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Heritage Assessment & Conservation Strategy

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CRI Australia Pty Ltd

UTS Campus Kuring-gai

GRAHAM BROOKS AND ASSOCIATES PTY LTD
HERITAGE CONSULTANTS

Table of Contents

1.0	Introduction	3
1.1	Background and Purpose of the Study	
1.2	Current Heritage Management Framework	
1.3	Photographic and Documentary Sources	
1.4	Acknowledgements	
1.5	Research Methodology	
1.6	Authorship	
1.7	Site Location	
1.8	Bibliography	
2.0	Historical Summary	10
2.1	19 th Century Pastoral Uses and Land Ownership	
2.2	Commonwealth Ownership, 1915	
2.3	William Balmain Teachers' College, Balmain, 1946	
2.4	Site Selection, 1955-1967	
2.5	Project Formulation, 1967	
2.6	Architectural and Landscape Design	
2.7	Stage One, 1971	
2.8	Stage Two, 1972	
2.9	Stage Three, 1976	
2.10	Stage Four, 1980	
2.11	Stage Five, 1988	
2.12	Subsequent Works, 1990	
2.13	UTS Initial Upgrading, 1993-1995	
2.14	Major Reorganisation, 1996	
2.15	Operational Review by UTS, 2003	
3.0	Description	64
3.1	The Context of the Site	
3.2	The Building Complex	
3.3	The Landscaped Context and Playing Fields	
3.4	Condition and Integrity	
3.5	Comparative Assessment	
4.0	Assessment of Heritage Significance	77
4.1	Assessment of Significance	
4.2	Statement of Heritage Significance	
4.3	Grading of Significant Components	
4.4	Curtilage	
5.0	Conservation Strategies	85
5.1	Management of Significance	
5.2	UTS Operational Requirements	
5.3	Conservation and Development of the Overall Site	
5.4	Conservation and Adaptive Re-use of the Buildings	

1.0

Introduction

1.1 Background and Purpose of the Study

This Heritage Analysis and Conservation Strategy for the UTS Kuring-gai Campus at Eton Road, Lindfield, has been prepared for submission of a concept plan and State Significant Site Application to the Minister for Planning.

UTS has engaged CRI Australia Pty Ltd (CRI) and a team of specialist planning and environmental advisors, to prepare a concept plan and State Significant Site Amendment for the possible redevelopment of the overall site to be lodged with the Department of Planning. Simultaneously with this study and Development Scheme preparation, UTS is undertaking a review of the operations of the Kuring-gai College and its sustainability within the UTS educational framework. It is anticipated that the planning and operational studies will provide UTS with sufficient detail to enable a decision to be made regarding the future of the site.

A Community Reference Group (CRG), comprising local community and business nominees and UTS representatives was formed in late 2003, following discussions between CRI and Kuring-gai Council. This CRG has been reformed in the light of the current proposal for future use of the site.

This Heritage Assessment and Conservation Report has been prepared in the context of the previous environmental, heritage, engineering and planning research as well as Guidelines issued by the NSW Heritage Office and the requirements of the EP&A Act and the NSW Heritage Act.

The findings and recommendations of this Report have informed the preparation of the proposed Development Scheme and its associated rezoning proposal. It has also informed the deliberations by UTS regarding the future of the College and the overall site. The Heritage Assessment and Conservation Report will be submitted in conjunction with the Concept Plan / State Significant Site Amendments.

1.2 Current Heritage Management Framework

The UTS Kuring-gai Site is not currently listed on any statutory heritage registers at Local or State level.

The Site was entered as an "Indicative Place", on the *Register of the National Estate* (RNE). With the introduction of new Commonwealth Heritage Legislation on 1 January 2004, the Australian Heritage Commission ceased to exist and was replaced by the Australian Heritage Council. The operative Commonwealth legislation is now the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This Act controls heritage issues in relation to two classes of places, National Heritage Places and Commonwealth Heritage Places. It generates no statutory heritage management obligations on non-Commonwealth owned properties. The UTS Site is not Commonwealth owned and is unlikely to be included in the register of National Heritage Places. The *Register of the National Estate* remains operative as a list of places with recognised heritage values, but it has no statutory power to manage those values.

Listing as an "Indicative Place" was the first stage of recognition of the place by the then Australian Heritage Commission. It is apparent from the listing information that the *Register* entry was prepared when the complex was "eight years old", and had received the RAIA (NSW) Sulman Award. This indicates that the entry was probably made in the late 1970s, not long after the complex received the Sulman Award.

In the years since the nomination of the place to the RNE, the Australian Heritage Commission did not develop or consolidate a full registration of the place to the RNE.

The Nominator's Statement of Significance, drawn from the RNE web site states:

The College is an outstanding example both of the harmonious development of a rugged bushland site and of the design of a visually strong and dramatic structure which successfully captures the essence of the function for which it was designed. All of these qualities have been formally recognised by the College's recent award of the Sulman medal for architecture. The maximum preservation of natural features of the site has resulted in a bushland setting used extensively for environmental education within an urban residential environment.

Inclusion on the *Register of the National Estate*, particularly as an Indicative Place, imposed no statutory heritage management or planning obligations on non-Commonwealth property owners or managers. It was a recognition of the cultural heritage qualities of the place.

The UTS Kuring-gai Campus has not been entered on the *NSW State Heritage Register* (SHR). The web site for the NSW Chapter of the Royal Australian Institute of Architects (28 November 2003) carried a notice indicating that the Campus was to be nominated to the *NSW State Heritage Register* by the RAIA. As of March 2004, the NSW Heritage Office had issued no formal notification of any intent to nominate the Campus to the SHR.

If the site were to be included on the *NSW State Heritage Register*, the NSW Heritage Council would become the effective consent authority for heritage management of the place. Kuring-gai Council would then need take account of any advice from the Heritage Council in determining any application for rezoning or development.

In November 2003, Kuring-gai Council voted to prepare a Heritage Assessment of the UTS Kuring-gai Campus Site, and if merited to prepare and exhibit a Draft LEP for listing as an Item of the Environmental Heritage on the Kuring-gai Planning Scheme Ordinance. Until any such assessment and LEP listing process is completed, there are no formal or statutory heritage management obligations on the site. Kuring-gai Council would normally refer any request for rezoning of the site to the Heritage Office for comment, as part of the processes under the *EP&A Act*. It is likely that Council would also take potential heritage issues into account as part of its consideration of any rezoning application. In February 2004, Council appointed an independent heritage consultant consortium to prepare a Heritage Assessment of the Campus and advise Council of its potential for listing. The Heritage Assessment prepared for Council and this Report should be read in conjunction with each other.

The UTS Kuring-gai Campus has been entered on the *RAIA List of 20th Century Buildings of Significance*, in recognition of its architectural qualities. The RAIA first recognised the Campus buildings (Stage One) in 1971, with a Merit Award. In 1978, the College (completed to Stage Three) received a Sulman Award, the highest recognition at the time available from the RAIA NSW Chapter. In 1973, it was awarded an Honourable Mention in the Structures Section of the Concrete Institute Awards in Japan. Inclusion within the *RAIA List of 20th Century Building of Significance*, or the award of any prize by the Institute, imposes no statutory heritage management or planning obligations on the site. It is a recognition of the architectural qualities of the complex.

The UTS Kuring-gai Campus, is not currently Classified by the National Trust of Australia (NSW). Classification by the National Trust imposes no statutory heritage management or planning obligations on the site. It primarily recognises the architectural and heritage qualities of the complex.

This Heritage Assessment and Conservation Strategy has relied on the published descriptions of the work of Bruce Mackenzie and Associates, and on recent discussions with Bruce Mackenzie to evaluate the landscape setting of the campus rather than to undertake an external evaluation. It has not examined the potential for the site to be of interest to the NSW Department of Conservation and Environment, in terms of their obligations to protect and manage Aboriginal Cultural Heritage material or values. A separate research study, commissioned by CRI, is being undertaken in this regard.

1.3 Photographic and Documentary Sources

Photographic and Documentary material used for the preparation of this Heritage Assessment were sourced from the NSW Chapter of the Royal Australian Institute of Architects, with the kind assistance of Ms Anne Hyam. Other sources included the City of Sydney Library, State Library, NSW Lands Title Office, NSW Lands Department, the Plans Room of the Government Architect's Office, and the NSW Department of Commerce. The archives and maintenance records of UTS and UTS Kuring-gai College also provided valuable material.

Contemporary photographs were taken by Graham Brooks, in late 2003 and early 2004, specifically for the preparation of this Heritage Assessment and Conservation Strategy.

1.4 Acknowledgements

The authors would like to thank a number of people who contributed to the research and preparation of this report.

Both David Don Turner and Bruce Mackenzie gave generously of their time, their memories and written material to explain their personal aims and objectives for the project. Each was interviewed both in their offices and on site and have participated in subsequent planning and design workshops. They were able to add a personal dimension to the contemporary documentary reports that form the backbone of this Heritage Assessment.

Ken Woolley provided recollections of his time as a key member of the architectural movement known as the Sydney School in the 1960s.

Ron Hirst and Glen Rabbit from UTS Facilities Management and Building Maintenance, for their commentary on detailed works to the complex over the last 10 years.

Anne Hyam RAIA provided much of the background information regarding contemporary commentaries held by the Institute and copies of recent correspondence with both David Turner and Bruce Mackenzie.

Jon Pizey and Marina Chung of DEM Pty Ltd, Architects, Planners and Landscape Architects for their involvement in the exploration of the UTS site, its nature and the exploration of opportunities for further development.

Geoff Baxter and Angela Petousis from CRI Australia Pty Ltd, for their role as UTS advisers and managers for the rezoning application project.

1.5 Research Methodology

The formulation of this Heritage Assessment and Conservation Strategy was facilitated by a unique opportunity to engage with the original design architect and landscape consultant in addition to those facilities managers who have been responsible for the management of the complex over the last decade. There was also a wealth of contemporary published and unpublished commentaries available that enabled the project to be viewed through the prism of its own time. The project was the design and development of a major educational complex that developed over at least five major stages of construction and then evolved through many smaller works and maintenance programmes.

The approach taken developed an understanding of the complex as a whole, supported as relevant by details of particular works programmes or project outcomes. Accordingly there has been a concentration on the contemporary published works to establish that understanding. Detailed documentary research was undertaken as necessary in Public Works, Kuring-gai Council and UTS archives, primarily to fill out detailed questions as they arose.

The greatest opportunity, however, came from the personal involvement of David Don Turner, the original Design Architect, who stayed with the project right through its major development phases, and Bruce Mackenzie, the Landscape Architect whose drive and vision so successfully complemented the original design concept of a compact building mass that touched the rugged bushland of this spectacular site so lightly.

Uniquely, both David Turner and Bruce Mackenzie accepted an offer from UTS and CRI to contribute to the development of the conservation strategies and the identification of development opportunities for the main building complex and the overall site. The conservation strategies contained in this document have been drawn from their valuable contributions.

This Heritage Assessment also responds to the Director General's Requirements issued for the site.

1.6 Terminology

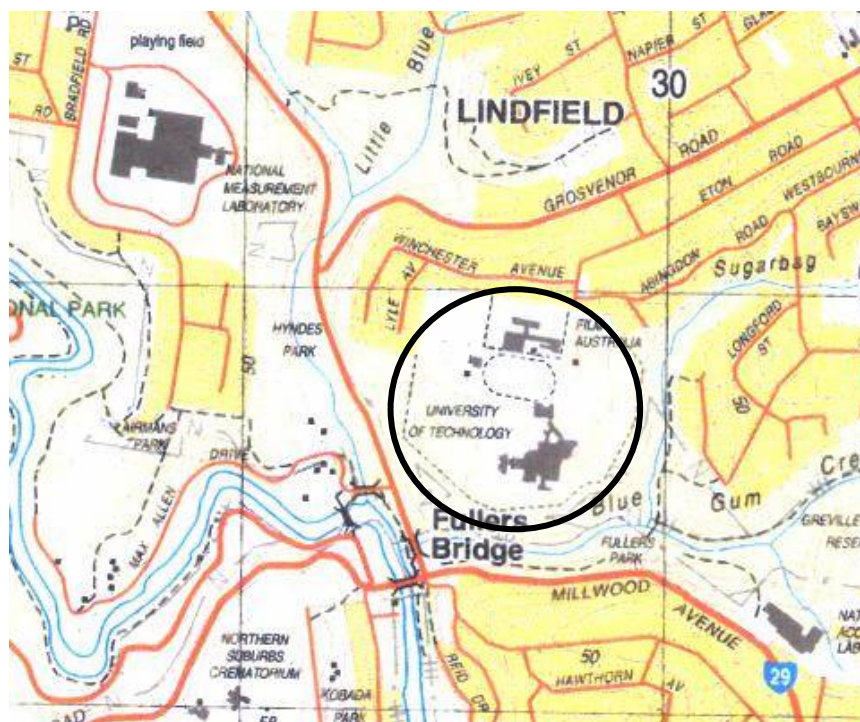
Throughout this report the terminology "Kuring-gai" has been adopted. It had been a deliberate policy of the CAE to use "Kuring-gai" as a simpler form of spelling. This policy has been continued by UTS.

