



ACT Heritage Council

BACKGROUND INFORMATION RED HILL HISTORIC PLANTINGS (BLOCK 2 AND BLOCK 15 SECTION 57, RED HILL)

At its meeting of 15 November 2018 the ACT Heritage Council decided that the Red Hill Historic Plantings were eligible for registration.

The information contained in this report was considered by the ACT Heritage Council in assessing the nomination for the Red Hill Historic Plantings against the heritage significance criteria outlined in s10 of the *Heritage Act 2004*.

HISTORY

Walter Burley Griffin and Marion Mahony Griffin

When Walter Burley Griffin and Marion Mahony Griffin settled in Canberra in 1913, to design the national capital of Australia, they were enchanted with the country's landscape and flora (Vernon, 2013). Their attendance at a Sydney session of the British Association for the Advancement of Science's Australian meeting, soon after their arrival, fueled a 'deep and abiding passion' for Australia's native flora (Vernon, 1998, p. 92). The Griffins' considered recognition of Australia's flora as not just pivotal to the country's landscape distinctiveness, but as symbolic of Australia as a place; and in 1915 Marion Mahony Griffin commenced a project to compile detailed gardening specification for native flora (British Association for the Advancement of Science, 1914), which would later provide the context for the landscape design of the hills around Canberra.

Red Hill as part of the Griffins' vision for Canberra

The end of the nineteenth century saw an increase in pressure on the Australian Government to provide protection of trees in the rural landscape and to plant new forests (Gray, 1999 p.10). At the congress of Engineers, Architects, Surveyors and Others interested in the building of the Federal Capital of Australia, held in Melbourne during May 1901, horticulturalist Charles Bouge Luffran called for "...*preservation of natural and creation of new forests and woodlands...*" (Congress of Engineers et al, 1901, p.43). The Griffins' appreciation of conservation heavily influenced their design plan. The Griffins' wanted Canberra to be a city designed to suit the landscape (Frickler, D, 2013, p.3). A city that would seek to "*unite nature and culture*" (Vernon, C 2013, p.5) with Red Hill forming part of this innovative design to revegetate and beautify the hills surrounding Canberra.

At the time that Canberra was chosen as our Nation's Capital, Red Hill formed part of the Duntroon property. The decision to revegetate the hills was an imaginative response by the Griffins' to the extensive clearing that had denuded the hills around Canberra. Not only had the hilltops suffered extensive clearing by pastoralists seeking to provide their livestock with areas to roam and feed, but these hills also provided the requisite timber for the construction of large huts and sheep yards (Ryan, 2011, p.4) that had proliferated the area for the past ninety years. Such activities meant that very little was left by way of plantings on Red Hill by the time the Griffins' were tasked with designing the capital.

The initial vision for Canberra's surrounding hills was to be one based on colour. Each hill was to be matched and named with an accompanying colour, so that Rosy Hill (Black Mountain) would be planted with pink and white flowers; Golden Hill (Mt Ainslie) with yellow plants; White Hill (Mt Mugga Mugga) with white flowers and silver foliage, Purple Hill (Mt Pleasant) with purple flora; and Red Hill with red plantings (National Archives Australia, 26 Nov 1916). (Sparke, E 1988, p.256). A recorded conversation between Weston and Griffin in 1918 notes that Griffin later instructed that the order of planting for Mt Ainslie and Black Mountain be reversed (NAA, 6 May 1918). It is not known, however, if this colour change ever eventuated, as the project to 'paint the hills' was never fully realised with only Red Hill and parts of Mt Pleasant (purple) and Mt Mugga Mugga (white) reaching completion.

The colour red was chosen for Red Hill in consideration of the geological makeup of the hill, which is comprised of red

BACKGROUND INFORMATION – RED HILL HISTORIC PLANTINGS

coloured formations of the weathered hornfels rock, which are indicative of a contact between igneous and sedimentary environments (Finlayson et al, 2008). In an ACT context, Red Hill hornfels are considered to be the best example of contact metamorphism and are one of only a handful of hornfels in the region that are able to be easily accessed to afford educational activities (Finlayson et al, 2008).

