

*'A legitimate art distinctive of Australia and Australia alone': the Griffins' contribution to the formation of an Australian landscape design ethos*¹

CHRISTOPHER VERNON

*Christopher Vernon is Lecturer in Landscape Architecture at the School of Planning, Landscape Architecture and Surveying at Queensland University of Technology, GPO Box 2434, Brisbane, QLD 4001, Australia.
email: c.vernon@qut.edu.au*

IN HIS NATIVE UNITED STATES OF AMERICA, Walter Burley Griffin is remembered, if at all, as an obscure protégé of that nation's most celebrated architect, Frank Lloyd Wright. In Australia, however, Burley Griffin has received far greater professional and popular attention, stemming from his renown as the designer of its federal capital city, Canberra. Common to both nations is the perception of Griffin as primarily an architect and, to a lesser extent, a town planner (a title he never used). This perception is far too restrictive and varies significantly from fact: Griffin, in complement with and parallel to architecture, was educated in and practised landscape architecture. This paper examines his ideas and work within this lesser-known discipline, emphasising the transference and transformation of his ideas into Australia. Moreover, it provides an overview of the emergence of Griffin's ideas on an Australian ethos and national identity as expressed in landscape design and the central role played by the use of Australian flora. Attention is also given to the contributions of his architect wife, Marion Mahony, and the extension of Griffin's ideas to New Zealand, via the work of his partner Roy A Lippincott.

KEY WORDS

*Australian landscape architecture
Walter Burley Griffin
Marion Mahony Griffin
National Identity
Canberra*

THE PROCESS BY WHICH DESIGN VALUES have been transferred into and transformed within colonial and post-colonial cultures is an area of growing theoretical interest. This paper addresses an important example of the introduction of North American landscape design ideals, related to the use of native plants and ecology, into early twentieth-century Australia: selected works of Walter Burley and Marion Mahony Griffin in both the United States of America and Australia provide the basis for a preliminary investigation and evaluation of the contribution made by the Griffins, particularly Walter, to the development of a distinct Australian landscape design ethos.

The focus of the paper is upon the transfer of ideals underpinning landscape design, rather than upon a visual iconography or style: ideas conceived in America and transferred to Australia where the Griffins relocated in 1914. The initial five years the Griffins spent in Australia were significant and their first impressions and reactions to the antipodean landscape were formative ones, setting the trajectory for the remainder of their careers.

David Yencken, in a 1995 essay on the status of Australian landscape research, questions the existence of an Australian design ethos and urges detailed study of white Australian attitudes to the Australian landscape and its native vegetation. Through an examination of the Griffins' attitudes toward the Australian landscape, this paper seeks to position the Griffins within the theoretical discourse of landscape architecture, to offer insights into the status of the profession of landscape architecture during this period, and to present the Griffins' ideas as examples of what arguably represents the explicit origins of an Australian landscape design ethos.

REFLECTIONS

Today, interest in an Australian republic and related issues of national identity, the increasing urbanisation of eastern Australia and a heightened concern for environmental values have stimulated a broader interest in an Australian ethos. Fleur Creel (1995), writing for *The Australian Financial Review*, asserts: 'It is curious that while modern Australian art is a distinct, independent movement, and while Australia is looking towards political independence, our gardens remain firmly with Europe, in company with the art of the 19th century, the von Guérards and Martens. For gardens, the Nolans, Whiteleys and Boyds have yet to arrive.' Although the Griffins left Australia over fifty years ago, it is timely to review their thoughts on an Australian landscape design and explore the transference and transformation of design values from North America to Australia.

North American origins

In order to understand the Griffins' Australian work, it is necessary to situate Walter Burley Griffin within the earlier American theoretical discourse which fundamentally shaped his, and subsequently Marion's, approach to landscape architecture. Educated in both architecture and landscape architecture, Griffin worked with Frank Lloyd Wright from 1901 until early 1906. Amongst other



Figure 1: William E Martin house (1903) and garden (c.1904 and c.1910), Oak Park, Illinois (USA) (William E Martin Family collection). Frank Lloyd Wright architect and Walter Burley Griffin landscape architect.

roles, he served as Wright's landscape architect (figure 1). Opportunities for detailed garden designs during this period, however, were infrequent. More typically, the celebrated intimacy between Wright's 'prairie houses' and their setting was likely to be achieved by analogous, architectural means, for example out-reaching walls and low terrace projections, rather than by the literal use of lavish garden treatments. Following his departure from Wright's office, Griffin initiated a period of landscape architectural experimentation: a search for his own voice, independent of Wright's. By the time of his relocation to Australia, Griffin's landscape architecture had come to be characterised by a search for reverential harmony and community with nature (Vernon 1995a). However, for Griffin, harmony and community with nature were not to be achieved through the scenographic simulation of a romanticised raw or wild nature, but through an Arcadian relationship, achieved through a more rational use and cultivation of nature.

The concept of nature was the dominant, shaping force underpinning Griffin's landscape design. The centrality of nature, albeit an idealised one, to Griffin's design approach was partly the result of his study of the writings of American Transcendentalists, including Emerson and Whitman. Griffin's 'wholly American' Transcendentalist 'spirit', as James Weirick assessed, 'sought to reveal the idea behind all appearances' (Weirick 1988b, p.245). For Griffin, landscape architecture clarified nature's latent order and expressed its 'maximum possibility'.

The significance of nature to Griffin's work cannot, however, be ascribed exclusively to Transcendentalist sources. Another equally profound catalyst was the then accelerating, largely unregulated processes of urbanism and suburbanism in early twentieth-century Chicago with the consequent transformation of its natural and agricultural surrounds.² Griffin witnessed this abrupt metamorphosis, later reflecting on the loss: 'When I was a child there was plenty of open ground to play in, about ten allotments to each boy . . . Now', he continued, 'it is ten boys to each allotment' (Griffin 1913c, p.112). The emphasis placed upon nature must therefore also be seen as Griffin's impassioned response to this condition of modernity. The rapidity with which the seemingly permanent—the open landscape—was consumed, stimulated not only a design interest in permanency but also emphasised the need to reconnect with or to humanise nature. Griffin's designs, which themselves were instruments of suburbanisation, became Arcadian venues for this reconnection.

In concert with his alternative design response, Griffin's witness to the destruction of the natural compelled his direct participation in efforts to conserve the remnants. In 1908, Griffin's first employer (and Marion Mahony Griffin's cousin), architect Dwight H Perkins, organised a committee of the Playground Association of Chicago. The committee, later reorganised as the Prairie Club, aimed to provide guided public walks throughout the Chicago region, to identify and raise public awareness of special areas and to create an interest in their conservation (Playground Association of Chicago 1908). Probably at Perkins' invitation, Griffin became a founding member of the committee. Other founding members included fellow landscape architect Jens Jensen, artist Charles Francis Browne, the University of Chicago's pioneering plant ecologist Henry Chandler Cowles and geographer Rollin D Salisbury.³

Significantly, the Prairie Club was joined in its sponsorship of ‘Saturday Afternoon Walking Trips in the Forests, Fields, Hills and Valleys’ (ibid) by other Chicago groups. These included, for example, the Geographic Society of Chicago, the Chicago Architectural Club, the Illinois Chapter of the Institute of Architects and the ‘Teaching Staffs of the Universities’ (ibid); resulting in a cross-section of the arts and sciences. That Griffin was already a knowledgeable naturalist by this time is suggested by the fact that he participated in the walks and, on at least four occasions, led or co-led them. Griffin no doubt encountered kindred spirits amongst the walkers. One of these was Stephen T Mather, later the first director of the United States National Park Service. Further, their association had professional implication: Mather commissioned Griffin in 1909 for the design of a garden for his family’s 1778 Connecticut homestead (figure 2).⁴

Griffin supplemented his Prairie Club excursions with individual field study, cultivating what Marion Mahony described as a ‘command of geography which was his by instinct and industry’ (Griffin c.1949, p.280) and a knowledge of the native flora ‘from a to zed’ (ibid, p.283).⁵ About 1909, Mahony, with whom he had worked for Wright, approached Griffin and suggested that ‘they buy together a canoe and explore some of the nearby streams’ (ibid, p.283). The aim

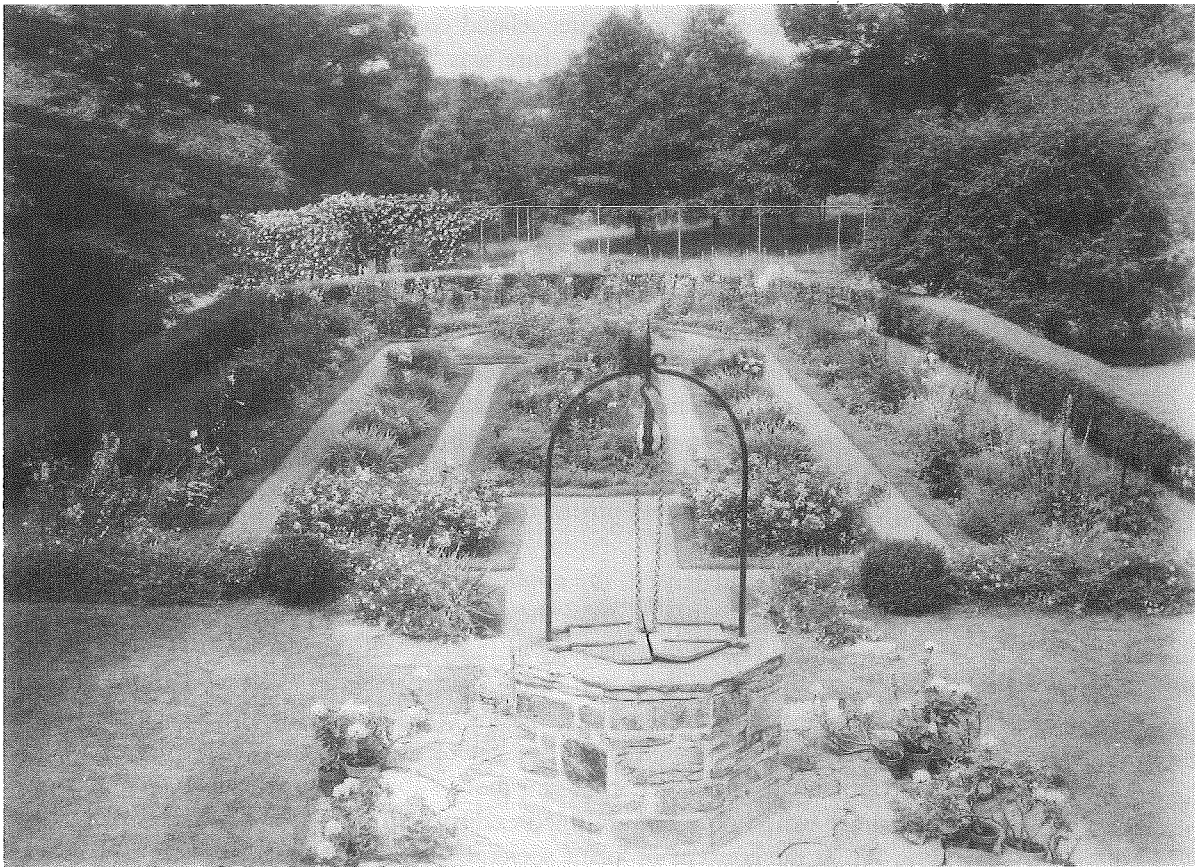


Figure 2: Stephen T Mather garden (c.1909), Darien, Connecticut (USA) (Stephen T Mather Family Collection). Walter Burley Griffin landscape architect.

of these excursions, again according to Mahony, was to 'rediscover domains in the same pristine state of loveliness as in centuries gone by' (ibid, p.273). The search for these 'pristine domains', as Mahony poignantly recalled, took them through 'waters thick with the poisonous by-products' of industry; punctuating their awareness of the degree to which the landscape had been transformed (ibid, p.289). Griffin and Mahony's trips continued in 'weekly instalments' until their relocation to Australia, and led to their June 1911 marriage. Ultimately, these spiritual communions with the landscape reflected their mutual deep reverence for nature, a relationship verging on the mystical.

