

Campus, Context and Community

Residential Colleges and Halls of Residence at Australia's Post-war Universities, 1945-1975

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Abstract

For thirty years after World War II, Australia experienced an educational building boom which matched those of Great Britain, Canada and the United States. In the creation of new campuses and the expansion of existing universities in Australia, the addition of residential colleges was not always a strong priority. Unlike their overseas counterparts, Australian universities were not traditionally wholly or even predominantly residential campuses. Yet, the architectural challenge of housing students was taken up by existing and new universities. In doing so, these buildings were charged with many things: to impart a sense of immediate community; to foster the idea of 'living on campus'; and to consolidate and on occasion create a nascent sense of urbanity, often through contextual quotation. Yet at the same time, many of the new Australian colleges departed from the privileged aura of earlier models, acknowledging different urban and landscape contexts, reflecting shifting social patterns and student preferences, and, ultimately, accommodating differing degrees of paternalism and student independence.

Introduction

In the aftermath of World War II, it was not just housing that became of focus of social, economic and architectural attention, there was also the concomitant need to plan for the long-term demands of an expected population boom. A demand for houses implied a corresponding demand for spaces of education in all its forms. In Australia, as in Great Britain, the United States and Canada, school construction – at primary and secondary level - became a matter of urgency and in many cases the lessons of post-war prefabrication superseded pedagogical reform as the urgent priority: production was all. But the question of the post-war university was different. Tertiary education was to be made not just available to an expanded number: it became a national priority. The long view was that an educated populace could drive post-war prosperity and that a long-term vision of the nation might be founded on research and an educated citizenship. Existing university campuses would expand and consolidate and there would be new campuses planned and constructed to meet the demands not just of a burgeoning population but of a national future. The life of the student on campus was given new attention.

Architectural histories of the post-World War II period have begun to focus on the spaces of education in recent decades. Andrew Saint's *Towards a social architecture: the role of school-building in post-war England* (1987) was an important and pioneering account of the Hertfordshire prefabricated schools program.¹ More recently Marta Gutman and Ning de Coninck-Smith's edited collection, *Designing modern childhoods* (2008), Amy Ogata's *Designing the creative child* (2013), and Kate Darian-Smith and Julie Willis's edited volume, *Designing schools: space, place and pedagogy* (2016) have focussed on primary and secondary levels of education, and made stronger connections between pedagogy and space.² Of the tertiary level, the post-war university, there has been surprising little in terms of comprehensive overviews.³ Paul Venable Turner's *Campus: An American planning tradition* (1984) and Stefan Muthesius's *The post-war university: utopianist campus and college* (2000) are the key reference works.⁴ Muthesius, in particular, devotes attention to the shifting concepts of designing for living on campus, while Turner's book centres on campus planning and landscape. Yet beyond this, there is very little, and this is despite the fact that many residential colleges and halls of residence have become touchstones for defining a form of ideal urban community.

In the United States, Alvar Aalto's Baker House Dormitory at MIT (1946-8), Louis Kahn's Erdman Hall at Bryn Mawr College, Pennsylvania (1960-5) and Moore & Turnbull/MLTW's Kresge College at UC Santa Cruz (1972-4), amongst a host of others, are well known icons of post-war modernism. But, generally, most are discussed within the ambit of the biographical monograph or as one of a series of colleges in a university guidebook or campus history such as Carla Yanni's contribution to *Rutgers since 1945: a history of the State University of New Jersey* (2015), a campus which houses more students than any other in the United States. Yet, to date, Yanni's account is the most ambitious: she argues that residence halls manifest ideas about student life, education, class, gender, race, and citizenship.⁵ Elsewhere, the same lacunae apply to important (and now heritage-listed) colleges in the United Kingdom like Denys Lasdun's Norfolk Terrace at the University of East Anglia (1964-8) (part of Lasdun's aim of a 'five-minute university') and James Stirling's Andrew Melville Hall at St Andrew's University, Scotland (1964-7) and Florey Building, Queen's College, Oxford (1968-71). While in Europe, examples such as Giancarlo de Carlo's student housing at Urbino (1962-5) and Lucien Kroll's La MéMÉ in Brussels (1970-6) have been celebrated either for their contribution to urban thinking or their demonstration of spatial agency and user participation rather than constituting a collective study in themselves. In Australia, no such pedigree in terms of architectural history exists. The exception is Walter Burley Griffin and Marion Mahony's Newman College (1915-18) at the University of Melbourne, which has been the subject of much analysis but again largely within the confines of biographical, stylistic and technical analysis.⁶

This paper therefore sets out a preliminary overview of the post-war residential college and hall of residence in Australia from 1945 until 1975. It does not attempt to make connections between the personal experiences of students and the spaces of these buildings⁷ but instead defines a typology and locates it within the physical setting of the university as a first step in a broader study.⁸ Much of the factual data for this paper are drawn from the triennial reports of the Australian Universities Commission (AUC), which was established in 1959 following the conclusions of the *Report of the Committee on Australian Universities* (1957) (later known as the *Murray Report*) and which ceased existence around 1977. In that period, the growth and establishment of new universities was unprecedented. In 1945 there were six universities in Australia; by 1975, there were nineteen.⁹ It is important, as the AUC stressed at its inception, to be clear about the definition of what constitutes student housing when it comes to describing the nature of living on campus in post-war Australia. This paper follows the AUC understanding that residential colleges are defined as those residential institutions affiliated with universities (such as a religious or denominationally-based college), while halls of residence are defined as those under direct university control.¹⁰

Unlike their overseas counterparts, Australian universities were not traditionally wholly or even predominantly residential campuses. In character, they were more like the Scottish universities and English provincial universities, often located in capital cities and mainly non-residential. Many students commuted to university, or lived nearby in rented accommodation. Yet as the AUC pointed out in 1960, “the influence of Oxford and Cambridge was strong enough to ensure that each of the Acts setting up Australian universities should make provision for residential colleges.”¹¹ And because even in the early years, residential facilities were expensive to build and maintain, governments, state and federal, relied heavily on churches to establish and control the first colleges.