Charles Weston and his contribution to the historic Red Hill plantings

The horticulturalist Charles Weston came to Canberra to take charge of the city's then Afforestation Branch becoming the Chief Afforestation Officer in 1913. Weston knew that to be successful in afforestation he needed to employ new techniques of vegetation establishment and the design proposed by the Griffins' for Red Hill (and the surrounding hilltops) was considered for its time to be a new, radical response to revegetation. In Weston, the Griffins' had an enthusiastic and knowledgeable proponent of their vision.

Red Hill (in association with Canberra's surrounding hilltops) was to form part of the afforestation planting schedule which ran from 1913 to 1924 (Gray, 1999 pg.90). Afforestation and conservation movements in Australia had gained professional and political acceptance during this time, extending to the commencement of experimental programs to test plant suitability, as was the case with plantings destined for Red Hill.

In 1916, Griffin detailed to Weston his intentions to use indigenous and exotic plants for a mass colour scheme on the hills surrounding the Federal Capital site. Griffin stated in November 1916 that Red Hill would have plants with red flowers and foliage (Murphy, GP, p.10).

Weston, under instruction from Griffin, sourced *Callistemon lanceolatus* seeds from Woy Woy in 1916 and from the Sydney Botanical Gardens in 1918 (Yarralumla Nursery Records). Plantings were recorded by Weston on 'planting cards' which are archived as part of the Yarralumla Nursery records. These records inform most of what is known about the development of the Red Hill plantings. It is more than likely that other seeds were planted as it is known that other red flowering plants were instructed to be planted by Weston, but there are no records on any of the surviving Yarralumla Nursery Cards detailing these 'other' plantings.

In January 1917, Weston organised for fencing of a two to four hectare area on the north-eastern slopes of the hill for the beginning of *Callistemon lanceolatus* plantings (NAA, 1905). Following this directive, Griffin compiled a list of plants for Weston including exotic and indigenous varieties covering a broad spectrum of colours from orange to vermilion. However, it is not known if Weston actually referenced this list. Maps of Red Hill in 1917 (see image 2) show a rectangular area set aside for these red flowering plants, where historic plantings of *Callistemon* can still be seen in their rows in the present day.

The Griffins' vision of coloured hills only eventuated at two other locations: Mt Mugga Mugga and Mt Pleasant. The 'white hill' of Mt Mugga Mugga included white foliage in the form of *Eucalyptus cinerea*, *E. Pulverulentra* and *E. albens* (Gray, JE; 1999, p.90). The reason for the abandonment of this design ideal is not fully understood. Perhaps it was the resignation of Griffin in 1920 or a move towards natural regeneration, which saw the eventual exclusion of cattle from Canberra's surrounding hills many years later.

In August 1917, in response to a Royal Commission on Federal Capital Administration, Griffin proposed an end to grazing on Red Hill, so that natural revegetation accompanied by planting could occur (NAA: 8 Aug 1917). However, agistment grazing continued on Red Hill until as recently as 1997.

The Griffins' choice of plantings developed over time. By 1919, he had made clear alterations to his initial vision, coinciding with the loss of many plantings on Red Hill due to severe drought. He thought that exotic ground-covers bearing red coloured fruit and leaves may work. Three exotic plants were chosen; *Photinia serrulata*, *Pyracantha crenulata* and *Pyrus aucuparia* (bNAA, 1918); some of which can still be observed on Red Hill today.

When completed, over 4,500 red flowering plants were destined to cover Red Hill. There is a little difficulty, however, in reconciling intended plantings with actual records of plantings. Those plantings that can be accounted for are listed below.

BACKGROUND INFORMATION – RED HILL HISTORIC PLANTINGS

Historic Red Hill plantings by species

Because very little was known about Australian flora during the early 1900s, Marion Mahony Griffin compiled her own botanical notebooks. Her entries for Red Hill include, *Callistemon lanceolatus* (now known as *Callistemon Citrinus*), *Grevillea rosmarinifolia* and *Swainsona galexifolia* (most likely *Swainsona galegifolia*), which are referenced in the Yarralumla Nursery Records.