1.7 Authorship

Graham Brooks and Dr Christina Amiet of Graham Brooks and Associates Pty Ltd, Heritage Consultants prepared this Heritage Assessment and Conservation Strategy.

1.8 Site Location

The UTS Kuring-gai Campus is located off Eton Road, Lindfield, in northern Sydney. Millwood Avenue, Lady Game Drive and Winchester Avenue bound the general area.



Site Location



Aerial Photo of the Site Context

1.9 Bibliography

Unless otherwise noted, the information and quotations in the Historical Summary section have been based on "To Enlighten Them Our Task" (1996), pp 125-143.

In addition to material obtained from Land and Property Information, other consulted sources include:

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2.0 Historical Summary

2.1 19th Century Pastoral Uses and Land Ownership

2.1.1 Early Days

The site originally formed part of a one thousand acre parcel of land promised to settler William Henry by Governor William Bligh. Originally a marine with the English Navy, Henry was convicted for grand larceny and sentenced to seven years transportation in 1800, arriving in Sydney on the *Earl Cornwallis* in June 1801. In 1806, Governor Bligh offered Henry the position of principal overseer of public works, together with 1,000 acres of land situated on the north side of the Lane Cove River. Henry immediately took possession of the land; the 1806 Muster listed him as having a ticket-of-leave, and as self-employed. In addition to his work with the government, Henry joined ships sailing to Tasmania, Port Dalrymple and Otaheite.¹

Following the arrest of Governor Bligh in 1808, Henry was stripped of his position, but remained loyal to his patron. In retaliation for his refusal to support the new government, his house was searched, and Henry was manacled and temporarily transported to Newcastle. By 1810, Governor Lachlan Macquarie had released Henry, whereupon he purchased a sloop and traded in grain and spirits on the Hawkesbury River.

In 1813, he received a grant of forty acres from Macquarie, adjacent to his 1,000 acre property, and by December 1828 was able to lease a further 1,000 acres adjoining the land promised by Bligh. This was possible due to a Government Notice of 1826, stipulating that any person having a freehold could lease the land adjoining their properties on paying a rental of two shillings and sixpence per hundred acres to the Crown. This also entailed an understanding that the lessor had the option to purchase the land. Henry built a bark hut on the flat on the south bank of Blue Gum Creek, near its junction with the Lane Cove River (present-day Fullers Park), and used this as the base of his farm, known as Millwood.² Henry also cleared other parts of the land, selling timber and running cattle with the assistance of his son. Within a short space of time Henry sold his 40 acre grant and moved his family and business wholly onto the leased 1,000 acres and Bligh's 1,000 acres, which he claimed in 1832 had cost him "sixteen years in labour in clearing and cutting a road."

In addition to land clearing, cultivation and rudimentary construction of Millwood Farm, he claimed responsibility for the construction of three roads or tracks in the local area. Henry is believed to have made Fullers Road in about 1814 as an access way to the river, and by the time of an 1831 survey, the roadway was a well-established route. A second road likely to have been built by William Henry and situated in close proximity to the UTS campus is Grosvenor Road, extending to the present Lady Game Drive. This was believed to be one of the earliest routes to the river, and support for Henry's claim is sustained in that the road runs close to the northern boundary of William Henry's ridge grant. However, the 1831 survey labelled the route as Cadby's road, with early survey maps indicating that the line of the road was also along the south-western boundary of Cadby's land.

The alignment of Shirley Road may have been the third route made by William Henry c.1814, extending from his 40 acre grant on the Lane Cove Road down to the river. It is suggested that the route followed the present-day Shirley Road, across to Abingdon Road, and then followed Little Blue Gum Creek to join with Blue Gum Creek,³ essentially skirting the future campus buildings but tracking through the subject site generally. The route was not recorded

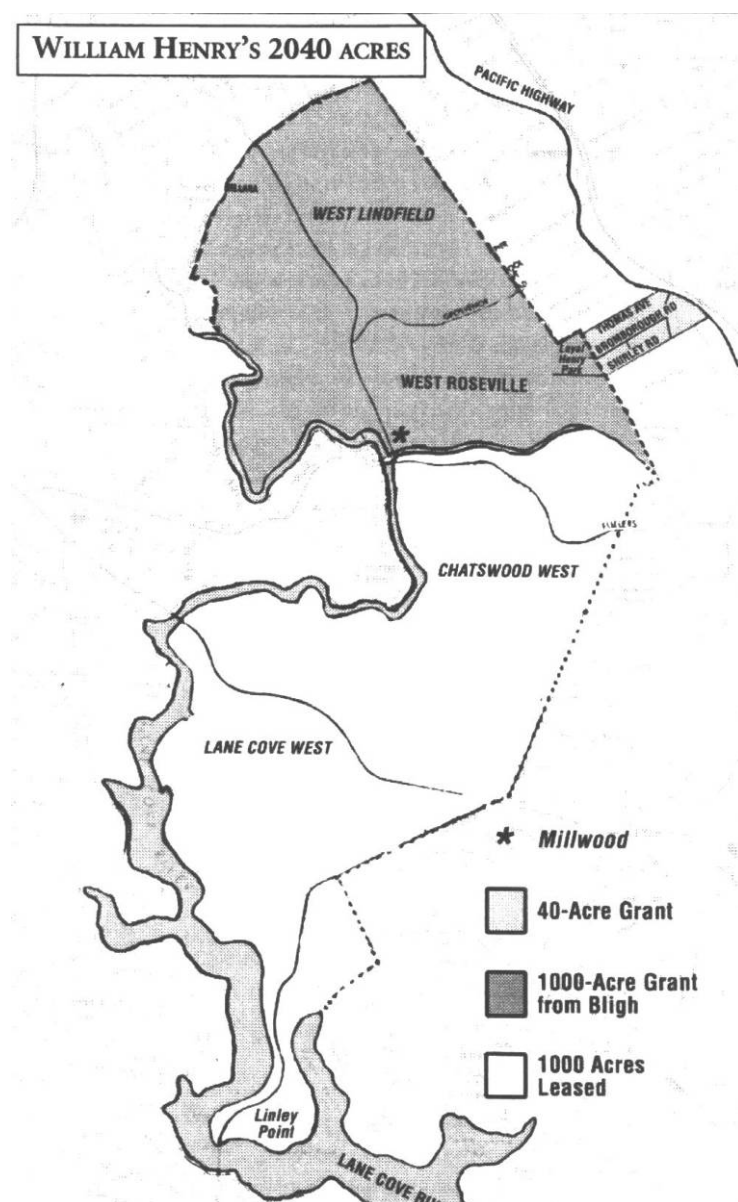
¹ C. Doyle, *A Respected Colonist: William Henry of Lane Cove*, p.16.

² L. Hartley, "Millwood Farm" Lane Cove, owned by William Henry, for Assessment of Historical Archaeology, University of Sydney, 1984, p.14

³ NSW Legislative Assembly, 1859-1860, Vol.4, p.1195.

by early surveyors, although there is some physical and documentary evidence of an old road in the vicinity.⁴

From the early 1830s, Henry's entitlement to Millwood Farm land was challenged. In 1831, Robert Ball applied for one hundred acres as a grant in the area (portion 292). This request encroached on part of the one thousand acres Henry was leasing from the Crown, and included the site of Henry's hut, allegedly built by 1829,⁵ together with convict quarters. Upon objection he was informed that the lease had expired and he should have vacated that land by 1829. In addition, testimony in 1831 by surveyor J.G. Larmer indicated that that the land had not been cultivated, but merely cleared. Resolute, Henry remained on site for some time.



Map showing land claimed by William Henry (Source: Roseville Community Association, William Henry's 40 Acres)

The UTS Campus site is located towards the south west corner of the West Roseville segment

⁴ L. McLoughlin and M. Wyatt, *The Upper Lane Cove*, pp.19-20.

⁵ L. Hartley, "Millwood Farm" Lane Cove, owned by William Henry, for Assessment of Historical Archaeology, University of Sydney, 1984, p.14.

A description of the farmstead as a whole, including the lands promised by Bligh, indicated that:

Defendant [Henry] has a comfortable cottage and orchard; defendant's son has a cottage on the same ground; defendant resides about half a mile from him; there are huts near his son's residence; there are fruit trees near the son's orchard; defendant's orchard attached to his house might be two acres; the land between defendant's house and his son's has been cultivated in part; defendant's son has what appears to be an orchard with full grown trees; saw Henry's orchard about twelve years ago; the land is fenced in part; knew defendant resided there upwards of twenty years ago; never heard he was turned out of possession of this land from that period up to the present time.⁶

While based at Millwood Farm, he appealed to officials to confirm his right to the land, and that Macquarie had told surveyor Meehan to document both land promised by Bligh and the leased 1,000 acres. Henry's claim to ownership through long residence and improvements was rejected, and the 100 acre grant was formally made to Robert Ball on 5 April, 1836.⁷ Eventually Henry was turned off the property in September 1851, and he went to live with his eldest daughter Maria, who also resided in the area. Following his eviction, parcels of Millwood Farm was made available to other interested parties.

A petition by William Henry to the Legislative Assembly of New South Wales in 1860 was followed by a hearing at the Court of Claims. Eventually, it was concluded that:

Your committee consider that the fidelity of Henry to the Government of the day, in a time of successful rebellion justly entitled him to the grant of land, which he alleges was promised to him; and looking at all the facts of the case, they are of the opinion that such promise was made as alleged. They, therefore, think he was unlawfully dispossessed, and is entitled to liberal compensation from the present Governor for the injury he has sustained.⁸

William Henry never received the compensation owed to him, however, and he died in 1862, despite the evidence supporting his claim to the area.

2.1.2 Secondary Settlement Phase: 1850s

The site of the future UTS Kuring-gai Campus, on part of the land once occupied by William Henry, was contained within six parcels of land later resumed by the Commonwealth:

- Portion 292 (granted in 1836) was sold by Robert Ball to James Atkinson in 1837.⁹ In turn, Emily Atkinson transferred the land in October 1866 to Thomas and Jane Fuller,¹⁰ who lived in the area. Jane was one of William Henry's daughters, who married Thomas Fuller in 1829. Having purchased a nearby grant to establish a pear orchard (located to the south of Ball's land), they then acquired Ball's property to expand their prosperous business. Beginning in 1869, they gradually sold the majority of the land to local resident, relative and fellow orchardist Thomas Jenkins.
- Portions 440 and 441 were granted to Thomas Jenkins, described in 1855 as "boatman", comprising approximately sixty-nine acres, two roods.¹¹ Thomas was the nephew of early settler James Jenkins, who received several grants in the Dee Why/Pittwater area, as well as 50 acres adjoining the 40 acre grant given to William Henry. In 1849 Thomas Jenkins married Maria Elizabeth Maher, a granddaughter of William Henry, with their homestead "Waterview" established close to the site of the former Millwood farmhouse.

⁶ Government Surveyor Benn,

⁷ BK 42 p.33, LPI.

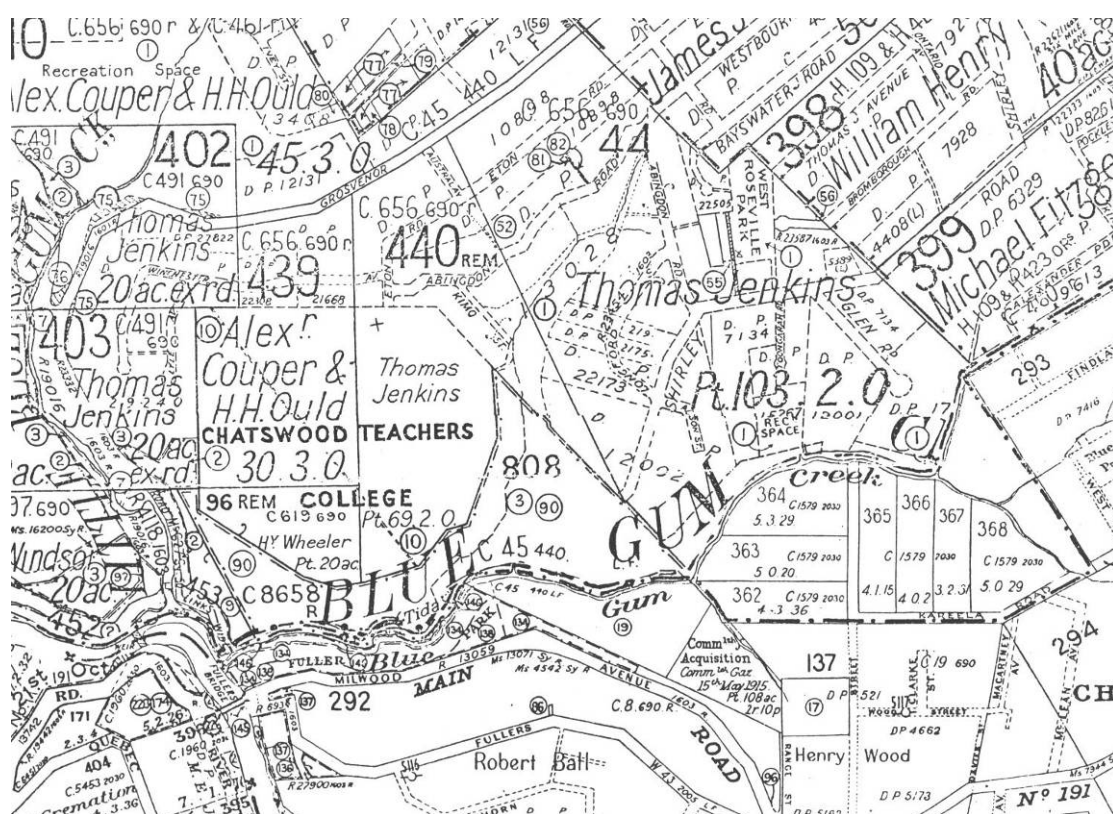
⁸ Summation by Henry Parkes, NSW Legislative Assembly 1859-1860, Vol.4.