Griffin's participation in the Prairie Club walks facilitated his contact with Chicago's scientific community, particularly its geographers and botanists. Through this association, Griffin undoubtedly gained knowledge of the developments in these sciences. Collectively, ecological and geomorphological knowledge revealed the latent structure of the landscape and the inter-relationships of its component parts: plants, soil, topography and climate.⁶ Ultimately, these concepts added new dimensions to Griffin's otherwise scenographic conception of landscape. Gardens no longer, he later reported, need be 'vignetted with the countryside after [Lancelot 'Capability'] Brown examples with gradations of emasculated nature'.⁷

Synthesising science with the theoretical discourse of landscape architecture, Griffin now conceived 'nature' or 'landscape' as the product of geomorphic process and as a system of inter-related components. Years later he summarily reported that landscape architecture was 'first concerned in understanding the features and processes of the earth itself[;] the relationships of the configuration, the vegetation, the rocks, the soils, the waters [and] the very winds'.⁸ For Griffin, landscape architecture sought to interpret and accentuate these natural processes.⁹

Chicago's native plant movement

Griffin was not alone in his attempt at synthesis. Prairie Club committee member Jens Jensen also was inspired by these ideas. Horticulturist and critic Wilhelm Miller chronicled the emergence and development of a regional school of landscape architecture (and architecture), which he termed the Prairie School (Miller 1915; Vernon 1995b). Miller attributed the Chicago genesis of the school to the work of Ossian Cole Simonds,¹⁰ owing to his early use of native vegetation, and its development to Jens Jensen and, to a lesser extent, Walter Burley Griffin.

For Miller and Jensen, the application of plant ecology to landscape design depended fundamentally upon the ecological concept of the 'plant society' or 'association'. Describing ecology as 'a new and fascinating branch of botany', Miller cited Cowles' work and defined plant societies as 'combinations of plants that are far more effective . . . than any which can be invented by man, because Nature [sic] has evolved them by ages of experiment' (Miller 1915, p.18). This did not mean, however, that the more subjective selection of plants by the designer would now be subsumed exclusively by an objective scientific method.

While the concept of 'plant societies' could be applied literally to landscape design, it also metaphorically introduced and expanded Miller and Jensen's ecological approach to an even larger scale. They came to view the Illinois landscape through an ecologically derived lens, systematically classifying it into



Figure 3: 'Prairie river' (c.1912) at Humboldt Park, Chicago, Illinois (USA) (Miller 1915). Jens Jensen landscape architect.

'scenery types' such as 'prairie', 'lake bluff' and 'ravine'; analogous to whole 'plant societies' (ibid, p.12). The most distinctive and characteristic elements of each 'scenery' or landscape type were next to be identified. Foremost would be the 'prairie rivers', striated rock outcrops (found along river margins and as upheavals further inland) and 'stratified' plants (ie those characterised by a horizontal branching habit, such as the hawthorn).

It was Jens Jensen who then translated these landscape elements into a unique design vocabulary and, next, reduced their scale. He incorporated meandering water courses, their margins defined by striated rockwork and lushly planted with ecologically appropriate (to the 'scenery type' if not the actual site) vegetation, in both his domestic and park designs (figure 3). These devices were utilised within a larger irregular-form vocabulary, one implicitly derived from Picturesque naturalism. Open lawns, metaphorical prairies, most often were enclosed and defined with 'stratified plants'. Ultimately, for Jensen and Miller alike, landscape design, metaphorically shaped out of the local landscape materials, could reveal and intensify through a more conscious focus the otherwise latent order of the larger regional landscape itself.

Griffin's idealisation of nature

Walter Burley Griffin shared neither Miller's and Jensen's pronounced advocacy of native plants nor the use of devices such as Jensen's miniaturised 'prairie rivers'. Griffin's extant planting plans of that time reveal a liberal use of exotic

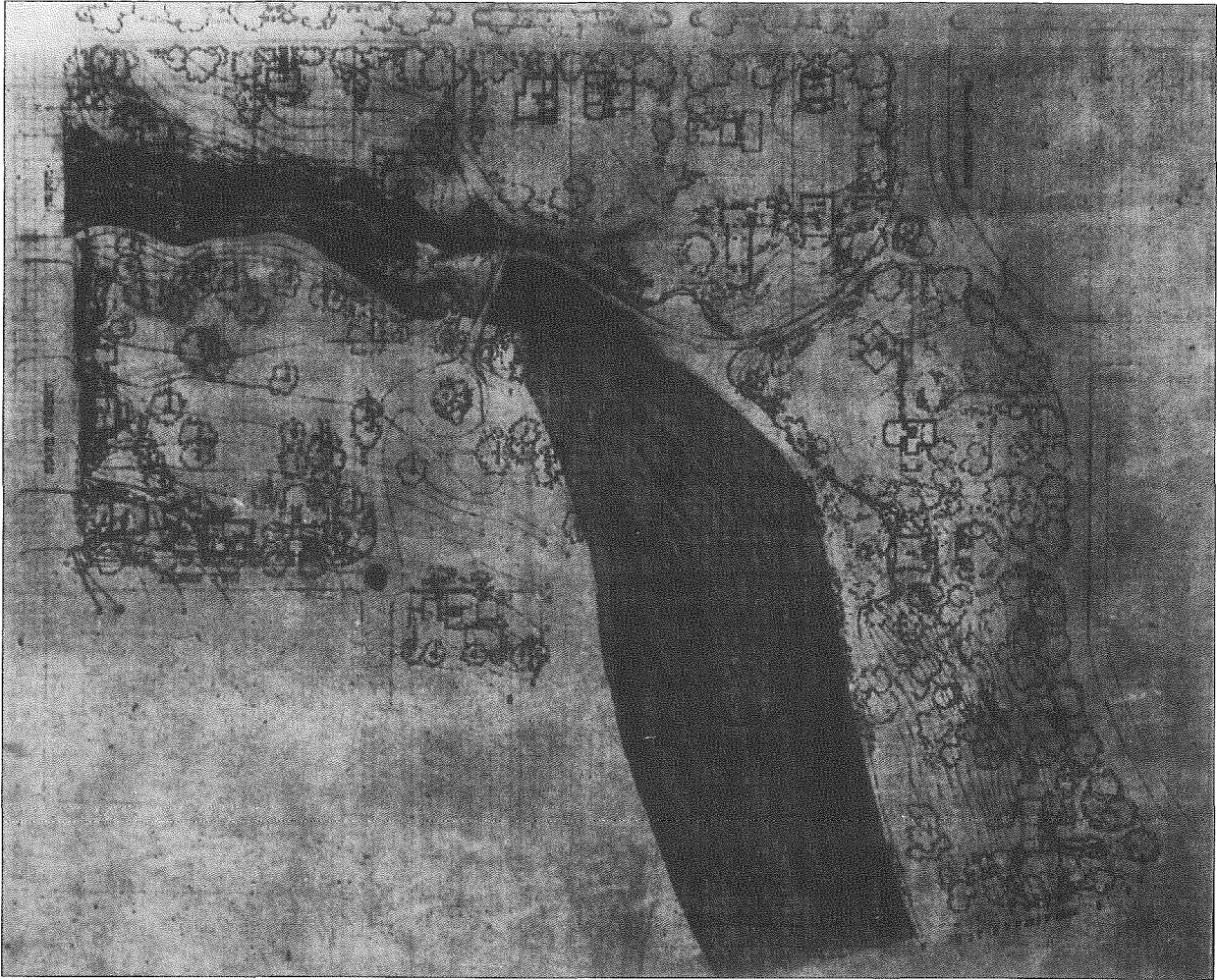


Figure 5: Plan of Rock Crest–Rock Glen (c.1912), Mason City, Iowa (USA) (Building 1913). Marion Mahony Griffin delineator and Walter Burley Griffin architect and landscape architect (North to the left).

‘endless fascinating possibilities’ with ‘unrepeated variations of view, soil, ruggedness, luxuriance, prominence, and seclusion’ (Griffin 1913b, p.75). Griffin’s aim was *rehabilitation*; he did not seek to recapture a sense of pristine nature. Instead, the future residents of Rock Crest–Rock Glen were to dwell in an idealised, cultivated nature.

Griffin sought to create a visually and spatially self-contained enclave (figure 5). By relegating the dwellings to the road-bounded perimeters of the site, Griffin maintained the open quality of its waterside centre. Willow Creek was widened and its margins were held in reserve as a community park. The creek was made the tranquil, luminescent focus of the community.