In total, 4508 red flowering shrubs were planted on Red Hill. These were *Callistemon citrinus* (*C. citrinus*), common name Crimson Bottlebrush, and *Grevillea rosmarinifolia* (*G. rosmarinifolia*), common name Rosemary Grevillea, near the summit roads. A basic timeline of the planting schedule (as recorded from the Yarralumla Nursery Records) is as follows:

20 June 1917	the first of 133 red flowering <i>C. citrinus</i> are planted on Red Hill. The symmetrical shape of the area suggests that it may have been a trial planting to see if the plantings were suitable to this environment.
23 October 1917	2780 red flowering <i>C. citrinus</i> are planted on Red Hill
May 1918	three exotics were sown, being 280 <i>Photinia serrulata</i> ; 1000 <i>Pyracantha crenulata</i> ; and 200 <i>Pyrus aucuparia</i>
1918 and 1919	heavy losses of plantings by a major drought (Gray, 1999 p.91) which required extensive replanting in the ensuing years
22 September 1920	1595 red flowering <i>C. citrinus</i> are planted on Red Hill

The planting cards do not show any systematic planting of *G. rosmarinifolia* or *S. galegifolia*, despite their present existence on Red Hill. *S. galegifolia* (common name, Smooth Darling Pea) is not endemic to the area, strongly suggesting that these were planted as part of the coloured hills concept.

By 1921, 5350 plants were sown, of which some 5000 survived (NAA, 1921). The total number of historic plantings still visible today are listed in the *physical condition and integrity* subsection of this paper.

Design of the Red Hill plantings

The *C. citrinus* were planted in rows, just to the east of the current location of the Red Hill kiosk infrastructure. The original plantings can still be observed, as *Callistemon spp.* is ingeniously able to resprout after fire and thus continue its lifecycle in spite of the numerous fires that are known to have occurred on Red Hill over the years. The *G. rosmarinifolia* were planted adjacent to the summit road, just above the current Golf course road junction. Unlike *Callistemon spp.*, *Grevillea spp.* are killed by fire (Australian National Botanic Gardens website), but the plantings have set seed so that these red flowering plants also remain on Red Hill.

After six years of work, the obstacles created by bureaucrats and politicians became too great and Griffin was forced to resign from the project on 31 December 1920. Further, from 1921 onwards, urban planting placed limits on Weston's quest for afforestation, with Weston informing afforestation author Corbin that no further progress had been made as part of the project to 'paint Canberra's hills' (NAA 1922 and 1923). By 1924, the scheme was eventually retired and no further work was carried out on Red Hill.

The plantings on Red Hill are some of the earliest examples of landscape restoration plantings in Australia and pre-empt what became a very popular landcare movement some fifty years later.

Despite only partial success, the painted hills schema continued to be one of the Griffins' fondest achievements. As Marion Mahony Griffin noted of Walter Burley Griffin in 1949, "... (this) method of planting together according to colour gave his plantings a splendour one rarely sees, for seasonal ensembles too" (Griffin, 1949, p.341).

The Red Hill Regenerators

The ACT Red Hill Bush Regenerators Inc (commonly referred to as the Red Hill Regenerators) is a volunteer group which undertakes bush regeneration on the Red Hill Nature Reserve. The group was founded in 1989 as part of ParkCare, established by the ACT government as a volunteer community bush regeneration organisation among the Canberra community. The primary focus of the group has been to remove environmental weeds from the area. Their passion in caring for Red Hill was recognised by the ACT Minister for the Environment and Heritage, Mick Gentlemen, during

BACKGROUND INFORMATION – RED HILL HISTORIC PLANTINGS

celebrations for the centenary of the historical plantings on Red Hill in 2017.

Physical condition and integrity

Many of the historic plantings have survived and multiplied. The surviving historic plantings are located along the Red Hill summit ridge and its upper eastern slope. Their location is slightly offset from the Griffin land axis connecting Mt Ainslie to Red Hill, passing through the Australian War Memorial and Parliament House. The *C. citrinus* can still be seen when viewed from the Mt Ainslie summit lookout.

The *C. citrinus* plants are generally in excellent condition with many still in their original planting rows. The *G. rosmarinifolia* are more scattered and are currently overshadowed by other introduced trees and shrubs. Their planting rows are not visible at present due to this overgrowth, but may be visible should any clearing of introduced overgrowth occur in the future. It is also likely that the sporadic nature of the *G. rosmarinifolia* plantings is due to the scattering of seeds away from the original planting area. Ants are known to spread these seeds, so that it is impossible to now tell planted from invasive species. For the purposes of registration, all of the *G. rosmarinifolia* located north and east of the summit road are considered part of the cultural 'red flower' legacy (M Mulvaney 2018, personal communication, 4 May). It was noted during the 2017 census that there are a large number of *G. rosmarinifolia* at the intersection of the Red Hill summit road and the golf course access road, as well as occurring along the east side of the summit road from this intersection to the summit. *S. galegifolia* is in reduced numbers and limited to a single location less than 10m² in area.