⁹ BK114 Reg.149.

¹⁰ Bk100 #622.

¹¹ Volume 145, Folio 243, LPI

- Portion 96 was granted to Henry Wheeler, late Captain in the 48th Regiment of Foot, in January 1855. An Indenture of Release from Henry and Matilda Wheeler to Lewis Gordon was documented in May 1855.¹² Gordon, however, held numerous parcels of land throughout Sydney and the outlying areas, and did not attempt to develop the site. On 1st November 1870, Gordon mortgaged the land to William Henry Dyson, with further changes made on 28th November.¹³ Five years, later, on 10th December 1875, a Release and Reconveyance was documented.¹⁴ Thomas Jenkins then purchased the 20 acre property for one hundred and seventy-five pounds on 14th March 1879.¹⁵
- Portion 439 was formally acquired by Alexander Couper and Hugh Henry Ould in September 1876.¹⁶ This land changed hands several times in the years before Commonwealth resumption, but there is no evidence that any of the owners became residents.
- Portion 137 was granted to Henry Wood on 13 January 1842, with a quit rent of sixteen shillings and eightpence.¹⁷



Map showing the original land portions and grantees, overlaid by street alignments, roadways, the extent of the Teachers' College campus and other land resumed by the Commonwealth (portions 96, 137, 292, 439, 440 and 441) (Source: Doyle, A Respected Colonist.)

¹² Book 39 No.573, LPI.

¹³ Book 122 No 156; Book 122 No 222.

¹⁴ Book 166 No 191

¹⁵ Book 189 No.73A

¹⁶ Volume 267, Folio 43, LPI.

¹⁷ V. 3725 F.229.

2.1.3 Jenkins Estate, 1869

Thomas Jenkins acquired a significant part of William Henry's original holdings, including the forty acres granted to Henry by Macquarie and portion 441, granted to him in 1869. The adjoining Portion 440 was granted to him on 29 August 1872. Their farm, radiating outwards from the present day administration area of the Lane Cove National Park, was the cornerstone of a noted market enterprise, with the produce of their orchards and livestock sent to Sydney via the family riverboat *Nellie* on the Lane Cove River to the fish, fruit and farm produce markets in York Street.

In 1879, the land separating his holdings - portion 96 granted to Henry Wheeler - was purchased by Jenkins and added to his growing estate. In 1882 he purchased from Jane and Thomas Fuller part of the 100 acres of portion 292 originally granted to Robert Ball. Following his death in 1890, the lands were held by his widow Maria, who also acquired another grant, of one acre, one rood and twenty-one perches, in March 1895.¹⁸ Previously this land had been designated as "Wharf Reserve," and ran along the western boundary of Henry Wheeler's original grant. The land was mortgaged in 1899 to Albert Murray Smidmore, and again in 1908 to Henry Massey Makinson and William Patrick Plunkett.

In August of 1913, Maria was still in possession of 173 acres that extended from the western extent of Henry's 40-acre grant to Blue Gum Creek. Across the majority of portion 441, and extending into portion 440, was proposed a residential development¹⁹ first put up for auction in February 1912 and based around Shirley Road. While most were situated in portion 441, lots 18, 19 and 20 encroached onto portion 440. This area of some 66 acres was sold, in 23 lots, between 1912 and the early 1920s, and resulted in an extension of Shirley Road, and the formation of Glen Road.

In May 1914 a transfer of mortgagee occurred, from William Plunkett to the Perpetual Trustee Company Ltd, with the mortgage itself discharged shortly thereafter and a subsequent mortgage taken out in July 1914, from Maria Jenkins to Wilhemina Stewart Hogan of Strathfield. Throughout the 1913-1914 period, the transferral of numerous lots was recorded. Chatswood fruit merchant John Jenkins, the seventh child of Thomas and Maria, became the owner of Lots 17-20, stretching across part of portions 440 and 441 and containing ten acres, three roods and twenty-nine and three-quarter perches.²⁰ Title to the land was issued subject to a covenant whereby no building exceeding the value of three hundred pounds was to be constructed on the land. In 1918, Maria Jenkins was recorded as living on a part of this land, on "Glen Road off Shirley Road, Roseville"²¹.



Thomas Jenkins



Maria Jenkins

¹⁸ Volume 1161, Folio 95, LPI.

¹⁹ DP 7134.

²⁰ Volume 2533, Folio 101, LPI.

²¹ PA 21067

2.2 Commonwealth Ownership, 1915

A gradual process of resumption on the part of the Government commenced during World War One, and added to Crown holdings sporadically until 1939. Beginning from November 1915 to 1917, the Commonwealth of Australia issued a Notification of Acquisition for part of the lands.²² The Commonwealth Gazette, No. 38 of 15 May 1915, carried a notification of the resumption. A second announcement in Gazette No. 100, of 28 June 1917 extended the notification. This included the entire southern section of Portion 440 and part of the land already subdivided in DP 7134, as well as the original Henry Wheeler grant (portion 96), part of portion 439 granted to Couper and Ould, and part of portion 292, granted to Robert Ball (this land acquired under the *Lands Acquisition Act* 1906). The remaining parcels around the resumed lands continued to be sold for residential development, subject to building consent.

On 18 May 1925, the Commonwealth of Australia laid further claim to land in the Lane Cove area. It included land granted to Maria Elizabeth Jenkins in 1895, as well as Lots 17-20 purchased by John Jenkins in 1914. By 1939 the Commonwealth added another portion, that of two roods twenty-five perches as part of the original 40 acres granted to Henry Wood in 1841.²³ This large parcel of land was transferred to the Municipality of Kuring-gai, while reserving mineral rights, in July 1935.

However, the responsibility lay ultimately with the Commonwealth, which used part of their overall site as a rifle range following the resumption. The exact location of the range has not been identifiable from the available documentary research, however it is unlikely to have been on the flatter ridge-top land now occupied by the UTS Campus. The range was constructed in 1919 and army records indicate that in 1926 it was used by the Roseville, Chatswood and North Sydney Rifle Clubs, each of whom built a small shed on the site.

There were 20 target machines and 7 firing mounds, target sheds and latrine blocks. Throughout the 1930s and 1940s, grazing rights and licences for the removal of surface stones from sections of the land were granted.²⁴ The range was officially abandoned in June 1955, during a time when it was rationalising in many ways and many of its rifle ranges were considered surplus to requirements. Informal use continued for some years; many local shooters transferred to the Hornsby Rifle Range. Eventually the butts were levelled and 'mined', all firing ceased, and the old range site was allowed to revegetate.²⁵

Commonwealth uses remain on the site to the north of the UTS campus, where Film Australia continue to occupy a series of buildings within a rectangular site. Some of these buildings appear to date from the immediate post World War Two years, when they may have been used as an Army training facility. The remainder of the current buildings were erected progressively over the latter decades of the 20th century.

The Film Australia complex utilises the same roadway entrance from Eton Road that is shared with the UTS campus.

²² No. A210667, LPI. See Commonwealth of Australia Gazette No.38 15.5.1915: Notification that part portion 292, portion 96, part portion 152 acquired for defence purposes.

²³ Vol.5050, Fol.172, LPI., showing land resumed by the Commonwealth.

²⁴ Australian Army Records, Army HQ, Sydney, cited in material supplied by Judith MacLeod, Lane Cove National Park Records, file #249, 1985.

²⁵ Report on Chatswood Rifle Range, held in Lane Cove National Park file #249.

2.3 William Balmain Teachers' College, Balmain, 1946

The William Balmain Teacher's College began its life in the suburb of Balmain in 1946, occupying the buildings formerly known as the Smith Street School. It opened in 1887 and served as a public school until 1945, with only a small interruption of activities from 1890 to the beginning of 1915 when it was known as a Superior Public School.

Due in great measure to World War II, there was a considerable shortage of teachers in New South Wales; by the end of 1942 the Department of Education had closed 79 schools. This shortage worsened at the close of the war, with a concerted effort required on the government's part to boost the numbers of teachers in active service. This related to catering to the increasing population, expanding curriculum into secondary schooling, raising the minimum leaving age, and an increase in immigration.

The William Balmain College was the first institution to attempt redressing this shortage. The site itself did not seem ideal:

*Old Smith Street school, quietly decaying in its slum setting, hardly seemed a good choice even for what to be a temporary college. But there it was... more than half unoccupied, fairly centrally placed, repairable.*²⁶

A report by the Minister of Public Instruction in 1946 hailed the opening of the College as a "practical expression of the intention to increase the number of fully-trained teachers in public schools." The only other institution that could compare with the Balmain College was Armidale Teachers' College and Sydney Teachers' College, and they had suffered similar problems.

The Sydney Teachers' College, originating from the Fort Street Model School, was opened in 1905 in second-hand buildings at Blackfriars, and moved after World War I to new buildings at the University of Sydney. Principal Mackie emphasised core knowledge of disciplines and curriculum rather than theories and practices of teaching. With a shortage of teachers in country areas, and growing discontent at the sole teaching institution in New South Wales, it was evident that some change had to be made. The Minister of Public Instruction, D.H. Drummond, contended that Sydney Teachers College as the single institution in the state, urged country children to relocate and leave a void in the regional areas. Once "country children had savoured" the delights of the city, they were unlikely to return. This led to the formation of the Armidale Teachers' College in 1928.²⁷

To compete with the Sydney Teachers' College and Armidale Teachers' College, mass renovations were required to render the former Smith Street school fit for training. For the first six months of training, the would-be teachers learnt against a background of continual hammering, sawdust, paint fumes, and construction noise. Modifications to the site cost twelve thousand pounds; alterations and furniture was estimated at seven thousand pounds, with the remainder to be spent on books and equipment including a reference library. Even by May 1946, basic electrical fittings and connections were incomplete; while most of the wiring was in place, the switchboard was inoperative. One week before the official opening, the electrical work had not been completed, with the school only recently receiving microscopes (on loan from Armidale Teachers' College) and other essentials. In summary, Balmain Teachers' College was clearly established as a makeshift temporary college, refurbished and furnished on a post-war shoestring budget.

Ideologically it was highly conservative, with an emphasis on reproduction of traditional practices rather than innovative teaching strategies. Such policies became noticeably old-fashioned in the 1960s, with schools searching for new ways to present information, motivate and manage students, and explore technology. This coincided with wider socio-cultural changes in science, politics, society and education, affecting all aspects of teacher education including music, biology, and history. Current affairs relating to gender and cultural equality, rights and freedoms were absorbed and reflected in the student body, and the Balmain

²⁶ Cited in *To Enlighten Them our Task*, p.12.

²⁷ *Enlighten Them Our Task*, p.21.

College sought to address such pedagogic shifts in perspective as well as provide resources for a rapidly increasing number of enrolments. This last factor was a severe limitation at the Smith Street School, and it soon became clear that the student body had outgrown the capacity of the College. Despite the struggles over physical and spatial shortcomings and influences by current events, the students remembered a state of 'belongingness,' with a warm and friendly atmosphere reminiscent of a "close knit community." A building program of the mid-1950s and 1960s saw the addition of two lecture rooms and a Common Room for Women students, but these extensions failed to halt the overcrowding. In 1962 Principal Greenhalgh wrote that:

The grounds are inadequate in size (half an acre), 270 students, 30 staff, a huddle of buildings and additions, 'the tree' (a College tradition) and a two-teacher infants' school, occupy the ...area.... The College buildings are cramped and inadequate. The lingering grace of cedar doors and moulded fittings does not compensate for lack of space.²⁸

Following hard on Balmain's heels, providing additional competition for limited resources, were several new colleges around NSW, including Wagga Wagga in 1947, Newcastle in 1949 and Bathurst in 1951. As early as 1956 the poor educational conditions across the state became a subject for discussion at the NSW Teachers' Federation conferences. In that year a motion was passed to intensify a campaign for new teachers' colleges to be built in NSW, including one at Wollongong, but it took a further fifteen years before a Commonwealth grant provided an opportunity to achieve this proposal. By this time the College had been condemned as "The Black Hole of Balmain," known as a "death trap" and "a disgrace."²⁹ In the meantime, temporary arrangements to limit overcrowding were made between Balmain and Orange Grove Public School from 1957 to 1969, followed by North Sydney Technical High School from 1970. This spill over continued during the initial construction and occupation of the new and larger Kuring-gai campus site.

