Archaeological investigations of gardens in Australia are rare and mostly focussed on identifying remnant plantings and locations of former gardens and are often undertaken on sites where ordinary people lived, e.g., farms and worker's cottages. This contrasts with international studies that focus on élite gardens and discuss the wider social and historical context within which these gardens were constructed.

Pearson (1988) examined sites in north-east New South Wales for the use of plants as indicators of the location of sites. Rather than focus on remnant plants, she investigated how weed colonisation patterns can be significant due to pH changes in the soil. Her methodology included soil analysis, as decaying structures change soil chemistry and so encourage the growth of certain plant species over others. Her goal was to add to data that could one day make the visual appraisal of a site's vegetation sufficient to identify archaeological features.

With reference to Pearson's (1988) work, Coombe (2001) conducted a survey of introduced plants on sites of former colonial residences in South Australia, now in the Scott Creek Conservation Park. He investigated how specific plants and patterns of distribution can be used as indicators of past cultural activity, when structures and other material evidence are removed. The residences in the survey area were predominantly farmhouses and workingman's blocks. Garden areas were still identifiable by the fact that they used distinctly non-local plants. Attitude identification was not one of

Coombe's aims, but he does comment in his conclusion that 'people who lived there undertook actions to produce a pleasant vista to the house' (Coombe 2001:101), using plants and designs of European origin.

Broadbent's (1985) summary of the role of archaeology in the restoration of the MacArthur's garden at Vaucluse House in New South Wales is a defence of 'practical' archaeology over, presumably, 'academic' archaeology. Archaeology is described as 'not the mistress art, but the handmaiden' (Broadbent 1985:17), its primary purpose being to confirm what was known from documentary evidence and fill in any gaps before restoration work began. This attitude may help to explain why there are few archaeological studies on gardens in Australia. The bigger questions to be asked, particularly by North American garden archaeologists, are yet to be considered here.

# 2.6 Conclusion

Whilst some questions remain about the enduring nature of attitudes, it appears that their power to unite groups of people and give them a schema from which to describe their feelings and experiences, especially when faced with a new and confronting situation such as settling in an unfamiliar landscape, makes them significant in a study of a garden's history.

In line with Wilkie's (2009) paradigm, 'landscape approaches embrace, even demand, a rich variety of evidence' (Branton 2009:239), and there are many proven methods available for gathering data about historic gardens.

The multidisciplinary and multiscalar nature of historical archaeology will allow colonial attitudes to be investigated in a more meaningful way and enable the story of the garden at Pingle Farm to be revealed and analysed in relation to contemporary discussions about the ongoing impacts of colonisation—particularly its gardens—on the environment in Australia.

# 3. Methods

The investigation at Pingle Farm had four components: content analysis of colonial texts; an interview with descendants of the Jared family; landscape investigation, involving vegetation, pedestrian and soil surveys; and geophysical survey.

### 3.1 Content Analysis

The aim of the content analysis was to examine literary texts, personal texts, and gardening journals and manuals, in order to discover the attitudes expressed towards the Australian landscape and flora and/or gardens in Australia by British colonists in the colonial period. Literary texts included novels, short stories, poems and published diaries. Personal texts included letters and diary entries.

#### 3.1.1 Selection of texts

The first criterion used for selecting these texts was what was accessible online and in local libraries. The second, was that the texts had to be written between 1788 and 1901 by authors of white, British heritage, from any Australian colony. These dates were chosen as this is the time Australia was officially 'colonial'. One text is from 1929, but as it is an eighty-year-old man's recollections of early years in the same district as the farm in the study, it was considered both useful and appropriate to include.

Third, the authors must have spent time in Australia. No distinction was made between authors who remained in Australia and those who returned to England. Of primary interest were texts that referred to South Australia, and texts written by both males and females were deliberately sought.

The texts were located by library and internet searches for Australian colonial texts, which were then refined by whether their content included references to the Australian landscape and flora, and/or gardens in Australia. Books and journal papers on the topic of colonial texts related to the Australian landscape and flora and/or gardens were also used to locate texts.

A decision was made to include quotes that were excerpts of letters and diaries in secondary sources, as this increased the number of women authors and were also texts that were not easy to access otherwise.

A deliberate attempt was made to select a wide range of genres. The final selection is by no means an exhaustive list of available sources, but the variety of genres and authors provides an adequate sample from which to gauge a valid measure of, British colonial attitudes to the Australian landscape and flora.

At all times the question guided the selection process: What were the attitudes of people of British heritage towards the Australian landscape and flora during the colonial period? This could be evident in descriptions, advice, feelings and behaviours. Any text that provided at least one example of an attitude was considered appropriate for selection.

Where possible the entire text was examined for all references to the Australian landscape and flora and/or gardens in Australia, as well as 'attitude phrase(s)'. An attitude phrase is defined as one where ideas, emotions and/or actions towards an entity are present (see Triandis 1971).

### 3.1.2 Variable Coding

The framework for the content analysis of texts was taken from Boepple and Thompson (2014). Variables to be coded were selected based on themes which emerged as the texts were analysed. The list was refined as common themes emerged. Themes not related to Australian landscape and flora, gardens and gardening were disregarded, for example, animals. It was also important to distinguish garden references from those that were about farming, as these are another category which was not relevant to this study.

The themes became a list of variables with which to code the entries, which were then organised into three categories: Australian landscape and flora variables, Garden variables, and Colonial ideal variables (Figure 13). Each 'attitude phrase' was given a code from this list of variables. The number of each variable was tallied, and a representative example of each attitude was selected.

Australian landscape and flora variables	Attitude variable code number
Appreciation	A1
Freedom	A2
Destruction is sad	А3
Land is hostile	A4
Vegetation is ugly	A5
Land is untouched by humans	A6
Beautiful but useless for survival	A7
Useful qualities	A8
Useful until exotics are established	A9
Must be cleared	A10
Garden variables	
Need to cultivate and improve	G1
Native plants have a place	G2
Use exotic plants	G3
Follow British/European traditions	G4
Need to adapt to Australian environment	G5
A garden indicates civilised occupants	G6
Must be productive as well as beautiful	G7
Native plants are hard to grow	G8
Colonial ideal variables	
Idyll is like Europe	C1
Opportunities for a great garden	C2

Figure 13. Attitude variables and code numbers

The same quote may have been coded with many variables, representing potentially contradictory attitudes. As long as it was clear by the feeling expressed or manner of description that each was a separate attitude to a specific entity, they were all counted.

If an attitude was potentially implied rather than clearly stated it was not coded. For example, the variable 'A garden indicates civilised occupants' could have been implied in the tone of many quotes but was not always clearly articulated. Another example was 'natural state is beautiful but useless for survival'—many quotes implied this in their description of native vegetation and cultivated areas, but it was only coded when the attitude was explicitly stated.

Some quotes were coded for their attitudes to the landscape and native flora, but if they also referred to farming rather than home gardening, those particular attitudes were not coded.

All quotes were coded twice by the researcher at different times, and the lists compared. If there was a difference, the specific quote was examined more closely, and a decision made as to which code(s) were most applicable. When comparing the two lists, it appeared that the wording of some variables needed to be changed to make their description clearer. This led to changing some of the coding to more accurately reflect the attitude that was being captured.

# 3.2 Oral History

Descendants of the Jared family were located by chance through an acquaintance of the author, so a decision was made to interview them for information about the history of the farm.

Ethics approval was sought and granted (Approval no.5384, see Appendix 1), and an information sheet and consent form were prepared for the interviewees (Appendix 2).

A set of questions was prepared to guide the discussion (Appendix 3). The questions were designed to elicit information about the garden and activities that may have taken place in the garden. They were open ended, and it was hoped that the interview would become an informal conversation where the descendants brought up anything of interest about the history of the farm.

The family were sent the interview questions beforehand to give them time to consider their responses, decide what they were comfortable discussing, and seek information from other sources if they wished.

The interview was conducted by video call on Microsoft Teams on 12/02/23.

### 3.3 Vegetation survey

There were two aims for the vegetation survey. The first was to identify potential plants from the former nineteenth century garden, as well as plants that may be descendants of these, and the second was to identify patterns of vegetation growth potentially indicating subsurface archaeology related to the garden.

Because vegetation changes seasonally, it was necessary to visit the site on several occasions and observe differences in species and growth patterns. The objective was not to produce an exhaustive list of plant species at the site, but to record the dominant species.

#### 3.3.1 Background research

Archives and databases were searched for old photos of the site to give an indication of the plants that were there during the time of the Jared family's occupation. These included the Noarlunga Library, State Library of South Australia, and Flinders University Library. Search terms used were Pingle Farm, Jared's Farm, Jarred's Farm, Clear Farm, Port Noarlunga, Port Noarlunga history.

Pearson (1988) and Coombe (2001) both emphasise the need for determining which plants are remnant, which are 'garden escapes' (Pearson 1998), that have colonised disturbed ground, and which are weed species, i.e., those that have invaded the site after abandonment. *The Atlas of Living Australia* (CSIRO n.d.) and the PIRSA website (Department of Primary Industries and Regions 2022) were used as references for the dates that specific plants were introduced into South Australia, and Jones and Payne (1998) were used to obtain lists of plants that were commonly used in South Australian gardens in the nineteenth century.

### 3.3.2 Recording of plant species and growth patterns

The survey area is shown in Figure 14.

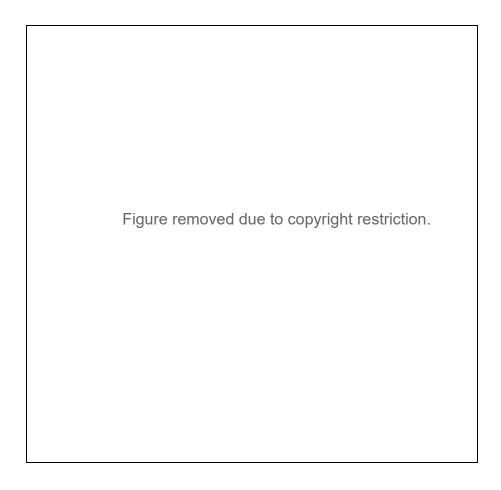


Figure 14. Vegetation and pedestrian survey area map. Coordinate shown is for centre of house roof. (Source: Nature Maps SA)

The survey was carried out in stages periodically over two years, and notes and photographs were taken each time. Informal transects of around one metre were walked within the survey area to record significant species and growth patterns. Growth patterns which potentially indicated subsurface archaeology were photographed and their location recorded with a handheld Garmin GPS.

Plants recorded were divided into four categories: likely remnant; potential garden escape; coloniser of disturbed ground; and revegetated native. They were put into a table with any significant notes about condition, neighbouring species, growth patterns, related features, location, and density. Background information that informed the categorisation was also included.

Observations were made on five occasions: 20th of July 2021, 24th of October 2021, 20th of August 2022, 4th of October 2022, and 28th of April 2023.

### 3.4 Pedestrian survey

The aim of the pedestrian survey was to look for features indicating garden beds and paths, and any other evidence of landscape modification. It was not expected that there would be many artefacts from the Jared's era, as the site has been used as a training ground during World War Two, and then lived in since the time of the Jared's occupation, before being eventually abandoned and becoming prey to vandals. The site is now in a National Park and has been 'cleaned up' so surface items are scarce. Therefore, artefact recording was not the focus. One cluster of artefacts from a disturbed rubbish pit on the western boundary of the survey area was noted, and any garden-related objects recorded.

The survey area is shown in Figure 14, and was delineated based on: information drawn from historic photographs of the site showing garden features; information from an interview with a descendant that indicated there was a tennis court to the east of the house (Steele 1999); limits of vegetation identified as remnant from the time of Jared occupation; the location of the rubbish pit on the western side of the house; and the track running past the northern side of the house.

Because the area was spatially contained, survey intensity was high.

A pedestrian survey with two metre individual transects was walked from north to south. Ground surface visibility was estimated as outlined in Burke et al. (2020:95-96). Any artefacts and features were photographed in situ and the GPS coordinates recorded. A Garmin Instinct Sport Watch was used for GPS. Artefacts and features were recorded on a mud map of the site, with a key for different objects and features, including level change, obvious soil difference, construction material, garden-related object, potential path.

Any objects obviously from a time period after the Jared's occupation were not recorded, e.g. plastic bottles. Where there was any doubt the object/feature was recorded. They were then put in a table with their GPS coordinates and notes.

The first survey was carried out on the 20th of August 2022. A follow up survey was carried out on 7th of March 2023.

# 3.5 Soil sampling

The aim of the soil survey was to test for differences in phosphorus levels in the soil as an indicator of potential garden beds due to fertilising and/or the addition of organic matter.

Judgement sampling was used to determine the areas to be sampled (Figure 15). This was based on information revealed during background research, the vegetation and pedestrian survey data, and the GPR data.



Figure 15. Soil sample locations

Soil samples were taken from locations described as 'garden' in the 1999 interview (Steele 1999), from the front of the house (east; samples 3, 4, and 7) the right side of the house (south; sample 5) and the back of the house (west; sample 2). Three

control locations were specifically chosen, two because there appears never to have been gardens in these locations (samples 6 and 8) and one from outside the survey area on the access track (sample 1). All samples were collected on 26th of April 2023.

The depth of each sample was 10cm. A trowel was used to remove the sample. It was placed in a clean container, broken up with the trowel, and allowed to dry out. Small stones, organic material and hard particles of lime were removed. One part soil with five parts tap water was put into a clean jar. The mix was thoroughly shaken for one minute. The mix was then allowed to settle until the liquid was relatively clear, around 24 hours. Liquid from the jar was then tested according to the instructions that came with the soil test kit. A *The Good Life* soil test kit was used to test the level of phosphorus in the samples. The results were recorded on a spreadsheet.

The samples were also hand-textured and categorised for composition based on the chart in Burke et al. (2020:257). The colour of each sample was compared to the Munsell soil colour chart and recorded. If nothing significant was noted (e.g. distinct differences in chemical levels/soil types) then no further testing was considered

# 3.6 Geophysical Survey

#### 3.6.1 The Survey

The geophysical survey was carried out with ground penetrating radar (GPR) and was designed to investigate the site in both east west and north south directions, depending on the specific section of the site. Due to the capabilities of the instrument being used a large area was able to be surveyed with the GPR than by pedestrian or vegetation survey. The geophysical survey was carried out using a Malå Mira HDR 3D GPR with a shielded 500 MHz antenna, with attached RTK GPS. The instrument was propelled by a tractor. The sample collection used the following parameters: 5120 MHz sampling frequency, 288 samples per trace, 40 stacks per trace, 6cm trace increment. Survey One was carried out on 4th of October 2022, and Survey Two on 20th February 2023.

Figure 16 shows the area which was surveyed compared to the other surveys.