At the same time, many of the new and existing colleges acted more as halls of residence rather than serving any direct educational function. Yet the architectural challenge of housing students was taken up by all the new universities. In doing so, these buildings were charged with many things: to impart a sense of immediate community; to foster the idea of ‘living on campus’; and to consolidate and on occasion create a nascent sense of urbanity, often through contextual quotation.¹² In many cases, the hallowed typological spaces of the Oxbridge college - the cloister, the quadrangle, the common room, the dining hall and the chapel - were echoed. Yet at the same time, many of the new Australian colleges departed from the privileged aura of earlier models, acknowledging different urban and landscape contexts, reflecting shifting social patterns and student preferences, and ultimately accommodating differing degrees of paternalism and student independence.

After World War II, there needed to be change. There was the immediate problem of numbers, especially with the influx of ex-service students studying under the Commonwealth Reconstruction Training Scheme, exacerbated by post-war building restrictions and material shortages, all of which encouraged colleges to delay building, which in turn led to “an increase in residential student numbers, a raising of fees and a reduction of services and amenities – though not educational standards.”¹³ Turning this situation around was the introduction of the Commonwealth Scholarship Scheme (tuition fees and a living allowance) and, significantly, from 1951 following a report of the Mills Committee, an annual grant from the Commonwealth that went towards college teaching and administration costs. But it was the *Murray Report* (1957) that had the most immediate impact on the physical development of residential colleges and halls of residences and was the key signal for the beginning of substantive government influence on higher education. Since the establishment of universities in the mid-19th century there had been virtually no control or influence applied by governments.¹⁴ The *Murray Report*, influenced by a report on halls of residence in Great Britain chaired by Professor W.R. Niblett,¹⁵ recommended assistance in the form of capital to encourage substantial expansion of existing facilities and the founding of new colleges. From 1957 forward, the *Murray Report* effectively “invigorated a program of college expansion.”¹⁶ State governments also assisted in the college building programmes, especially at the University of Queensland where seven of its eight colleges

moved to its new St Lucia site by 1960, and where, given the state's decentralized population, circumstance necessitated a grander form of commitment to on-campus student housing. The result across Australia in the period 1958-60 was a building programme of about £2,460,000, of which about half came from Commonwealth and State Government sources.

Forms of Quotation

In the immediate post-war years, already established colleges often made additions, either to expand their existing facilities or to realise long-held dreams of adding appropriately honorific spaces to colleges with already venerable architectural traditions. The addition of a chapel (1960) designed by John Leslie Stephen Mansfield for Australia's oldest college, St Paul's (1856) at the University of Sydney, was one example where the chapel's polygonal end and attached cloister made contextual reference to Edmund Blasket's Gothic Revival buildings.¹⁷ Similar was Bates, Smart & McCutcheon's Eakins Dining Hall (1964) at Queens College at the University of Melbourne where golden-coloured concrete block made ready reference to the sandstone of Terry & Oakden's earlier Tudor Gothic main building (1887-8) and its folded plywood ceiling asserted its modernity. Interpretation of historic context also informed stylistic choice for the addition of new residential wings to existing colleges. TG Payne's additions (1958) at Newman College went so far as to use the same faulty Barrabool sandstone that the Griffins had employed. Yet contemporary criticism like *Cross-Section's* appraisal of the deferral to context was less than lukewarm, opining that it was "neither sympathetic in character nor a worthy alternative... just a dull building with a Griffinesque crust in front."¹⁸

Yet even the most respected architectural firms of the day deferred to context, although it was often achieved less through quotation but through the evocation of form, reference in plan and replacing the use of stone with concrete or a brick of sympathetic colour.¹⁹ For a period of more than ten years, Grounds, Romberg & Boyd and then Romberg & Boyd made additions to Reed & Barnes's Gothic Revival Ormond College (1879-81) at the University of Melbourne. From physical additions that made reference to the picturesque polygonal and turret forms of the original buildings to a new house for the college Master (1958), then a series of connected polygonal residential blocks (Picken Court, 1961-3) to the polygonal MacFarland Library (1965) and finally a polygonal residential tower (McCaughey Court, 1967-9), there developed a consistent vocabulary that effectively complemented the existing nineteenth century buildings with a coherent language based on a tan, sand-coloured brick and complementary form to produce a cohesive community of buildings and spaces.