The proposal for a new Kuring-gai campus was part of a wider educational and architectural movement that saw the incorporation of several styles into a new pedagogic form. Kuring-gai was part of what became a family of bushland campuses built throughout Australia in the late 1960s and 1970s that were linked through their siting and designs. Such institutions included the Macquarie University in the nearby suburb of Ryde, Mitchell College of Advanced Education in Bathurst, the Townsville Teachers' College (later College of Advanced Education, then James Cook University), Curtin University in Western Australia, and Griffith University in Brisbane, Queensland.³⁰

²⁸ Principal Greenhalgh, cited in *Enlighten Them Our Task*, p.121.

²⁹ *The Sun*, 31 August 1966.

³⁰ Jacqueline Urford, cited in "Landmark Site Under Threat", *Architecture Bulletin*, January 2004.

2.4 Site Selection, 1955 - 1967

Dr Harold Wyndham, Director-General of Education in NSW between 1952 and 1968 indicated in 1955 that a new site for the Balmain college had been under consideration and that a possible new site had been identified. He was apparently aware that the Chatswood Rifle Range had been abandoned by the Army and possibly available for purchase by the State. It was Wyndham's policy in this period to utilise surplus Departmental funding at the end of successive Treasury financial years to purchase more land for schools and teachers' colleges. This practice ensured that there were sites available when circumstances permitted the construction of new facilities.

"To Enlighten Them Our Task" describes an interview with Rae McLintock, a former Liaison Officer in the Department of Education during the planning of new colleges at Lindfield, Newcastle and Goulburn. In the interview McLintock states his belief that it was Wyndham, well known as a forceful personality, who wanted a college on the North Shore. McLintock described the heavily wooded land as "an appalling site in terms of access, transport and parking, the bottom of the barrel of sites available for a teachers' college".³¹

There is a file card in the Properties Unit of the Department of School Education, headed Chatswood Teachers' College, that implies there was consideration being given to the site as early as 1955. A plan in that file, prepared by the Public Works Department, apparently in 1960, also indicates that the Department was considering the site prior to its purchase from the Commonwealth in 1961. Land in Chatswood had already been secured for a high school as early as 1954, with the resumption of a site in Centennial Avenue.

Although a number of alternative sites were considered for a possible teachers' college on the North Shore, it is apparent that Wyndham had already determined that the old rifle range site would be the most suitable. At the time land was available near the newly announced Macquarie University. The future college was intended to serve the population on the Manly peninsular and sites in Manly and Narrabeen were among the many investigated. Wyndham's view prevailed, despite the transportation and access difficulties that the site would present.

From the beginning of the 1950s the NSW Teachers' Federation had begun calling for new teachers' colleges to be built, a campaign that intensified after the 1956 Annual Conference. Increased pressure came from other interest groups, as in 1955 the Lane Cove Trustees resolved to ask for some of the former Chatswood Rifle Range, given that not all was expected to be used as a Teachers' Training College:

*Mr Max Allen submitted plan of this area which he has ascertained was to be used for a Teachers' Training College. As it was possible that the whole area would not be required, it was decided to write to the Dept of the Interior and Dept. of Education asking that a portion of the area not required for educational purposes be added to the Park reserve.*³²

The land was transferred from the Commonwealth to the NSW Minister of Education on 3 February 1961. It then comprised a parcel of 92 acres (about 40 hectares), at a cost of 44,000 pounds. It was acquired "for the purposes of the Public Instruction Act of 1880", but was not initially identified for any specific reason. The land had originally been part of the lands granted to Henry Wheeler, Alexander Cooper and Henry Ould, and Thomas Jenkins, and initially part of the one thousand acres promised to William Henry by Governor Bligh.³³

The land parcels acquired by the State Government for educational purposes comprised Lots B and F of the Commonwealth land. These eventually became Lots 2 and 5 of DP 32292. By the time the land was transferred to the University of Technology Sydney, through its amalgamation with the Kuring-gai College of Advanced Education in 1992, the overall parcel had been reduced to approximately 20.8 ha. The remainder of the land had been acquired at

³¹ Cited in Turney, *To Enlighten Them Our Task*, p.127.

³² Minutes of Meeting of Lane Cove Trustees, 29 October 1955.

³³ Lane Cove National Park Records, file #249, 1985.

various times by Lane Cove National Park, Film Australia and the Commonwealth Acoustic Laboratories.

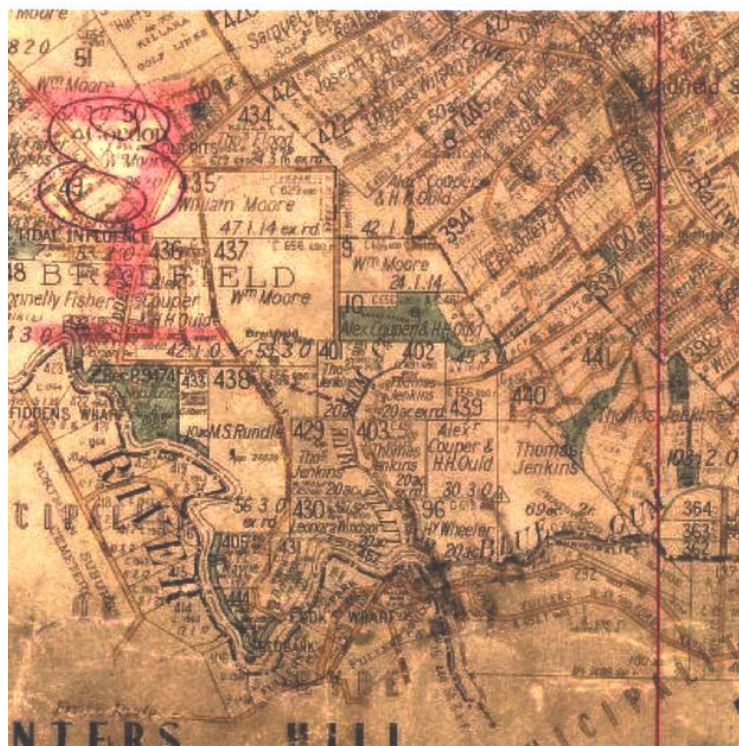
By 1964, there seemed to be a widely held belief within the staff at Balmain that their new college would inevitably be erected at the Chatswood site. Despite his strong support for the selection of the site, lack of funding meant that the new college was not erected until after Wyndham had retired.

The decision to locate a new teachers' college in Kuring-gai also had to wait for the election of a Liberal Government, given the unlikely tendency for a Labor Government to take such an initiative. Mr Harry Jago, Member for Gordon in the newly elected Askin Government was quickly under pressure from staff at Balmain to move toward a decision about the siting of a new college. An article in *Education*, on 1 December 1965, stated:

*The Askin Government came into office blushing with promises for education – “A New Look for Education” – the speeding up of school building, greater expenditure on kindergartens, the establishment of new teachers’ colleges. These promises are not consonant with a proposal for a sharp cut in the works programme for education. They cannot be allowed to dissolve like gossamer cobwebs before the first difficulties encountered.*³⁴

The 1963 choice of Ryde as the site for the new Macquarie University may have also influenced the choice of the former Chatswood Rifle Range site. By the early 1950s some 42% of the first year enrolments at Sydney University came from the greater North Shore area, stretching from Hornsby to Warringah.

On 14 February 1967 the Government formally announced that the Balmain Teachers' College would be relocated to Lindfield. The long term planning that had seen the Director-General pushing for the purchase of the site since the late 1950s facilitated this decision. Strong community pressure from a group known as ACEANS, the Association for the Civic and Educational Advancement of the Northern Suburbs of Sydney, which had been influential in articulating the case for Macquarie University, was also a factor in the eventual choice.





*1961 Aerial Photo of the bushland that was to become the new college site.
Note the Commonwealth Film Laboratories complex at the end of Eton Road.*

2.5 Project Formulation, 1967

2.5.1 New Colleges at Kuring-gai, Goulburn and Newcastle

On 14 February 1967 the Commonwealth Government announced the provision of \$7.5 million in unmatched grants to the NSW Government for the building of three new teachers' colleges, at Kuring-gai, Goulburn and Newcastle.

The *Sydney Morning Herald* carried the following announcement on 15 February:

One of the colleges to cost \$3 million and accommodate 850 trainee teachers, will be built at Chatswood. It will be on a site near Fullers Bridge in an area bounded by Lady Game Drive, Winchester Avenue and Millwood Avenue and will replace the antiquated Balmain Teachers' College, which now accommodates 350 trainee teachers... Mr Cutler (Minister for Education) said the Commonwealth grant was an outright grant and resulted from the Commonwealth Government's election promise to help in financing teachers' college construction if returned to office.³⁵

A three man Committee was appointed to oversee the building of the new colleges, including the preparation of the educational brief for the buildings. The Committee members were Rae McLintock, David Turner and Rob Underwood. Rae McLintock had been a Registrar at Armidale Teachers' College between 1954 and 1963, when he returned to the NSW Department of Education to work on the teachers' college buildings. David Turner, an Englishman, was an architect who had joined Government Architect's Branch of the NSW Department of Public Works in 1963. Ron Underwood was a Balmain College lecturer who had been seconded to the Education Department as liaison officer for the colleges.

At the end of 1968, Wyndham retired, to be replaced as Director-General of Education by David Verco, who had been the senior officer to McLintock and Underwood in the planning for future teachers' colleges. George Muir, who was later to become the first Principal of the Kuring-gai College of Advanced Education, became Director of Teacher Education in NSW. By this stage plans for the new college were well under way. The New Colleges Committee planned and oversaw the construction of the new college on the Lindfield site.

From 1967 David Don Turner was administratively responsible for the architectural supervision of the new colleges at Newcastle and Goulburn. He was however personally responsible for the design of the new Lindfield college.

The planning and design of the new Kuring-gai College was thus carried out simultaneously with that for the two other institutions. The architectural imagery for each college varied considerably from its sisters, due in part to discussions held with existing college staff to determine their individual needs:

It was agreed that each college should have a unique identity. The buildings form an interesting contrast, each with different sites, considerably differing educational briefs, and each making use of different constructional techniques and materials.³⁶

Goulburn College, whilst anticipating similar levels of student enrolment to Kuring-gai, catered primarily for primary school teacher training, and included student residential accommodation. The design brief for Goulburn College was to:

Provide a self contained residential teacher training college. The general concept was to create a pedestrian village with the union building, assembly hall, library, theatre, and main quadrangle as the centre of activity. The residential buildings are linked to the centre through the union building and the teaching blocks through the library. Roads and car parks are external to the building complex and all buildings are accessible to each other under cover.³⁷

³⁵ *Sydney Morning Herald*, 15 February 1967.

³⁶ *Architecture in Australia*, June 1971.

³⁷ *Ibid.*

The building complex was set on 45 acres of cleared land with uninterrupted views in all directions. Situated on the Wollondilly River just outside of Goulburn, the site was on high ground and the buildings followed the contours of the land. While an attempt was made to make the pitched tiled roofs blend with their surrounds, the land clearing prior to construction differed from the approach at Kuring-gai campus, and following construction of Stage One extensive tree planting and windbreaks were required. All buildings at Goulburn were heated to compensate for the colder climate. Externally the walls were of cream face brick, topped with swiss-pattern terra cotta roof tiles. Internal colour schemes and materials were painted plaster and cream face brick, brown quarry tiles on the floors with parquet and carpet, and the ceilings were finished with painted off-form concrete, timber boarding and painted plasterboard.

In contrast, Newcastle was designed for a larger student body, with 1300 enrolments that extended across the basic secondary school training and into industrial arts, science, commerce and music. It was designed as:

A large single-level flat roof under which is housed an integrated multi-level complex comprising all activities except physical education and the stores/maintenance workshops.... Stage 1 is planned around a central paved courtyard which provides an 'identity' for the department and functions also as an outdoor work area.... Teaching departments are planned around a major courtyard with shared facilities such as the lecture theatres and library/resources centre being centrally located to all departments. All sections of the college complex are accessible by a central indoor street or concourse. The outline of the 'main building' and the multiple variations in floor levels are largely obedient to the contours of the site.... The college building group will have immediate visual impact when seen from the future motorway.³⁸

This concept was closer to that represented at the Kuring-gai campus, following the topography and using an internal street.

The Newcastle Training College was set on 58 acres adjoining the Shortland Campus of the University of New South Wales, and the land covered by tall spotted gums and light undergrowth, excepting 6 acres of cleared land. The external walls featured 20ft column centres and deep recesses; internally it involved brick box-style columns with 10ft centres supporting the roof and floor levels. The external walls were of cream face brick with ribbed aluminium roofing. Internally, the walls were of painted plaster and cream face brick, with floor finishes of glazed red quarry tiles, parquet and carpet and a ceiling of sprayed asbestos, a painted ribbed concrete floor structure and painted plasterboard.