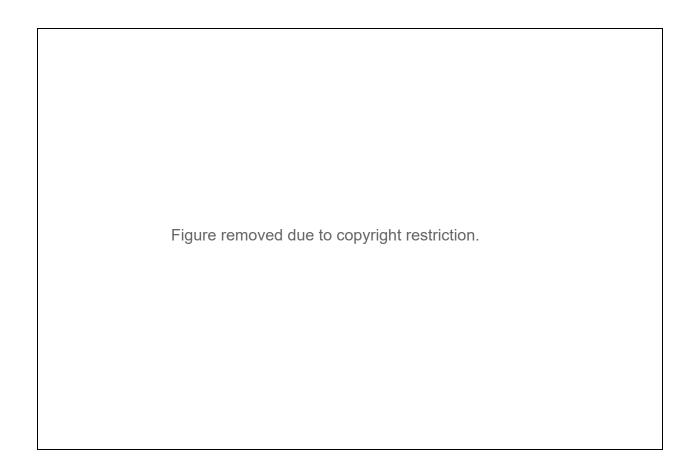


Figure 16. Ground penetrating radar survey area (lighter shade) compared to vegetation and pedestrian survey area (darker shade).

Lines of 6.5 cm spacing were surveyed as the instrument had multiple antennas (12 receivers and 11 transmitters) which could simultaneously gather data. The data were therefore gathered in swathes of 22 lines at a time. Each swathe zigzagged back and forth over the section being surveyed. A total of 214 GPR swathes were recorded. Where possible in each section, GPR swathes were measured approximately parallel. Swathes were stopped at major surface obstacles and a new line started on the other side of the feature, or the swathe was diverted around the obstacle and continued.

#### 3.6.2 Data Processing

The data was exported from Mala MIRAsoft HDR software in rSlicer format following data acquisition. Raw data were processed with rSlicer software. A DC removal and time-zero adjustment was applied during input of the data. During pre-processing high amplitude and low amplitude muting, AGC gain, and Bandpass filtering were applied. The data were interpolated into cells of 0.08m chunks over 23 chunks for Survey one and 33 chunks for Survey Two. The data was visualised as an amplitude envelope and then depth slices were exported in 10cm increments to a maximum depth of 1m. An envelope filter was applied. The resulting displays were then layered onto an aerial photograph of the site with ArcPro.

#### 3.6.3 Data Interpretation

The processed GPR data were interpreted using a scheme which principally relied on identifying straight lines, shapes and suggestions of disturbed or compacted soil which resembled potential garden features or other structures. Potential features were measured, and their depth recorded. Reflections of high amplitude were interpreted as significant changes in the material properties of the sub-surface, such as the presence of bricks or stone; lower amplitude reflections were interpreted as soil disturbance or compaction. Data was cross-checked with historical and landscape investigation data from the site in order to potentially identify features.

# 4. Content Analysis Results and Interpretation

# 4.1 Results

Thirty seven colonial authors were identified, and quotes from forty one texts were then selected. A total of 74 quotes from these texts were coded for analysis. The source details are set out in Table 2 (see Appendix 4 for a complete list of bibliographic details and quotes).

Some of the significant statistics are:

- 59.5% of authors were male, 27% female, and 13.5% were not specified.
- 62.2% of quotes were taken from primary sources.
- 54.1% of texts were by authors based in or writing about South Australia; the second highest state represented is New South Wales at 29.7%.

Table 1. Source details

Date	Genre	Primary source	Author	Gender of author	State which is subject of text	Number of texts	Number of quotes
1788	Letter	N	Governor Phillip	M	NSW	1	1
1791	Letter	N	Elizabeth McArthur	F	NSW	1	1
1793	Published diary	Υ	Watkin Tench	M	NSW	1	3
1820s	Letter	N	James Ross	M	Tas	1	1
1822	Article	Y	George Evans	M	Tas	1	2
1826	Poem	Υ	Charles Tompson	M	NSW	1	1
1829	Immigrants' guide	N	H. Widowson	М	Tas?	1	2
1831-1840	Letter	N	Georgiana Molloy	F	WA	3	3
1836	Letter	N	Colonel William Light	M	SA	2	4
1836	Letter	N	Anonymous	Unknown	SA	1	1
1837	Immigrants' guide	Υ	H. Capper	М	SA	1	4
1839-1844	Diary	N	Louisa Meredith	F	NSW	1?	3
1841	Almanac	Y	W. Kerr	M	Vic	1	2
1843	Gardening manual	Y	George McEwin	M	SA	1	5
1843	Letter	N	J.F. Bennett	M	SA	1	1
1845	Poem	Y	Robert Lowe	M	NSW	1	1
1850	Poem	Υ	Anonymous	Unknown	NSW	1	1

1854	Novel Y Catherine Helen Spence		Catherine Helen Spence	F	SA	1	2
1859	Novel	Y	Maud Jeanne Franc (Matilda Evans)	F	SA	1	7
1860	Novel	N	Marie Theresa Vidal	F	NSW	1	1
1860	Letter	Υ	Joseph Elliot	M	SA	1	2
1862	Letter	N	Blueshirt'	Unknown	SA	1	1
1866	Diary	N	Katie Hume	F	Qld	1	1
1867	Short Story	Υ	Ellen Liston	F	SA	2	2
1869	Gardening journal	N	Unknown	M	NSW	1	1
1870	Poem	Υ	Adam Lindsay Gordon	M	SA	1	1
1875	Gardening journal	N	Unknown	Unknown	SA	1	1
1875	Published diary	Υ	Rosamund and Florence Hill	F	SA	1	2
1877	Gardening manual	Υ	E.B. Heyne	M	SA	1	2
1879	Almanac	Υ	Josiah Boothby	M	SA	1	2
1879	Gardening journal	Υ	Anonymous	Unknown	SA	1	1
1890	Published diary	Y	James Currie	М	SA	1	1
890-1892	Novel	Y	Mrs Alick MacCleod (Catherine Martin)	F	SA	2	5
1892	Article	Υ	E.H. Hallack	M	SA	3	5
1896	Short Story	Υ	Henry Lawson	M	NSW	1	1
1897	Short Story	Υ	L. Becke	M	NSW	1	1
1929	Memoir	Υ	Peter Giles	М	SA	1	1

The number of times a variable was identified and a sample quote to illustrate each is shown in Table 2.

Table 2. Frequency of attitude variables with a sample quote.

Australian landscape and flora variables	Attitude variable code number	Frequency	Example
Appreciation	A1	19	In the zenith of the Australian spring this scrub is in places sheeted in blossoms: brilliant little orchids; scarlet and yellow pea-like flowers; the pale lemon blossom of the native clematis; the small purple geraniums, with their poignant fragrance when crushed underfoot (Catherine Martin, 1890)
Freedom	A2	2	But he didn't see the dingy window; nor the skimpy little bed,; he saw the dark-blue ridges in the sunlight, the grassy flats and sidings, the creek with the clumps of sheoak here and there' (Henry Lawson, 1896)
Destruction is sad	A3	2	The rude invasions of the spoiling axe/ That chased the dryads from th'affrighted glade/And lopped each shrub that once composed their shade. (Charles Tompson, 1826)
Land is hostile	A4	9	Where, with fire and fierce drought on her tresses/ Insatiable Summer oppresses/ Sere woodlands and sad wildernesses/ And faint flocks and herds. (Adam Lindsay Gordon, 1890)
Vegetation is ugly	A5	6	The leaves are narrow and grey looking and hang down so as to afford no shade - they are called Evergreens but never green would be more appropriate. (Katie Hume, 1866)
Land is untouched by humans	A6	2	How many, many years must these treasures have blossomed in this Country without one eye to appreciate them, it strikes me so forcibly in riding through the surrounding Wilderness, that the "hand of God" is indeed impartial, for the uncultivated parts of the earth are as much loaded with his bounties as are the most frequented parts! (Goergiana Molloy, 1840)
Beautiful but useless for survival	A7	2	The soil must be allowed to be most wretched and totally unfit for growing European productions, though you would scarcely believe this, as the face of the ground at this moment, when it is in its native state, is flourishing even to luxuriance,

			producing fine Shrubs, Trees, and Flowers which by their lively tints afford a most agreeable landscape Beauty is but skin deep in New South Wales all the beauty is literally on the surface. (Elizabeth McArthur, 1791)
Useful qualities	A8	8	Sweet-tea: A vegetable creeper found growing on the rocks, which yields, on infusion in hot water, a sweet astringent taste, whence it derives its name: to its virtues the healthy state of the soldiery and convicts must be greatly attributed. It was drank universally. (Watkin Tench, 1793)
Useful until exotics are established	A9	1	In the early days of the colony before gardens were. The native daisy was planted and cherished as a table decoration, but now that the loveliest flowers have been obtained from all parts of the world, and bloom in profusion, this little wildling gains no more attention than its namesake at home. (Rosamund and Florence Hill, 1875)
Must be cleared	A10	8	Unless a settler can see an expanse of bare, naked, unvaried, shadeless, dry, dusty land spread around him, he fancies his dwelling 'wild and uncivilised'. (Louisa Meredith, 1839-1844)
Garden variables			
Need to cultivate and improve	G1	12	I can scarcely imagine a more interesting scene than to observe a country in the course of being rescued from nature' (J.F. Bennett, 1843))
Native plants have a place	G2	8	July entry: make plantations of the indigenous plants and shrubs of the handsomest dwarf growing flowering kinds there are many others of equal beauty and deserving of a place in the flower garden. (J.Kerr, 1841)
Use exotic plants	G3	19	The culinary vegetables raised here are remarkably fine, and comprise all those which are reared in a kitchen-garden in England' (George Evans, 1822)
Follow British/Europe an traditions	G4	4	With a few families who have been used to the cultivation of lands, this country will wear a more pleasing aspect' (Governor Phillip, 1788)
Need to adapt to Australian environment	G5	2	The works of this description published at home are totally inapplicable to this Colony in their general practice' (George McEwin, 1843)

A garden indicates civilised occupants	G6	2	There was an appearance of civilization and comfort in the numerous cottages on the way, each having a small garden' (Catherine Helen Spence, 1854)
Must be productive as well as beautiful	G7	2	The paths had been left of a pleasant breadth; four might have walked comfortably abreast, for there was no deficiency of ground inclosed, and the purpose of all was pleasure, a very unusual one in Australia. (Maud Jeanne Franc, 1859)
Native plants are hard to grow	G8	2	If we wish to see our native plants in perfection we must visit Europe. (Editor of Horticultural Magazine, 1869)
Colonial ideal variables			
Idyll is like Europe	C1	9	They are genuine gardens - roomy, shadowy, well planted, well watered; rich in flowers and many fruit trees, bending in due season under their fertile loads; haunted with the hum of rifling bees, fragrant with the perfume of old-world blossoms. (Catherine Martin, 1890)
Opportunities for a great garden	C2	7	With the splendid climate we possess, and the unbounded capabilities of the soil, choice luxuries for the dessert are raised with very little trouble in the open air, which in England are only within reach of the nobility and the gentry' (George McEwin, 1843)

Figure 17 compares the frequency of each variable in the sample.

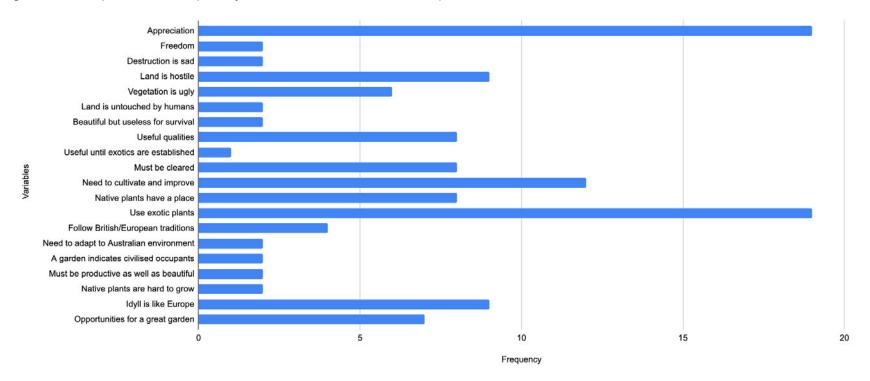


Figure 17. The frequency of each variable in the sample.

'Appreciation' (of the Australian landscape and/or flora) and 'Use exotic plants' (in the garden) were the most frequently represented attitudes (15.1%), followed by 'Need to cultivate and improve' (9.5%), then 'Land is hostile' and 'Idyll is like Europe' (7.1%)-. The least frequent attitudes were 'Land must be cleared' (6.3%), followed by 'Useful qualities' (of native plants) recognised (6.3%) and 'Native plants have a place' (in the garden) (6.3%). Only 1.6% of attitudes expressed a need to adapt to the Australian environment, equal with those who thought 'Destruction is sad'.

It is important to note the category of each attitude as shown in Table 2 (above) and take this into account in the analysis. This gives more context to the attitude. For example, 'Useful qualities' (of native plants) comes under the category of Australian landscape and flora variables, not garden variables. It indicates that, while usefulness 'in the wild' was recognised, it was not enough to change what would be planted in the garden.

### 4.2 Interpretation

Preliminary reading of the texts led to the hypothesis that although British colonists generally appreciated the Australian landscape and flora, they did not think they could depend upon it for survival and, perhaps, to some extent distrusted it. This is borne out through the content analysis.

It appears there were many conflicting attitudes to landscape and flora. There was a willingness to try out edible and medicinal plants and use native plants in gardens. There were exclamations of wonder at the beauty of the bush, with its lovely flowers and majestic trees. But it also held an underlying menace and could not be relied on for sustenance. Above all, it was 'foreign', and needed to be tamed and made familiar.

The need to produce food for the colonies was immediate. The land was considered for its potential to grow European crops, raise European animals, and establish European-style gardens. Settlers were advised: 'the garden is, or ought to be, an object of greatest attention' (Widowson 1829:10). H. Capper wrote in his guide for colonists to South Australia, (Figure 18) that 'South Australia possesses land of the

most luxuriant fertility' (Capper 1837:25) and included a list of seeds they should bring with them which were 'peculiarly adapted to the colony from their prolific and hardy qualities' (Capper 1837:97).



Figure 18. Title page of H. Capper's book.

For ordinary people pleasure gardens were not a priority, but once a home was established and food production taken care of, there was time to grow ornamental plants and create space to simply enjoy 'nature'. Native plants were looked on favourably for ornamental plantings: 'make plantations of the indigenous plants and shrubs of the handsomest dwarf growing flowering kinds... mixed with plants and shrubs of English production' advises one Almanac (Kerr 1841:133). In some cases it was seen as too difficult to grow native plants; the knowledge of how to cultivate more delicate species took time and expert knowledge, as described by one editor of a horticultural magazine in 1869: 'If we wish to see our native plants in perfection we must visit Europe' (Aitken 2010:128).

A few people might appreciate a view of uncleared land around their house—'our hut was on the border of a pretty she-oak flat' (Harwood 1936:58)—but most needed to have exotic plants in landscaped beds to make them feel at home (Figures 19 to 21).