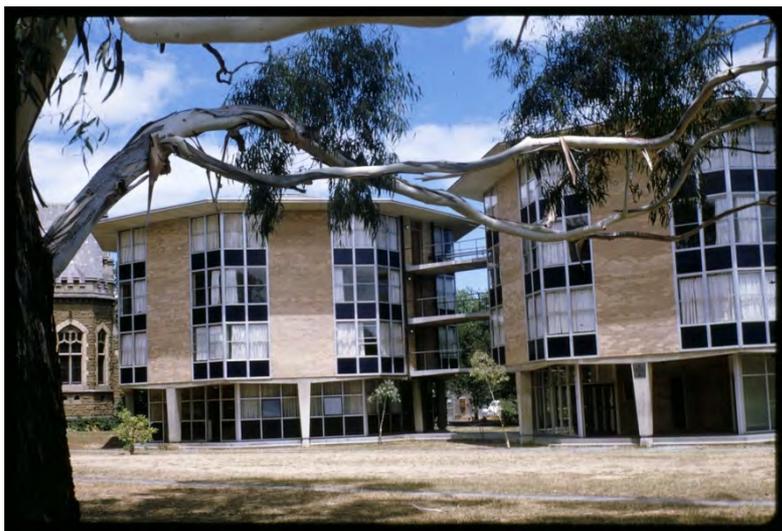


Figure 1. Picken Court, Ormond College, University of Melbourne (1961-3) – architects: Romberg & Boyd. Source: Peter Wille Collection, State Library of Victoria.

Post-war examples of this kind have been overlooked in Australia's architectural history, partly because of their longitudinal development: they defy neat categorization usually associated with single buildings.²⁰ As urban settings their worth has been similarly underestimated. There has also been a reluctance to include spaces such as these which invariably denote the rarefied air of privilege and class. There are good reasons for this. As government funding decreased across the twentieth century, the gap between the establishment of a university and the foundation of its colleges grew, with many colleges waiting for private bequests before they could proceed. As was acknowledged in 1960, colleges found it necessary to charge comparatively high fees and they came to be regarded as "an abode of privilege and wealth"²¹ and this impression was strengthened by the fact that many of the nation's leaders had passed through the walls of many such residential colleges.

Building the New College

In examining the post-war design and construction of entirely new residential colleges and halls of residence, the question of quotation was frequently put aside – though not entirely. As a residential complex, there appeared to be tensions between conscious referral to a traditional understanding of the college as a mediievally-developed type and the creation, emulation and hybrid variations of a modernist form of college that had developed its own traditions in pre-1945 Europe. Each was suggestive of different notions of what constituted university life and by extension, what constituted a community of students and the life of the individual student living on campus. Five different types of student housing (when considered as an overall urban form) predominate in the thirty-year period under study: the quadrangle; the slab; the L-shape; the tower; and the village. However, within each formal type, the arrangement and groupings of bedrooms and what constituted an ideal size of student community differ markedly.



Figure 2. Model, "Third College" (later named Robb College), University of New England, Armidale, NSW (1958-64) – architects: NSW Government Architect's Office (Design Architect - Michael Dysart). Source: *Cross-Section* Collection, Architecture Library, University of Melbourne.

The Quadrangle

Australia's first post-war residential college was the Brian Lewis-designed University House (1947-53) at the newly established Australian National University (ANU) in Canberra. In the disposition of low-rise residential wings around a large courtyard and with a tower-like block at entry, it symbolised links back to the Oxbridge tradition of residential wings enclosing a quadrangle.²² The inclusion of administration spaces, fellows and common rooms as the fourth side of a quadrangle, and a dining hall, frequently treated as a differentiated, honorific volume, was also common. The 450-seat dining

room for Goldstein College, for example, was shared by three colleges (Basser, Goldstein and Philip Baxter) at the new University of New South Wales campus in Randwick, Sydney, and though its residential blocks were designed as slabs, the overall schema approximated the quadrangle form.²³ As a typology, the quadrangle enclosed by three-storied residential wings became the most common form constructed across most Australian universities.²⁴ An exemplar of this type was designed by Michael Dysart within the NSW Government Architects Office at the University of New England, Armidale, New South Wales. The “Third College” (later named Robb College) (1958-64) comprised three flat-roofed residential blocks arranged in a pin-wheel and each with their own quadrangle. A separate dining hall (completed with concrete vaulted ceiling) and common room block created a fourth, communal quadrangle.

The Slab

If quotation of the Oxbridge model was to be consciously avoided, many architects chose a more recent model, the low to high-rise modernist residential slab, with rooms arranged lineally along a single or double-loaded corridor rather than the Oxbridge staircase model, and a detached sculptural block of dining hall and common rooms. The prototype was Le Corbusier’s Pavilion Suisse at Cite Internationale Universitaire, Paris (1930-1) and had Harry Seidler’s project for a 120 student hostel for the University of Sydney (four storeys, 1952) been built it would have been the nation’s first.²⁵ Examples that were constructed like McGlashan & Everist’s “Jeopardy” wing (three storeys, 1958) at Trinity College, University of Melbourne and International House, University of Melbourne (four storeys, 1954-8) and International House, University of Sydney (eight storeys, 1967), all indicate a move towards greater planning efficiencies associated with the Corbusian-inspired type, and confidence in an increased size of community of students that shared bathrooms and a corridor.²⁶ But it was James Birrell’s zig-zagging three-story Union College at the University of Queensland, St. Lucia (1962-70) that snaked its way across its sloping site, avoiding existing eucalypts, which extended the slab type in an original way, with bathrooms located at the knuckles, the cranking off-form concrete slab straddling the dining hall, library and common rooms wing and creating two courtyards of a different character, one public and an entry face, the other private and enclosed.²⁷



Figure 3. Union College, University of Queensland, St. Lucia, Queensland (1962-70) – architects: University Staff Architect (James Birrell). Source: *Cross-Section* Collection, Architecture Library, University of Melbourne.