In order to accommodate dwellings (also of his design) at the site perimeters, Griffin’s redemptive vision entailed further corrective manipulation of the landforms disturbed during the earlier quarrying operations. Through the use of artificial rock work, he created additional house sites. The dwellings, individually oriented in response to potential water and other views within the

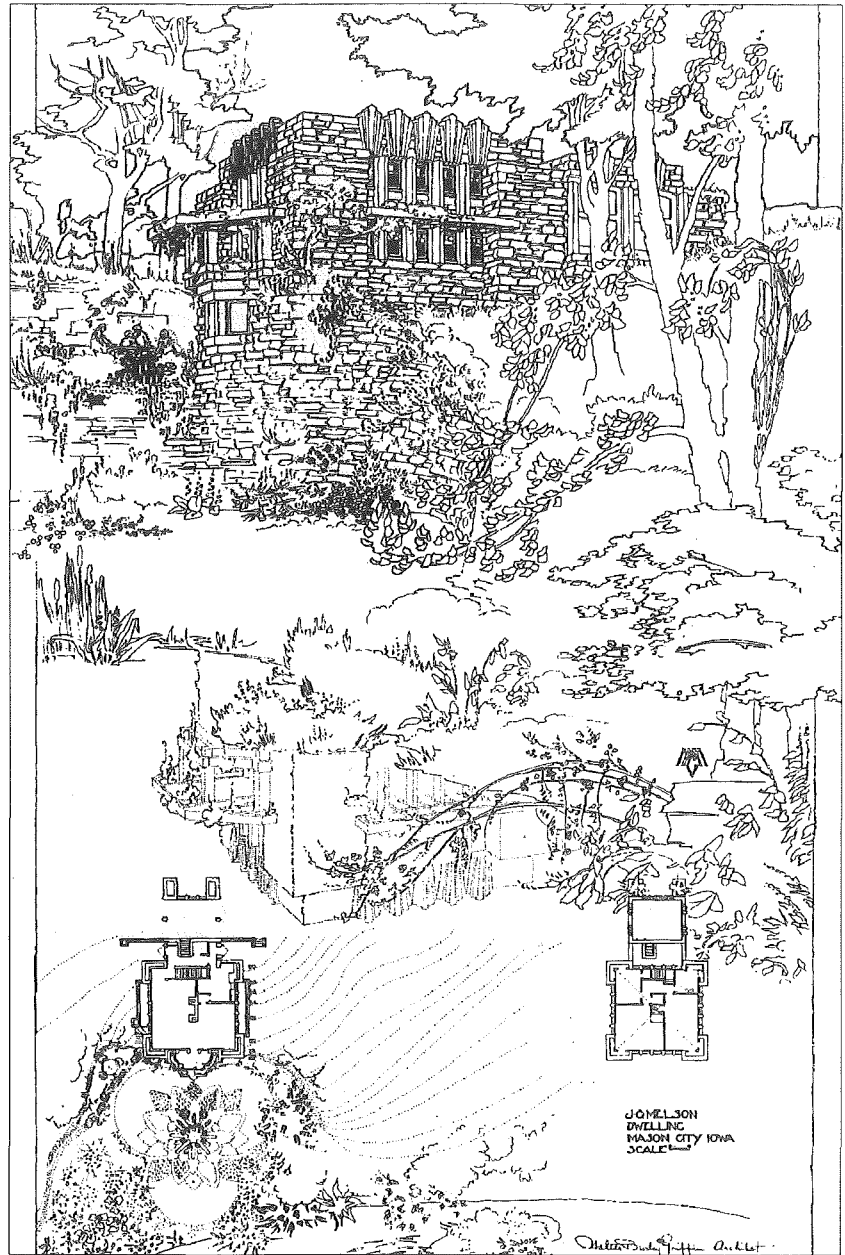


Figure 6: Perspective and plan rendering of JG Melson House (c.1912), Mason City, Iowa (USA) (The Mary and Leigh Block Gallery, Northwestern University). Marion Mahony Griffin delineator and Walter Burley Griffin architect and landscape architect.

confines of the site, were then ‘cut into rock or perched on the crest or nestled in the cove as the case may be’ (ibid). The houses, nestled in some instances like Amerindian cliff dwellings, were to emerge from beneath a lush mantle of foliage. This strategic placement of the dwellings into the perimeter bluffs (figure 6) in itself architecturally reinscribed the site’s topographic structure, at once revealing and articulating geomorphic process. Moreover, in his designs for the dwellings themselves, Griffin essentially abandoned the ‘Wrightian’ technique of lateral, architectural expansion into the landscape via terrace

projections. Instead, he turned to the use of compact, cubic masses: the lateral projections of his Wrightian architecture were retracted and the dwellings withdrew into themselves, becoming but incidents in and subordinate to the larger landscape composition. This foreshadowed his later design for Castlecrag in suburban Sydney, where architecture receded in deference to his idealised, rehabilitated nature and landscape was given primacy.

Transference to Australia

The increasing primacy Griffin awarded nature was expressed most profoundly and fundamentally in his 1911 prize-winning design for Australia's federal capital city, Canberra. Conceived in America (at about the same time as the Mason City project) and revised in Australia, this design serves as a conceptual and metaphorical bridge between the two countries.

By the time of the Canberra competition, Australia's 1901 Federation had already proven a pivotal event. Fundamentally informed by the late nineteenth-century Heidelberg School's idealised images (albeit through an anglicised lens) of the indigenous landscape, 'the Bush' had become a potent symbol of national identity.¹⁴ A related nationalism, often mediated through imperialism, permeated Australian design discourses. In architecture, for which nationalism was a 'motive force', there was a preoccupation with the widespread belief that Australia's salubrious climate of 'sunshine and fresh air' was bound up with the development of a national type (Burns 1988, p.15). Despite an anti-urbanism that, if only rhetorically, was implicit to the nationalist Bush mystique, interest in town planning—perhaps most notably championed by John Sulman—was accelerating (Freestone 1989). However, at the time of the Canberra competition, built design examples remained scarce, save for a few 'model suburbs' such as Haberfield, New South Wales (developed from 1902). Already underway by 1912, however, was Sulman's¹⁵ planning of Dacey Garden Suburb. None the less, in the aftermath of the Canberra competition, at least one commentator, Sydney City Council Alderman TH Kelly, believed that:

In Australia town planning had not received the attention as an *art* [my emphasis] that it had been given in older countries, and it was not surprising that local town planners had acted as all beginners were prone to act. They had been mere imitators of good work which had been done elsewhere. It was true that Australia emerged from the imitative stage. If a city was to gain any distinction it must have a character of its own, and those who planned its development must in the first place closely study its natural features, and any local idiosyncrasies that could add to its individuality.¹⁶

Through its structural and organisational dialogue with the site itself—effectively idealising the bush and celebrating the local—Griffin's Canberra design initially proved compatible with the popular landscape sensibility and anglicised notions of landscape beauty in Australia. The design's resultant landscape emphasis was compellingly evoked by Marion Mahony Griffin in a series of superb renderings, infused with sepia and luminescent golden tonalities, in themselves similarly compatible. Moreover, as the competition assessors undoubtedly knew (but this was then largely unknown to Griffin), the realisation of Griffin's vision would require the rehabilitation of the city's desecrated site, then essentially a grazed river valley whose once forested slopes

had been ring-barked and largely denuded. This rehabilitation in itself no doubt appealed to related notions of the Romantic.

The American legacy to the classically underpinned city of Canberra is embedded in the significance Griffin awarded nature in his design. Through his profound and dramatic reliance upon the native topography to organise the geometry of the plan, Griffin appropriated Canberra's physical site itself as the new Australian nation's primal monument. Mount Ainslie, for example, was ennobled by Griffin's monumentalising use of it as the focus of one end of his heroically scaled 'Land Axis'; Mount Bimberi, some twenty-five kilometres away, terminated the opposite end.

In his monumentalisation and celebration of the landscape, Griffin's Canberra design also invokes another American source: the spatial and symbolic concerns of Washington DC as originally envisaged by Pierre Charles L'Enfant. In L'Enfant's 1791 plan, the vast interior continental landscape, then a frontier and symbolic of the fledgling nation's development westward, provided one focus of the grand axis anchored at the eastern end by the Capitol building itself (Scott 1991). This powerful effect was destroyed in the opening decades of the twentieth century through the redesign of Washington in accordance with the landscape devaluing views of Daniel Hudson Burnham and the Senate Park Commission.¹⁷ In contrast to the arguably superficial aestheticism of the contemporary City Beautiful movement, Griffin archaically re-valued the potency of landscape as a bearer of meaning, invoking and transforming the eighteenth-century aspirations of L'Enfant. Ultimately, the design aspiration in America was echoed in Canberra: natural history was made cultural history.

Following an invitation from the Commonwealth government to meet and discuss his award-winning Canberra design, Walter Burley Griffin made his first voyage to Australia in August 1913. The day after his arrival in Sydney, the *Sydney Morning Herald* (19 August 1913) included an interview with the designer of the capital city for the 'new country', as Griffin described it. Discussion therein was not limited to Griffin's architecture and town planning (the practices for which he continues to be primarily remembered today), but also included his landscape architecture. Perhaps it was indicative of the relative obscurity of the profession in Australia that the reporter asked Griffin if 'landscape work' was amongst his 'hobbies'. Griffin replied in the affirmative and explained, politely correcting the reporter by inference, that landscape architecture was an '*art* [my emphasis] that is dragging along at the heels of architecture, but it is coming into its own'.

Griffin soon developed what would prove to be a deep passion for the Australian flora, his response to which was first recorded in another *Sydney Morning Herald* interview (2 October 1913). His enthusiasm is conveyed in the title itself: 'The Gum Tree. Mr. Griffin in Ecstacies [sic]. The Poet's Ideal'. Griffin admonished (implicitly casting himself as an outsider): 'The gum tree, instead of being one big continual monotony, has strongly appealed to me . . . [it] ought to have a more dignified name'. Griffin's reference to the 'big continual monotony' of the gums suggests he was aware that his favourable regard for them was not necessarily a popular one. As well as discerning their aesthetic appeal, Griffin also advocated their use in landscape design, assessing that 'no tree equals the eucalyptus for embellishing the landscape'. He then asserted that

‘the planting of foreign trees in place of the indigenous eucalypts is, to my way of thinking, a very great mistake’.

Commentary elsewhere in the interview suggests his initial interest and advocacy was not motivated by concern for ecological appropriateness. Instead, the appeal of the gums was a profoundly aesthetic one: identifying them as ‘decorator’s trees’, Griffin contended that their ‘foliage is beautiful, and varies a great deal, its bark and twigs have a beauty all their own’. Most important was Griffin’s assertion that ‘foreign trees’ were ‘not so suitable’ and ‘not so beautiful’. Here Griffin’s reference to ‘suitability’ was acknowledgement of his initial intuitive identification of the gums as being central to the visual character of the larger Australian landscape. For Griffin, the ‘new’ nation would be definitively shaped through the design articulation of its landscape.

Griffin’s visit, about three months in duration, culminated in his appointment as Federal Capital Director of Design and Construction. Given six months’ leave of absence to settle his affairs in America, Griffin departed from Australia on 15 November 1913.