Figure 19. The land known as the 'Wild Part' at Wittunga Farm, SA, where native 'scrub' was deliberately kept intact and orchids can be seen growing, c.1910. (Source: State Library of South Australia B70984/14)



Figure 20. A rose bed and lawn planted in the front garden at Wittunga Farm, SA, 1906. (Source: State Library of South Australia B70984/10)



Figure 21. The beginning of a formal garden with introduced plants. Heywood House, Hyde Park, SA, 1870. (Source: State Library of South Australia PRG 1424/5/69)

Catherine Martin's chapter on the mallee scrub in her novel *An Australian Girl*, encapsulates the contradictory feelings of many colonists. The heroine, Stella, is an avid garden lover, who summarises a 'genuine garden' as being full of flowers and fruit, and 'fragrant with old world blooms' (Martin 1890:3). Yet when she visits the Mallee she is slowly seduced by its charms: 'After the first shock is over this strange landscape bends the mind to itself, and gains a subtle hold on it' (Martin 1890:133). Still she looks for its practical value: 'the Mallee Scrub, instead of being a barren waste... might soon become a great granary of fruit and corn' (Martin 1890:134). Yet immediately afterwards she rapturously describes the scrub in spring as 'sheeted in blossoms; brilliant little orchids; scarlet and yellow pea flowers; the pale lemon blossom of the native clematis; the small purple geraniums, with their poignant fragrance when crushed under footthese and many other wild blossoms...' (Martin 1890:134), which, 'in the midst of the

harsh setting all around made Stella feel as if for the first time she knew what the joy of colour meant' (Martin 1890:135).

There is no doubt that many colonists loved the flora they discovered in their new home. They wanted to collect it, draw it, study it and plant it in their gardens, a notable example being Georgiana Molloy, who made money collecting and selling seeds to a botanist in England, and who 'frequently endeavoured to introduce the native Plants among the exotics' in her garden. (White 2020). But the flora in its natural context was cleared without much regret if there was a more 'productive' way the land could be used.

All this wonder at nature's bounty came with an attitude—the land was untouched by humans—which was clearly illustrated in two quotes, for example, 'How many, many years must these treasures have blossomed in this Country without one eye to appreciate them' (White 2020). Georgiana Molloy certainly 'appreciated' them. Governor Phillip wrote that the land was waiting for 'families who have been used to the cultivation of lands' (Aitken 2010:41-2), indicating that, although he was very aware of the presence of Indigenous people he also thought the potential for food production and economic gain was untapped by their way of life. Notable in the results is the almost total absence of any connection between Indigenous people and economic uses of native plants, including for medicinal or other purposes. In his diary, Watkin Tench (1793:56) described observing Arabanoo, an Indigenous man they had captured, chewing fern root to relieve an upset stomach. This is the only quote found as part of this research where a British colonist acknowledged Indigenous people and their use of native plants.

The method of determining attitudes in the texts was to focus on clearly stated attitude phrases, yet *terra nullius*, 'nobody's land', is implied in nearly all of the quotes. Lawson's labourer dreaming of escape from his drudgery 'saw the dark-blue ridges in the sunlight, the grassy flats and sidings, the creek with the clumps of she-oak here and there, the course of the willow-fringed river below, the distant peaks and ranges fading away into a lighter azure...' (Gelder and Weaver 2014:136). He only sees what represents an opportunity for freedom, without considering that venturing out may mean having to move through a land with Indigenous inhabitants. McEwin's (1839:33)

excitement about the possibilities for the gardener extended to 'the splendid climate we possess, and the unbounded capabilities of the soil...'. *We possess*. This phrase assumes ownership and gives no acknowledgement that Indigenous people had a claim to the land.

Although there is much debate about the concept of *terra nullius* and its application by the British in their colonising behaviour, it appears that it was never a legal doctrine applied by the British to Australia (Ritter 1996). Instead, Ritter (1996:9-10) describes it as a 'discourse of power... those who are the most powerful in a society determine what is "true", with the result that the existing social order is perpetuated and legitimated.' The 'truth' determined by the British was that Indigenous people had not settled the land, according to contemporary European understandings of it—particularly in the development of agriculture—so it was reasonable to claim possession of it (Borch 2001). *Terra nullius* was an attitude according to the definition used in this thesis, as an idea, emotion and/or action towards an entity (Triandis 1971:2-3).

In striking contrast to the attitudes of many British colonists is an 1857 letter written by a German botanist, Carl Wilhelmi, who ends his three page account of observations of both Indigenous peoples' and European settlers' uses of native plants with this statement: 'I feel convinced that the vegetable kingdom of Australia has as valuable properties as that of any other part of our globe, and it would be very desirable that greater attention were paid to the economic and pharmaceutical branches of botany than has heretofore been the case' (Wilhelmi 1857). Wilhelmi was a botanist, so perhaps his perspective would be different from the average traveller or settler. However, Heuzenroder (2006:32) states, 'Most German-speaking immigrants who came to South Australia before 1850 had an attitude to food supplies that made them receptive to new ingredients collected from the wild. They were country people ... habituated to foraging in European forests'. This potential attitude difference between cultures could be an avenue for future research.

Many colonial literary texts were produced for the English public who were hungry for tales from the Antipodes. There are contrasting features between these works, though. In Mary Theresa Vidal's *Bengala: Or Some Time Ago*, published in 1860, the 'characters are most marked by the English gentility of their way of life' (Horner

2022), whereas in Catherine Helen Spence's *Clara Morison* (1854) there is a vivid portrayal of people embracing life in the colony and even resenting those who compare it negatively with England. The fact that Vidal returned to England and died there, while Spence stayed in Australia and became a significant member of Adelaide society, adds more context to their writing. Similarly, Robert Lowe, a tutor in Oxford who was facing the prospect of going blind and came out to Australia to try and make the most of his fading vision, decided that there was nothing of worth in the landscape, whereas Charles Tompson, born and raised in New South Wales, wrote of the beauty, and destruction of, native flora, and mourned its loss. In other words, the intentions of a colonist for their life in Australia may have influenced their attitude to its landscape.

# 5. Archaeological Investigation Results

### 5.1 Oral History Results

The interview with members of the Jared family—Stephen Jared and his father, Les—did not reveal much information about the garden. Unfortunately the last family members who had lived in the house are no longer alive, and to their knowledge no other photos or documents exist that record the house during the time of Jared family occupation.

The family members interviewed are descended from one of Emily's children: Horace Jared. They said that there was some division in the family after John William's death as only his two children by Hannah inherited the property. It was sold soon after this. Stephen and Les shared a picture which contained some members of the Jared family in the front garden of a house (Figure 22). It was hoped this was Pingle Farm, but it does not appear to be so based on the visible architectural features. But it does show a garden from around 1911, probably in the Fleurieu Peninsula region, and provides some useful elements for comparison.



Figure 22. Members of the Radford and Jared Family in a garden around 1911. Interviewees' father and grandfather is the baby on the man's lap on the right. (Source: Stephen Jared)

# 5.2 Vegetation Survey Results

Figures 23 and 24 are aerial photographs of Pingle Farm that were found in the background search. These give an indication of the garden area around the house. The most significant difference between the two is the disappearance of what appears to be remnant native vegetation south west of the house after 1949.



Figure 23. 1949 aerial photo of Pingle Farm and surrounds. The vegetation south-west of the house appears to resemble remnant native scrub rather than a plantation. (Source: City of Onkaparinga)



Figure 24. 1968-1969 aerial photo. Vegetation south-west of the house has been removed. (Source: City of Onkaparinga)

Figure 25 shows the approximate main locations of the twenty three species identified in the survey. The findings are detailed in Table 3.



Figure 25. Approximate location of different plant species at Pingle Farm. Circles indicate individual plants. Rectangles indicate that there are multiple plants in this area, and possibly more widespread in the area than shown by the rectangle. Larger squares indicate a wide area covered primarily with this species. Cloud shape indicates an area where many species are present.

#### **Key to Figure 25**

Pencil pine

Almond

Pepper tree

Horehound

Marshmallow

African boythorn

Soursob

Onion weed

Oat

Mix of oat and wild mustard

Nettle

Hedge mustard

Ruby saltbush

Creeping saltbush

Fragrant saltbush

Ripgut brome

White mustard

Galenia

Drooping she-oak

Wild Mustard

Eucalyptus

Common Stork's bill

Fat hen

Unidentified sawn off trunks

Table 3. Summary of vegetation surveys at Pingle Farm from July 2021 to April 2023.

Name of plant	Likely remnant	Potential descendant/ garden escape	Coloniser of disturbed ground	Local native species	Notes	Background information
Pencil pine Cupressus sempervirens (Figure 25)	*				2 trees, one is dead and other in poor condition. Stump of another tree also present.	Visible in 1907 and 1941 photo.  Powder made from the nut was considered medicinal.
Almond Prunus amygdalus (Figure 26)	*				3 trees in good health with fruit forming.	Visible in 1907 and 1941 photo.
Pepper tree Schinus molle (Figure 27)	*				2 trees, one dead and the other in good condition.	Visible in 1907 and 1941 photo
Horehound Marrubium vulgare (Figure 51)		*	*		Scattered across the front and sides of the survey area, clusters along track.	Medicinal plant in 19th C; a 'bitter herb'.
Marshmallow Malva parviflora (Figure 28)		*			One distinct patch west of the cistern.	Medicinal plant in 19th C; proliferates in fertile soils.
African boxthorn Lycium ferocissimum (Figure 27)		*			Several clusters under other trees.	Hedge plant in 19th century

Soursob Oxalis pes-caprae (Figure 30)	*	*	Distinct clusters in round pattern outside fence west and south of the house.	Ornamental plant in19th century
Onion Weed Asphodelus fistulosus	*	*	Several clusters east of the house. One smaller cluster west of the house.	Ornamental plant in 19th century
Common Storksbill Erodium cicutarium		*	Concentrated in north west corner of area outside of the fence.	Edible and medicinal plant; may have been introduced with seed crops.
White mustard Sinapis alba (Figure 52)	*	*	Small cluster along east side of rectangular feature. Scattered plants in back garden area.	Edible and medicinal plant
Wild Mustard/ Charlock Sinapis arvensis (Figure 26)	*	*	Large areas at front and south side of house, in rubble of collapsed rooms of house	Edible plant; loves calcareous soils.
Galenia pubescens	*	*	Scattered across the survey area.	Introduced 1890s; now naturalised in SA.
Fat Hen Chenopodium album	*	*	Scattered across the survey area, thicker in back garden area.	Medicinal, edible leaves and seeds, dye plant (introduced 1850s)
Nettle Urtica urens <sup>3</sup>	*	*	Sparse single plants	Edible/medicinal
Common Hedge Mustard Sisymbrium officinale	*	*	Several plants scattered across NE corner of front garden (East of house)	Edible and medicinal

<sup>&</sup>lt;sup>3</sup> May be another type of nettle

Ripgut Brome Bromus diandrus (Figure 29)			*		In front garden area and mixed in with other grasses in other areas. Growing thickly in a rectangular pattern in south west area.	
Oat Avena sp.		*			Mixed in with wild mustard and grasses at front and back of house. Distinct large area of growth on south side of house in between large areas of wild mustard.	
Unidentified sawn off trunks (Figure 31)	*				1.5m apart on north side.	
Red Gum Eucalyptus Camaldulensis				*	4 trees inside survey area, in good condition.	
Ruby Saltbush Enchylaena tomentosa (Figure 32)				*	Large bush on NW corner of fence, a number of small bushes in back garden area and along western fence, several bushes growing on cistern.	
Creeping Saltbush Atriplex semibaccata (Figure 33)				*	Three specimens, one growing amongst galenia SW of kitchen, one on west side of rubbish pit, and one by the west fence.	
Fragrant Saltbush, Mealy Saltbush Rhagodia parabolica				*	One specimen growing under African boxthorn in NE corner of survey area.	
Drooping she-oak Allocasuarina verticillata				*	Growing on cistern.	

Three species of tree—a total of seven trees—were identified as remnants from the nineteenth century garden based on their size and presence in a photo from 1907 (see Figure 4 in Introduction). Two of these are dead, but are still standing next to a live specimen. Ten other species of plant were categorised as potential garden descendants/escapes due to their being noted as introduced garden plants in the nineteenth century in various sources. They are no longer growing in any apparent design to give an indication of their original placement. Five species of local native plants were found in the survey area.

Fourteen of the 23 plants identified (63%) are either edible, medicinal, or both. Many of the introduced species in this category are now considered to be 'weeds'.

Figures 26 to 34 show some of the plant species found today at Pingle Farm. Appendix 5 contains images of the species not featured here or in other sections of the thesis.



Figure 26. Pencil Pines (*Cupressis sempervirens*) on the western side of the house at Pingle Farm. (Source: Rebecca Milne)



Figure 27. *Prunus amygdalus* surrounded by *Sinapis arvensis*. Scale 1m (Source: Rebecca Milne)



Figure 28. Two *Lycium ferocissimum* in front of *Schinus molle*. Scale 1m (Source: Rebecca Milne)



Figure 29. Malva parvifolia patch west of the cistern. Scale 1m (Source: Rebecca Milne)



Figure 30. Distinct rectangular patch of short *Bromus diandrus*. Scale 1m (Source: Rebecca Milne)



Figure 31. Distinct patch of *Oxalis pes-caprae* growing south of the house. Scale 1m (Source: Rebecca Milne)



Figure 32. Trunks of two unidentified trees on northern side of survey area. Scale 1m (Source: Rebecca Milne)



Figure 33. *Enchylaena tomentosa* growing on the NPWS fence at Pingle Farm. (Source: Rebecca Milne)



Figure 34. Atriplex semibaccata in the garden at Pingle Farm. (Source: Rebecca Milne)

# 5.3 Pedestrian Survey Results

Ground surface visibility varied with the time of year, ranging from 10% in August to 60% in March. The area of greatest visibility at all times was under the eucalypts on the western side of the survey area. In general, most vegetation was between 20-50cm high. Where vegetation was higher than 50cm and thick, survey results were very poor.

On the western and eastern side of the survey area the ground was slightly uneven but stable. There was a slight but obvious rise (<5%) to the south away from the house, and towards the east in front of the house. In the southeastern corner of the survey area the ground was more even. In the southwestern corner the ground sloped down slightly (<5%). The southern area appears to be a slight 'platform', raised above the ground around the house and the ground to the west.

Most surface material was related to the construction of the building, constituting rubble from ruined parts of the house, largely loose limestone rocks and bricks. The 1941 photograph (Figure 8) shows a low limestone wall in front of the house (in the south east corner) which is no longer present; some of these rocks may be from this structure. There are beds of calcrete or limestone on the surface of the track, so some rocks may also be natural. The location of limestone rocks was not recorded unless some type of pattern or evidence of being worked was discerned.

A disturbed rubbish pit on the western edge of the survey area had scattered fragments of ceramic, glass, metal and leather artefacts around its edges, although very few garden-related objects were noted apart from a fragment of terracotta pot (Figure 38). All recorded artefacts and features are shown in Table 4. Images of selected items are included below (Figures 35 to 38). Other images are in Appendix 6.