The L-Shape

Combining the slab and quadrangle models was the L-shape college or hall of residence, which combined the planning efficiencies of the slab with the external space-creating arms of the L to imply

a private courtyard and offer a neat formal tactic to join separate men's and women's wings.²⁸ Chancellor & Patrick's Wrightian-influenced Deakin Hall at Monash University, Clayton, Victoria (1962-4) comprised two four-storey L-shaped blocks placed closed so as to create two north-facing courtyards with an attached dining hall block effectively closing one of these to form a quadrangle.²⁹ This L-shape planning strategy was also often adopted as a staging exercise for future college growth, with the ultimate aim of closing the courtyard to form a quadrangle. For example, Dirk Bolt's Burgmann College at ANU (1967-71) was an L-shape, though its 1967 master plan envisaged the addition of another L-shaped block to create a major quadrangle.³⁰



Figure 4. Deakin Hall, Monash University, Clayton, Victoria (1962-4) – architects: Chancellor & Patrick. Source: *Cross-Section* Collection, Architecture Library, University of Melbourne.

The Tower

Limited space was a determining factor for constructing tower buildings for residential colleges. It also represented a shift in the adoption of the elevator as opposed to the binding social element of the shared staircase.³¹ Yet the number of tower types adopted by colleges and halls of residence across Australia was relatively small. At Ormond College, Romberg & Boyd's seven-storey octagon McCaughey Court, University of Melbourne (1967-9) rose around a tall atrium because of severe site limitations. However, at Monash University, the tower of the 12-storey Howitt Hall, Monash University, Clayton (1962-4) designed by Chancellor & Patrick not only housed large numbers - 196 students - but it also acted as a distant landmark of the residential precinct for the sprawling outer suburban campus. Similarly, in Queensland, it was not space that determined the tower form, but a desire for a regionally appropriate form. Superseding an initial slab design (1959), the most remarkable tower type was the 1962-4 design by Stephen Trotter of Fulton & Collin for International House (1965-9) at the University of Queensland: a series of seven closely spaced six-storey pagoda-like towers, which was described as having "a distinctively 'part Oriental, part early Queensland' appearance."³² The tower plan had only four student rooms per floor, which balanced the need for some to climb five flights of stairs from ground level, though this was alleviated by screened bridge-walkways at Level 3, which connected to the surrounding site and an elevated dining hall.



Figure 5. International House, University of Queensland, St Lucia, Queensland (1965-9) – architects: Fulton & Collin (Design Architect: Stephen Trotter). Source: University of Queensland Archives.

The Village

By the early 1970s, a different form of residential accommodation for students was being suggested. Key to the emergence of a new type that suggested a village or agglomeration of residential forms, often accompanied by the removal of the common dining hall and its replacement with self-catering kitchens within shared apartments.³³ The AUC in 1975 went so far as to describe this form of accommodation as being in its own class – ‘non-collegiate’, regarding it ambivalently as distinct from colleges and halls.³⁴ Informality and student independence were the driving forces behind this shift. At ANU it was a deliberate move by John Andrews that reflected his experience in designing the South Residences at the University of Guelph in Ontario, Canada (1965-8):

The traditional residences that existed at ANU were becoming increasingly unpopular having no opportunity for group living and being far too rigid socially. A normal residence still treats students as children whereas society requires that they be adults. Apartment living was what students wanted, but on the open market, could not afford.³⁵

His Student Residences at ANU (later renamed Toad Hall) (1970), in its petal-like arrangement of rooms around shared kitchen, bathroom and lounge for ten students, meandered across its site facing Sullivan's Creek, did away with the dining hall and typical gun-barrel corridor. At the Student Residences for the Canberra College of Advanced Education, Bruce, ACT (1973), Andrews disposed 29 six-bedroom “family unit” apartments with shared kitchen and bathroom around external ‘streets’ (the stairs), as if to create a miniature, compact hill-town.³⁶ In the same vein in Brisbane, across a steeply sloping, bowl-like landscape for the Kelvin Grove College of Advanced Education Halls of Residence (1974, constructed 1976-8), John Dalton artfully scattered five groupings of four-person two-storey ‘maisonettes’ around a community building, which as Elizabeth Musgrave has observed, were gathered into informal ‘family’ groupings.³⁷ Dalton himself wrote of the complex’s white painted bagged brick walls and dark stained timbers that: “The whole could be described as a village within the urban environment which should stimulate social activities as well as providing the essential retreats for the individual.”³⁸

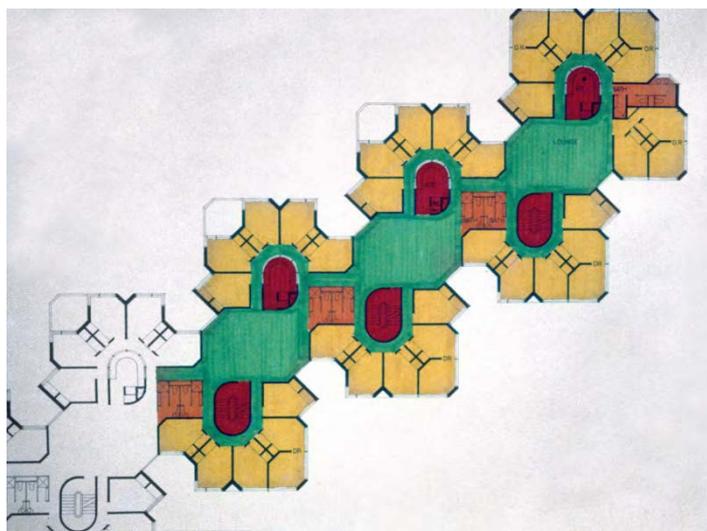


Figure 6. Toad Hall, Australian National University, Canberra (1970)
– architect: John Andrews. Source: John Andrews Archive, Orange,
New South Wales