The William Balmain College, however, was intended as a more secluded structure, to be set discreetly within the natural landscape rather than creating a visual impact. As the third of the colleges, William Balmain would keep the focus on secondary teachers, specialising in science-related disciplines. When finished, the Lindfield-based William Balmain College was designed to allow free flow on five levels for teaching flexibility with large folding doors to central circulation spaces. Unlike the Goulburn and Newcastle sites, with their externals of cream face brick, the William Balmain building used infill face brick and a built up membrane for the roofing, as well as polystyrene insulation, and ceramic or asbestos cement tiles. Ceiling finishes were of painted concrete, timber or plaster, with suspended ceilings in air-conditioned spaces. Overall, William Balmain was the most costly project at a total of \$3.4m for Stage 1, compared to \$2.7m for Goulburn and only \$930,000 for Newcastle. While both William Balmain and Goulburn sites were located close to riverfront land, the Newcastle site was primarily defined by the deep gully near the western boundary and a somewhat shallower gully in the north – east, and bounded on two sides by roadways.

The three colleges bore a relationship to each other in terms of siting, structure, design and materials, but were architecturally distinctive according to their respective requirements and in response to the environment. The Government Architects Office at the time, under the leadership of Peter Webber, gave strong support to the individual design talents of its staff.

³⁸ *Ibid.*

An article in the June 1971 edition of *Architecture in Australia*, pp. 422, covered the three new colleges:

These three colleges are the first new colleges to be built in NSW for many years. Funded by the Commonwealth Government to each state, it was determined that these buildings should be of high quality and set new standards for the teaching profession.

In NSW, the Department of Education made available from the outset a full time planning unit with an educationist, R Underwood, and an administration officer, R McLintock (succeeded by B Howle). They were responsible for close collaboration with the Public Works Department, Government Architect's Branch and the architects involved. Discussions were held with existing teachers college staff for final requirements.

It was agreed that each college should have a unique identity. The buildings form an interesting contrast, each with different sites considerably differing educational briefs, and each making use of different constructional techniques and materials... Thus whilst the three colleges were designed in the same office by separate architects in a planning team they reflect these different influences. Stage One of the colleges is now complete, stage two is either commenced or shortly to do so while the later stages are in planning only.³⁹

2.5.2 Site Planning and Organisation

David Don Turner became the architect within the Public Works Department responsible for the design of the new college at Lindfield, under the overall responsibility of the Government Architect, E H Farmer. Turner had worked on smaller projects for other teachers' colleges and had been successful with a Blackett Award from the NSW Royal Australian Institute of Architects for his Public Works Administrative Building in Albury.

There was extensive consultation with the staff on the facilities and equipment that would be needed for teacher education at the new college. At the Balmain Staff Meeting of 20 March 1967, Ron Underwood advised staff that there was "a unique opportunity for Public Service employees to have a say in their future working facilities".⁴⁰ The Balmain staff also had an influence on what was built at Newcastle and especially at Goulburn. Underwood's previous connections at Balmain may have been the reason for this close consultation and it appears that consensus was arrived at fairly quickly.

The Commonwealth provided all of the funds for the new colleges and in amounts that were previously unheard of in State teachers' colleges. The Commonwealth Government set up a supervisory committee under Professor Madgwick, Vice Chancellor of the University of New England, to ensure that the grant was used to develop teacher education and to make sure that it was used for high quality buildings. It appears that the Madgwick Committee actually facilitated enhanced levels of spending, with the new college planned and built on an undreamt of scale.

Most of the detailed planning was done in consultation with McLintock and Underwood, who filtered the ideas back from the college Principal and staff to the architect. Turner was willing to adapt his design to cater for the educational ideas of the staff, who with so little at Balmain were not hard to please as the new designs took shape. Staff would have individual offices, accessed by corridors that seemed generously wide after the crowded school hallways of Balmain. Much of the technical equipment was purpose-designed.

The College Principal, Mr Greenhalgh, was not pleased about the alterations to the plan which reduced the size of the staff common room and dining room. Papers held by UTS record:

I hold that a College as large as this runs the danger of breaking into cliques, to the disadvantage of student training. One way to avoid this is to have a good deal of staff mixing (the famous 'cross fertilisation of ideas') and discussion often on a casual or informal basis.

³⁹ *Ibid.*

⁴⁰ Turley, *To Enlighten Them Our Task*, p.138.

*The easy way to do this is through adequate common room and dining room facilities. In this College those rooms have been reduced so that they are not adequate for the size of the present staff let alone a larger or more multifarious one. A basic element in the planning for the formation and development of interdepartmental thinking was distorted or overlooked.*⁴¹

David Turner had met Greenhalgh quite early in the planning stage and was reportedly a little disconcerted by the gap between his own vision and that of the College Principal, who had ideas of classical architecture and terraces with rose gardens. Greenhalgh had preferred that the new college be constructed as “one block rather than something dispersed everywhere, like a dog’s dinner”, on the grounds that modern architectural trends tended “to ramble all over a landscape with buildings and thus to isolate staff and students in pockets, hidey-holes and cliques...[which] littered the site and destroyed any hope of corporate loyalty.”⁴²

By the time the construction had been completed, however, he had come around to accept Turner’s design. Greenhalgh was however very concerned to maintain the intimacy of the old college in its new surroundings. In addition to the central staff room, he insisted that his office was to be on the ground floor with direct access to the main entry area, so that he could easily walk out and be among the students.

Both the architect and the College Principal agreed on the need to keep the building as compact as possible. Greenhalgh wanted to recreate the compactness and closeness of the past at Balmain, while Turner was happy to build his “Italian Hill Village”, based on a similar concept as John Andrews’ Scarborough College in Canada, with its functionally generated forms and planning organisation linked by an internal pedestrian street. This formed the spine of the complex and kept all parts of the building as close together as possible. A tightly planned footprint also suited the architect’s desire to minimise the intervention into the bushland-covered site. When only Stage One had been completed the college tended to be congested, because little of the main circulation route had been built. This was rectified with the construction of Stage Two.

The original concept for the new College comprised the building components that were eventually encompassed in Stages 1 to 3. They included all of the main teaching spaces, the main Auditorium, Library, student areas, Gymnasium and Administration offices, all linked by the main circulation spine. The original brief also required the provision for an Oval and tennis courts, plus a small external change facility to enable the sporting facilities to be used by members of the public outside normal educational hours.

In a personal comment to the author, David Turner stated that the intent of the project was always to locate the main building campus on the top of the escarpment, overlooking the river valley. He approached the project in full recognition of the wonderful opportunities available on such a magnificent site, while being very conscious of the need to make the complex as compact as possible to reduce its physical impact on the bushland. He was keen to give a bushland entry experience as part of the approach to the new buildings, reinforcing the unique location as the visitor left the surrounding suburban housing behind. It was almost as though the visitor and regular users stepped over a well defined threshold when entering the site.

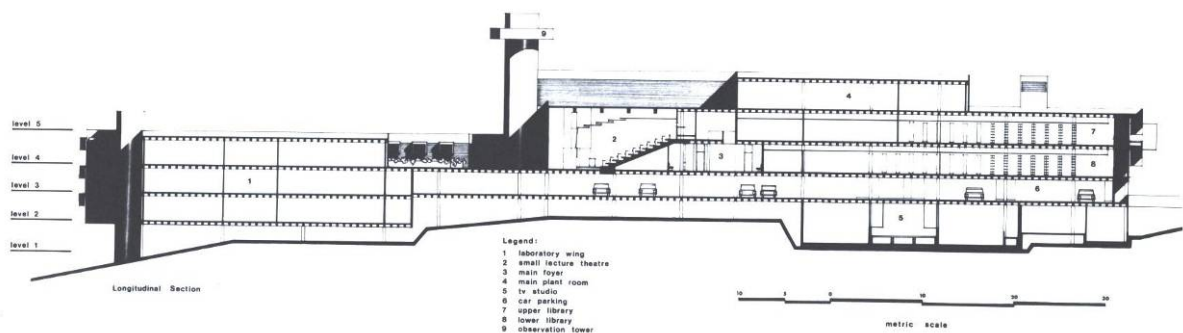
David also noted that the location of the Oval was chosen to retain its proximity with the main building complex. By contrast a location in the north western corner of the site, while flatter, would have been too remote. The Oval was constructed across the top of a flat gully that drained to the south west. It required a substantial retaining wall across its southern edge to establish the main platform. The initial design was for a simple concrete retaining wall. Bruce Mackenzie remains proud that he was able to influence the developing design and have the concrete wall replaced with a sandstone boulder wall, similar to those recently used in the construction of the Newcastle Freeway.

⁴¹ UTS Papers, S113 Box 2, File 73/793, 15 January 1971.

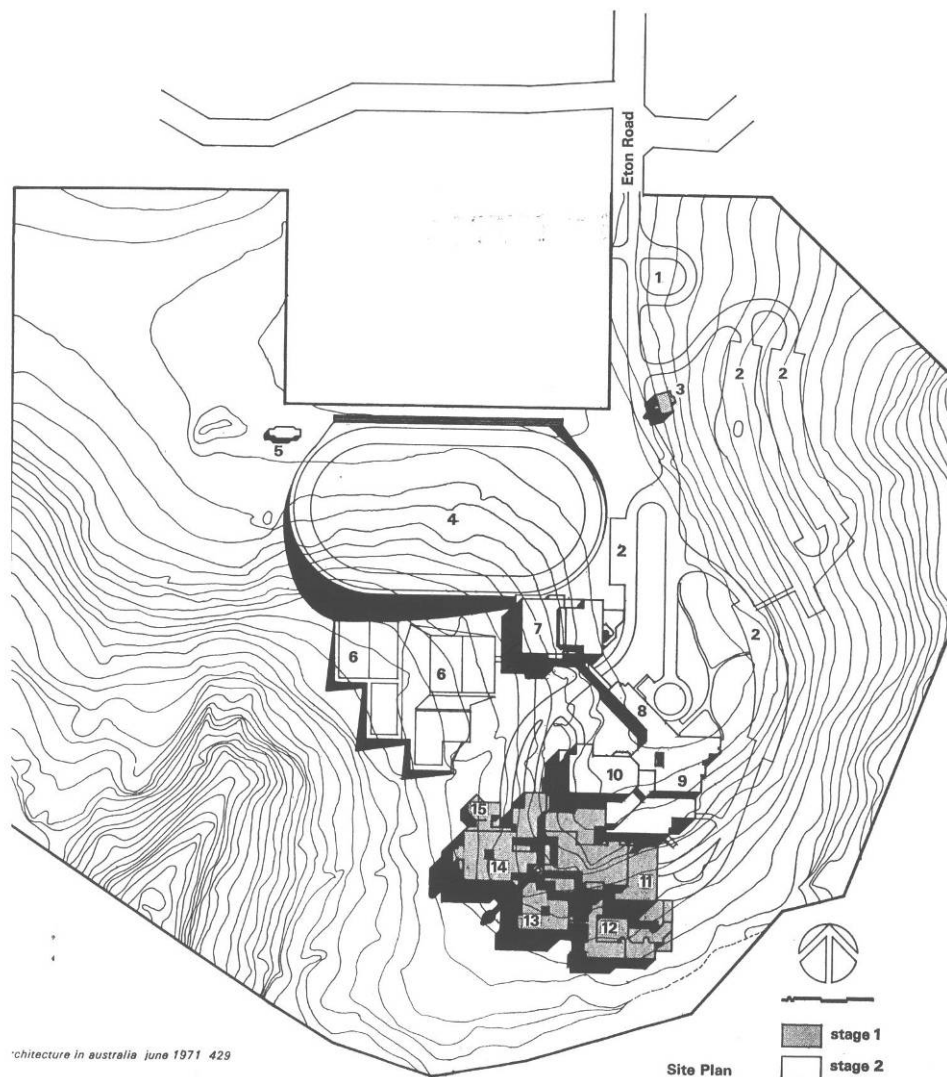
⁴² Turley, *To Enlighten Them Our Task*, p.76.

David Turner was associated with the development of the college buildings over a period of more than 20 years. He was involved with the design and supervision of the college until he left the Government Architect's Branch in 1973. In 1974 he was given the task of completing the design and documentation of Stage Three, the Gymnasium and teaching spaces for his former office. In 1975 the College appointed him architect to work in close cooperation with their in-house architect, David Lake, who was in charge of maintenance and minor works. Further commissions followed, which included Stage Four, further lecture rooms and offices, then in 1977, the Dining Terraces, 1984, Stage Five with more lecture rooms and offices and in 1985, Child Care Facilities.

The close continuing relationship, from 1967 until 1992, of the original architect with his creation gave a very unusual degree of continuity and integrity to the character of the main building complex.