Table 4. Pedestrian survey results

Feature no.	Feature	GPS	Description
1	Level change		Slight rise of land (< 5°) to the south of the house, noticeable vegetation change between 'low area' in front of house and the higher ground to the south.
2	Slate piece 12cm x 12cm (Figure 34)	35°09.9526 138°28.9621	Embedded in ground
3	Asphalt slab (Figure 35)		Doorstep outside south exit of kitchen
	1		Embedded in ground, potentially circular arrangement. Vegetation shorter over the top of this feature than surrounding area.
5	Rubbish pit in southwest corner of survey area (Figure 36)	35°09.9384 138°28.9406	Disturbed pit containing, and surrounded by, ceramic sherds, glass fragments, metal objects and other items
6	Two red bricks	35°09.9692 138°28.9323	Representative of several lying around the survey area.
7	Terracotta pot sherd (Figure 37)		Next to rubbish pit
3	Large piece of rusty fencing wire	35°09.9399 138°28.9544	
5	3m x 4m (approx.) area of limestone rubble (Figure 38)	35°09.9554 138°28.9547	Cobble sized stones in a regular pattern laying flat on the ground, similar in appearance to a collapsed wall of the house. Lying over a slight depression in the ground west of the house.

10	Concrete 'pad' approx. 30cm x 30 cm. with wire embedded.	35°09.9692 138°28.9323	
11	3 scatters of 'gravel' (quartzite) one 3m x 2m, one 1.5m x 1m, and 1m x 50cm		All three scatters found east of house on the surface, inside and outside of NPWS fence, stones blackened on upper surface.
12	Broken slabs of asphalt, size difficult to determine due to partial burial		Path-like feature embedded and partially buried on south side of the cistern.  No image but similar in appearance to Feature 3.
13	Star dropper posts cut off at ground level		2 rusty pieces embedded soil near SE corner of the NPWS fence
14	Piece of ceramic drain 15 x 20cm		Next to rubbish pit



Figure 35. Feature 2, slate piece (Source: Rebecca Milne)



Figure 36. Feature 3, asphalt slab (Source: Rebecca Milne)



Figure 37. Feature 5, disturbed rubbish pit (Source: Rebecca Milne)



Figure 38. Feature 9, terracotta pot sherd by the rubbish pit (Source: Rebecca Milne)



Figure 39. Feature 9, limestone cobbles in apparent regular pattern (Source: Rebecca Milne)

# 5.4 Soil Sample Results

Eight soil samples were collected on 26/04/23. The results are summarised in Table 5.

Table 5. Results of soil sampling. Interview referred to is from Steele (1999).

Sample no.	Location	Description	Phosphorus level	Munsell colour	Sediment composition
			Scale: P0-P4		Based on Burke et al. 2020:257
1	South edge of the track between the cistern and the SE corner of the barn	Control, outside of survey area.	P0-Depleted	10YR 5/3 brown	Clayey sand
2	West of cistern	Area where flourishing patch of <i>Malva</i> parviflora was observed	P1-Deficient	7.5YR 3/3 dark brown	Clayey sand
3	NW corner of survey area	Area where a distinct patch of <i>Sinapis</i> arvensis was observed.	P1-Deficient	7.5YR 3/2 dark brown	Clayey sand
4	SE front of house	Mention of the garden being visible from front windows in interview.	P0-Depleted	10YR 3/3 dark brown	Clayey sand
5	South of house	Mention of the garden being visible from a window at the south end of the passage in interview.	P0-Depleted	10YR 4/3 brown	Clayey sand
6	Back of kitchen	No evidence of a garden bed in background research.	P0-Depleted	10YR 3/3 dark brown	Clayey sand
7	NE front of house	Mention of the garden being visible from front windows in interview.	P1-Deficient	7.5YR 4/2 brown	Clayey sand
8	Between pepper tree and almond east of house	Area outside of the garden proper.	P0-Depleted	7.5YR 4/2 brown	Clayey sand

The results do not show significant differences in phosphorus across the site. The two areas which were notable in the vegetation survey for flourishing patches of *Malva parviflora* (sample 2) and *Sinapis arvensis* (sample 3) showed as deficient rather than depleted in phosphorus. It is surprising that two of the areas (samples 4 and 5), mentioned as being 'garden' in the 1999 interview with a previous inhabitant of the site who lived there until 1920s (Steele 1999:45), showed depletion in phosphorus. However, sample area 7, the NE side of the garden near the front of the house, showed a slightly higher level (deficient) than the SE side (sample 4).

The access track control sample (sample 1) was dry and compacted compared to all other samples. All other samples were taken from areas where it was much easier to dig and were about the same in their apparent moisture content.

Four samples, 2, 3, 4 and 6, had darker soil. Samples 3 and 4 showed evidence of burning on the surface, with pieces of gravel that were blackened on their upper side in sample 3, and small pieces of charcoal in sample 4. The sediment composition was the same for all eight samples.

# 5.5 Geophysical Survey Results

The ground penetrating radar (GPR) results showed features indicative of cultural activity in all sections of the surveyed area. Seventeen potential features were identified. Survey One results are more interpretable than Survey Two due to the closer spacing of the swathes during data collection; this was not intentional.

Figures 40 to 45 show depth slices with identified features outlined and numbered. Other slices are included in Appendix 7. If a feature shows in more than one depth slice, it is outlined in the slice where it shows most clearly. In some cases, more than one version of a depth slice is included as different features show more clearly depending on the display.

Table 6 then provides details about these features. Amplitude response is described as 'high' or 'low' to give an indication of the strength of the reflections, which in turn can give some indication of whether it is soil disturbance, soil compaction, or a

higher contrasting material in the subsurface. A preliminary interpretation of the features, and other data to support this, is presented here; features significant to the garden will be discussed further in the next chapter.



Figure 40. 10 cm depth slice, Survey One and Two.



Figure 41. 20cm depth slice, Survey One and Two.

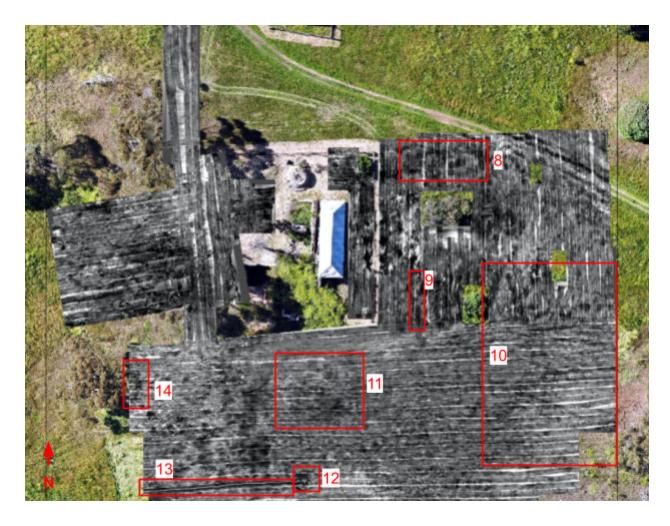


Figure 42. Alternate 20cm depth slice, Survey One only.

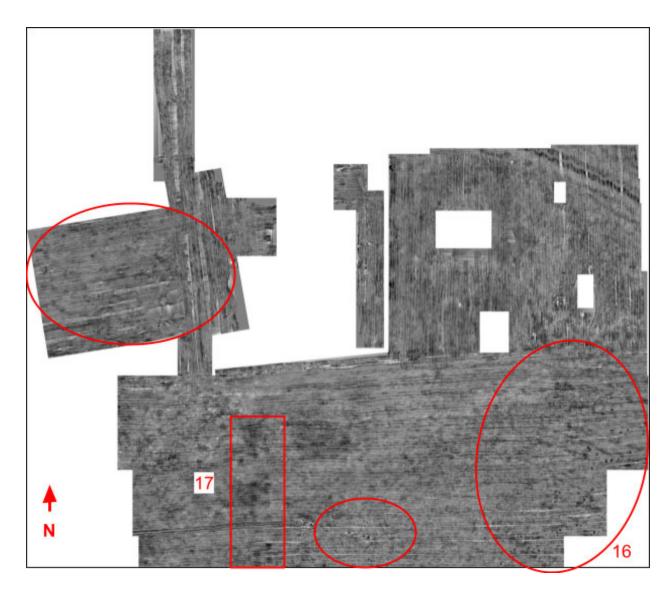


Figure 43. 40cm depth slice from Survey One. Circled areas show a scatter of small reflections. *Display shown without aerial photo in background as it provides the clearest image of these features.* 



Figure 44. 50cm depth slice.



Figure 45. 90cm depth slice showing the four features that continue down from 10cm (Feature 1) and 20cm (Features 5, 12, 13) depth slice.

Most of the cultural activity is evident in 10-50cm depth slices. There are features of high contrast which suggest material such as metal, brick and stone, as well as low amplitude features indicative of soil disturbance and/or compaction.

Table 6. Details of features from Survey One and Two.

Feature no.	Depth range	Measurement	Description	Amplitude response	Detected by GPR only	Potential identification	Other data to support identification
1	Surface -90cm	22.68m long	Linear features running parallel east-west	high		Main track	Visible on surface.
2	10cm	15.92m long	Linear feature running SE to NW	low	*	Drain	
3	10cm- 50cm	5.52m wide 6.89m long	'Dappled' feature on the N edge of the display	high	*	Bullet cartridges	See feature 16.
4	10cm- 60cm	67.38m perimeter	Rectangular feature east of house; intersected by straight line 5.42m from north end, 13.74m room in middle; room at south end 2.9m north-south	high	*	Outbuilding with three rooms	Patch of <i>Sinapis arvensis</i> growing prolifically in area of one 'room' with apparent less compacted floor than rest of the structure.  Similar size to extant barn.
5	20cm- 90cm	5.41m perimeter	Square shaped	high	*	Tank	Surface material including concrete posts and barbed wire; proximity to potential irrigation channels.
6	20cm- 70cm	90cm diameter	Two solid circular features 1.49m apart	high	*	Post holes but are quite large for wooden posts	In line with back door; structure visible in 1907 photo.
7	20cm	27.48m long	Two linear features running parallel	high	*	Track	Similar in appearance to feature 1.
8	20cm- 40cm	10.99m east-west, 5.75m north-south	Oval shaped	low	*	Garden bed	
9	10- 50cm	10.7m long	Linear feature	high		Stone wall	Visible in 1941 photo (Figure 8).

10	10cm- 70cm	Area 929.71m	Arrangement of connected linear features		*	Irrigation channels	Grape vines faintly visible in this area in 1907 photo.
11	20cm- 30cm	17.72 diameter	Round feature	low		Disturbed soil from former tree	Visible in historic and aerial photos; patch of Oxalis pes-caprae growing in round cluster over this area.
12	20cm- 90cm	3.35m wide north-south	Square feature	high	*	Tank	Bundle of fencing wire on surface as with feature no.4.
13	10- 90cm	34.68m long	Linear	high	*	Length of wire from fence	Bundle of wire on surface at eastern end.
14	20cm		Triangular shape on edge of SW of Survey One	low		Floor of outbuilding	Filled in latrine; distinct rectangular patch of short <i>Bromus diandrus</i> growing in this area.
15	40cm- 60cm	27.95m short side, 56m long side	Right-angled linear feature, reflection suggestive of compacted soil	low	*	Compacted soil from fence or other boundary	
16	40cm- 50cm	10cm-20cm long	Scatter of objects, reflection suggestive of metallic material, concentrated in SE corner of survey, across S and also in W area.	high	*	Scatter of bullet cartridges	1942 photo of weapon practice on another part of the property (Figure 58); proximity to possible target structures.
17	40cm	Approx. 90cm diameter	Solid circular features in groups of four, in a line north-south	high	*	Post holes from rifle targets set up by Volunteer Defence Corps	1942 photo from Port Adelaide rifle range shows one type of target structure but with only two posts, not three or four (Figure 59).

The southern part of the survey area was ploughed in a later phase of the site's usage (Figure 46), which may explain the absence of some features from shallower layers.



Figure 46. 1979 aerial photograph showing area south of the house being ploughed. (Source: City of Onkaparinga)

# 6. Discussion

This discussion will begin with a site-level analysis and then move out to situate Pingle Farm in its broader context.

There appear to be two main phases of cultural activity at Pingle Farm. One is the garden and agriculture phase, which occurred in the late nineteenth century into the early twentieth century. The second is the use of the site by the Volunteer Defence Corps in the 1940s.

# The garden area

In this discussion, the term 'garden' refers to the area considered to be the domestic outdoor areas utilised by the inhabitants for horticultural rather than agricultural purposes. A relatively small component of the larger survey area has been defined as the 'garden' (Figure 47). This has been determined by evidence from photographs and geophysics. Figure 48 is a plan of the garden at Pingle Farm as it may have been laid out in the late nineteenth century.

Figure removed due to copyright restriction.

Figure 47. Boundary of the area identified as 'garden' at Pingle Farm. The building north of the house is the barn.

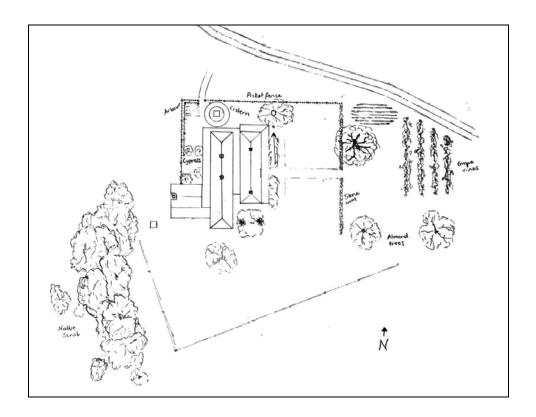


Figure 48. Plan drawing of the imagined late nineteenth century garden at Pingle Farm, based on the investigation results. (Artist: John Milne)

One potential garden bed is visible in the GPR results. It is in the north-east section of the survey area. It appears to have had a design of an elongated oval, and bordered the north-east boundary of the garden, facing the track. If this was an ornamental bed, as could be assumed due to its location in the front garden, and high visibility to visitors arriving from Noarlunga, it is evidence of attempts to create a more impressive frontage. There does not appear to be soil disturbance indicative of garden beds right next to where the verandah was at the front of the house. This area may have been a lawn, although no species of lawn grass are evident at the site today.

The large patch of marshmallow (Malva parviflora) on the north side of the backyard could be an indicator of a former garden bed. Marshmallow proliferates in fertile soil. The soil here showed as deficient in phosphorus in the survey, compared to depleted in six of the eight other sample areas, suggesting it may have had more fertiliser added to the soil in the past. This location appears to have had a vine covered

structure over it in the 1907 photograph, so perhaps it was a shadehouse, or an arbour like the one shown in Figure 49. If this was a sitting area, it would have looked out on to the pencil pines and been a small enclave of 'civilisation' for the inhabitants. The avenue of pines in the backyard is a hint of more formality in this area of the garden. This is in contrast to the asymmetrical planting of the pepper trees and almonds in front of the house.