Siting and Location

Common to each of these types was their location and siting at the edge of the campus, on the periphery, within walking distance of the “centre” of campus – a habit that followed decades of master-planning practice to locate the residential functions of the university as a circumference to the protected inner heart of the campus. Proximity to playing fields (also on the periphery) was common, but so too was the siting of colleges in relation to significant natural features such as Sullivan’s Creek at ANU or the bush gullies at Flinders and Monash Universities. Provision of student housing was often relegated to secondary importance, but there were notable exceptions. Glenn College along with the main library were the first buildings completed in the newly founded La Trobe University.³⁹ One of the founding pedagogical goals at La Trobe was the ambitious plan that every student whether residential or not be associated with a college, which assumed a significant teaching role. Similar priorities for housing provision were followed as James Cook University in Townsville and the University of New England in Armidale, where living on campus was seen as essential to the creation of university life and the establishment of a campus.

Room

Student bedrooms in Australian residential colleges and halls of residence were generally single occupancy with variations occurring mainly in the disposition of these single rooms, such as two-bedrooms sharing a common study, or the move in the early 1970s to four to six-bedrooms sharing a kitchen and common bathroom. Standard room sizes of 11.1 -11.6 square metres (120-125 square feet) with a fixed wardrobe and standard loose furniture were recommended by the AUC, which relied on documents like Neville Anderson’s *The Design of Residential Buildings for Universities, with Special Reference to Australian Requirements* (1959),⁴⁰ AC Leith’s 1963 *Halls of Residence* report commissioned by ANU,⁴¹ and research materials gained on a 1962 visit to the United States by the AUC’s Chairman and Secretary.⁴² The result was that many student rooms were alike, and any variation was found most commonly at the window edge. For James Birrell, a key priority was control of one’s personal human comfort and the window as a defining signifier of individual occupation. At Union College, each room had a giant pivot window with venetian blinds enclosed within double glazing above two smaller horizontally disposed pivot windows – a truly modern version of typical propped shutters in the tropics. Similarly, at James Cook University, each study/bedroom at University Hall had a generous curving Juliet balcony, which shaded the room below, as well as shutters that include flyscreens and windows that slid upward in sections to create an open doorway onto the

balcony. For Dirk Bolt, the window too became a special feature, determining Burgmann College's striking horizontally striated form:

The windows are recessed for sun protection and to avoid the feeling and danger of vertigo, thus allowing the space above and below the windows to be used for bookshelves. The windows opening awning fashion, are arranged so that they can be cleaned from the inside but not used for ingress or egress.⁴³

For the most part, however, spatial equity determined a pragmatic approach to the provision of student rooms, with greatest architectural attention reserved for common rooms and dining halls, and it was spaces like these such as Goldstein Hall, which inevitably drew professional attention.⁴⁴

Conclusion

Despite the surge in college and hall of residence construction after 1958, the percentage of students living on campus remained low. At the end of 1960, it in fact went down. At that time, only 7.9% of all students across Australia lived on campus, as opposed to 8.4% in 1957 and 8.9% in 1956.⁴⁵ When looking at the British situation, the difference was striking. In the 1957-58 academic year, for example, the number of students in residence was 23.4% of total student numbers, more than three times the Australian number and this percentage was expected to rise to more than 30% over a ten-year period. Keeping costs in check was a key issue, and in 1964, the AUC's consultant architect, Rae Featherstone, was asked to develop four prototype designs of student residences⁴⁶ on the basis of Californian structures, with special reference to the apparent economic success of multi-storey residence blocks at UCLA, where halls of residence were able to operate without subsidy, required to amortize mortgages and show a profit.⁴⁷ By 1975, the Australian situation, despite a substantial increase in the numbers and scale of halls of residence, had reached only 17.3% residential places, still well below the British situation of nearly a decade earlier.⁴⁸ The reality was that overall student growth was outstripping the creation of on-campus housing and that the tradition of students living at home or in shared households close to campus had not only consolidated, it had become the norm.

An exception to all of these types was the 1969-70 initiative of the Stratum Development (Melbourne University Staff) Co-operative Limited, which resulted in the construction of 180 flats in five blocks plus a high-rise tower of shared apartments for 100 students in Cross Street, Carlton in Melbourne. Designed by Earle, Shaw & Partners, the development was not only a contextual counter to the high-rise Housing Commission flats nearby but an attempt to harmonise with the surrounding context of 19th century Carlton.⁴⁹ Its location within the inner suburb rather than directly on campus was another shift but also prophetic of the public-private partnerships that would characterise the rise of student housing in the 2000s.