Cross Section of proposed College



Site Plan of the Original College Layout, as eventually realised over Stages 1, 2 and 3.
Published in *Architecture in Australia*, June 1971

2.6 Architectural and Landscape Design

2.6.1 Blending Architecture and the Landscape

The William Balmain Teachers' College at Lindfield blended the influences from both the Sydney School and the New Brutalism streams of architectural thought that were a major feature of Australian architecture for two decades from the late 1950s.

The 1960s saw the expansion of Sydney's residential suburbs, especially around the North Shore, spreading off the well settled ridges into the steeply sloping, heavily wooded, surrounding terrain that had held back development in the late 19th and first half of the 20th centuries. As architects and planners came to grips with the challenges of building in this new landscape they progressively developed what became known as the Sydney School of Architecture. A relatively large number of young architects worked on domestic scale private projects, while a number of significant public buildings allowed others, including those working within or as consultants to the Government Architects Office, to develop their theories on major projects. Many of the young architects worked closely together through these decades, sharing their professional enthusiasm and testing their emerging ideas. From this milieu came the blending of the two themes now categorised as the Sydney School and New Brutalism.

In an email, dated 10 November 2003 to Jacqueline Urford and made available by the RAI, David Turner described the design philosophy for the new college at Lindfield:

As it was a magnificent area of natural bushland, the exercise was to compact the buildings and facilities as much as possible for preservation of the environment and continue the use of native plants throughout the buildings including in courtyards and on the roof. Although some clearance for fighting bushfires was made in the south, the concept was to insert the building into the native landscape, and make it survive intact in a bushfire, as it did in 1994. The landscape reflected the influence of Frank Lloyd Wright, and also Walter Burley Griffin and Marion Mahony Griffin, in the desire to preserve and enhance the existing landscape and this was admirably furthered by Allan Correy and Bruce Mackenzie... The other concept was an Italian Hill village with internal circulation, and a building that was energy efficient (only the Library, TV Studios and Assembly Hall were air conditioned) with external sun breakers, and access to the surroundings.

This interaction between architecture and landscape was reinforced from the early days of the College. As a complex structure, the college both blended into the landscape as well as providing contrast. The William Balmain College was described in 1971 as:

One of the most exciting and successful works of architecture built in Sydney for some time. The site of the college spreads over 45 acres of untamed bushland with wide views, trees, rocks and undergrowth coming right up to the edge of the building. Split levels adapt the college to this rugged topography. Elevated concrete bridges, enclosed courtyards, planted terraces, sometimes a window at the end of a corridor, all help to link the building further to its surroundings.

But it is not a building which merges with its environment. The bold sculptural forms of board-marked concrete contrast vividly with it. Curved stairs expressed on the outside, small turrets concealing precast concrete spiral stairs, suspended precast sunshades, foot bridges, sweeping curved balustrades – all this adds up to a rich vocabulary of forms, to variety and interest, and yet all is unified by the use of natural materials which fit in well with the olive green of the surrounding bush.⁴³

Indeed, the landscape of the site ranked of equal significance in design terms as the buildings, arguably the element on which the success of the site depended. Throughout the site, the topography, rocks and trees were key factors in the placement and composition of the built environment. The preference for native species, capable of flourishing in a harsh environment, was a pragmatic as well as ideological one. Mackenzie's intervention was deliberately minimal, so that the completed building nestled as much as possible into the

⁴³ *Architecture in Australia*, July 1971, p.11.

cradle of an intact and genuine landscape. Taylor likens his appreciation of native species to the fresh perspective provided by the Heidelberg School of painters of the 1880s, with a romanticism applied to the notion of the 'natural' landscape.

The site planning by Allan Correy with Turner is sensitive with the building located on a rocky plateau so as to preserve as much of the fine native vegetation as possible. The building is staggered over five levels and its craggy forms are visually tied to the setting. Its bulk is broken up by raised terraces and small units such as sun hoods that interrupt the planes of its façade. But it is the unified statement of buildings and landscape that gives this building its conviction. The landscape work by Bruce Mackenzie brings the bushland up to, around and through the architecture. The parts of the building read as small, related segments at close range, but from a distance the whole has an heroic presence. Much of Kuring-gai College's empathy with the landscape derives from the preservation and planting of native species. As the Sydney School architecture drew its forms and materials from the site, the setting was of paramount significance. Mackenzie's interests and abilities as a landscape designer were in harmony with those of the architects. Mackenzie wrote of (and in his work demonstrated) the appropriateness of conservation and the extension of the use of indigenous flora into gardens.⁴⁴

However, Mackenzie also expressed a more pragmatic outlook than simple participation in romantic architectural ideals: "Unless the native plant can fulfil the role expected of it in terms of function, aesthetics and performance we can discard it. Nostalgia is not sufficient."⁴⁵

Bruce Mackenzie developed his strong sense of working closely between architecture and landscape from his experience with the project homes developed by Pettit and Sevvitt. In a personal comment to the author, Bruce indicated that his involvement in these projects, as landscape designer and contractor, gave him a pragmatism that had been lacking in most earlier residential development around Sydney. He reacted against the old policies of completely clearing the building site and then adding back a landscaped setting, for an approach that carefully defined the building footprint, driveways and areas for contractor access. Beyond these areas the natural landscape was protected and automatically incorporated into the final outcome.

Bruce spoke of the extraordinary interaction within the group of architects and landscape designers at a time when the profession of landscape architecture had yet to emerge. The post war architectural graduates of Sydney University, UNSW and Sydney Technical College, combined with international architects and those returning from work or study overseas, produced a dynamism and awareness of the bushland that was to become very influential.

Mackenzie's loyalty to native plant species also echoed that of Walter Burley Griffin, who felt that indigenous plants were integral to the overall architectural concept. In the early part of the century, Walter and Marion Griffin's designs for the suburb of Castlecrag had strongly indicated their enthusiasm of and reliance upon the incorporation of built structures into the natural landscape. Their design for the residential suburb included bushland reserves in which major landforms and rock outcrops were preserved, foreshore reserves, a network of linking walkways, and roads that followed the contours and respected the landforms. The houses were designed to blend harmoniously with the landscape, and to capture the light and sun. The campus site, within its bushland setting, reflected and reproduced these ideas in an effective and aesthetic manner, some sixty years after the Griffins' architectural style that had been noticeably different to the Australian mainstream in that era. In such an approach, Mackenzie's work at the campus site made it distinctive in the late twentieth century; few developments attempted to follow the form and character of sites, but rather neglected such environmentalist principles in favour of more dominant styles.

The close integration of the new college buildings and the natural landscape remains as one of the defining features of the campus, particularly on its southern and south eastern sectors.

⁴⁴ Taylor, *Australian Architecture since 1960*, p.85.

⁴⁵ Mackenzie, "The Landscape Environment – a wasted potential" in *Architecture in Australia*, November 1966.

The large open playing field and tennis courts broke this mould, but were an integral part of the design brief.

2.6.2 The Sydney School

In her important book *Australian Architecture Since 1960*, Professor Jennifer Taylor claimed that:

The Kuring-gai College, 1976, most clearly demonstrated the extension of the Sydney School ethic into large concrete buildings... It is the unified statement of buildings and landscape that gives the building its conviction. The landscaping by Bruce Mackenzie brings the bushland up to, around and through the architecture...

Much of Kuring-gai College's empathy with the landscape derives from the preservation and planting of native species. As the Sydney School architecture drew its form and materials from the site, the setting was of paramount significance. Mackenzie's interests and abilities as a landscape designer were in harmony with those of the architects.⁴⁶

In describing the "Sydney School" that emerged in the late 1950s, Taylor noted a distinctive, picturesque architecture with a craft aesthetic, which was mostly applied to the domestic architecture that dominated the style.

Fundamental to the development of the new architecture was an appreciation of the native landscape... The desire to work with rather than against the landscape made Frank Lloyd Wright a more appealing figure than the rationalists of Europe.⁴⁷

Taylor observes that a number of State Government departments adopted positive policies towards the use of landscape consultants in the late 1960s.

As with architecture, the NSW Government Architect's Branch under E H Farmer and Peter Webber played an important part in establishing sound landscape design in the Sydney area. In 1967 a policy was introduced requiring input from a landscape consultant for each project designated by the government and the first full time position was created in the newly formed Landscape Section. This was held by Allan Correy who, together with Peter Spooner and Bruce Rickard, was among the initial landscape architects who received their training abroad... Correy was influential in establishing an ecological approach to landscape design. The site design of Kuring-gai ... clearly demonstrated his design principles...

With its emphasis on climatic control by natural means and its respect for land forms and flora it was a sympathetic way in which to build... The fact that it was so widely and rapidly accepted and that for more than a decade it continued to hold a persuasive influence on Australian architecture, testifies to its relevance and validity.⁴⁸

Taylor commented that:

The principles of Brutalism, such as its insistence on the integrity of direct architectural expression and the importance of a 'memorable image' directly generated from such an expression, were fundamental to the particular nature of the emerging Sydney School of architecture... The Sydney architects had evolved an ethic that was against pretension and public display and that made the given conditions of site, climate, function and local trade practices the principal determinants of design. Strong too was the insistence on the logic of the structure and the frank exposure of the materials of the building fabric. Most important was an architectural expression consistent with its setting.⁴⁹

Elements inherent in the Sydney School were also attributed to a romantic movement that arose in opposition to the International architectural trend. This romantic backlash originated from both America and Japan, and rejected the inevitability of technology in modern life,

⁴⁶ Taylor, *Australian Architecture Since 1960*, p.46.

⁴⁷ *Ibid.*, p.35.

⁴⁸ *Ibid.*, p.49.

⁴⁹ *Ibid.*, p.38.

opting instead for “a continuing communication between man and nature,” what Wright called an ‘organic’ relationship. The activities that were expected to occur within buildings dictated the zoning and organisation, with separation effectively carried out through the use of differing floor levels or distance.

Richard Apperley *et al* also paid homage to the influences on the Sydney School in *Identifying Australian Architecture*, attributing its pervasiveness to the flood of post-war architects and the rapid transmission of ideas between Australia and Europe. The Sydney School incorporated brutalist styling within a virgin landscape, with trees, placement of large rocks and views considered as important as the building itself. Following the topography of the site was paramount in order to interpret the role of the building within its setting. Apperley considered that:

Perhaps influenced by varying combinations of Brutalism, Arts and Crafts, traditional Japanese architecture and the work of Frank Lloyd Wright, Sydney School architects injected a feeling of warmth into their houses by exploiting the textural and tactile qualities of traditional, so-called natural materials: painted common bricks or gnarled clinkers, tiled roofs, and unpainted timber which was sometimes left in its sawn state. Ideally, the building site was left untouched; any introduced landscaping made use of informal arrangements of Australian flora, the exclusive use of which was mandatory.⁵⁰

The Kuring-gai campus became habitually referred to as “the site” rather than “the building”, due to the strong integration of the natural landscape and the building itself, which made it:

So unique. The era of English lawns and rose gardens was gone and being replaced by the native Australian bush setting. This was very much part of the Sydney School philosophy....⁵¹

Interestingly, in a personal comment to the author in March 2004, David Turner indicated that as a relatively recently arrived Englishman, he did not readily feel part of the group of architects who gathered under the umbrella of what became known as the Sydney School. Nevertheless his completed campus amply demonstrated his key concept, which he so clearly described, as a compact arrangement that requires as little physical intervention into the bushland as possible.

2.6.3 The Rational and the Robust

In exploring the sources for a phase that she describes as The Rational and The Robust, Jennifer Taylor observed:

Before the mid 1960s there were few buildings in Australia that showed an affiliation with the robust and raw, sculptural architecture that in other countries had been widely accepted as appropriate for the pragmatic and aesthetic priorities of the time. The original inspiration for these works lay in the later buildings by Le Corbusier. His Unite d'Habitation at Marseilles in 1952, and his Jaoul houses, Neuilly, 1954, demonstrated an attitude to materials and construction that was to influence architecture through the following decades... The delight of space and shape of the Chapel of Notre-Dame-du-Haut at Ronchamp, 1955 and the haunting imagery of the buildings at Chandigarh, 1957-1964, indicated the rich possibilities of the exploitation of the plastic properties of reinforced concrete for sculptural form.

During the 1970s “beton brut”, with the accompanying articulation of masses and stress on the expression of internal, functional arrangements became a favoured medium particularly for public buildings and those for tertiary institutions... In its more dramatic treatment (it gave rise) to a lively architecture of indented forms with a three dimensional quality that was emphasised by the deep shadows cast by the strong sun. These buildings had in common the display of structural materials and a certain heroic presence but their broader, ideological bases were often diverse.⁵²

⁵⁰ Apperley (ed), *Identifying Australian Architecture*, p.240.

⁵¹ Deputy Mayor of Kuring-gai Ian de Vulder, cited in *Architecture Bulletin*, January 2004.

⁵² Taylor, *Australian Architecture since 1960*, p.78.