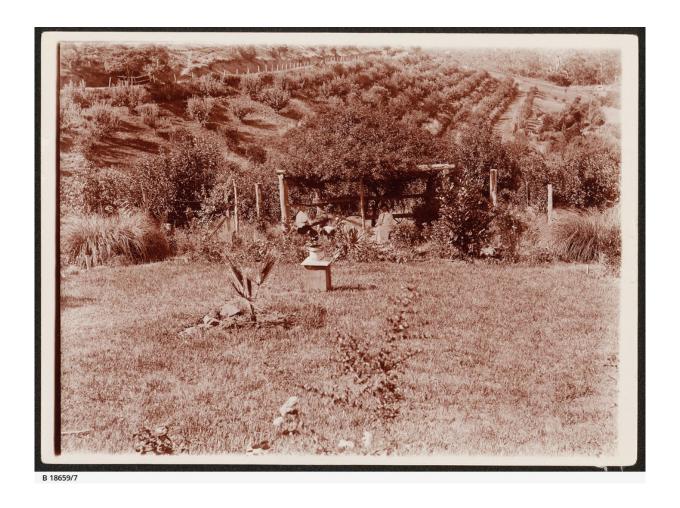


Figure 49. Drinking tea under an arbour at Heywood Farm, Mount Compass, c.1907. (Source: State Library of Australia B18659/7)

## **Fences**

Photographs show that the house was fenced in by a stone wall at the front of the house (east) and a picket fence at the back (west) (see Figure 6). There appears to have been a garden bed east of the stone wall, so the boundary in Figure 47 includes this area. There is no longer any surface evidence of the wall or picket fence, but GPR identified a subsurface linear feature that sits in the same location as the stone wall.

The GPR shows evidence of soil compaction in a linear formation south of the house which could have been a possible boundary fence. Figure 50 shows an early twentieth century vegetable garden with examples of the types of fences used in rural areas.



Figure 50. Fenced vegetable garden at Witchelina Station, 1915. (Source: State Library of South Australia B30368)

The fences at Pingle Farm appeared to have been for the purpose of delineating the domestic area, as well as keeping animals out. 'Security' in terms of keeping people out does not appear to have been a requirement. The stone wall at the front of the property may have been built to create a more prosperous impression than the picket fence at the back.

#### **Garden Plants**

Apart from the cypress pines, it is not possible to positively identify the tree species visible in the 1907 photo (Figure 6), but they do resemble the almond and pepper trees which are still present today. Coombe (2001) also noted cypress as a remnant colonial garden tree in his study. The remnant species are obviously hardy and were planted for ornamental or food producing purposes, as well as shade. An example is the unidentified species of creeper that is shown growing over the back verandah in Figure 6. Published descriptions of colonial gardens make it clear that this was a typical feature and essential for creating shady spaces and cooler indoor temperatures. It appears that the shaded areas were created after garden construction, rather than using existing vegetation.

There are a number of small herbaceous plants which are abundant at the site, that are now considered weed species. Weeds are defined as plants that grow wild and have negative impacts on primary industries, native vegetation or human health (PIRSA 2023). These include horehound (Figure 51), white mustard (Figure 52), marshmallow and fat hen (See Table 3). These species are not mentioned as common colonial garden plants in Jones and Payne (1998), and it is possible that many of their seeds were brought in with seeds for crops, or attached to sacks or other goods. They are not listed in the list of what Pearson (1998) terms 'garden escapes' or descendant plants in Coombe (2001). Coombe (2001) also provided an inventory of 'weeds' in the park, compiled by the Friends of the Park group. This list contains horehound, so it seems that it was not considered a potential garden escape or descendant by Coombe. Pearson (1998) identified horehound as a plant associated with high alkaline soils, and the disintegrating limestone walls as well as lime mortar in the soil would contribute to soil alkalinity at Pingle Farm.

But another interpretation of the presence of these 'weeds' is possible, because eight of the plants identified at Pingle Farm were used as medicinal plants in the nineteenth century. Books written about home medical treatments were widely circulated and would have been essential reference works in places and time periods with poor or intermittent access to doctors or chemists. In *The Family Herbal*, by John

Hill (1812), for example, the medicinal qualities of cypress, horehound, marsh mallow and nettle are described.



Figure 51. Horehound (*Marrubrium vulgare*) growing at Pingle Farm, present day. (Source: Rebecca Milne)

William Buchan's *Domestic Medicine* (1772) was another popular reference guide in the nineteenth century (Pearn 2012). It contains many references to 'bitter herbs', of which horehound is one, that could be used to treat a variety of conditions. Buchan (1772:497) recommends white mustard as a treatment for rheumatism. Figure 53 shows the occurrence of white mustard in Australia; in South Australia it has mainly been recorded around Adelaide and the Fleurieu Peninsula, the region where Pingle Farm is located. It was first recorded in the 1890s (*Atlas of Living Australia* n.d.).



Figure 52. White mustard (Sinapis alba) growing at Pingle Farm, present day. (Source: Rebecca Milne)

Figure removed due to copyright restriction.

Figure 53. Occurrence of *Sinapis alba* (white mustard) in Australia, present day. (Source: Atlas of Living Australia n.d.)

It is not unreasonable to assume that at least some of the plants with medicinal qualities that are found at the Pingle Farm site today are descendants of plants

specifically planted by the Jareds for home treatment of illnesses. Raftery (1999) details the many threats to life faced in the nineteenth century in the Australian colonies and even by the late 1890s life expectancy was still only 51 years for men and 54 years for women (Raftery 1999:277). Access to professional health care was increasing, but still heavily dependent on money and geography. 'In colonial Australia, the sick and injured relied extensively on self-medication and home care' (Pearn 2012:162).

From the scant records we have about John William Jared's two wives, ill-health was a feature of both Emily's and Hannah's lives. Emily Jared bore eight children, six of whom survived infancy, and in her final years her sister Hannah came to nurse her, before Emily died at the age of 34 (Figure 54). Her illness is not identified but it is not hard to imagine that bearing eight children in the space of twelve years, along with the hard life of a farmer's wife, contributed to her early death. This is recorded about Hannah Jared, that 'for many years suffered from rheumatism and poor eyesight and was confined to a wheelchair' (Merrit and Pomery 1979:89).

Three out of the four plants at the site that are described in Hill (1812) are noted as treatments for women's complaints: nettle, cypress and marshmallow.



Figure 54. Headstone of Emily Jared's grave in the Willunga Uniting Church Cemetery. (Source: Rebecca Milne)

## Other significant species

African boxthorn (*Lycium ferocissimum*) is present in clusters at both the northeast and southwest corner of the survey area. This was a common hedging plant on colonial farms (Jones and Payne 1998) and these plants may be descendants. Its location near the boundary of the identified garden area also supports this, although it is now not growing in an obvious linear formation. Boxthorn is an invasive weed species across South Australia now, however, so its presence at the site may be due to other factors.

Soursob (Oxalis pres-caprae) grows in distinctive clusters, some of which, when compared with the GPR survey, suggest patches of disturbed soil from the sites of former trees. It is also much more prolific on the flat area south of the house compared to closer to the house. This indicates it was probably not brought in as a garden plant but has become established in the paddocks around the house over time.

## **Native species**

There were five species of native plant identified in the survey area; the three types of saltbushes are found in the garden. These are species which have edible berries and leaves, and readily self-sow. There are a number of ruby saltbushes to the north of the survey area which, according to a member of the Friends of Onkaparinga National Park group (McKinnon 2023 pers. comm.), were not planted as part of revegetation efforts in this area. The saltbushes are all suitable for stock grazing. Their presence could be interpreted as being 'farm escapes', in that they were they were left growing (i.e. uncleared) in the grazing area of the farm closer to the river (Steele 1999), and are now reestablishing themselves on land that was cleared for crops.

The four Red gums (*Eucalyptus camaldulensis*) now growing in the survey area were not present in the 1969 aerial photo, so it is assumed they have since been planted in revegetation efforts or are perhaps self-sown. Photos from the time of the Volunteer Defence Force in the 1940s show a cluster of eucalyptus growing west of the house and, although their species is not able to be identified. It was not uncommon for 'suitable' species of eucalyptus to be planted after the land was cleared, as per the advice of McGeorge McEwin (1843:37): 'No time should be lost in planting the seeds or

young plants of some quick growing native species. The White Gum is fittest for the purpose [as a windbreak]'.

However, the possible patch of remnant native scrub south-west of the house that is shown in the 1949 aerial photo raises the possibility that it was considered useful (e.g. for wind protection or firewood) or even attractive to maintain some original vegetation close to the house.

# Landscaping

Landscaping features in the garden were few, and none were significant in size or scale. Minimal landscaping is consistent with early South Australian colonial gardens, of the type described as 'cottage gardens' by Jones and Payne (1998). An example is shown in Figure 55. These gardens, rather than 'designed', grew organically around the changing needs of the family.



Figure 55. An example of a simple cottage garden at Cherrington Homestead in Mount Barker, 1880. (Source: State Library of South Australia B9385)

A photograph from 1941 (Figure 56) shows limestone rocks being used to delineate pathways at Pingle Farm. Surface survey found an abundance of these rocks scattered across the site. Most likely many of the rocks are from disintegrating walls, which makes it impossible to now detect path or garden bed delineation.

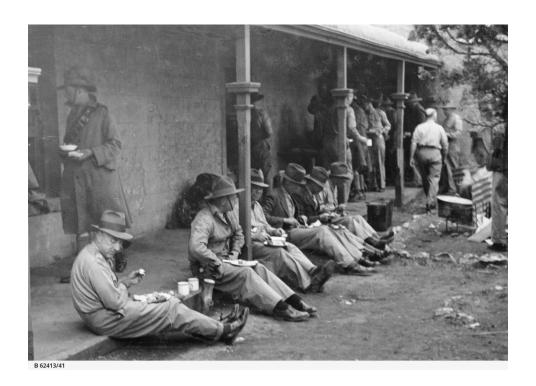


Figure 56. Stone lined path in the back garden area at Pingle Farm, 1941. (Source: State Library of South Australia B62413-41)

# Irrigation

Within the garden area, the extant cistern appears to be the source of water. No drains or channels were detected, however there is a large amount of rubble from disintegrating structures around areas which could have been garden, which made surveying for water management features difficult.

GPR results east and south show an extensive irrigation system fed by two potential underground tanks. The 1907 photo shows faintly visible grape vines in this area. Smith (2007:23) lists nine irrigation methods recommended by Peter Cunningham in his 1841 *Hints for Australian Immigrants*; for vineyards and fruit groves the method is

digging 'a series of hollows for the plants, with shallow connecting channels between, the irrigating water filling each series of hollows in succession'.

## **Outbuildings**

In the eastern part of the survey area is the potential large structure (Feature 4). This could be an outbuilding from the time of the original four room cottage and is comparable in size with the extant barn which is north of the house (see Figure 49). Perhaps the stone wall boundary was made up of part of this structure's walls after it was demolished. John William extended the house in 1877 by building what are now the front rooms in the eastern part of the house. This extending and demolishing of buildings at rural sites is consistent with what Beaudry (2001) found in her farm investigations in the United States and Scotland. 'A farm was, and is, really, always a dynamic work in progress' (Beaudry 2001:139).

It is possible there were two outdoor toilets at Pingle Farm, with a second facility dug to accommodate the men from the Volunteer Defence Corps. Cobble-sized stones lying in a formation that resemble a collapsed wall are found in the area where a toilet can be seen in a 1942 photo. (Figure 58). There is a slight depression beneath this. The rectangle of compacted earth south-west of the house (Figure 30) may also be a filled in latrine.



Figure 57. 1942 photo showing the south-west corner of the house and a probable outdoor toilet to the left of the image. (Source: State Library of South Australia B 62413/80).

The evidence of human activity at Pingle Farm has so far been used to describe what the garden may have been like and what this reveals about the lives of the farm's inhabitants. A story of quiet living people who worked hard to create a productive place and provide for their own needs and created a modestly comfortable home with some attempts at beautifying the space around them according to colonial tastes.

However, this was not a gentlemen farmer's property, and the owners worked the land themselves. Added to this, the health status of the women would have meant limited ability for pleasure gardening at some points in their lives. This may also have limited the desire and opportunity for experimentation with native flora.

Of the remnant and potential descendant species now found in the garden, 63% are edible and/or medicinal. It is clear that the garden was not simply a place for pleasure, and all settlers, urban and rural alike, were advised to plant productive gardens as one of their first priorities (Widowson 1829, Capper 1837). As Marian comments about features in the garden Allen is designing at his homestead in the novel

*Marian, or The Light of Someone's Home* (Franc 1888:137), '...the purpose of all was pleasure, a very unusual one in Australia'.

#### **World War Two**

As well as the potential latrine, there are two more features from the GPR (16 and 17) which are potentially connected to the period where the farm was used by the Volunteer Defence Corps (1940s). Figure 58 shows weapon training taking place at the farm, and in a news article from 1941 there are several types of gun described as being used for training at the farm (*Southern Argus 1941:1*) which suggests the scattered metallic reflections on the south and east sides of the house could be bullet cartridges.



Figure 58. Bren gun training on the river flats at Pingle Farm, 1942. (Source: State Library of South Australia B 62413/82)

Figure 59 shows target practice structures at another VDC training ground.

These are quite substantial in size. Similar structures may have been set up at Pingle Farm, which may explain the series of potential post holes found south of the house.

This was a relatively short period in the life of the farm, but demonstrates the lasting impact of war, even far from the frontlines. It also demonstrates the ongoing link with Europe after South Australia had supposedly shed its colonial status.



Figure 59. Target practice structures at Port Adelaide rifle range, 1942. (Source: State Library of South Australia B62413/178)

The analysis of colonial texts revealed common attitudes held by British travellers and immigrants about the Australian landscape, flora and gardens. They show a people influenced by global trends unleashed by colonisation and capitalism: curiosity about the exotic, the opportunity for people to better themselves, the motherland looking for ways to bolster her economy and feed her people, the right to claim any land that was not seen to be being used productively, the tearing up of one Eden to replace it with a more familiar aesthetic from Europe.

Orser's (2008) imperative that sites of the recent past are analysed for global connections becomes relevant when we seek to identify attitudes in the garden at Pingle Farm. The remnant species and potential garden descendants from the Jared's time are mostly introduced species. The cypress pines particularly are a distinctive sign

of Mediterranean influence on the garden, which came via wealthier British emigrants who had journeyed in France and Italy and saw the potential for their ornamental and edible plants in the South Australian climate. One such example is Samuel Davenport of Beaumont House in Adelaide, who is credited with developing the olive oil industry in South Australia, and also sought out suitable grape varieties for his vineyards on his travels (Bishop 2014). The Mediterranean climate of South Australia, with its hot, dry summers and wet winters, connects Pingle farm and others like it with geographically specific attitudes to plants, such as is illustrated in a fourth-fifth century mosaic from Carthage (Figure 60)—an ancient idyll that apparently was still being sought centuries later in a very different land.