On 12 May 1914, Griffin (along with Marion Mahony Griffin, his sister Genevieve and her architect husband Roy A Lippincott) returned to Australia, visiting Auckland and Wellington, New Zealand en route. The day after the party’s arrival, Griffin again was interviewed by the *Sydney Morning Herald* and, again, he offered commentary on the value of native flora:

Australia [has] the best decorative trees in the world, and if she had not, it would still be the duty of the people to make their parks and gardens as representative as possible of their own country . . . In New Zealand, the same mistake was being made as in Australia. People were planting European trees and Australian trees. He liked Australian trees, but not in New Zealand, which had a most wonderful flora of its own, and that was what one wanted to see when one went there. These new countries were losing their original characteristic features. It was a mistake to try to repeat the old country flora in a new country. They should make the most of the good things of their own country and so inculcate in the minds of the young Australians a love for Australia and its native flora and fauna.

Importantly, Griffin’s commentary was offered in support of Sydney City Council Alderman TH Kelly’s local initiative to have native, instead of exotic, trees planted in the city’s parks. In ‘Native trees adorning the parks’, published only the day before Griffin’s arrival, the *Herald* reported that ‘the sentiment in favour of Australian things was growing’. However, despite this, apparently, the report continued that ‘it had been left to visitors to the country, such as Mr. W. B. Griffin . . . to make Australians realise that their trees were among the most beautiful in the world’.

Shortly after the Griffins settled in Sydney, that city, along with Perth, Adelaide, Melbourne and Brisbane, became a venue for one of Australia’s most notable scientific events until then, the eighty-fourth meeting of the British Association for the Advancement of Science (British Association for the Advancement of Science 1915). Convened from 28 July to 31 August 1914, the meeting attracted 300 overseas scientists. Importantly, local participants included the Griffins (ibid, pp.112, 144). Moreover, Griffin presented an explanatory paper, ‘The Canberra Plan’, to the delegates at the Melbourne session on 14 August (ibid, p.500).

Griffin's participation in the meetings, now joined by Mahony Griffin, marks his continuing interest in synthesising the aesthetic with the scientific in landscape design. As well, their attendance no doubt effectively served to immerse them in a cross-section of the latest scientific discourses. The meeting included sections addressing mathematical and physical science, chemistry, geology, zoology, geography, economic science and statistics, engineering, anthropology, physiology, botany, educational science and agriculture (ibid, pp.xlvi–xlvii).

The 30 papers included in the botany section, many of which explicitly addressed Australian conditions, are most important to this paper. Papers such as 'Some account of the flora of the Northern Territory' (ibid, pp.573–574), 'The flora of the environs of Melbourne' (ibid, pp.574–575), 'Types of vegetation on the coast in the neighbourhood of Adelaide' (ibid, pp.584–86) and 'A botanical survey of north-east New South Wales' (ibid, p.589), provided the Griffins with much-needed information on Australian flora. Several of the papers also made reference to the fledgling science of plant ecology, an area already familiar to and of great interest to the Griffins, defining it as the branch of botany 'which regards vegetation collectively as the natural resultant of its external circumstances' (ibid, p.560). The Griffins' attendance may have also brought them into one of their earliest contacts with Joseph H Maiden, Government Botanist of New South Wales, Director of Sydney's Botanic Gardens and an authority on Australian flora.¹⁸ Not only did Maiden present a paper in the section, 'The species concept, with especial reference to Eucalyptus' (ibid, pp.581–582), but he also led participants on botanical excursions to Sydney and its environs. Griffin's work at Canberra later would bring the two men into direct contact.

Following the British Association meetings, the Griffins furthered their now mutual interest in Australian flora. In August, Marion Mahony Griffin joined the Naturalists' Society of New South Wales; Walter joined the following month.¹⁹ The Griffins' membership provided opportunity for organised bush-walking and field study and also facilitated their contact with the Australian scientific community, especially botanists. The composition of the Society's membership appears to have varied significantly from that of its Chicago counterpart. Whereas architects, landscape architects and artists participated in the Prairie Club walks, these professions seem comparatively under-represented in the membership of the Naturalists' Society. The Australian membership instead seems to have been more typically botanists and others engaged in the natural sciences. For the Griffins, seeking detailed knowledge of the Australian flora, this was most likely to have been an attraction.

As they had done in Chicago, the Griffins supplemented the Society's organised excursions with their own, using 'every possible opportunity for learning the points of the wonderfully rich native flora, decorative, soil requirements, seasons of blooming, etc' (Griffin c.1949, p.200). The Botanic Gardens in Sydney (and later Melbourne), 'through all seasons', became an early locus of their studies (ibid). Moreover, Mahony Griffin recollected that in 1914, 'Saturday was always kept free for walks in the outlying districts of Sydney, anything up to 20 miles, with [Constance] LePlastrier, the botanist, identifying trees and shrubs and flowers' (ibid, p.335).²⁰ LePlastrier also brought 'Australia's

best known botanists' to accompany the Griffins, including Alexander G Hamilton and Edwin Cheel (*ibid.*).²¹ Mahony Griffin explained that the botanists 'never resented the seven and eight hour lectures' Griffin solicited from them 'on relationships and soil conditions and habits' (*ibid.*). She believed that by the end of the year Griffin 'knew more than anyone in Australia of what was significant for a landscape architect' (*ibid.*).

With his 'landscape questions' put to his botanist friends 'piling up' unanswered, Griffin ultimately, Mahony Griffin reported, 'had to gather most all of the data necessary for native planting himself' (*ibid.*, p.200). Whilst botanical texts were available, she explained that it was 'not possible to get much for landscape work from them' (*ibid.*), suggesting that Griffin's design attempts to use the native flora were also somewhat experimental. However, the nature of Griffin's 'landscape questions' as well as the particular sort of information he found lacking in the available literature remain unclear.

Griffin's fascination with Australian flora found early design application and expression in his 1914 town plan for Leeton, New South Wales, in the Murrumbidgee Irrigation Area. The *Irrigation Record* prefaced its publication of Griffin's Leeton plan and report by noting that Griffin had 'a very high opinion indeed of the *decorative value* [my emphasis] of Australian flora, which, he thinks is all too little appreciated by Australians generally' (Griffin 1915, p.65). Inclusion of this preface in itself suggests the novelty of Griffin's view.

Mahony Griffin also observed that many of the 'European invaders' 'had a real antipathy to [Australian] vegetation, so strange to them' (Griffin c.1949, p.345). She later went so far as to typify popular Australian residential gardening as 'completely destroying all the natural growth and then putting in European plants' (*ibid.*, p.341). Botanist LePlastrier (1921), the Griffins' bush-walking companion, also explained that it was a 'far too common tendency to look on our bush with British eyes, and finding there nothing like the homeland, to decry and condemn'. In contrast, Mahony Griffin's reaction to the Australian flora, like her husband's, was a favourable one. She explained that in Chicago, she:

had done much architectural exhibition rendering work and had come near to creating some of these types to meet the requirements of architects who would insist that their buildings should be very much in evidence in my renderings of them. So I had strained a point in veracity of the trees I used, but here [Australia] nature itself accomplished the decorative character required, for many of the trees were so open in their foliage that the structural members—trunks and joints and branches—were always well in view, and their trunks with their endless range of colour and texture and markings were exquisitely decorative too (*ibid.*).

Decorative effect continued to be Griffin's essential rationale for the use of native plants in landscape design. Echoing sentiments expressed during his first Australian visit, he explained in his Leeton report that the reason why the 'Australian sylvia is unsurpassed for home embellishment' was its aesthetic attributes, its 'open lacelike delicacy, half concealing, half revealing, also in its subtle and quiet colourings of bark and stem as well as foliage and often profuse flowering' (Griffin 1915, p.66). The Leeton town plan may have been the first design in which Griffin sought to utilise native vegetation. Disappointingly, the

native planting regime envisaged by Griffin was apparently not executed, remaining but a planning guideline.

Griffin's appointment as Federal Capital Director of Design and Construction essentially gave him complete control over the construction of Canberra. For Griffin, this authority embraced larger urban design and planning issues, and the detailed selection of vegetation to be planted within the precincts of the future city. Griffin was assisted in this aspect by Chief Afforestation Officer Thomas CG Weston (1866–1935), who had been based in Canberra since 1913 and had developed a nursery and arboretum at Yarralumla (Murphy 1979, p.8). Significantly, Weston's nursery and arboretum included experimental plantings of indigenous species.

In 1915, Griffin's botanical passion received design expression at Canberra with the preparation of a design for a 'Botanical Reserve', a national arboretum. The arboretum's systematic organisation by continents (figure 7) was at the