A census of the historic red flowering plants, taken by the Red Hill Regenerators in March 2017, recorded the following individual plants:

<i>Callistemon citrinus</i>	723
<i>Grevillea rosmarinifolia</i>	1700
<i>Swainsona galegifolia</i>	<6

The survival and comparative intactness of these historic plantings is astounding, given the propensity for bushfires in the area (although, as previously noted this would not have hindered the survival of the *C. citrinus*) and the fact that the plants were not part of any regular maintenance schedule.

Conservation impacts to this site include any proposed future development; the introduction of weeds and the modification of the environment by grazing and burrowing pests, most notably rabbits.

BACKGROUND INFORMATION – RED HILL HISTORIC PLANTINGS

SITE PLAN

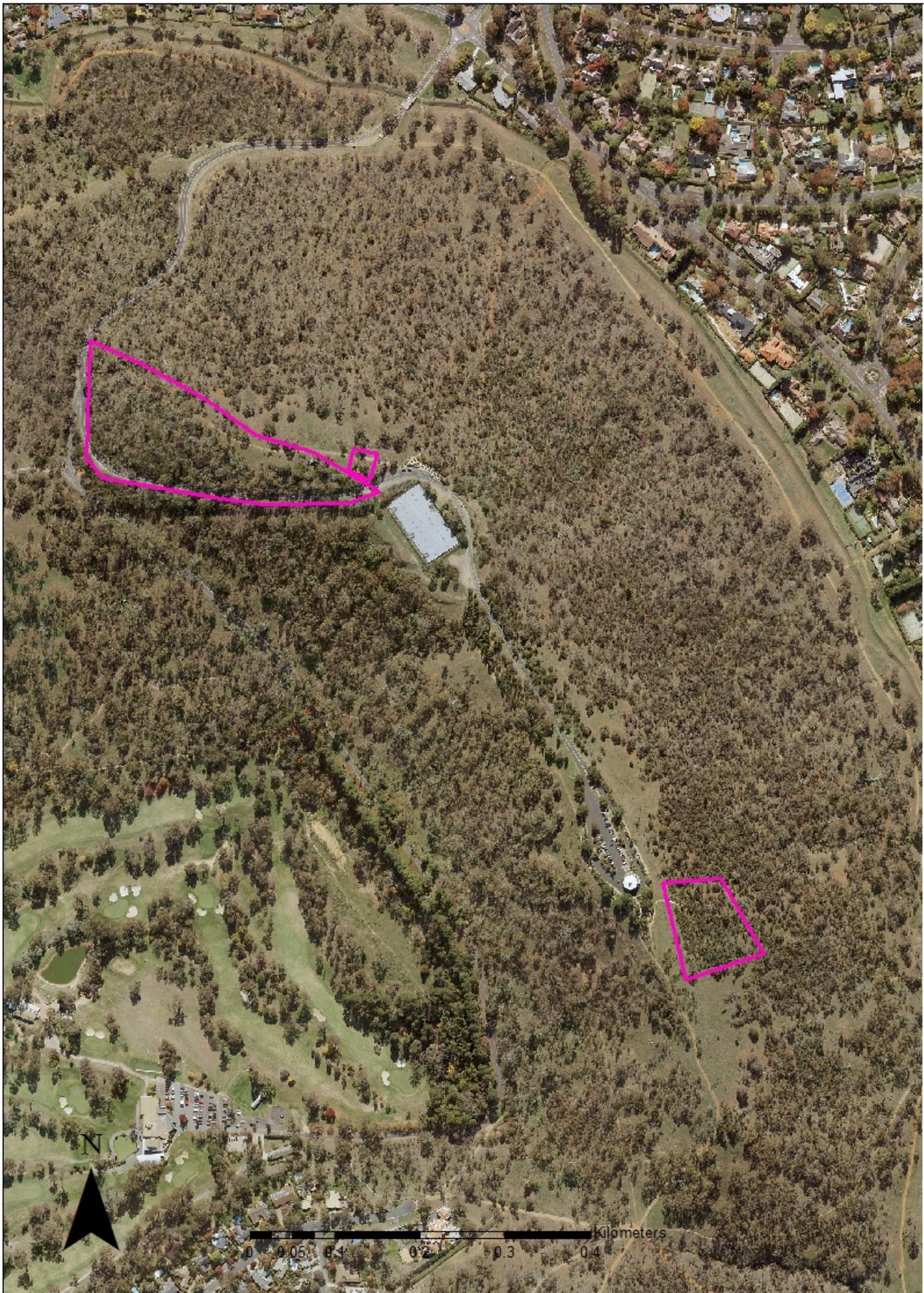


Image 1. Red Hill Historic Plantings site boundary.

BACKGROUND INFORMATION – RED HILL HISTORIC PLANTINGS

IMAGES