Figure 60. Dominus Julius mosaic from Carthage, late 4th century-early 5th century. A similar image to what would have been growing at Pingle Farm in its heyday: Cypress pines, wheat, olives, rabbits, grapes, and quite likely, roses. (Source: Ancient Roman art in the Bardo National Museum, Public domain, via Wikimedia Commons)

Appreciation of the Australian landscape and flora was one of the most common attitudes identified in the content analysis, but as well as the remnant plants, other evidence demonstrates that this may not have been the prevailing attitude at Pingle Farm. The house was not situated to enjoy river views, and any view that was to be had of the hills to the east was blocked by the planting of pepper and almond trees. Interestingly, the overseer's cottage about one kilometre away has magnificent views of the river down to the sand dunes on the west and hills to the north. It was probably sited for more practical purposes, however, as the sheep were grazed on the river flats below.

The saltbushes in the garden area today are evidence that some species of native plants have readily self-sown and may have done so in the Jared's time. Whether or not their edible and ornamental qualities were appreciated can only be speculated on. A cluster of a species of eucalyptus tree does appear to have been either planted or maintained in the area south-west of the garden, and these may have had some functional and/or aesthetic purpose. Their presence is an indication that native plants did have some use for the inhabitants in the nineteenth century, although this was one of the less frequently expressed attitudes.

The defined garden area appears to have been completely cleared of native flora and replanted with 'familiar' species. This was the advice given in immigrants' guides and gardening journals (e.g. Capper 1837; McEwin 1839), and is in line with other frequently expressed attitudes: a preference for exotic species in the garden, and a desire to improve the land. These attitudes were fed by the industry that grew from the production of 'advice' literature as literacy levels in the white population rose and it became cheaper to mass-produce reading material (Bilston 2008).

Although the garden has been described as informal, and shaped by the needs of the family, it still clearly reflects an adoption of European traditions, in its plantings, design and use of spaces. Without detailed soil and palaeobotanical analyses it is not possible to know what other species of plants, such as roses, were grown in the garden at Pingle Farm, but 'old world' flower-filled gardens at rural South Australian homesteads are described in detail in the novels by Catherine Martin (1890, 1892) and Mathilda Evans (1859). They depict an idyll sought by colonists, and made possible by a climate that allowed a greater range of plants than in England.

There are descriptions of Indigenous people living and pursuing traditional food procurement in the area at the time Pingle Farm was being established (Chronicle 1929:39). Yet the land clearing, fencing, grazing of stock, and planting of introduced species nonetheless suggests the terra nullius attitude. It is possible that the house at Pingle Farm was built out of sight of the river due to the presence of Indigenous peoples, but as the land was completely taken over for agricultural use it is apparent that they were not considered to have any rights in regards to land usage. Accounts in the history of the Hancock and Martin families of the Fleurieu Peninsula (Hancock and Martin Family Reunion Committee 1986) depict what seems to have been the norm for many settlers in the southern districts: black and white children playing together, 'aboriginal folk confused by the white man cutting down trees to grow food ... there was 'plenty good food' in the trees' (Hancock and Martin Family Reunion Committee 1986:167), Indigenous people 'begging' for supplies, and being given the occasional carcass of a farm animal. Some hint of the state of things in 1871 is found in a newspaper article titled 'Noarlunga', which records that Dr. Smales was 'recommended for reappointment as medical attendant for destitute sick and aborigines' (South Australian Chronicle and Weekly Mail 1871:7).

Amery's (2016:77) research has led him to conclude that 'there was little direct violence against the Kaurna, at least in the vicinity of Adelaide, but government policies were clearly directed towards imposing English 'civilisation' and obliterating Indigenous cultures as quickly as possible ... Game quickly became scarce as the colonists occupied Kaurna lands and took up agricultural and pastoral industries; the Kaurna were reduced to a state of dependency, and as a consequence, were soon treated with contempt'.

# 7. Conclusion

This investigation of British colonial attitudes towards the Australian landscape, flora and gardens applied to Pingle Farm has shown that British colonists in South Australia did not think they could rely on the native flora for survival, and that they saw the land as a blank canvas to turn into the familiar landscape of their home country.

Although South Australia was marketed as a kind of untouched Eden by those trying to promote emigration, it was a version of Eden from another time and place that the settlers uprooted and transplanted onto cleared ground. 'Civilisation' was carved from 'wasteland', as was expected of all sensible, opportunistic settlers.

The garden at Pingle Farm is an example of a landscape that was completely transformed from its pre-European state. This transformation required artificial watering and constant maintenance to be productive and once it was abandoned invasive species, also brought in by the colonists, took over, although native flora, assisted by revegetation efforts, is once again making inroads at the site (Figure 61).



Figure 61. The cistern at Pingle Farm slowly being taken over by ruby saltbush and drooping she-oak, May 2023.

It is an interesting side note that not only was native vegetation often disregarded for gardens in the past, but today many of the introduced plants from the nineteenth century have become 'weeds' and their original usefulness, e.g. for medicine or food, is overlooked. This means that gardens can be an excellent indicator of a society's interests and priorities at a given time, as well as shifts in those attitudes over time.

Returning to Garrard's (2011:3) definition of ecocriticism as 'the study of the relationship of the human and the non-human, throughout human cultural history, and entailing critical analysis of the term 'human' itself', this thesis has taken a critical look at settler colonialism's relationship to the natural environment, and observed that there were not only an attitudes of dominance but also exclusive possession. The attitudes expressed towards nature cannot be separated from the marginalisation and dispossession of Indigenous peoples. Their relationship with nature, or their rights as 'humans', were not recognised as equally valid, let alone one from which newcomers could learn. A voice for Australian flora should be linked with a voice for Traditional Owners and their connection to the natural environment, otherwise it is in danger of becoming another form of dispossession.

Because of its relatively brief history as a home, its subsequent decline and abandonment, and now the attempts to restore the land to its pre-European state, Pingle Farm depicts a story of change and a wish to redress past actions that have proved to be detrimental to the land. It raises not only the question, 'What could have been done differently?', but also, 'What could I do differently?'. Frenda et al. (2021) say that 'ruins... not only represent the tangible part of a past partly disappeared but are above all a generator of memory and can represent an opportunity to retrace history in order to rediscover identity'. Rediscovering and reflecting on a ruined colonial garden such as the one at Pingle Farm opens up a conversation about the identity we want to shape today.

That we still have a population that is more comfortable with European style gardens and exotic plants demonstrates how ingrained and far reaching the attitudes brought by the colonists were and still are. But is South Australia ready to confront the idea that many of their gardening practices are not only unsustainable, but also an echo of *terra nullius*?

The use of non-destructive techniques to discern the former garden has proven to be effective in detecting many features connected to the garden, as well as agriculture and other activities. The identity of some features cannot be confirmed without further investigation, in particular excavation, but on the other hand, some low amplitude features, such as soil disturbance or compaction, are more clearly discerned with geophysical survey, and may be too subtle to find with excavation.

Future garden investigations at Pingle Farm could include pollen and seed analysis of the soil to determine which species of garden plants may have been planted, excavation to confirm the interpretation of the geophysical survey, and further investigation of medicinal plant use and cultivation in nineteenth century South Australia.

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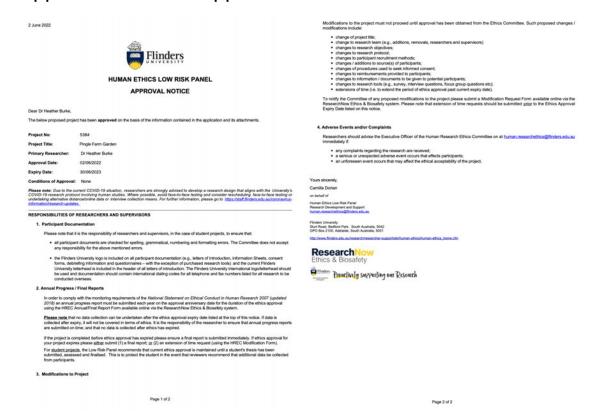
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# **Appendices**

# Appendix 1. Ethics approval



# Appendix 2. Interview information and consent form



# RESEARCH STUDY PARTICIPANT INFORMATION SHEET AND CONSENT FORM

#### PINGLE FARM GARDEN ARCHAEOLOGICAL INVESTIGATION

## **Project Director**

Rebecca Milne College of Humanities and Social Sciences Flinders University Tel: 0448 378 001

#### **Supervisor**

Dr Heather Burke College of Humanities and Social Sciences Flinders University Tel: 8201 3795

My name is Rebecca Milne and I am a Flinders University Master of Archaeology student. I am undertaking this research as part of my degree. For further information, you are more than welcome to contact my supervisor. Her details are listed above.

### **Description of the study**

This project will investigate the garden at Pingle Farm, in the Onkaparinga Recreation Reserve. A search of archival information will be followed by an archaeological investigation of the site. This will involve geophysical survey, soil sampling, vegetation survey and aerial photography. This project is supported by Flinders University, College of Humanities and Social Sciences. The research outcomes will be provided as a thesis.

#### **Purpose of the study**

This project aims to find out the extent and layout of the garden at the homestead at Pingle Farm. The information gathered will be used to reflect on how colonial attitudes to nature and the Australian landscape continue to influence contemporary relationships with the Australian environment.

#### Benefits of the study

National Parks and Wildlife Services would like to produce interpretive information for the public about the site; this study will contribute directly to this. The sharing of your knowledge about Pingle Farm will also aid in potential restoration work at the site.

In looking at the history of gardening traditions in Australia, it is hoped that better relationships with native flora can be encouraged.

#### Participant involvement and potential risks

If you agree to participate in the research study, you will be asked to attend a one-on-one interview with a researcher that will be audio recorded.

The interview will take about 60 minutes and participation is entirely voluntary. The questions will be provided to you before the interview. If there are any questions you do not wish to respond to you may let the researcher know.

You will be provided with a copy of the interview transcript and/or recording if you would like this.

The researchers do not expect the questions to cause any harm or discomfort to you. However, if you experience feelings of distress as a result of participation in this study, please let the researcher know immediately. You can also contact the following services for support:

- Lifeline 13 11 14, www.lifeline.org.au
- Beyond Blue 1300 22 4636, www.beyondblue.org.au

#### Withdrawal Rights

You may, without any penalty, decline to take part in this research study. If you decide to take part and later change your mind, you may, without any penalty, withdraw at any time without providing an explanation. To withdraw, please contact the Project Director. Any data collected up to the point of your withdrawal will be securely destroyed.

## **Confidentiality and Privacy**

Only researchers listed on this form have access to the individual information provided by you. Privacy and confidentiality will be assured at all times. The research outcomes may be presented at conferences, written up for publication or used for other research purposes as described in this information form. However, the privacy and confidentiality of individuals will be protected at all times. You will not be named, and your individual information will not be identifiable in any research products without your explicit consent.

No data, including identifiable, non-identifiable and de-identified datasets, will be shared or used in future research projects without your explicit consent.

#### **Data Storage**

The information collected may be stored securely on a password protected computer and/or Flinders University server throughout the study. Any identifiable data will be de-identified for

data storage purposes unless indicated otherwise. All data will be securely transferred to and stored at Flinders University permanently after publication of the results.

## **Recognition of Contribution**

In recognition of your contribution and participation time, the researcher will share with you any publicly available information she has gathered about the site, and you will be provided with a short summary of the outcomes of the study, which will include maps and photographs of the findings at the site.

## **Ethics Committee Approval**

The project has been approved by Flinders University's Human Research Ethics Committee. (Project number 5384).

#### **Queries and Concerns**

Queries or concerns regarding the research can be directed to the research team. If you have any complaints or reservations about the ethical conduct of this study, you may contact the Flinders University's Research Ethics & Compliance Office team via telephone 08 8201 2543 or email human.researchethics@flinders.edu.au.

Thank you for taking the time to read this information sheet which is yours to keep. If you accept our invitation to be involved, please sign the enclosed Consent Form.

## **CONSENT FORM**

## **Consent Statement**

Date:

	I have read and understood the information about the research, and I understand I am being asked to provide informed consent to participate in this research study. I understand that I can contact the research team if I have further questions about this research study.
	$\square$ I am not aware of any condition that would prevent my participation, and I agree to participate in this project.
	☐ I understand that I am free to withdraw at any time during the study.
	I understand that I can contact Flinders University's Research Ethics & Compliance Office if I have any complaints or reservations about the ethical conduct of this study.
	$\square$ I understand that the information collected may be published and that my identity may be revealed.
I furthe	er consent to:
	□ participating in an interview
	□ having my information audio recorded
	□ sharing my identifiable data with other researchers
	□ my identifiable data being published in the thesis
	□ my data and information being used in this project and other related projects
	☐ my data and information being stored permanently in the Flinders University Archaeology Department database
	□ being contacted about other research projects
Signe	d:
Name	:



#### CONSENT FORM

Consent Statement I have read and understood the information about the research, and I understand I am being asked to provide informed consent to participate in this research study. I

understand that I can contact the research team if I have further questions about this research study.

I am not aware of any condition that would prevent my participation, and I agree to participate in this project.

I understand that I am free to withdraw at any time during the study.

I understand that I can contact Flinders University's Research Ethics & Compliance Office if I have any complaints or reservations about the ethical conduct of this study.

I understand that the information collected may be published and that my identity may be revealed.

#### I further consent to:

participating in an interview

having my information audio recorded

sharing my identifiable data with other researchers

my identifiable data being published in the thesis

my data and information being used in this project and other related projects

M my data and information being stored permanently in the Flinders University Archaeology Department database

being contacted about other research projects

Signed:

Slephen Jared 9.2.2023 Name:

Date:

## Appendix 3. Interview questions for Jared family

What is your connection to Pingle Farm?

What do you know about the history of the farm?

How have you obtained information about the farm?

Are there any records of the garden at Pingle Farm's design and appearance that you are aware of, e.g. design blueprints, photographs, diary entries, letters?

Do you recall any family members describing features of the garden before it was sold in 1932?

Do you recall any family members describing activities and/or events that took place in the garden before it was sold in 1932?

Would you be able to locate any significant features of the garden on a map, aerial photograph, or in a visit to the site?

Is there anything else you would like to share about the history of Pingle Farm that you think would be relevant to this project?

Due to a technical error the interview was not recorded.