For the most part, many of these residential colleges and halls of residence remain in use, testament in large part to their successful provision of an appropriate domestic and communal space for student life. What has changed in the four decades since 1975 has been a complete turnaround in Australian university opinion about the need for student housing and where to locate it. With the exponential growth in international student numbers from the mid-2000s, there is a desperate shortage of student housing. Despite the foresight of establishing International Houses in Melbourne, Sydney and Brisbane in the mid-1950s and 1960s, the laissez faire approach to student housing provision, especially for international students, across the nation has created a vacuum. What is now filling that void is not the construction of new residential colleges but the construction of very large halls of residence where each room has a level of self-containment – its own bathroom, kitchenette, bed and study space - and each hall has a series of common rooms open to residents. The older colleges and halls of residence remain and also are in demand but in their expansion, their priority is focussed on upgraded facilities, graduate study facilities, enhancement of their grounds, and the maintenance of a level of exclusivity that continues to demand high fees. The familiarity of a low-scaled, context

relevant, staircase-accessible building has, by necessity, been replaced by a different model. Instead of Oxbridge, students are now living in a university that models itself not on the ivy-clad walls of academe but the bustling urbanity of the contemporary city.

Author's Note: Research presented in this paper was funded by an Australian Research Council Discovery Grant, DP DP160100364, "Campus: Building Modern Australian Universities." Thanks go to my co-investigators for their assistance, especially Robert Freestone who gave invaluable advice, Andrew Saniga, Hannah Lewi and Andrew Murray.

Endnotes

¹ Andrew Saint, *Towards a social architecture: the role of school-building in post-war England* (New Haven: Yale University Press, 1987).

² See Marta Gutman and Ning de Koninck-Smith (eds.), *Designing Modern Childhoods: History, Space and the Material Culture of Children* (New Brunswick, N.J: Rutgers University Press, 2008); Amy Ogata, *Designing the Creative Child: Playthings and Places in Mid-Century America* (Minneapolis: University of Minnesota Press, 2013); Kate Darian-Smith and Julie Willis eds., *Designing Schools: Space, Place and Pedagogy* (Milton: Taylor and Francis, 2016).

³ In Australia, there is emerging body of scholarship on post-war tertiary architecture and campus design but it is in the form of individual case studies or book chapters rather than larger nationally based studies. See, for example, Christine Garnaut, "Gordon Stephenson and University Planning: A Pleasurable Pursuit," *The Town Planning Review*, 83: 3 (2012): 377-95; Susan Holden and Jared Bird, "An Open Plan: the Development of the Griffith University Nathan Campus Plan, 1966-1973," in Alexandra Brown and Andrew Leach, eds., *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 30, Open* (Gold Coast, Qld: SAHANZ, 2013), 723-36; Christine Garnaut, "The Planning and Design of Murdoch University: The Foundation Years," *Circa*, 4 (2014): 26-37; Susan Holden, "The Institutionalization of Campus Planning in Australia: Wally Abraham and the Development of Macquarie University, 1964-1982," in Paul Hogben and Judith O'Callaghan, eds., *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 32, Architecture, Institutions and Change* (Sydney: SAHANZ, 2015), 254-66; Antony Moulis and Georgina Russell, "Design as Remedial Practice: John Andrews International's Educational Projects in Queensland, 1972-1980," in Paul Hogben and Judith O'Callaghan, eds., *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 32, Architecture, Institutions and Change* (Sydney: SAHANZ, 2015), 425-34; Elizabeth Musgrave, "Structuring Space for Student Life: John Dalton's 1970s Campus Commissions," in Paul Hogben and Judith O'Callaghan, eds., *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 32, Architecture, Institutions and Change* (Sydney: SAHANZ, 2015), 446-56; and Andrew Murray, "A 'Not Quite Gold' Medal Winner: Gus Ferguson and the University of Western Australia Law School Building," in AnnMarie Brennan and Philip Goad, eds., *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 33, Gold* (Melbourne: SAHANZ, 2016), 518-26. For the most thorough account to date on landscape architecture and the Australian university, see Andrew Saniga, *Making Landscape Architecture in Australia* (Sydney: UNSW Press, 2012).

⁴ Paul Venable Turner, *Campus: An American planning tradition* (New York: Architectural History Foundation: Cambridge, Mass.: MIT Press, 1984); Stefan Muthesius, *The post-war university: utopianist campus and college* (London: Yale University Press, 2000).

⁵ Carla Yanni, "Residence hall architecture at Rutgers: quadrangles, highrises and the changing shape of student life," in Paul G.E. Clemens, *Rutgers since 1945: a history of the State University of New Jersey* (New Brunswick, N.J.: Rutgers University Press, 2015), 138-63.

⁶ The most comprehensive study to date on Newman College is Jeffrey Turnbull, "The Architecture of Newman College," PhD Thesis, University of Melbourne, 2004.

⁷ There are many social histories of individual residential colleges and halls of residence in Australia, that deal closely with the student experience. One of the most recent and which deals with halls of residence at the University of New South Wales is Claire Scobie, *Basser, Philip Baxter and Goldstein: The Kensington Colleges* (Sydney: UNSW Press, 2015).

⁸ This paper comprises research undertaken as part of Australian Research Council Discovery Grant (2016-18) DP160100364, "Campus: Building Modern Australian Universities," led by Andrew Saniga (University of Melbourne) with team members, Robert Freestone (UNSW Australia), Christine Garnaut

(University of South Australia), Philip Goad (University of Melbourne), Susan Holden (University of Queensland), Hannah Lewi (University of Melbourne) and Cameron Logan (University of Sydney).