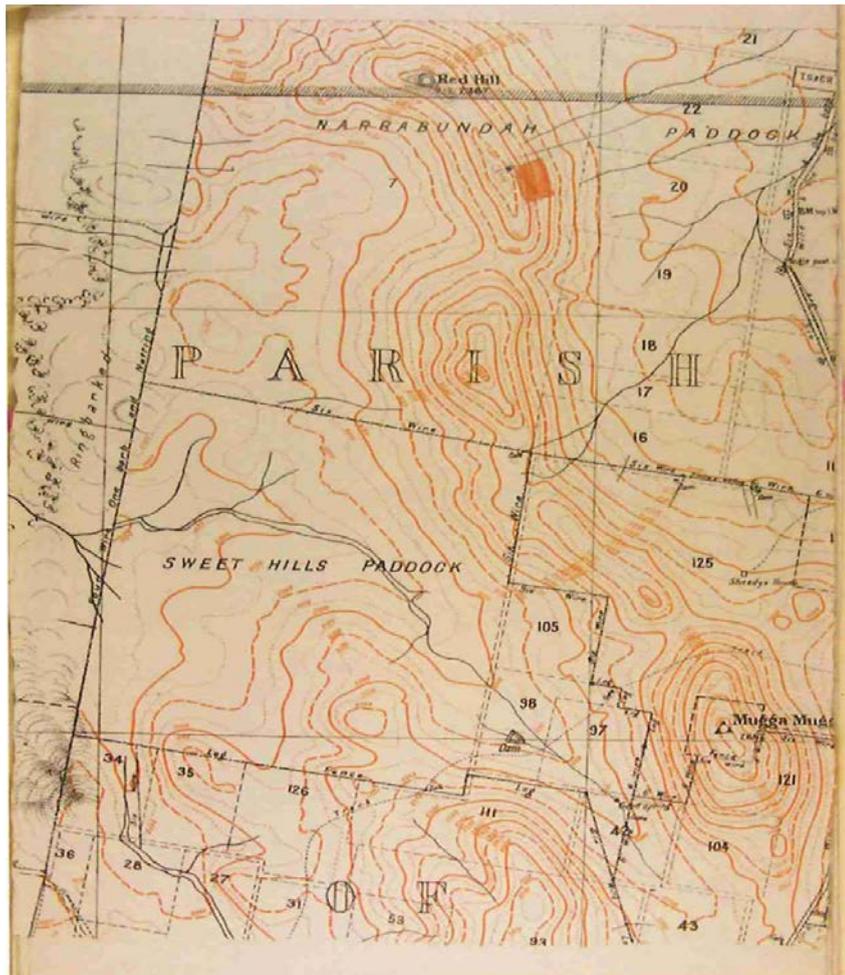


Image 2. 1917 map of Red Hill showing the rectangular area near the present kiosk, where historic *Callistemon citrinus* plants can be seen today.

Image courtesy of the Red Hill Regenerators



Image 3. View of flowering historic *Callistemon citrinus* plantings on Red Hill Summit.

Image courtesy of the Red Hill Regenerators 2017

BACKGROUND INFORMATION – RED HILL HISTORIC PLANTINGS



Image 4. View of historic *Callistemon citrinus* plantings in original planting row.
Image courtesy of ACT Heritage 2018



Image 5. View of historic *Callistemon citrinus* plantings in original planting row.
Image courtesy of ACT Heritage 2018



Image 6. View of historic *Grevillea rosmarinifolia* on Red Hill Summit.
Image courtesy of ACT Heritage 2018

BACKGROUND INFORMATION – RED HILL HISTORIC PLANTINGS

REFERENCES

Australian National Botanic Gardens website: <https://www.anbg.gov.au/callistemon/>. Viewed 13 April 2018.