Taylor went on to discuss examples of this style including the Cameron Offices, School of Music and High Court in Canberra, Hale School Memorial Hall, Perth, Social Sciences Building at Flinders University in Adelaide and the YMCA Building in Fiji, the Wentworth Union Building at Sydney University among others. A major example was Colin Still's Alexander Mackie College of Advanced Education in Oatley Sydney, 1980, for the NSW Government Architect.

Also stemming from the European building and planning concepts of the late 1950s was the idea of a building as an open-ended structure responsive to growth and change. Andrews' Scarborough College, with its rugged concrete, its functionally generated forms and its organisation of the parts of the complex along an internal pedestrian 'spine' demonstrated these principles in built form. The large spreading office complexes for Canberra area are based on the same form. Kuring-gai College provides a further example.⁵³

In a personal comment to the author of this report (November 2003), Ken Woolley recollected that many of the architects working in Sydney and elsewhere at the time had either studied or worked extensively overseas in the mid 1950s or later. They were very aware of the work of Le Corbusier in Europe, Kenzo Tange in Japan and elsewhere. He observed that this phase of Australian architecture was able to pick up on international developments much more quickly than had been the case previously.

In her book *John Andrews, Architecture a Performing Art*, Jennifer Taylor captures the roots of the architecture espoused by Andrews and his colleagues.

The formal language, as with all who build in concrete, must inevitably relate to that of the early modern movement, and particularly to le Corbusier. In this Andrews is no exception, and many of the devices he employs derive from the dynamic imagery of the mechanical preoccupation of that time. The Brutalist ethic is strongly expressed; yet raw materialism direct details, exposed structure and services derive not from a particular philosophical stance but 'because it makes sense'...

Scarborough College, completed in 1965, was immediately recognised as the first built major statement of the concept of an open ended lineal structure, organising and relating functional units...Where possible the buildings are kept low and spread within a controlling geometrical structure to allow for diversity without disintegration.

With a strong commitment to architecture as the setting for human action and experience, he (Andrews) concentrates, in overall planning and in detail, on providing opportunity for communication between individuals, and between individuals and buildings. The importance he gives to circulation and informal areas arises from his understanding of the suitability of such spaces for social contact – movement becomes the primary generator of the physical and social framework.⁵⁴

Andrews is quoted in the book speaking of his intent regarding the pedestrian street:

A university as a learning environment does not consist solely of the formal academic learning spaces. Learning occurs in the informal spaces in which people meet; the circulation system, the lounges, the cafeterias and other communal facilities. Our intent was to increase the effectiveness of these informal learning spaces.⁵⁵

In describing the planning process for Scarborough, Taylor notes:

From the site Andrews drew the dramatic ridge and allowed the buildings to follow the contours. The fine stands of maples and beeches on the adjacent slopes remained untouched and the building rears over them like a fortress.⁵⁶

John Andrews made a well publicised return to Australia in 1969 and exerted a strong influence on local architectural thinking for major building projects.

⁵³ *Ibid.*

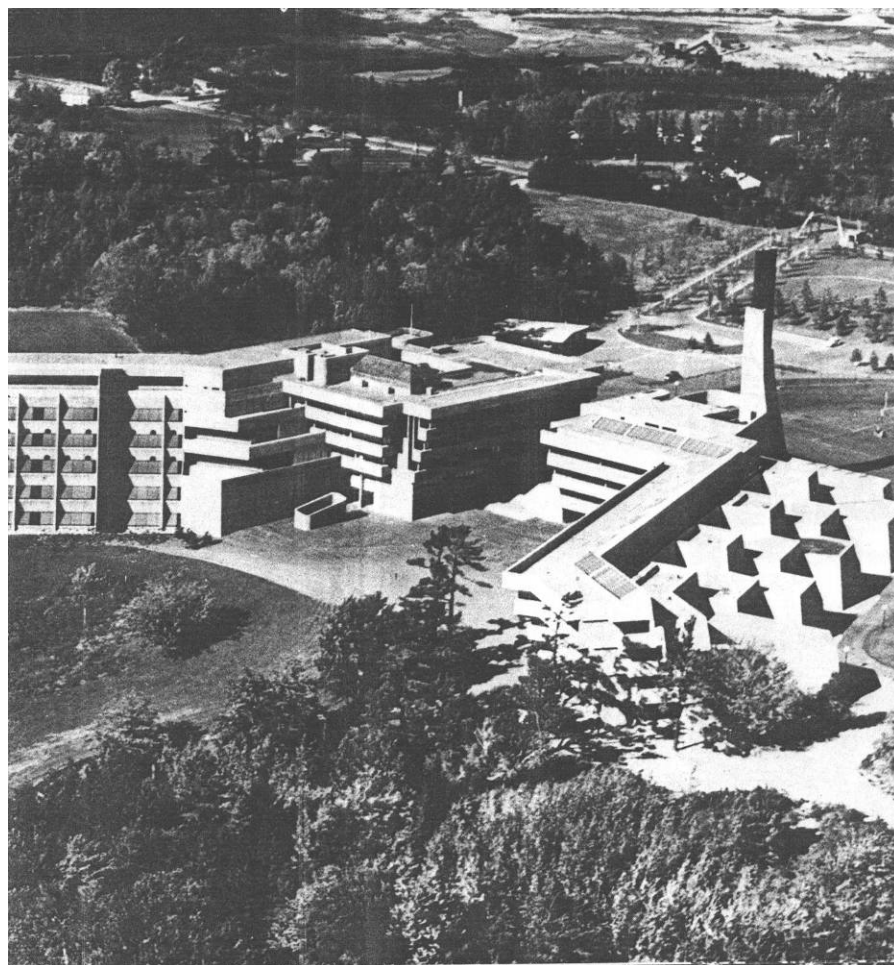
⁵⁴ Taylor, *John Andrews, Architecture a Performing Art*, pp.18-19.

⁵⁵ John Andrews, cited in *Ibid.*, p.34.

⁵⁶ *Ibid.*, p.28.

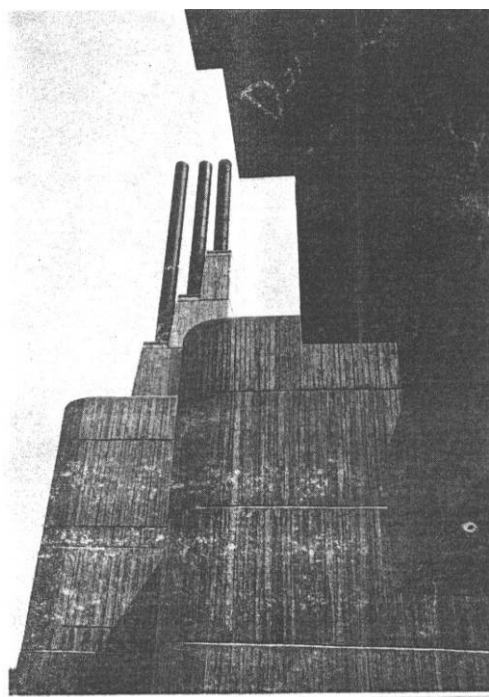
David Turner had studied in the UK and worked in the US before coming to Australia. Soon after graduation he worked on the initial stages of the massive Barbican development in central London, a major statement of the Modern Movement in Architecture. He was able to blend these influences in a confident and masterful composition for the new college. David commented to the author in March 2004 that the major international influences on the design of the college were those of Le Corbusier, particularly the Marseilles residential building, with its elevated street and strongly expressed external architectural expression, and his monastery at La Tourette, north of Lyon in France. He also nominated Scarborough College, noting however, that he considered the Kuring-gai campus as more successful for its main circulation spine which was buried deeply within the functional arrangement, compared with Scarborough with its longer, single loaded internal pedestrian street. In identifying the international influences, David noted that there were really no buildings in Australia that he could clearly nominate as being closely related to his vision for Kuring-gai.

While the internal linear circulation routes in Scarborough College made absolute sense in relation to the extremes of the Toronto climate, Turner, in partnership with Mackenzie drew the students at Kuring-gai into the college to minimise direct physical contact with the surrounding bush. Rather than try to relax within the relatively unyielding landscape, the bush became the visual backdrop to student activity. Views outward from the major circulation spaces and Library, through huge expanses of glass, to the bush immediately outside, or a close encounter from an external terrace, heightened the experience without exposing either the bush or the students to damage or danger. The extensive use of landscaped roof terraces, with their strong sculptural forms and external artwork, was a further expression of the need to provide outdoor recreation areas that were separated from the bushland. The wonderful outwards views from these terraces, across the wooded valleys, was a major feature of these terraces.



Aerial view of Scarborough College, Toronto, Canada, by John Andrews

Another notable feature of the Rational and Robust architectural expression of the period was the strong use of concrete elements for sun protection. Façades of both low rise and high rise buildings of the period in Australia, particularly in NSW, were notable for the sun protection devices and dramatic modelling, usually resulting in heavy shadowing to complement and reinforce the architecture. Examples in Sydney include the high rise State Law Courts and Water Board (1965) buildings, both by McConnel Smith and Johnson, and the Masonic Centre by Joseland and Gilling. Turner's use of expressive vertical concrete blades at the original and subsequent main entrance, of projecting sun hoods over the majority of windows to the teaching areas, and of the vertical blades across the Library, are all examples of this architectural expression. The vertical blades at the Stage 1 entry were originally fitted with glass infills between the blades, in order to re-create the old idea of the Australian verandah. Unfortunately the differential movement between the Stage 1 and Stage 2 buildings caused the glass to crack and the College ordered their removal.



External off-form concrete finish at Scarborough College



External off-form concrete finish used at the new Kuring-gai College

2.6.4 The Architectural Concept

The design of the college itself strongly reflected international trends from its inception in 1967, with the government keen to demonstrate a modern outlook in both teaching college facilities and methodologies. The ideology in place for the new teacher colleges sought to address individual needs of each site, while advocating the most advanced architectural pedagogy. In order to “avoid obsolescence in the foreseeable future”:

The teachers college must be seen as a corporate body composed of unique personalities, and within which can be discovered a number of groups of both formal and informal structure, engaged upon a wide variety of activities. The groups are not fixed, but are constantly changing, restructuring as new needs arise.

...[T]he college will be composed of a number of learning spaces of differing capacity, most of them multi-functional, some space-variable. There will be rooms to accommodate small groups... larger spaces for twenty and for thirty students, and lecture theatres.... The heart of every college, and the focal point of all student and lecturer activity must be the library. This can no longer be a mere repository for books, but should be an enticing centre for individual and group learning.⁵⁷

It was felt that the William Balmain College would be readily distinguishable from the Newcastle and Goulburn Teachers College in terms of physical distribution across the site, facilities available, and in providing for the “cultural, social and physical development of the student.”⁵⁸ Such an ideology expected that demand for specialised amenities would vary between campuses, but be consolidated by the union centre, acting as a hub around which the students were expected to circulate. Providing the union centre was a relaxing and stimulating social environment for the students, fields of interest – and their consequent facilities – would radiate from this gathering place in a natural progression. With different pedagogies placing differing levels of importance on fields of study such as drama or physical education, the evolution of the site, and the consequent usage of the site, would vary from campus to campus. The modernist approach allowed for the needs of the student body while complying with broad boundaries that shaped the growth of the site. The architectural concept was:

To standardise such facilities whilst at the same time conceding the right of a college to give effect to a system derived from a particular philosophy, would be to pay lip service to a principle. However, planning can be based on certain parameters, which provide a starting point for determining the final accommodation plans. The most important of these are the ultimate student capacity of the college, and the nature of the courses that will be offered within the college. The first of these is of prime importance when considering future development....

As the principle [sic] of a large tertiary institution recently commented, “the college which is permitted to grow like Topsy, too often ends up topsy-turvy.” The nature of courses will inevitably govern the extent and nature of specialist facilities required.... The new colleges in New South Wales represent a sincere attempt to satisfy the philosophical needs of teacher education, and should provide staffs with opportunities to implement programmes hitherto impossible. They will provide students with a new and stimulating environment, with opportunities for discovery not previously known.⁵⁹

This “new and stimulating environment” was expressed on the Lindfield site through a range of twentieth century architectural influences. With such a philosophy as a starting point, the design of the college needed to cater for site evolution in addition to external elements such as politics and funding. The practical nature of its architecture was praised as:

Visually the college is a very complex building and its floor plans and functions are equally complicated. This is the result of a complicated problem: a college for 900 students with all the completely different spaces the teaching programme demands. In most universities, for example, libraries or workshops would be housed in different buildings. Here, everything provided in the first section of the project is in one building.⁶⁰

⁵⁷ *Architecture in Australia*, June 1971.

⁵⁸ *Ibid.*

⁵⁹ *Ibid*

⁶⁰ *Architecture Today*, July 1971.

Deputy Government Architect Peter Mould, who also favoured its overall concept, considered the institution:

One of the iconic buildings of the 1970s. The feeling of a campus was created by the combination of the internal street and the related series of courtyards.... A large bold building sitting so comfortably in its bush setting. The modulation of the massing successfully breaks down the bulk of the building so that it reads on the ridge as an extension of the rocky outcrop on which it sits. This college set the agenda for a series of buildings that followed both in the organisational framework and the use of materials.⁶¹

In a personal comment to the author, David Turner stressed his desire for a compact design arrangement, with the teaching, administration and student areas closely spaced around the central circulation spine. He wanted to encourage students to walk to as many of the destinations within the college, avoiding the use of lifts. In a similar way to Scarborough College, Turner made use of the topography to place the main pedestrian circulation at ground level with other levels above and below the main routes.