⁹ In 1945, the six universities were Sydney (1850); Melbourne (1853); Adelaide (1874); Tasmania (1890), Queensland (1909); Western Australia (1911). The new universities established after World War II to 1975 were: Australian National University (1946); New South Wales (1946); New England (1954); Monash (1961); Macquarie (1964); La Trobe (1965); Newcastle (1965); Flinders (1966); James Cook (1970); Griffith (1971); Deakin (1974); Wollongong (1975); and Murdoch (1975).

¹⁰ Commonwealth of Australia, *Report of the Australian Universities Commission on Australian Universities 1958-1963* (October 1960), 55. For example, Burgmann College (1965-71), established and owned by five churches (Anglican, Uniting, Presbyterian, Baptist and Churches of Christ), is defined as a residential college. For a detailed account of Burgmann College's planning and development, see Graeme Trickett and Ken Charlton, *Repose: The Contribution of Dirk Bolt to Canberra's Architecture and Planning* (Red Hill, ACT: AIA ACT Chapter, 2013), 83-91.

¹¹ Commonwealth of Australia, *Report of the Australian Universities Commission on Australian Universities 1958-1963* (October 1960), 55.

¹² The words "context" and "contextual quotation" are used in this paper to refer to the responsiveness, whether through form, material and colour, of the architecture to its location, i.e. as Adrian Forty explains of Italian architect Ernesto Rogers who encouraged architects in the 1950s to "consider architecture as a dialogue with its surroundings, both in the immediate physical sense, but also as a historical continuum." See Adrian Forty, *Words and Buildings: A Vocabulary of Modern Architecture* (London: Thames & Hudson, 2000), 132.

¹³ Commonwealth of Australia, *Report of the Australian Universities Commission on Australian Universities 1958-1963* (October 1960), 56.

¹⁴ Committee on Australian Universities, *Report on the Committee of Australian Universities (Murray Report)* (Canberra, ACT: Government Printer, 1957). The Committee was chaired by (Sir) Keith Murray (1903-1993), former Chair of Great Britain's University Grants Committee.

¹⁵ Great Britain University Grants Committee, *Report of the Sub-Committee on Halls of Residence* (London: HMSO, 1957). This report became known as the Niblett Report, after its chair, Professor WR Niblett, Dean of Studies at the University of London Institute of Education.

¹⁶ Commonwealth of Australia, *Report of the Australian Universities Commission on Australian Universities 1958-1963* (October 1960), 59.

¹⁷ The chapel at St Paul's College was designed by John Leslie Stephen Mansfield of the firm, Fowell, Mansfield, Jarvis & Maclurcan. Another significant post-war college chapel was the hexagonal chapel (1965) designed by Mockridge, Stahle & Mitchell for the theological college, Ridley College, Parkville in Melbourne.

¹⁸ *Cross-Section*, 68 (June 1958).

¹⁹ For example, at St Columba College, University of Western Australia, Nedlands, WA (Howlett & Bailey, 1966-72), roofs are covered with red pantiles and walls are of deep honey coloured textured concrete blocks to make reference to the University's focal building, Alsop & Sayce's sandstone and Cordoba-tiled Winthrop Hall (1931-2). See Peter Brew and Michael Markham (eds.), *Architectural Projects: Geoffrey Howlett* (Nedlands, WA: School of Architecture, University of Western Australia, 1992), 50-53.

²⁰ Examples of this kind of sensitively controlled post-war urban agglomeration can be found in the architectural development of private boys' and girls' schools, especially in Victoria, such as Geelong College (McGlashan & Everist); Melbourne Church of England Boys Grammar School (Mockridge, Stahle & Mitchell, then Peter Elliott Pty Ltd); and Wesley College, Syndal Campus (Bates, Smart & McCutcheon; then Daryl Jackson Pty Ltd).

²¹ Commonwealth of Australia, *Report of the Australian Universities Commission on Australian Universities 1958-1963* (October 1960), 55.

²² *Architecture* (October/December 1954), 146-7. See also Andrew Metcalf, *Architecture in Transition: The Sulman Award 1932-1996* (Sydney: Historic Houses Trust of New South Wales, 1997), 85.

²³ See *Building Ideas*, 2: 9 (September 1964), 3-5 and also Peter Webber, *Peter Hall Architect: The Phantom of the Opera House* (Boorowa: Watermark Press, 2012), 32-36, 111-14.

²⁴ Quadrangle examples include: "Third College" (later named Robb College), University of New England, Armidale, NSW (1958-64) – architects: NSW Government Architects Office (Michael Dysart); Basser College, UNSW, Randwick, NSW (1959) – architect: Professor Neville Anderson; Christ College, University of Tasmania, Sandy Bay, Tasmania (1960) – architects: Hartley Wilson & Bolt; Whitley College, University of Melbourne, Victoria (1962-5) – architects: Mockridge, Stahle & Mitchell; Goldstein College, UNSW, Randwick, NSW (1964) – architects: NSW Government Architect (EH

Farmer with Peter Hall); St Hilda's College, University of Melbourne, Victoria (1964) – architects: Ellison Harvie in association with Stephenson & Turner; St Mary's College, University of Melbourne, Victoria (1965, 1973) – architects: TG Payne; Currie Hall, University of Western Australia, Nedlands, WA (1966) – architects: Cameron Chisholm & Nicol; St Columba College, University of Western Australia, Nedlands, WA (1966-72) – architects: Howlett & Bailey; Menzies College, La Trobe University, Bundoora, Victoria (1967-70) – architects: Romberg & Boyd; University Hall, Flinders University, Bedford Park, South Australia (1971) – architects: Hassell, McConnell & Co.