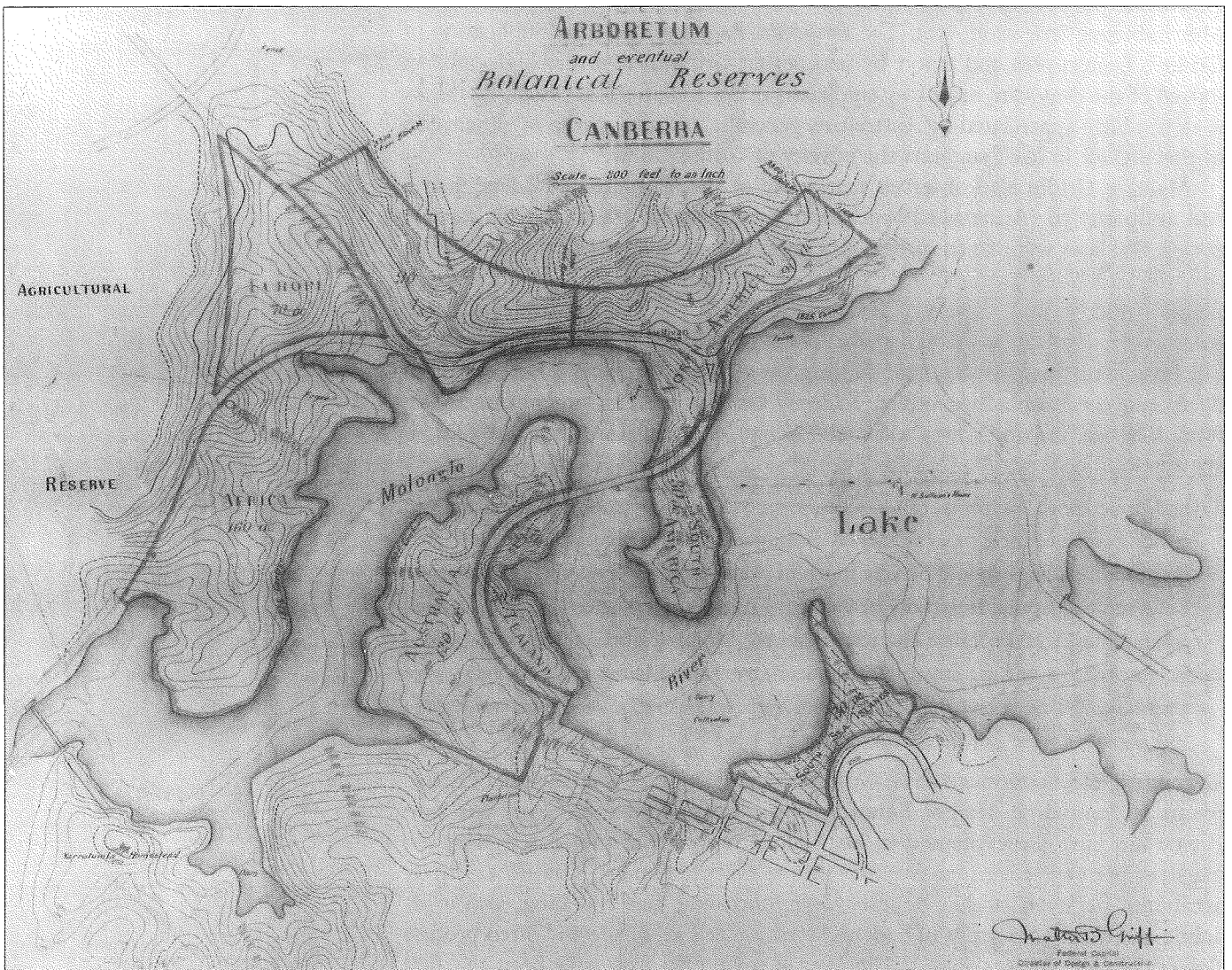


Figure 7: Proposed 'Arboretum' and 'Botanical Reserves' (1915), Canberra (Australia) (Australian Archives). Walter Burley Griffin landscape architect.

suggestion of Griffin's bush-walking companion Edwin Cheel, thus evidencing the collaborative nature of Griffin's relations with the botanist.²² Cheel's advocacy of a continental or geographical classification scheme in itself is not unusual. However, Griffin's composition and arrangement of the continental representations is: intriguingly, their juxtapositions are suggestive of Griffin's knowledge that, prehistorically, the continents were joined in a larger land mass, Gondwanaland; a concept discussed in the previous year's meetings of the British Association for the Advancement of Science.²³ Griffin's arboretum design evoked this antique inter-connectedness, and is best seen as an attempt to symbolically imbue Canberra with a sense of permanence.

Although the arboretum design was not implemented, Australian flora would inform Griffin's Canberra design in a more profound way. That Griffin then saw native vegetation as being definitive and evocative of place, as initially alluded to in his 1913 newspaper interview, is confirmed by his 1916 selection of botanical names of Australian flora as place names for suburbs and streets in Canberra, such as Grevillea Place, Telopea Park, Clianthus Circle and Blandfordia.²⁴

In 1917, Griffin received an opportunity to utilise native vegetation comprehensively in landscape design. However, the genesis of the opportunity actually came two years earlier. In 1915 he was commissioned for the design of the buildings for the new 'Catholic College at the University of Melbourne'. In his architectural design submission, Griffin also included, as had been his custom in America, a 'plot plan' for the larger campus. In his report prepared to accompany the plans, Griffin again urged the planting of native flora, assessing that the 'Australian sylvia is unsurpassed for architectural embellishment'.²⁵ The plan, schematic in nature, delineated mass plantings, organised by individual floral colours and combinations thereof, including 'orange, scarlet and yellow', 'salmon and copper' and 'silver pink and blue'.²⁶

Mahony Griffin explained that, in keeping with his American precedent, 'Griffin's method of planting together according to colour gave his plantings a splendour one rarely sees, for seasonal ensembles too' (Griffin c.1949, p.341). The plan is evidence that his concern for the larger landscape environs was integral to his architectural vision and was conceived simultaneously. A year later, Griffin prepared a detailed design of his earlier schematic plan for the now-named Newman College. It was a remarkable garden design, composed predominantly of native vegetation. Recorded on ten 50 cm × 153 cm Chinese scroll-like blueprints²⁷ (figure 8), replete with vegetation identified individually by botanical name, the Newman College garden is perhaps one of the first examples of a native flora garden designed by a landscape architect in Australia (ie Griffin's interest in the native flora in this context predates that of the more celebrated Australian garden designer Edna Walling).

Of equal significance is that the Newman design may have marked Marion Mahony Griffin's entrée into the practice of landscape architecture. Mahony Griffin (c.1949) herself recorded that she had worked on the plans. As well, despite Walter Griffin's signature, it is highly likely that Marion's involvement was substantial because at this time Walter was increasingly preoccupied with the demands of the work at Canberra.

Whilst Newman College 'was already on the boards', Mahony Griffin began what would prove to be a years-long project: compiling a list of native plants 'for use in any and all planting schemes[;] tabulated to show different growth

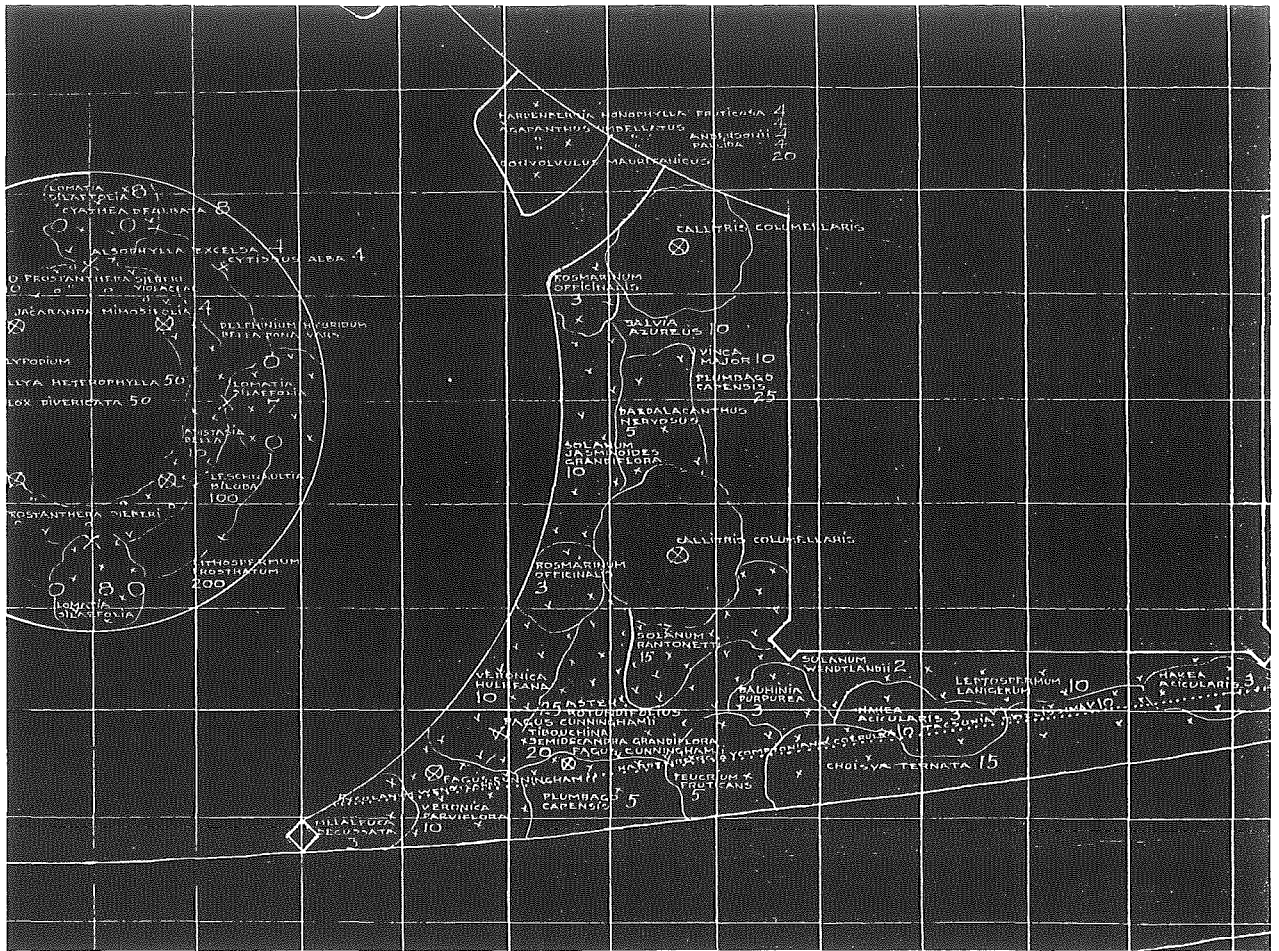


Figure 8: Detail of garden plan for Newman College (c.1917), Melbourne (Australia) (Newman College Archives). Marion Mahony Griffin delineator and Walter Burley Griffin (and Marion Mahony Griffin?) landscape architect.

requirements, as soil, moisture [etc]; heights and shapes of growths; colour of flowers, foliage, berries and barks' (Griffin c.1949, p.335). For this, she made a series of stunning botanical illustrations or studies (figure 9).

Also suggestive of her practice as a landscape architect, Mahony Griffin shared Walter's passion for Australian flora, and his advocacy of their use. For example, shortly after the Newman design the *Australasian* of 23 March 1918 reported that Mahony Griffin, in her lecture 'Community Planning and Planting', 'emphasised the beauties of the Australian flora'. Beyond this aesthetic rationale, she asserted that use of native plants would result in 'maximum beauty . . . attained in the shortest time . . . with the least expenditure'. Most important was her specificity in advocating that more be used, 'at least nine-tenths of native flora to one-tenth of foreign material'. As reflected in this remark, even in Australia, neither of the Griffins were purists in their advocacy of native plants. Mahony Griffin later reported that Griffin, for example, 'supplemented the [native] flora somewhat, especially with South African plants whose local conditions closely resemble those of Australia' (Griffin c.1949, p.341).