# Appendix 4. Bibliography of colonial texts and full list of quotes with variable codes.

Quote num- ber(s)	Author and date	Bibliographic details (*Source listed in references)	Genre	Quotes	Attitude variable codes
1	Governor Phillip, 1788	Aitken 2010*, pp.41-2.	Letter	Time will remove all difficultys, and with a few families who have been used to the cultivation of lands, this country will wear a more pleasing aspect.	A4 G1, G4
2	Elizabeth McArthur. 1791	In Aitken 2010*, p.46.	Letter	The soil must be allowed to be most wretched and totally unfit for growing European productions, though you would scarcely believe this, as the face of the ground at this moment, when it is in its native state, is flourishing even to luxuriance, producing fine Shrubs, Trees, and Flowers which by their lively tints afford a most agreeable landscape Beauty is but skin deep in New South Wales all the beauty is literally on the surface.	A1, A7
3-5	Watkin Tench, 1793	Watkin T. 1793 A Complete Account of the Settlement at Port Jackson in New South Wales. Project Gutenberg e-book. Retrieved 17th March 2023 from https://www.gutenbe	Published diary	P.19 The dread of want in a country destitute of natural resource is ever peculiarly terrible.  P.39 Sweet-tea: A vegetable creeper found growing on the rocks, which yields, on infusion in hot water, a sweet astringent taste, whence it derives its name: to its virtues the healthy state of the soldiery and convicts must be greatly attributed. It was drank universally.	A4 A8
		rg.org/ebooks/3534		P.56 [Re Indigenous man Arabanoo] it was at length determined to let him pursue his own course, and to watch if he should apply for relief to any of the productions of the country. He was in consequence observed to dig fern-root, and to chew it. Whether the disorder had passed its crisis, or whether the fern-root effected a cure, I know not; but it is certain that he became speedily well.	A8

	Ross, 1820s	In Aitken 2010*, p.47	Letter	my arbours of cool recess and serpentine walks, formed out of the natural shrubbery, clothed in perpetual green	G2
7	George Evans, 1822	Evans, G. 1822 A geographical, historical and topographical description of Van Diemen's Land. The Quarterly Review 27:99-109.	Article	It is, in fact, England with a finer sky, with less of its winter frosts and of its autumnal and spring moisture: all the fruits and vegetables of an English kitchen garden are, without difficulty, raised here (p.106).	G3, G4 C1, C2
8	Charles Tompson, 1826	Tompson, C. 1826 Wild Notes from the Lyre of a Native Minstrel. Retrieved March 17 2023 from < https://digital.library. sydney.edu.au/node s/view/12193?keyw ords=&lsk=c8afe748 98ec7f7e072b4e8ac 27e5404 >	Poem	(Extract from 'Retrospect') Fair CASTLEREAGH! I trace thy landscape round, Each well known spot to me is sacred ground; In ev'ry mead - in every bow'r or tree, Some dear companion - some old friend I see; The myrtle grove that skirts thy sloping sides, And the tall summit from the plain divides, The rich acacias waving o'er the rill That pours its scanty stream beneath the hill; Thy spreading vale - but here let mem'ry tax The rude invasions of the spoiling axe, That chased the dryads from th'affrighted glade, And lopped each shrub that once composed their shade. Thus Art extends her civilizing reign, Bows the tall wood and casts it on the plain, Drives Nature's beauties from their seat away, And plants a train less lovely far than they; The landscape shines beneath a borrowed hue, But graceless more, and diff'rent from the true. (p.12)	A1, A3
9- 10	Henry Widowson , 1829	Widowson. H. 1829 Present state of Van Diemen's Land : Comprising of an Account of its	Immigrant s' guide	Every tree that England can produce, may be grown in the colony (p.10).  Purchase the best kind of seed previous to leaving England for the small settler the garden is, or ought to be, an object of the greatest	C1, C2 G3

		Agricultural Capabilities with Observations on the Present State of Farming &c. &c. Pursued in that Colony, and Other Important matters Connected with Emigration. London: S.Robinson, W.Joy		attention (p.10).	G3
11- 13	Georgiana Molloy, 1831-1840	In White, J. 2020*	Letters	It is said to be the best garden in SW Australia excepting none, we supply our neighbours with vegetables continuously and have from every sort of British herb & root such as Cabbage carrot onion etc Pear Apple & Peach to the orange tree & vine, Tobacco, Tamarind & different Cape trees (To Frances Birkett, 15 Apr. 1831)	G3
				I have frequently endeavoured to introduce the native Plants among the exotics, they do not succeed from want of their Native shelter, the Purple creeper alone has consented to be domesticated, and has associated its beautiful Purple flowers with a very elegant Pink climbing Plant from Mauritius These two Creepers cover one side of our Verandah and the Purple has so peremptorily usurped the external framework of my windows as to darken the room, but encrease[s] the beauty of the prospect (to Mangles on 25 Jan. 1838)	G2, G8
				How many, many years must these treasures have blossomed in this Country without one eye to appreciate them, it strikes me so forcibly in riding through the surrounding Wilderness, that the "hand of God" is indeed impartial, for the uncultivated parts of the earth are as much loaded with his bounties as are the most frequented parts! (to James Mangles, 14 Mar. 1840)	A1, A6, A8
14- 19	Colonel William Light,	Capper, H. 1837 South Australia: South Australia:	Letters, Immigrant s' guide	From Colonel Light, Aug 23, 1836, regarding Kangaroo Island p.5the delight I felt at the beautiful appearance of the main land. With good	G1, A6

1836 Anonymou s, 1836	Extracts from the official dispatches of Colonel Light, surveyor general of	glasses, at the distance we were off (about 3 miles) it looked more like land already in possession of persons of property than that left to the course of nature alone.	G1, G3,
H. Capper, 1837	the Province of South Australia and from letters of settlers who have reached Nepean	There are several English sailors who have run from ships and settled in the island. Some of these worthies paid us a visit last night, who state that at their dwellings they are never in want. They have plenty of corn, good gardens, water, and all they require in the wild life they have by choice embraced. If, therefore, these men, without agricultural implements and	G4, C2
	Bay. With a description of the position, soil, climate, constitution, government, etc., of	without the least knowledge of farming, can produce wheat, melons, cabbages, turnips, fine potatoes–rear pigs and poultry, what may not be done by an emigration of men professedly adapted.	A10
	the Province. The proceedings of the South Australian	The soil I saw was very moist, with trunks of trees in every direction; but nothing can be easier than clearing the whole surface.	
	Company; and a variety of useful and	From Rapid Bay, SA, Sept 10 1836 P.6	G1
	authentic information, intended to point out the superior advantages of this	There are three countrymen with me, one of them a gardener, and the other two also good judges of land: they have been digging up a portion, and pronounce it most excellent soil. We have put in some seeds, that, on our return, a better judgment may be formed of its quality.	
	settlement to the intending emigrant. Accompanied by a view of Rapid Bay	From a settler who sailed on the Cygnet, Sept 14 1836 P.14	A10, A7,
	and a map of the Province. Adelaide: H. Capper.	The soil upon the small hill, at the base of which the tents and huts are fixed, is a light black loam of a rich and productive quality. The land might be cleared with very little difficulty, as the vegetation, although luxuriant, consists generally of flowering shrubs and plants. The tea-tree is abundant here: its leaves afford a refreshing and wholesome beverage, used by the sealers, who have been on the island for years.	A8
		By the author, p.25	C1 C2
		Statements by Capts. Flinders, Sutherland, and Sturt, all of whom agree that South Australia possesses land of the most luxuriant fertility, and	G1, C2

		I			I
				adapted to all the purposes of tillage.	
				P.49, by author, recount of the official plan of colonisation  the non-cultivation of extensive appropriated districts—one of the chief obstacles to the progress of every colony hitherto established	A10
				p.93 his first care being to get a small garden under cultivation	G1
				P.97 The following list of seeds, peculiarly adapted to the colony from their prolific and hardy qualities, may not be altogether unacceptable in making an assortment (Followed by list of seeds, all exotic species)	G3, G5
2- 22	Louisa Meredith, 1839-1844	In Holmes 2008*	Diary	Unless a settler can see an expanse of bare, naked, unvaried, shadeless, dry, dusty land spread all around him, he fancies his dwelling 'wild and uncivilised' (p.11).	A10
				In some of the older residences in the colony, British forest and fruit trees had succeeded the despised aboriginal productions (p.11).	A4
				You pass a wretched hut or hovel not a herb, not a cabbage to be seen; no attempt at making a garden (p.18).	C1
23- 24	William Kerr, 1841	Kerr, W. 1841 Kerr's Melbourne Almanac and Port Phillip Directory, for 1841. Melbourne: Kerr and Holmes.	Almanac	P.133 July entry: Make plantations of the indigenous plants and shrubs of the handsomest dwarf growing flowering kinds. p.134	G2, G3

				(upright and strong tos trem). Kalistens wi, loguas- thes and creatate (hottle breat), Barsaria spinosas (boo), skla pitchella (curripoi or courde tree), equiprizais scalar (eye bright), Veronica, labinat, and formous of peed earls). Sylvidima Arranici (dark in a warabilis (the natives name their wives or lateras after this plant, from its exceeding beouty, in the same manner as we do in Eagland after the rose and other favorite plantat). Gastroit assessmelders and other favorite plantation in the spring mentlar; Kennedia procumbers (ventle spring mentlar; Kennedia procumbers volta ladiotation (ventle spring mentlar; Kennedia procumbe	G2, G3
25- -29	George Mc Ewin, 1843	McEwin, G. 1843 The South Australian Vigneron, and Gardener's Manual: Containing Plain Practical Directions for the	Gardening manual	The works of this description published at home are totally inapplicable to this Colony in their general practice; the present work has, therefore, been undertaken with the view of obviating this evil (p.v).  With the splendid climate we possess, and the unbounded capabilities of the soil, choice luxuries for the dessert are here raised with very little trouble in the open air, which in England are only within reach of the	G5 G3, G4, C1, C2
		Cultivation of the Vine; the Propagation of Fruit-Trees, with Catalogue and Directions for Cultivation, and the		nobility and gentry (p.33).  In all the best regulated places in England, the site for the mansion is made entirely subservient to the surrounding grounds deemed most suitable for a garden, pleasure grounds, & c (p.35).  No time should be lost in planting the seeds or young plants of some	C1 G2
		Management of the Kitchen Garden, with Catalogue of Culinary Vegetables, & c & c. Adelaide: James Allen.		quick growing native species. The White Gum is fittest for the purpose (p.37).  There is a species of acacia, a native of KI, which is armed with a quantity of very sharp spines, and which makes a most excellent fence (p.40).	G2
30	J.F Bennett, 1843	In Aitken 2010*, p.83	Letter	I can scarcely imagine a more interesting scene than to observe a country in the course of being rescued from nature (p.83).	A6, G1

31	Robert Lowe, 1845	Lowe, R. 1845 The Song of the Squatters 1. Retrieved 17th March 2023 from <a href="https://www.poemhunter.com/poem/song-of-the-squatters-i/">https://www.poemhunter.com/poem/song-of-the-squatters-i/</a>	Poem	(Extract from Song of the Squatters 1) The gum has no shade, And the wattle no fruit, The parrot don't warble In trolls like the flute, The cockatoo cooeth Not much like a dove, Yet fear not to ride To my station, my love; Four hundred miles off Is the goal of our way, It is done in a week At but sixty a day; The plains are all dusty, The creeks are all dried, 'Tis the fairest of weather To bring home my bride.	A4
32	Anony- mous, 1850	The Land of Contrarieties. In Australian Town and Country Journal, Saturday 30th April 1881, p.17. Retrieved 20t September 2022 from <a href="https://trove.nla.gov.au/newspaper/article/70955317">https://trove.nla.gov.au/newspaper/article/70955317</a> >	Poem	(Extract) There, neither leaf, nor root, nor fruit, Will any Christian palate suit; Unless in desperate need you'll fil ye With root of fern and stalk of lily.	A4
33- 34	Catherine Helen Spence, 1854	Spence, C. 1854 Clara Morison: A Tale of South Australia During the Gold Fever, Volumes 1 and 2.	Novel	'There was an appearance of civilization and comfort in the numerous cottages on the way, each having a small garden, and generally a patch of [grape] vines' (p.63-4).  'They found their way up the range of steep hills which lie within walking distance of Adelaide; as long as flowers were to be found, they brought	G6, G3 A1, A2

		London: John W. Parker and Son.		home nosegays; and when the advancing summer withered them all, they gathered green boughs instead. They would sit together under a gum tree with a book, which they never read much of, but listened to the screaming of the paroquets and cockatoos, and the more musical chirping of the smaller birds' (p.4, Vol 2).	
35- 41	Maud Jeanne Franc (Matilda Evans), First published in 1859	Franc, M.J. 1888 Marian, or The Light of Someone's Home. London: Sampson, Marston and Lowe Company	Novel	P.6 Trees had been left standing at intervals, uncircled by the fatal ring. The blackwood, with its rich foliage and dark slight trunk; the luxuriant cherry-tree, so beautiful in proportion and hue; the airy, feathery she-oak, so singular and weird, amidst whose branches the breezes of heaven whispered their secrets; and here and there a lordly gum, evidently permitted to remain for its majestic breadth of trunk and deep fulness of leafy branches.	A1
				P. 16 Who would not prefer the bush to dusty old Adelaide?	A1
				P. 46 The old gums—those gums upon which she had gazed so contemptuously when first she saw them after her voyage, comparing them with the gracefully timbered trees of Old England,—even they excited an interest—even they looked beautiful in the morning sunlight.	A1, A5
				P.69 It was just one of those pleasant days which often occur in the very middle of an Australian summer, after the floodgates of heaven have been opened, causing the arid soil to sing in gladness, and little timid flowers, here and there, to put forth their modest blossoms.	A1
				Pp.137-9  The paths had been left of a pleasant breadth; four might have walked comfortably abreast, for there was no deficiency of ground inclosed, and the purpose of all was pleasure, a very unusual one in Australia. Utility was here put entirely out of the question.  "I have been venturing a little beyond the pale of your advice, Miss Herbert," at length Allen exclaimed, as they turned into a path evidently winding round the whole of the inclosure.	G7, G3, C2

centre by slender poles placed in the ground, round which, from pole to pole, wattle boughs, stripped of their leaves, had been securely fastened, forming a continuance of arches, and at the foot of every pole was a creeping rose-tree.	G3
It was pleasant work those bright days, sowing seeds, and planting rose	G3
158	

				Allen had formed a very pretty bower of hop plants; he had chosen them for their rapid growth, and closely around them he had planted the choicest roses, and blue and white violets, which, now in their full beauty, diffused delightful fragrance through the air.	
42	Marie Theresa Vidal, 1860	Vidal, M. 1860 Bengala, or Some Time Ago In Zhang 2016*	Novel	It would have been a pleasant scene, but for the brown and sun-dried grass, and that dull bluish hue, a peculiar feature in Australian foliage, which lessens the beauty to English eyes (p).	A5
43- 44	Joseph Elliot, 1860	Elliott, J. and Pikusa, S. 1984 Our Home in Australia: A Description of Cottage Life in 1860. Sydney: Flannel Flower Press.	Letter	The beds are all enclosed by soda water bottles turned upside down in the ground. There are not many trees, but a good many plants. On the left we have a creeping plant which shelters the bedroom window (p.25).  for one season some three or four years ago we planted a host of vegetables but they were every one blighted! So that disappointed us so much that very little trouble has been since taken with it (p.72).	G1 G3
45	'Blueshirt', 1862	<i>Observer</i> , June 7 1862, p 209.	Letter	every man who can create a garden where once was waste ground is indirectly benefiting his fellow-citizens	G1
46	Katie Hume, 1866	In Holmes 2008, p.12	Diary	[On gum trees] They are tall grown trees but their foliage is most disappointing. It hardly deserves the name. The leaves are narrow and grey looking and hang down so as to afford no shade - they are called Evergreens but never green would be more appropriate. p.12	A5
47- 48	Ellen Liston, 1867+	Liston E. and Harwood, E.A. 1936 Pioneers: Stories. Adelaide: The	Short Stories	Doctor Our hut was on the border of a pretty she-oak flat; but all around for many miles was an almost limitless light scrub (p.58).  What We Would Do With It	A1, A4