²⁵ Harry Seidler, *Houses, Interiors, Projects* (Sydney: Associated General Publications, 1954), 142-45.

²⁶ Slab examples include: Jeopardy, Trinity College, University of Melbourne, Victoria (1958) – architects: McGlashan & Everist; International House, University of Melbourne, Victoria (1954-8) – architects: Ray, Berg with Hub Waugh, in association with Leighton Irwin & Co.; Union College, University of Queensland, St. Lucia, Queensland (1962-70) – architect: James Birrell, Queensland University Architect; International House, University of Sydney, NSW (1967) – architects: Bunning & Madden.

²⁷ "Union College, University of Queensland," *Architecture in Australia* (April 1970), 240-45. See also John Macarthur and Shane Murray, "Form and Materials: some notes on Birrell's aesthetic," in Andrew Wilson and John Macarthur, eds., *Birrell: work from the office of James Birrell* (Melbourne: NMBW Publications, 1997), 9-11.

²⁸ Examples of L-shaped colleges include Deakin Hall, Monash University, Victoria (1962-4) – architects: Chancellor & Patrick; and Kathleen Lumley College, University of Adelaide, South Australia (1970) – architects: Dickson & Platten.

²⁹ "Deakin Hall: Hall of Residence – Stage I, Monash University, Clayton, Victoria," *Architecture in Australia* (March 1964): 88-90.

³⁰ Philip Goad, 'The Design and the Building', in *The Place to Be: Burgmann College 1971-2001* (Canberra: Burgmann College Inc., 2001), 25-38; see also Trickett and Charlton, *Repose*, 83-91.

³¹ Tower examples include: Howitt Hall, Monash University, Victoria (1964-7) – architects: Chancellor & Patrick; McCaughey Court, Ormond College, University of Melbourne, Victoria (1967-68) – architects: Romberg & Boyd; International House, University of Queensland, St. Lucia, Queensland (1965-9) – architects: Fulton and Collin (designer: Stephen Trotter); Scheps Wing, International House, University of Melbourne, Victoria (1972) – design-construct: Civil & Civic.

³² Basil Shaw, *From Many Nations: A History of International House, University of Queensland, 1955-1994* (St Lucia: International House, 1995), 12.

³³ Examples of the village model include: Student Residences, ANU (later renamed Toad Hall), Canberra, Australian Capital Territory (1970) – architects: John Andrews; Residential Wing, St Hilda's College, University of Melbourne, Victoria (1971) – architects: Daryl Jackson Evan Walker; Student Residences, Canberra College of Advanced Education, Canberra, Australian Capital Territory (1973) – architects: John Andrews; and Halls of Residence, Kelvin Grove College of Advanced Education, Brisbane, Queensland (1974, constructed 1976-8) – architect: John Dalton.

³⁴ Commonwealth of Australia, *Sixth Report of the Australian Universities Commission* (May 1975), 323.

³⁵ John Andrews, *Architecture: a performing art* (Guildford: Lutterworth Press, 1982), 126. See also Philip Goad, "Open field, open street, open choice: John Andrews and the South Residences, University of Guelph (1965-68)," in Alexandra Brown and Andrew Leach, eds., *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 30, Open* (Gold Coast, Qld: SAHANZ, 2013), 639-50.

³⁶ Andrews, *Architecture: a performing art*, 132.

³⁷ Musgrave, "Structuring Space for Student Life," 453

³⁸ John Dalton Architect and Associates, *Design Report*, undated and unpaginated. Quoted in Musgrave, "Structuring Space for Student Life," 453. Jennifer Taylor describes the complex as having the character of "a hillside village." See Jennifer Taylor, *Australian Architecture Since 1960* (Red Hill, ACT: RAI National Education Division, 1990), 122.

³⁹ JF Yuncken, "The Planning and Design of La Trobe University," undated typescript, 5.

⁴⁰ Neville Anderson, "The Design of Residential Buildings for Universities, with Special Reference to Australian Requirements," M. Arch Thesis, University of Liverpool, 1959.

⁴¹ AC Leith of Leith & Bartlett, Architects, Melbourne, "Halls of Residence," unpublished report prepared for the Halls of Residence Committee of the Australian National University, 1963.

⁴² Commonwealth of Australia, *Second Report of the Australian Universities Commission on Australian Universities 1961-66*, 65.

⁴³ Dirk Bolt, Report accompanying the drawings for "Interchurch College," December 1965. Archives, Burgmann College.

⁴⁴ Goldstein Hall at the University of New South Wales was awarded the Sulman Medal in 1964 by the NSW Chapter of Royal Australian Institute of Architects. See Metcalf, *Architecture in Transition*, 96.

⁴⁵ Commonwealth of Australia, *Report of the Australian Universities Commission on Australian Universities 1958-1963* (October 1960), 62-63.

⁴⁶ Appendix X, Commonwealth of Australia, *Second Report of the Australian Universities Commission on Australian Universities 1961-66*, 111-21.

⁴⁷ Commonwealth of Australia, *Second Report of the Australian Universities Commission on Australian Universities 1961-66*, 66.

⁴⁸ Commonwealth of Australia, *Universities Commission Report for 1977-79 Triennium* (July 1976), 126.

⁴⁹ "Contrast in Carlton," *Architect*, 3: 10 (September/October 1970): 13-14.