By 1915, the Griffins had relocated from Sydney to suburban Melbourne, residing in an area formerly agrarian and earlier frequented and painted by the Heidelberg School, where they were not alone in their passion for the Australian landscape and its flora. Melbourne was already the locus of ‘an architectural network . . . founded not upon architectural discussion alone, but on the forged links between artists and architects in pursuit of common ideas, such as the nationalist debate’ (Burns 1988, p.19). For many of the members of this network—which apparently did not include landscape architects—it was excursions into the landscape that ‘replenished the spirit or furnished an intellectual or spiritual source’ (ibid, p.19). One important member of this network was architect Harold Desbrowe Annear (1865–1933) who, along with Griffin, was later classified as a ‘pioneering modern’ by architect and critic Robin Boyd.²⁸ Importantly, Annear designed both dwellings and gardens, often in parallel. As Harriet Edquist (1987) identified, Annear conceived of the ‘house as one part of a greater ensemble, tied to its site by dexterous use of landscape elements’ (p.26). Whilst this conception, also held by Griffin, can be viewed as in keeping with the ethos of the contemporary Arts and Crafts movement, it is important to note that—perhaps mediated through Australian nationalism—several of Annear’s gardens apparently were planted with native trees and shrubs. Annear’s 1918 design of the dwelling Broceliande apparently included the layout of its garden, replete with a thicket of eucalypts.²⁹ The scope and nature of Annear’s practice as a garden designer, as well as the date he may have begun using native flora, remains unclear. Despite a seeming affinity of interests, there is no evidence that Griffin attempted to engage this network, perhaps owing to differing social circles. However, he undoubtedly knew of Annear’s work. Ironically, by 1918, much of the bush painted by the Heidelberg School artists, as well as several houses by Annear, had been embraced within a suburban development of Griffin’s design, Eaglemont.

In May 1919, Griffin prepared a street tree planting proposal (for which the drawings apparently do not survive) composed of native vegetation for the federal capital. Griffin’s design, one of his last for Canberra, then was submitted to Joseph H Maiden for his review.³⁰ Maiden’s critique offers insight into how Griffin’s ideas on the use of native plants were received, at least by a celebrated representative of the scientific community and authority on native flora. After first acknowledging that Griffin’s design itself was ‘beautiful’, Maiden assessed that:



Figure 9: Botanical study of eucalypts (c.1917) (Burnham Library of Architecture). Marion Mahony Griffin.

[Griffin] is to be commended for his desire to cultivate native trees, but his sentiment must be translated into actual practice'. Maiden then damningly evaluated that 'the [species] list he submits is inadequate, and even erroneous as a whole, and the adoption of it can only result in disaster'.³¹ Maiden continued:

No one impugns [Griffin's] ability in regard to matters of architecture and its related engineering problems, but problems affecting planting in Australia, in which Australian indigenous species are concerned and also questions of meteorology, drainage and soil, in so far as they affect plant-welfare, belong to a different category. In Europe and America, with centuries of experience to draw upon, with deciduous trees and long periods of winter rest, architects are in a very different position as regards their plant data to Australian architects. [Griffin] has not yet had the time, and perhaps opportunity to obtain more than a superficial knowledge of Australian plants, their requirements and acclimatisation, and therefore work of the kind should, in my view, be placed in the hands of a man whose knowledge and experience will reduce the anxiety of the Government to a minimum.

It is important to distinguish that Maiden's rebuke focused upon Griffin's species selections; Maiden actually endorsed Griffin's enthusiasm for the native plants. However, for Maiden, Griffin's desire to use certain native species was dangerously in advance of the requisite scientific studies and experimentation as to their suitability. This conflict between Maiden (along with Weston) and Griffin might also be partly born of their differing orientations, the scientist versus the artist.

Shortly thereafter, Griffin's friend Cheel (who, like Maiden, was employed at the Botanic Gardens, Sydney) led a discussion on 'the cultivation of native plants' at the December 1919 meeting of the Naturalists' Society.³² Cheel summarised that 'very many' native plants were 'well worthy of a prominent position in our private gardens, as well as our public parks and gardens'. However, owing to relatively low demand, 'nurserymen and seedsmen did not specialise' in them. The botanist then explained that many 'were under the impression that our Australian plants are difficult to cultivate. This is not so, for we find quite a number are easily raised from seed, and others are easily propagated from seedlings'.

Griffin's ideas and influence took another direction when, in 1921, his then junior partner and brother-in-law Roy A Lippincott moved across the Tasman to New Zealand. The move was initially to oversee the construction of his (and Edward F Billson's, another former Griffin employee) prize-winning design for the University of Auckland Arts Building. Owing to the visual affinities of their architecture, it is well known that Lippincott advanced an architectural agenda inspired by, if not derived from, Griffin. Comparatively lesser known is that for Lippincott, landscape architecture was integral to his architectural visions, as it was for Griffin. Unsurprising then is the discovery, as reported in the 10 December 1925 *New Zealand Herald*, that Lippincott orchestrated the establishment of a university arboretum of 'New Zealand trees and shrubs[,] distributed according to the colour of their blossoms' (figure 10).³³

Fourteen years after the Griffins' arrival in Australia, landscape architecture remained an emergent profession in Australia.³⁴ Writing in 1928, Griffin stated

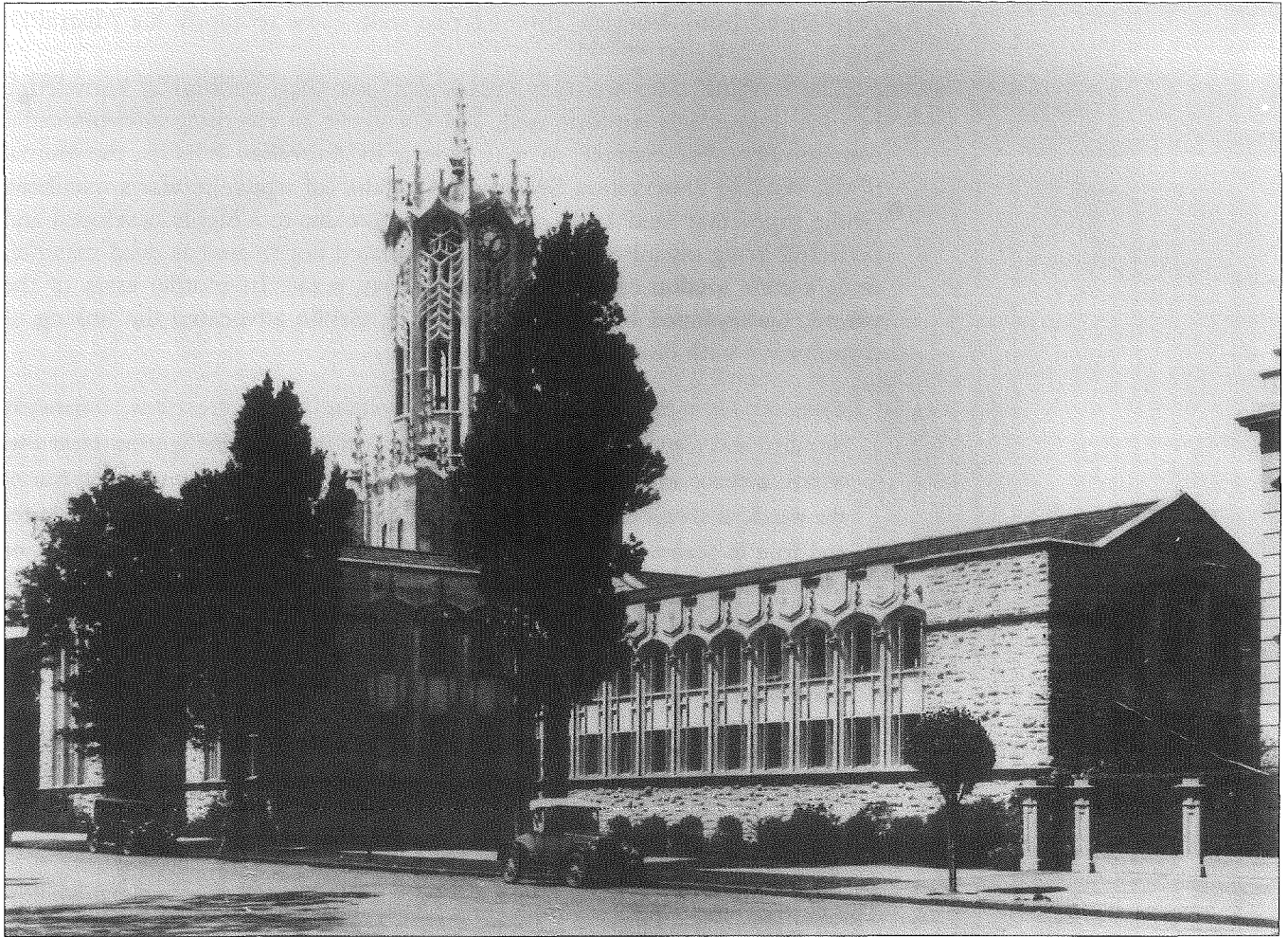


Figure 10: View (c.1930) of University of Auckland Arts Building (1926) (Auckland Public Library). The arboretum plantings of native New Zealand vegetation are visible at the base of the structure. Roy A Lippincott and Edward F Billson architects and Roy A Lippincott landscape architect.

that 'landscape architecture' was 'a term as yet unused here'. He asserted that there was only 'a handful perhaps of landscape gardeners, professionally trained abroad, whose opportunities are confined to the narrow scope of domestic plantations' (Griffin 1928, p.210). However, the Griffins themselves had already contributed to local professional education: Emily Gibson entered their employ in 1917 as an apprentice in *landscape architecture* (Shepherd 1988). Gibson perhaps was the first person, in either America or Australia, to apprentice to the Griffins explicitly to pursue a career in landscape architecture. Moreover, she most likely assisted with the Newman College garden, 'on the boards' at the time of her arrival in their office.

As in America, Griffin soon became an advocate of conservation in Australia. This concern was displayed in his c.1915 design for the Melbourne suburb of Eaglemont. Here he co-joined development with conservation and included reserves situated so as 'to conserve ancient Red gum trees' (Price 1933, p.12).

Transferred from America, this practice soon came to typify his Australian community designs.

The Griffins' later writings (1920–1935) see their ecological knowledge become increasingly sophisticated, and document an emerging environmental consciousness. For example, in 1935, writing in *Australian Wildlife*, the journal of the Wildlife Preservation Society of Australia (of which he was a member), Griffin urged that 'land' be 'accorded the respect due to a highly developed and perfected living organism not to be exterminated nor treated as dead material, or as a mere section of the map' (Griffin 1935, p.24). In another essay of the period, underpinned by a sense of urgency, Griffin advocated the linking of conservation with domestic development:

Even the most carefully selected ever blooming garden creations, constantly nurtured and manured, fail to vie in beauty with the exquisite ligneous plant life, which, without attention, passes through drought, wind and storm, has no fear of the weeds, is always clean and bright, produces no litter, brings forth dainty flower and fruit in season and has no weedlike characteristics, rankness, burr, nettle, or thorn. It is to be hoped that these qualities will be appreciated before it is too late to take advantage of them for a private garden, for once the natural balance in the place has been upset, and foreign weeds allowed to dominate, the native growth is gone forever.