		Hassell Press.		through the pales can be seen the orchard and beautiful flowers and shrubs. A broad gravel path runs all round the ground the centre is laid down, with buffalo, couch, and other grasses, with here and there a group of shade trees (p.175).	G1, G3
49	Anonymou s, 1869	In Aitken 2010*, p.128.	Gardening journal	If we wish to see our native plants in perfection we must visit Europe. p.128	G8
50	Adam Lindsay Gordon, 1870	Adam Lindsay Gordon 1870 A Dedication. Retrieved 17th March 2023 from https://adamlindsay gordon.org/adedicati on/>	Poem	(Extract from 'A Dedication') Where, with fire and fierce drought on her tresses Insatiable Summer oppresses Sere woodlands and sad wildernesses And faint flocks and herds	A4
51	Anony- mous, 1875	October 5, 1875 Garden and Field In Holmes et al. 2008*	Gardening Journal	More neglected than ever cockspur, oats, sheepweed, and everything noxious left in full luxuriance, fences all awry and broken down, gates wide open, and in some places no gates; hedges neglected, painting neglected - everything neglected (p.19).	G6
52- 53	Rosamun d and Florence Hill, 1875	Hill, R. and Hill, F. 1875. <i>What We Saw</i> <i>in Australia</i> . London: MacMillan and Co.	Published Diary	Pp86-87 In the early days of the colony before gardens were. The native daisy was planted and cherished as a table decoration, but now that the loveliest flowers have been obtained from all parts of the world, and bloom in profusion, this little wildling gains no more attention than its namesake at home.	A9, G2
				On Clifton grew also the scarlet creeper ( <i>Kennedya prostrata</i> ), trailing its brilliant blossoms, in form like those of the pea, along the ground. There were too, a variety of orchids, and several small bushes of different kinds	A1

				bearing abundant blossom, insignificant in size and colour, but having an aromatic scent. This odour we first noticed on Clifton, but afterwards we became familiar with it in uncultivated districts. It is given forth by many plants, and also by the gum-trees, and is considered very healthful.	
54- 55	E. B. Heyne, 1877	Heyne, E.B. 1877 The Amateur Gardener of the Fruit, Flower and Vegetable Garden, 2nd ed. Adelaide: E.S. Wigg and Son.	Gardening manual	P.5 'The Climate of South Australia' Though frequently, and not without cause, cried down on account of its aridity (during a portion of the year at least), offers nevertheless many advantages to the horticulturist, who by a little care and foresight may not only succeed in cultivating numerous plants which remind him of his European home or other countries in the colder regions, but also side by side with them many of the more tender forms belonging to semi-tropical or even tropical zones.  P.67 Evergreen shrubs and trees of other families should be planted in preference to those having deciduous leaves, though some of the most ornamental of the latter may also be introduced with advantage. Amongst the former many of the native plants of Australia deserve more attention than they have generally received.	A4, G1, G3, C2
56- 57	Josiah Boothby	Boothby, J. 1879 Directory for South Australia 1879. Adelaide: Josiah Boothby.	Almanac	KITCHEN.  Sow and plant out brocoli, cabbuge, cauliflower, celery, cress, mustard, potatoes, radishes, turnips.  FLOWERS.  Gather seeds, stake annuals; bud roses, jasunines, &c. plant antuma bulbs.  FRUIT.  Attend to vines; newly-planted trees, bud, thin; gather ripe apricots, &c.	G3
				September	A8

				Sow brocoil, beet, cabbage, cauliflower, carrots, capsicums, kidney beans, lettuce, marrows, peas, melons, potatoes, radishes, saladings, and to-matoes; earth up, and plant out.  FLOWERS.  Train climbers, transplant evergreens, make and plant cuttings, and divide bulbs.  FRUIT.  Finish pruning, planting, and grafting generally.	
58	Anony- mous, 1879	The Garden and Field, September, 1879, p.54.	Article	If we wanted kangaroos we should have to hunt for them, and the scrub and black grass and porcupine are not to be seen except here and there. We do not regret these things - they were of no use to man, or at least to commerce - but we do feel sorry to find that the farmers in this new district are not more alive to their true interests. Whilst commending them for clearing the scrub, and cultivating the ground, we should feel more pleasure in doing so if they were not <i>wasting</i> the valuable fuel by burning it; and further, we should like to see them planting trees, as well as rooting them out.	A4, A10
59	James Currie, 1890	Currie, J. 1890 Notes of Travel (for private circulation). Edinburgh: University of Edinburgh.	Published diary	On the next day I went down to Hanley Beach—a long stretch of sandy shore edged with rushy dunes, not at all interesting. The tram line is seven miles long, and passes through rather pretty country. There are fields of wheat and clover (or lucerne, I don't know the difference), and plantations of gums, and pines, and she-oaks, and weeping willows by the creeks.  For a few miles from Adelaide, and about the Murray, it is rather pretty; and for some way east of that. The gum-trees are nicer looking than I have seen them anywhere else, and there was almost an approach to variety in their foliage.	A5, A8?, A1
60- 64	Mrs Alick MacLeod (Catherine Martin),	Martin, C. 2022 <i>An Australian Girl.</i> Chicago: Digicat.	Novel	'Indeed, along the barer ridges of the beautiful hills that rise in serried ranks to the east of Adelaide, the herbage was already as dry and bleached as carded flax. In the gullies, thickly timbered and lying in perpetual shade, the ground still retained the faint graying green	A1, C1

	T	<del> </del>	
1890		distinctive of Australian verbiage in a state of transition from spring verdure to summer drought.' (first page of chapter 1) Page 2	
		The masses of white, silver and messmate gum trees that clothe these same Adelaide hills so thickly, formed a grateful resting place for the	
		eye So did the vineyards that dot their declining slopes, and the gardens and orchards that are scattered broadcast to the east of the town.	
		Page 3 And these gardens are, as a rule, neither suburban slips, with precocious trees selected for their speedy power of growth, nor the painfully	
		pretentious enclosures which auctioneers delight to term 'grounds'. No, they are genuine gardens - roomy, shadowy, well planted, well watered; rich in flowers and many fruit trees, bending in due season under their fertile loads; haunted with the hum of rifling bees, fragrant with the perfume of old-world blossoms.	C1, G3, G7
		Pretty, prosperous suburbs full of charming houses and rose-filled gardens	
		Cream coloured walls gleaming through fig-trees and vine-trellised verandas	
		(chapter 2 p.12)	C1, G3
		P.131 onwards Chapter xvii	
		Whole chapter from this point describes Mallee Scrub and the varying feelings it stirs in people.	A5, A1
		'And yet to many the Mallee Scrub, like all deserts, comes to have an inexplicable charm.' p.131	
		P.133-4 The country is not wild. It is in appearance sterile to a degree; it is tame; it	
		is dull; it is oftentimes solitary as a tomb And though at first this scenery agitates and weighs on those who lie open to the charms that usually draw us to nature, yet after the first shock	

				is over this strange landscape bends the mind to itself, and gains a subtle hold on it  It fulfils far more than it promises.  If the principle that anyone who makes wasteland productive become its owner were enforced, the Mallee Scrub, instead of being a barren waste, even in appearance, might soon become a great granary of fruit and corn. But even in its present state it has a brief hour of beauty. In the zenith of the Australian spring this scrub is in places sheeted in blossoms: brilliant little orchids; scarlet and yellow pea-like flowers; the pale lemon blossom of the native clematis; the small purple geraniums, with their poignant fragrance when crushed underfoot-these, and many other wild blossoms as yet, alas! nameless to the laity, invest the country with a charm all the more deeply felt because of the contrast between these fleeting weeks and the sombre monotony which prevails during the rest of the year.  P.135  All are minor tones in the same sad, monotonous, lacklustre hues; yet day by day, as Stella became more intimate with the Mallee Scrub, its nameless attractions grew on her. And one day, as she rambled miles away with the two elder children, she discovered a whole range-side of early epacris The feast this made for the eyes in the midst of the harsh setting all around made Stella feel as if for the first time she knew what the joy of colour meant.  P.139  was there not a wonderful Tasmanian fern	A1
65- 70	E.H. Hallack, 1892	Hallack, E.H. 1892 Our townships, farms, and homesteads: Southern district of South Australia. The Adelaide Observer, March - April editions.	Articles	12 March 1892, p.10 The vineyards are situated on what is called Maclaren Flat. It is an exceedingly picturesque locality, and finer gums are rarely to be seen anywhere in the colony. Long stretches on the flat are covered with them and stinkwort. It is said that this splendid tract of land is damp in winter, but with anything like an approach to drainage I venture to assert that for the growth of lucerne and other fodder plants it might be made one of the best stock feeding districts in the South (p.10).  16 March 1892, p.5	A10

				<b>.</b>	
				The fertility of the soil is evidenced by the splendid growth of lucerne, maize, and sorghum to be seen in some few places on the creek flats. The clearing of timber from the hills and plains also acts here as it does in the agricultural districts in Western Australia as a factor for the creation or development of springs.  The ti-tree, reeds, rushes, and undergrowth which two years ago covered	
				this portion of the swamp have all been cleared by hand/hard? labour, and the summer crop of vegetables of all kinds is remarkable for the yields. Potatoes, cabbages, onions, celery, beans, peas, carrots, and radishes are growing in luxuriance, besides a few fruit-trees.	A10 A8
				April 2 1892, p.9  From this on to Myponga and from thence right away to the head of Cape Jervis may justly be termed the land of the wattle, and until the fall in the price of bark this present season its cultivation has proved a godsend to both owners and leaseholders. They grow anywhere and everywhere on all sorts and conditions of soil.	A10
				The gum and wattle flats extend some considerable distance along the creek, and the growth of young gums on land that in former years was under wheat cultivation is astonishing. It would cost now as much or more than it did in the first instance for clearing.	
71	Mrs Alick MacLeod (Catherine Martin), 1892	MacLeod, A. 1892 The Silent Sea. London: Richard Bentley and Son	Novel	P 'Wherever men come to this country they make it ugly,' said Doris. 'Instead of planting gardens or trees, or digging for water, they make dreadful holes and spoil the salt-bush.' 'I was just thinking I should like to go and make dreadful holes myself,' said Victor, smiling. 'At any rate, they don't spoil much in spoiling the salt-bush.' 'The salt-bush is a very good creature,' said Euphemia quickly. 'Cows that eat it give good milk, the hens lay good eggs, salt-bush sheep make the best mutton, and the sky is nowhere more beautiful.'	A3, A8, A1, A5, G1
72	Henry Lawson, 1896	In Gelder and Weaver 2014*	Short story	But he didn't see the dirty blind wall, nor the dingy window; nor the skimpy little bed, nor the greasy washstand; he saw the dark-blue ridges in the sunlight, the grassy flats and sidings, the creek with the clumps of	A1, A2

				she-oak here and there, the course of the willow-fringed river below, the distant peaks and ranges fading away into a lighter azure, the granite ridge in the middle distance, and the rocky rises, the stringy bark and the apple-tree flats, the scrubs, and the sunlit plains—and all I could see it, too, plainer than I ever did. p.136	
73	Louis Becke, 1897	Becke, L. 1897 On an Austral beach. Australian Town and Country Journal August 31, 1897. In Gelder and Weaver 2014*	Short story	'A soft green nap of low shrub as smooth as an English privet hedge' (p.177).  'Oh, the beauties of a summer's morn upon that wild and lonely coast!' (p.177).  'The banners of the lofty gums and tapering bangalows.' (p.177).	A1
74	Peter Giles, 1929 (in interview by unnamed author)	Adelaide Chronicle 31 October, 1929 Pioneer Days Recalled: Old Residents Return	Memoir	p.49 Mr. Peter Giles, an octogenarian comeback, says that in his days there were only six houses, a brewery, and a flour mill in Noarlunga. Beautiful trees and shrubs, wattle, honeysuckle, silver wattle, sheaoak, tea tree, and masses of wild flowers grew in profusion and beauty along the riverbank to Port Noarlunga.	A1

## Appendix 5. Other vegetation survey photographs

All images by Rebecca Milne unless otherwise stated.



Onion weed Asphodelus fistulosus



Common Storksbill Erodium circutarium



Galenia pubescens



Fat hen Chenopodium album



Nettle Urtica urens



Hedge mustard Sisymbrium officinale (Source: H. Zell, CC BY-SA 3.0 <a href="https://creativecommons.org/licenses/by-sa/3.0">https://creativecommons.org/licenses/by-sa/3.0</a>, via Wikimedia Commons)



Oat Avena sp. in foreground, north side of house at Pingle Farm.



Red gum Eucalyptus camaldulensis, west side of house at Pingle Farm.



Fragrant saltbush *Rhagodia parabolica* entangled with ruby saltbush and boxthorn.

# Appendix 6. Other pedestrian survey photographs



Feature 4. 'Ring' of stones



Feature 6. Red bricks



Feature 8. Fencing wire



Feature 10. Concrete pad



Feature 11. Gravel



Feature 13. Stardroppers



Feature 14. Ceramic drain pipe sherd

# Appendix 7. Other GPR images



30cm depth slice



40cm depth slice



60cm depth slice



70cm depth slice



80cm depth slice

### Appendix 8. Image permissions

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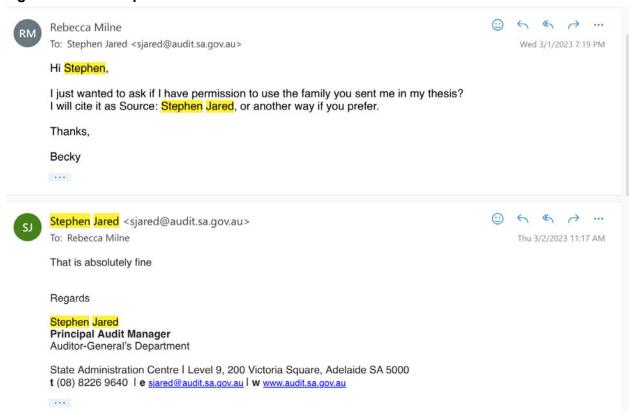
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#### Figure 21 from Stephen Jared:



### Aerial photos from City of Onkaparinga:

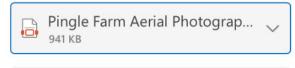
To: Rebecca Milne



Emma Taylor < Emma. Taylor@onkaparinga.sa 😊



Wed 10/12/2022 2:54 PM









### Hi Becky,

Good to meet you today. I've done some surface digging and found a few things that may be of interest. The first is a series of aerial images of the farm, which if you wish to use them for your thesis just needs to be referenced as "City of Onkaparinga".

The second is an extract from one of the local history files I was talking about.

I will keep looking.

Thanks

Emma Taylor Digitisation Officer – Local History Noarlunga Library Emma.Taylor@onkaparinga.sa.gov.au

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