The strong sculptural forms used at Kuring-gai had been explored by Turner at the NSW Government Offices in Albury. He regards that building as his own precursor to the design of the new college. Interestingly the consultant architects for detailed design and documentation at Albury, Edwards Madigan Torzillo and Briggs, also produced the Warren Shire Library building, in rural NSW, at the same time. Both buildings were designed with bold and expressive use of external and internal concrete, although the Albury building was then clad in an applied finish, described as “Fabbro” after its applicators. The Government Architect at the time was not convinced that exposed off-form concrete was an appropriate presentation for a government office building. Turner spoke of how he worked very closely with the consultant teams appointed to document his buildings, a process that was apparent with Kuring-gai. Colin Madigan went on to apply these architectural philosophies to the High Court and National Gallery projects in Canberra in the early 1970s. The design concepts explored at Albury were developed further for the Government Office buildings at Narrabri and Inverell.

Interestingly, the Albury Public Works building and the Warren Library shared the Blacket Prize for architecture in 1968, soon after they were completed. The Blacket Award was given annually by the NSW Chapter of the Royal Australian Institute of Architects for a building of outstanding merit in the country areas of the State.

The jury comments for the Award were published in *Building* in October 1969:

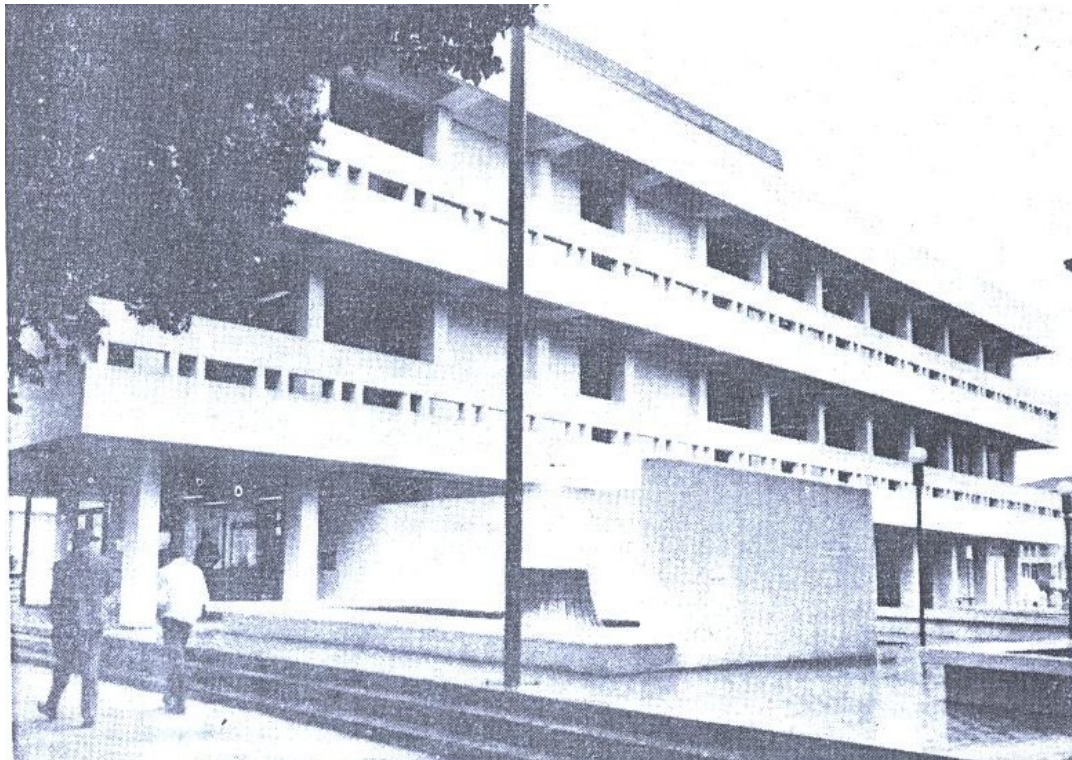
The NSW Government Offices at Albury is a fine example of the mainstream of the international tradition...The modern movement, now over 50 years old, here achieves a successful urban expression, apt for such government buildings.

In the Albury offices, the planning of verandah access balconies is a tradition of administration and military buildings, but the colonnade has not been allowed to become pompous or neo-classic. The public forecourt treatment is bold and simple...The building scale has apt relation to a large country centre. Its crisp form, elegantly finished concrete and smooth detailing all add up to a direct and handsome statement...The building was designed to complement the adjacent classical balcony style of the technical College, and to keep in scale with the other main buildings on Dean Street – Town Hall, Court House etc.⁶²

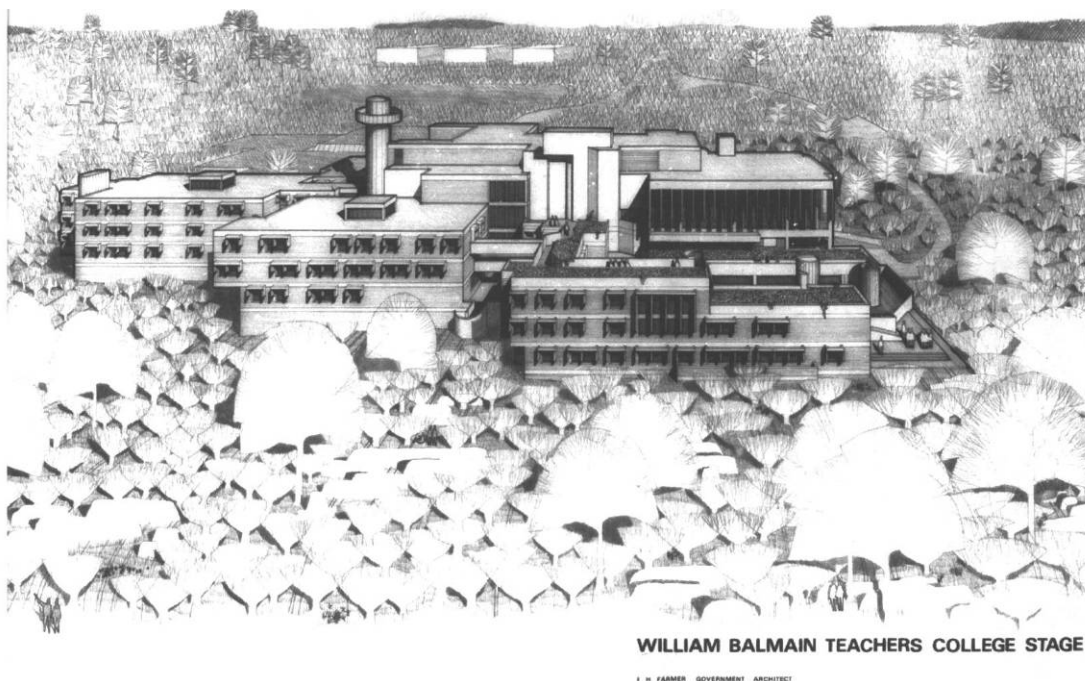
Above all, David Turner regarded the Kuring-gai project as a wonderful opportunity to produce a building in a strong bushland setting, one that created a strong imagery within its architectural expression, while respecting the surrounding bushland. He chose to push the building to the edge of the southern escarpment, providing space for an extended entry to differentiate the college from its surrounding residential backdrop.

⁶¹ Peter Mould, cited in *Architecture Bulletin*, January 2004.

⁶² *Building*, October 1969, p.44.



Albury Government Office Building, 1968. David Turner Design Architect



Artist's Impression of the proposed new William Balmain College. David Turner Design Architect

2.6.5 Landscape Design and Conservation

In November 2003, for a article published in the January 2004 *Architectural Bulletin*, Bruce Mackenzie recorded his views about the landscape design and conservation that was an integral part of the conceptual formulation for the new college. The following extracts are taken from that material, which was provided by the RAIA.

I remember well an afternoon meeting with the Principal of the college and David Turner, design architect with NSW Department of Public Works, for the purpose of discussing landscape issues and intentions. My determined endeavour to extol on this truly impressive site of native flora and grand Hawkesbury Sandstone outcropping, seemed to fall largely on deaf ears in the case of the intended head of college. The 'bush' was fine as far as he was concerned assuming of course that it was kept well in the background. A more civilised approach was what he had in mind and roses appeared to be the symbol of everything appropriate in this respect, especially at the important entry to the complex. Fortunately I had a strong ally in David Turner and one way or another we pursued and achieved our aims. By the time the principal was to see the outcome of the committed landscape setting it was already rather impressive. The site had responded marvellously to careful management. Importantly praise was being directed towards its intricate blending of bold architecture and complex nature so that the principal had become by then just a little proud of his new domain and possibly, his personal contribution to the project. At the time of course it was early days for the advocates of the indigenous design ethos and still earlier times as far as conservation of nature on urban properties was concerned. Rather than being dismayed by the College Principal's assumption of a proprietary share in the joy of his landscape, I was delighted. The change of heart signified a major victory for the cause of Australian indigenous landscape principles. These principles were to grow in stature during the years to follow.

It is most important to acknowledge at this point that very little in the way of plant material was installed into the finished work at close proximity to the buildings, yet the buildings, constructed in stages, appeared as though they had been lowered gently into place, with the landscape of plants and rocks intimately fused onto the very walls and windows of the construction. To a large extent the roads too, especially those entrenched deeply into rock, enjoyed complex plant communities still visible as integral margins on the cut rock ledges.

Well before the buildings had advanced to the stage of contract documentation, site surveys by my office had clearly delineated the magic elements of features of the site.

This enabled us to prepare a composite map of the proposed buildings and their surroundings in a legible definition of impact and potential conservation opportunities. We were dealing with a significant example of remnant nature surviving intact on this land at East Lindfield overlooking the Lane Cove River valley. My initial reactions after discerning the intensity and richness of the site's flora, punctuated with rock outcropping, included a sense of horror that it was to accommodate a very large introduction of buildings, roads, car parks and a football oval.

However, just a few years later I was to judge this building personally, as the one to consider in Sydney, after the Opera House. Its special attributes for me encompassed the boldness of its architectural statement, its complexity matching that of the conserved nature surrounding it and the adventurous, intriguing environment that permeated the complicated but fascinating interior ... the whole amalgamated more or less seamlessly.⁶³

Mackenzie's insistence on indigenous plant species in the campus design both adhered to organic principles and respected the ideologies set forward by the Griffins in the early twentieth century. He argued in "The landscape environment" that:

The best way of acquiring an Australian atmosphere is by growing Australian plants. So it is the desire to make Australian gardens Australian, rather than the urge to preserve the species, that motivates me primarily. Many other benefits are to be gained by their use. Their ability to meet hazardous and trying conditions with an unbelievable tenacity to survive is very satisfying.... Fortunately, "natives" are becoming popular and fashionable ...[and] the indigenous nature of the framework should reign supreme whether it be a home garden, a neighbourhood environment or a whole city. [A] splendid opportunity exists to exude a strong national

⁶³ *Architectural Bulletin*, January 2004.

*character in all our developments via the medium of landscape promotion compared to other design fields where bricks and mortar convey such a universal image.*⁶⁴

In a personal comment to the author, Mackenzie provided more of the detail behind his approach to the landscape design and conservation at Kuring-gai.

He relied on a strong definition of edges, of the distinction between built form and natural bushland. In the case of the excavation for the car parking platforms on the eastern slopes, for example, he confined the soil behind retaining walls rather than letting it simply spill down the slope to form a new embankment. The excavation for the roadways down to the lower levels of the building were undertaken by machinery confined within the boundaries of the cut. This enabled the undisturbed retention of the natural vegetation right up to the edges of the cutting.

The ultimate success of the landscape policies and practices espoused by Mackenzie can be seen in the way the bushland has survived and continues to define the character and setting of the architecture. Two major fires, the first as construction was about to commence, which stripped the bush right back to stumps, sandstone and soil, and a second in 1994 that swept right over the buildings, combined with the construction and operation of a major university campus, have not prevented the bushland from regenerating in a most robust manner.

Fire management had been a major design criteria from the beginning and an area of bushland was cleared or reduced to the south of the campus. In addition, the main buildings were designed and constructed to withstand fire, a fact that was severely but successfully tested in 1994.

Unfortunately budget restrictions in the early phases prevented the installation of stormwater drainage lines right down to the river or creeks below the site. The inevitable run off into the upper creek lines has encouraged some growth of exotics and weeds in these areas. In discussion however, both Mackenzie and Turner agreed that the end result was probably the best since the construction of stormwater lines right down the major slopes would have left major scars in the topography and bushland.

⁶⁴ *Architecture in Australia*, November 1966.