The difficulties of its cultivation under artificial conditions have so far proved too great to surmount, after all, the home grounds must be the largest part of the landscape and unless they conform to the original state, in some degree, the characteristic beauty of the region will be lost.³⁵

The Griffins' increasing environmental consciousness culminated in their well-known conservation work at Castlecrag (Walker, Kabos, Weirick 1994), begun in the 1920s and continued until Walter Griffin's 1935 departure for India (where he died in 1937, without returning to Australia).

Also during the 1920–1935 period, Griffin made explicit (as did others) the crucial role native vegetation played in the distinctiveness of the Australian landscape. Writing in 1928, he asserted that the 'landscape gardener with appreciation for and equipped with the unique technique of Australian flora is the great desideratum for a legitimate art that can be distinctive of Australia and Australia alone. May he [sic] come before his medium is destroyed' (Griffin 1928, p.210).

Assessment

Griffin's passion for native plants is detectable only after his arrival in Australia. Given that he neither explicitly advocated the use of native plants nor used them to any great extent in his American designs, one is compelled to search for a potential explanation for this development.

For Griffin, the native flora seems to have been central to the distinctiveness of the Australian landscape and symbolic of Australia as place. This certainly was not the situation in the Chicago and environs of Griffin's experience. There it was, as Frank Lloyd Wright described it, the 'quiet level' of the largely unrelieved topography; the landform rather than the vegetation, that defined the

region. The indigenous, once definitive 'inland sea' of prairie grasses and forbs was comparatively long vanished; replaced either by urban development or by agricultural crops. What little remained generally was confined to relatively inaccessible places, such as railway rights-of-way, owing to legal inaccessibility, and ravine recesses, owing to physical inaccessibility. Jensen's almost exclusive use of native plants might be best interpreted as an invocation; a simultaneous elegy and attempt to re-assert the native vegetation as a definitive attribute of the American Middle West as a region or place (implicitly re-vivifying the Picturesque).

Why did native vegetation take on a new precedence for Griffin once in Australia? Comparatively sparsely populated, Australia, unlike American Chicago's increasingly urbanised hinterland, was the place where, as DH Lawrence (who also saw through the eyes of an outsider) asserted during a visit in 1922, 'people mattered so little' (Lawrence 1995, p.402). Partly owing to the comparative insignificance of the presence of human occupation, it was the indigenous bush, both real and imagined, and its 'age-unbroken silence' (ibid, p.414) that was seemingly omnipresent. Rather than fragmented, isolated 'beauty spots', as had been the case in Chicago, it was the 'general character' and predominance of the natural Australian landscape which was definitive of Australia as place.³⁶ Perhaps it was the bush's definitive omnipresence which now lent credibility to Miller's and Jensen's ideological emphasis on native plants. Equally fundamental to Griffin's reaction to the Australian environment was its salubrious climate. Unlike Chicago's 'six months of generally dull' winter landscape (Griffin 1913a, p.72), gardens became a 'requisite in the subtropical evergreen Australian setting'.³⁷

Moreover, Griffin's interest in imbuing a sense of permanency, one stimulated by his American experiences, more easily and convincingly found vegetal expression in, for example, the planting and conservation of eucalypts than with prairie grasses. In Australia, Griffin's interest in permanency, if not antiquity, also gained new appropriateness: Griffin was keenly aware that Australia 'though to man the newest continent is, in fact, the oldest geologically' (Griffin 1912, p.13).

It was the resonance between the nascency of the white Australian nation in human terms and its antiquity in geological or natural terms that seems to have stimulated Griffin's design interest in an Australian ethos. For Griffin, Australia was a 'new frontier' and the last 'new world', one which presented alluring opportunities to perfect and apply lessons learnt from the failings of the immediate American past: Australia, as DH Lawrence contended, 'is the land that as yet has made no great mistake, humanly' (Lawrence 1995, p.405). In contrast to Chicago's brutalisation of nature, in Griffin's vision of a modern Australian capital, citizens would dwell harmoniously in a cultivated, monumentalised nature; realising the ideal of a more fertile Arcadia, which America was losing. Like the Australian landscape painters before him, Griffin set out, beginning with his intended object-lesson federal capital design, to define Australia by an idealised articulation of its indigenous landscape. The idealisation and conservation of indigenous nature, no longer possible in Chicago, would play a crucial role. Through the medium of landscape architecture Griffin sought to make natural history the point-of-beginning for a national cultural history.

Prospects

It is extremely unlikely that the Griffins' 'legitimate art' 'distinctive of Australia and Australia alone' resulted merely from the use of native plants. Undoubtedly their vision had structure and form implications. Formal analysis of their actual landscape designs, beyond the scope of the present study, is required to recover these. The novelty of the Griffins' contribution to an Australian design ethos does not lie in their aesthetic appreciation of Australian flora. Instead, it is reflected in their early and comprehensive advocacy and demonstration of its use in landscape design and the simultaneous elevation of landscape architecture as a formative instrument of national identity.

NOTES

¹ See Griffin (1928). My essay, a revision and expansion of one presented at the symposium, *The Griffins and Conservation*, held at Newman College, Parkville, Victoria, 24 February 1996, is intended as an overview and précis to future research. I wish to thank Walter Creese, Dianne Firth, Robert Freestone and Philip Goad for their reviews of earlier versions of this essay and to acknowledge research support from the Graham Foundation for Advanced Studies in the Fine Arts. I am also indebted to Jane Carolan, Archivist at Newman College for her invaluable organisation of the above symposium and for her assistance with the College's collections.

² Weirick (1988b, p.242) elaborated that Chicago 'had expanded from a frontier outpost to a metropolis of almost a million people; the fastest growing city in the world'. Somewhat similarly, the earlier loss of the natural landscape to industrialisation contributed to the development of the Picturesque in Britain, see, for example, Meyer (1992).

³ Perkins, along with Jensen, had served earlier on the 1899 Chicago Special Park Commission. Under these auspices, Perkins and Jensen participated in the Commission's effort to identify areas for potential inclusion in a new 'outer park' or 'forest preserve' system for Chicago. Despite the 1904 publication of the Commission's report, interest in the project apparently languished. Consequently, Perkins and Jensen hoped to re-stimulate awareness and interest in the project via the Playground Association; see Grese (1992).

⁴ This project was heretofore unpublished. Extant drawings include an undated planting plan and a 'Garden structure work' drawing dated 12 June 1909 (Mather descendants).

⁵ This quotation (as well as others elsewhere in the text) is from Marion Mahony Griffin's unpublished autobiography *The Magic of America*. Pagination refers to the typescript in the collection of the Burnham Library of Architecture at the Art Institute of Chicago. For more on this invaluable document see Weirick (1988a). As well, for an exceedingly well-considered account of Mahony and her work, see Weirick (1988c).

⁶ For example, in his description of the site for his proposed 'Ridge Quadrangles' community in suburban Chicago, Griffin explained that the site embraced a 'sand spit or bar [the community's namesake 'ridge'] that mark[ed] the former existence of lake or sea over the Chicago district, in this case some 20 feet above the general level about it'; see Griffin (1913a).

⁷ Griffin's description of Castlecrag [c.1930?] in Griffin (c.1949), p.226.

⁸ Griffin, WB (1935) *What of 'town planning'*, Peter Harrison Papers MS 8347, Series 6/12, National Library of Australia. Robert Freestone was the first to recognise the significance of this document in his paper 'Walter Burley Griffin and Historic Preservation', presented at the symposium, *The Griffins and Conservation*, 24 February 1996, Newman College, Parkville, Victoria.

⁹ As Elizabeth K.Meyer has brilliantly argued (1994), this approach is also reflected in earlier work by Frederick Law Olmsted, Sr. Griffin was especially familiar with Olmsted's Chicago works, eg the 1893 World's Columbian Exposition grounds and his 1869 design for the suburb of Riverside. See Harrison (1995), Vernon (1995a) and Weirick (1988b).

¹⁰ When initially contemplating a career in landscape architecture, Griffin sought Simonds' counsel as the latter was then one of the few landscape architects practising in Chicago. See Vernon (1995a) and Weirick (1988b).

¹¹ As Griffin, Cowles and Jensen were all founding members of the walks committee, it is likely that Griffin would have studied Cowles' seminal publications (1899, 1901) as well as Jensen's own ecological study (1904) published in Chicago's *Park and Cemetery*. Griffin also studied committee member Salisbury's geographic and geomorphological text on the Chicago region (1899). Earlier, whilst a student at the University of Illinois, Griffin enrolled in a forestry class which, for example, included the study of the *relation between* forests and climate; see Vernon (1995a).

¹² For Griffin, geometry was the language or aesthetic 'skeleton' of nature, as evidenced in the cells of a beehive or the formation of crystals; see Vernon (1995a).

¹³ Griffin's interest in colour was informed by British (eg the work and writings of William Robinson and Gertrude Jekyll) and German sources; see Vernon (1995a, b, c).

¹⁴ See, for example, Plant (1988) and Thomas (1976).

¹⁵ Along with JF Hennessy and JD Fitzgerald

¹⁶ Native trees adorning the parks. *Sydney Morning Herald*, 12 May 1914.

¹⁷ It was at this time that the landscape focus of L'Enfant's axis was supplanted by architectural objects (eg the Lincoln Memorial). The relation between L'Enfant's Washington and Griffin's Canberra is amongst the topics of my present research. Preliminary results were presented at the Urban History/Planning History Conference, Australian National University, Canberra, 27 June 1995.

¹⁸ For more on Maiden, see Hall (1978).

¹⁹ Notice of the Griffins' memberships was included in the 6 October 1914 issue of *The Australian Naturalist* 3 (4): 37–38. Information on the Society's membership was derived from a review of this journal during the 1914–1920 period.

²⁰ LePlastrier, along with Agnes A Brewster (also members of the Naturalists' Society), published *Botany for Australian Students* in c.1916. (No date was included in the edition I consulted at the National Library of Australia. However, this copy bears the imprint: 'Commonwealth of Australia; Library of the Parliament; 21 July 1916.) Important to this paper is that the book included a chapter 'The plant, a member of a community' which outlined the ecological concept of a plant association, as Cowles earlier had defined in America. The Griffins may have met LePlastrier during the formative stages of this book. Moreover, the fourth edition (1930) included a chapter 'Plant ecology' and was accompanied by an 'Ecological map of New South Wales'. As I have been able to consult only these two editions, I am unable to ascertain the date in which the ecology chapter first appeared.