British Association for the Advancement of Science (1914) *Report of the Eighty-fourth Meeting of the British Association for the Advancement of Science*, Australia; 1914 July 28-August 31. London.

The Canberra Times. How the planting of parks and gardens turned Canberra into a city. 5 April 2014. Viewed 13 April 2018.

Coltheart, L., (2011) *Nursery Tales for a Garden City. The Historical Context of the Records of Canberra's Yarralumla Nursery. A report for the Australian Garden History Society ACT, Monaro and Riverina Branch*. Canberra, ACT.

Congress of Engineers, Architects, Surveyors and Others Interested in the Building of the Federal Capital of Australia, Proceedings of the Congress of Engineers, Architects, Surveyors and Others Interested in the Building of the Federal Capital of Australia, May 1901. Melbourne, JC Stephens Printer.

Gray, JE., (1999) *TCG Weston (1866-1935) Horticulturalist and Arboriculturist; A critical review of his contribution to the Establishment of the Landscape Foundations of Australia's National Capital*. University of Canberra unpublished PhD thesis.

Finlayson, D.M., Abell, R.S., Strusz, DL, Wellman, P., Rickard, MJ., Clark, D., McCue, K., Campbell, KG., McQueen., and Pilans, B.A (2008) *Geological Guide to the Canberra Region and Namadgi National Park*. Geological Society of Australia (Australian Capital Territory Division).

Franzi, C., (2015) *An Australian Botanical Narrative: A Practice-Led Enquiry into Representations of Australian Flora on the Ceramic Vessel as an Expression of Environmental Culture*. Australian National University unpublished PhD thesis.

Frickler, D., (2013) *A Vision Splendid: How the Griffins Imaged Australia's Capital*. National Archives of Australia, Canberra.

Harrison, Peter, *Walter Burley Griffin: landscape architect*. Canberra, National Library of Australia, 1995.

Murphy, GP., *Canberra and District Historical Society 1911 – 1920*. Canberra, ACT Heritage Library.

National Archives of Australia (NAA): A192, FCL1921/1905

NAA: CP209/16, 26 NOVEMBER 1916

NAA: A192, FCL 23/480, 8 AUGUST 1917

aNAA: CP209/16, 6 MAY 1918

bNAA: CP209/18, MAY 1918

NAA: A192, FCC1921/1905, 15 SEPTEMBER 1921

NAA: CP209/18, B11, 20 JULY 1922

NAA: CP209/18, B12, 26 SEPTEMBER 1923

Papers of Walter Burley Griffin and Marion Mahony collected by Eric Nicholls, 1900-1947. National Library of Australia, Canberra.

Pryor, LD (1982) *TCG Weston's Contribution to the Canberra Landscape*, Australian Parks and Recreation.

BACKGROUND INFORMATION – RED HILL HISTORIC PLANTINGS

Red Hill Regenerators (RHR) website. Available at: <http://redhillregenerators.org.au>. Viewed 13 April 2018.

Ryan, S., (2011) *History of Canberra Nature Park: Report for the ACT Commissioner for Sustainability and the Environment*, Canberra: Office of the Commissioner for Sustainability and the Environment.

Sparke, E and ACT Administration., (1988) *Central Office, Canberra 1954-1980*. Canberra: Australian Government Publishing Service.

Vernon, C., (1998) The Landscape Art of Walter Burley Griffin, in A Watson (ed). *Beyond Architecture: Marion Mahony Griffin and Walter Burley Griffin*, Sydney, Powerhouse Publishing.

Vernon, C., (2013) Vision of the Century: How the Griffins Pictured Australia's Capital. In National Archives of Australia (ed). *A vision Splendid: How the Griffins Imagined Australia's Capital*, Canberra, National Archives of Australia.

Yarralumla Nursery History. Available at: http://www.tams.act.gov.au/live/yarralumla_nursery/nursery_history

Yarralumla Nursery Records. Available at: http://www.archives.act.gov.au/publications/yarralumla_nursery_records