²¹ Hamilton and Cheel were also members of the Naturalists' Society (then serving as Vice-President and Honorary Secretary, respectively) and contributors to LePlastrier and Brewster (c.1916?). See their biographical entries in Desmond (1994) and Nairn and Serle, eds (1983). Another entry on Cheel is to be found in Hall (1978).

²² Griffin (18 December 1915), letter to Edwin Cheel (Australian Archives).

²³ See, for example, 'The Vegetation of Gondwana Land' in British Association for the Advancement of Science (1915), pp.584–585.

²⁴ Griffin (14 August 1916), *Canberra plan of city and environs* (Australian Archives). Griffin's plan also included a series of avenues, named after the Australian states, radiating from the Capitol Circuit that encircled his proposed Capitol building. Wellington Avenue, as it was then envisaged that New Zealand would join the Australian Federation, was terminated by a circular park and adjoining suburb named 'Manuka', after the native New Zealand shrub. Curiously, New Zealand still is included in the Australian Constitution as a 'state'; see 'Definitions: the states' in *Australia's Constitution* (1995). Canberra: Australian Government Publishing Service.

²⁵ [WB Griffin] [October 1915] *The factors in the design of this building* . . . (typescript). Newman College Archives. I am grateful to Peter Navaretti and Jeff Turnbull for calling this source to my attention.

²⁶ A reproduction of this plan [dated 15.2.1916] is included in *The Burnham Library of Architecture—University of Illinois Microfilming Project* microfilm of a selection of Griffin's drawings (frame 98); copy at National Library of Australia.

²⁷ Newman College Archives. The drawings are signed 'WB Griffin, Landscape Architect'.

²⁸ For more on Annear see Edquist (1987) and Boyd (1947). According to Edquist (20 January 1997, telephone communication with the author), at work on Annear's biography, it remains unclear whether the garden and its planting was the work of Annear or his client.

²⁹ For a photograph of Broceliande (now razed) in its original garden setting, see Boyd (1947).

³⁰ Maiden (6 August 1919), carbon copy of letter to WH Goodwin (Australian Archives CP 209/1). Subsequent Maiden quotations are from this document.

³¹ This assessment is curious given Griffin's practice of seeking the counsel of noted botanists. For example, Griffin had already established a dialogue with Edwin Cheel pertaining to the Canberra arboretum design. It seems plausible that Griffin's proposal incorporated the suggestions of at least one Australian botanist.

³² (1 April 1920) *The Australian Naturalist* 4 (Part 10): 131–132.

³³ I am indebted to John P Adam for calling my attention to this important reference. Lippincott was also significantly involved with Griffin's work for Newman College. For more on Lippincott see Johnson (1980). Margaret and William Alington, Sandra Falconer, Val Kirby, Margaret and Gavin Lister and Ann McEwan also greatly aided my preliminary research in New Zealand.

³⁴ For example, the Australian Institute of Landscape Architects was not founded until 1966.

³⁵ *Present day parks, their place and purpose* [typescript] (c.1935[?]); Peter Harrison Papers MS 8347, Series 6/12, National Library of Australia.

³⁶ Griffin (1935) *What of 'town planning'*, Peter Harrison Papers MS 8347, Series 6/12, National Library of Australia.

³⁷ [WB Griffin] [October 1915] *The factors in the design of this building . . .* (typescript). Newman College Archives.

REFERENCES

- Boyd, Robin (1947) *Victorian modern: one hundred and eleven years of modern architecture in Victoria, Australia*. Melbourne: Architectural Students' Society of the Royal Victorian Institute of Architects.
- Brewster, Agnes A; LePlastrier, Constance (1916?) *Botany for Australian students*. Sydney: Dymock's Book Arcade.
- British Association for the Advancement of Science (1915) *Report of the eighty-fourth meeting of the British Association for the Advancement of Science, Australia: 1914*. London: John Murray.
- Burns, Karen (1988) Prophets and the wilderness. *Transition: discourse on architecture* 24: 14–30.
- Cowles, Henry C (1899) The ecological relations of the vegetation on sand dunes of Lake Michigan. *Botanical Gazette* 27: 97–117, 167–202, 281–308, 361–391.
- Cowles, Henry C (1901) *The plant societies of Chicago and vicinity*. Chicago: Bulletin No. 2 of the Geographic Society of Chicago.
- Creel, Fleur (24 February 1995) Whither the Whiteleys of gardening? *The Australian Financial Review*.
- Desmond, Ray (1994) *Dictionary of British and Irish botanists and horticulturists*. London: Taylor and Francis and the Natural History Museum.
- Doeserich, Emma (comp) (1941) *Outdoors with the Prairie Club*. Chicago: Paquin.
- Eaton, Leonard K (1964) *Landscape artist in America: the life and works of Jens Jensen*. Chicago: University of Chicago Press.
- Edquist, Harriet (1987) Legends in Australian architecture: Harold Desbrowe Annear. *Transition: discourse on architecture* 22/23: 20–30.
- Freestone, Robert (1989) *Model cities: the garden city movement in Australia*. Melbourne: Thomas Nelson Australia.
- Grese, Robert E (1992) *Jens Jensen: maker of natural parks and gardens*. Baltimore: The Johns Hopkins University Press.
- Griffin, Marion Mahony (c.1949?) *The magic of America*. Unpublished manuscript.
- Griffin, Walter Burley (1912) Planning a capital city complete. *Construction News* 34 (22): 12–14.
- Griffin, Walter Burley (1913a) Ridge quadrangles. *The Western Architect* 19 (8): 71–72.
- Griffin, Walter Burley (1913b) Rock Crest and Rock Glen. *The Western Architect* 19 (8): 75–76.
- [Griffin, Walter Burley] (1913c) Mr. W. B. Griffin's view—architect and social student. *The Salon* 2 (2): 112–113.

- Griffin, Walter Burley (1915) The town plan of Leeton. *The Irrigation Record* 3 (4 & 5): 49–50 & 65–66.
- Griffin, Walter Burley (1928) The outdoor arts in Australia. *Advance! Australia* (1 May): 207–211.
- Griffin, Walter Burley (1935) Occupational conservation. *Australian Wildlife* 1 (2): 24–27.
- Hall, Norman (1978) *Botanists of the eucalypts*. Melbourne: Commonwealth Scientific and Industrial Research Organisation.
- Harrison Peter (Freestone, Robert: ed) (1995) *Walter Burley Griffin, landscape architect*. Canberra: National Library of Australia.
- Jensen, Jens (1904) Soil conditions and tree growth around Lake Michigan. *Park and Cemetery* 14 (Nos 2–3): 24–25, 42.
- Johnson, Donald Leslie (1980) *Australian architecture 1901–51: sources of modernism*. Sydney: Sydney University Press.
- Lawrence, DH (1995) *Kangaroo*. Pymble: HarperCollins Publishers (original, 1923).
- LePlastrier, CM (1921) Presidential address, August 3rd 1920. *The Australian Naturalist* 4 (Part 13): 182–192.
- Meyer, Elizabeth K (1992) Situating modern landscape architecture: theory as a bridging, mediating, and reconciling practice, in *CELA 1992: Design + Values*. Charlottesville, VA: Council of Educators in Landscape Architecture and the University of Virginia.
- Meyer, Elizabeth K (1994) Landscape architecture as modern other and postmodern ground, in Edquist, H; Bird, V (eds) *The culture of landscape architecture*. Melbourne: The Edge Publishing Committee and RMIT.
- Miller, Wilhelm (1915) *The prairie spirit in landscape gardening*. Urbana: University of Illinois Agricultural Experiment Station Circular No. 184.
- Murphy, GP (1979) *Parks & Gardens in Canberra*. Canberra: Department of the Capital Territory.
- Nairn, Bede; Serle, Geoffrey (eds) (1983) *Australian Dictionary of Biography*. Melbourne: Melbourne University Press.
- Plant, Margaret (1988) The lost art of Federation: Australia's quest for modernism. *Art Bulletin of Victoria* 28: 111–129.
- Playground Association of Chicago (1908–1911) *Saturday afternoon walking trips in the forests, fields, hills and valleys about Chicago* [newsletter]. Chicago.
- Price, Nancy E (1933) *Walter Burley Griffin*. Sydney: BArch thesis, University of Sydney.
- Salisbury, Rollin; Alden, William C (1899) *The geography of Chicago and its environs*. Chicago: University of Chicago Press.
- Scott, Pamela (1991) 'This vast empire': the iconography of the mall, 1791–1848 in Longstreth, R (ed) *The mall in Washington, 1791–1991*. Washington DC: National Gallery of Art.
- Shepherd, Jane (1988) Early women landscape architects: Olive Mellor and Emily Gibson. *Transition: discourse on architecture* (25): 61–63.
- Thomas, Daniel (1976) Visual images, in Seddon, G; Davis, M (eds) *Man and landscape in Australia: towards an ecological vision*. Canberra: Australian Government Publishing Service.
- Vernon, Christopher (1995a) 'Expressing natural conditions with maximum possibility': the American landscape art (1901–c.1912) of Walter Burley Griffin. *Journal of Garden History* 15 (1): 19–47. Reprinted in *Landscape Australia* 17 (2/3): 130–137, 146–152, 214–216.
- Vernon, Christopher (1995b) Wilhelm Miller and the prairie spirit in landscape gardening in O'Malley, T; Treib, M (eds) *Regional garden design in the United States*. Washington DC: Dumbarton Oaks Research Library and Collection. Also includes reprint of Miller (1915).
- Vernon, Christopher (1995c) Frank Lloyd Wright, Walter Burley Griffin, Jens Jensen and the Jugendstil garden in America. *Die Gartenkunst* 7 (2): 232–246.
- Walker, Meredith; Kabos, Adrienne; Weirick, James (1994) *Building for nature: Walter Burley Griffin and Castlecrag*. Castlecrag: The Walter Burley Griffin Society, Incorporated.
- Weirick, James (1988a) 'The magic of America': vision and text in Duncan, J; Gates, M (eds) *Walter Burley Griffin a re-view*. Clayton: Monash University Gallery.
- Weirick, James (1988b) Walter Burley Griffin, landscape architect: the ideas he brought to Australia. *Landscape Australia* 10 (3): 241–246, 255–256.
- Weirick, James (1988c) Marion Mahony at M.I.T. *Transition: discourse on architecture* (25): 49–54.
- Yencken, David (1995) The view from within and the view from without: Australian landscape research. *Landscape Review* 1 (1): 40–53.