Labs and Slabs:
Planning the Medical Precinct at the University of Melbourne, 1952-1969

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The nearly two-decade long-creation of the medical/health research precinct at the University of Melbourne in the 1950s and 1960s transformed a previously unused part of the Parkville campus into a showpiece of modernist planning and architecture. This paper outlines the strategic co-location of a series of high-rise slabs containing laboratories and teaching spaces that marched along Royal Parade directly across the road from Royal Melbourne Hospital, the Dental Hospital and the Walter and Eliza Hall Institute of Medical Research. In a program that was as much about updating old facilities as it was about positioning the university as a leading research institution – led by a group of ambitious and politically powerful medical academics and researchers – the design and planning of these buildings by a brace of Melbourne’s leading architecture firms signalled the University’s complete reshaping of its campus: away from an inward, clustered park-like estate to one that exuded modernity, efficiency and direct engagement with the city.

Keywords — planning; modernism; universities; laboratories; University of Melbourne

INTRODUCTION

The relocation of the Royal Melbourne Hospital (RMH) from its central city site to one in Parkville between 1936 and 1942 represented a unique opportunity for the University of Melbourne. Not only was it an opportunity for its medical students to be closer to their most important teaching hospital, it was also a chance for the university to reshape and recast its image as a leading medical school in the Australasian region. Founded in 1862, the Medical School was the oldest in the country but it was located in the north-east corner of the campus and housed in disparate and outdated facilities, totally unsuited to the ambitions and reputation of its staff. From the early 1940s, the university hierarchy began to plot how to engage more closely in physical terms with the vast new hospital campus that included the Walter and Eliza Hall Institute of Medical Research. Thwarted by the hiatus of World War II, and the hospital’s occupation by the U.S. Army as its general hospital, it was not until 1944 that the Army vacated and when RMH and WEHI were finally able to move in.

Over the next twenty years, without a clear master plan but with an emergent vision for the co-location of its medical school as part of a much larger health precinct, the University would slowly recast its physical image of teaching and research from one of the genteel academy to one of modernity and scientific efficiency, in many ways in keeping with and following the example already set by the planning language of the modern hospital campus.

MODERNISM AND PLANNING IN MELBOURNE 1930-1950

The connection between modernism and planning was not easily made in Australia before World War II. While there had been multiple instances of individual modernist schools, houses, and factories as early as 1933, the design of entire precincts laid out in a rational zeilenbau format was actually rare. One of the earliest in intent, though not fully realised in aesthetic terms, was the Erskineville Re-housing Scheme (1937-8), the first project of the Housing Improvement Board of NSW (formed in 1936 and later to become the NSW Housing Commission), whose aim was to clear a portion of Sydney’s inner-city slums and build an urban workers’ utopia. Chief designer was young architect Morton Herman (1907-1983), recently returned from Great Britain and a champion of European housing ideals then working within the office of Louis S Robertson & Son. Herman’s design was radical. As Butler-Bowdoin and Pickett have argued, it was “the first Australian attempt at the scientific planning of flats” despite only a portion of it being built: a series of seven double-storey linear housing blocks laid out zeilenbau style, spaced c.20 metres apart for optimal solar penetration and air movement. If the master plan suggested zeitgeist and each flat’s kitchen was a model of science and sanitation, the detail resolution of the buildings with their exposed brick walls, hipped roofs and multi-paned windows expressed the realities of Sydney’s prevailing architectural taste: a sober language of Georgian-inspired domestic familiarly that was local rather than universal. A similar desire for texture and human scale was pursued after World War II in the Devonshire Street Rehousing Development in Surry Hills, Sydney (1947-54) designed by architects DT Morrow & Gordon with Aubrey Kerr for the NSW Housing Commission. This was an alternative modernism, influenced again in plan by European models but this time by Backström & Reinius’s stjarhus apartment block plans at Gröndal, Stockholm (1944-6) and Rosta, Örebro (1947-49). As at Erskineville, the apartments’ detail resolution of exposed bricks, hip roofs and orthodox rectangular window openings stopped short of aesthetic challenge to the status quo. Matthew Conlon has described this New Empiricist development as “perhaps Australia’s most authentic realization of an architecture creating a social democratic residential utopia for workers”.

It was through similar government agencies like the Queensland Public Works Department and the Victorian Housing Commission that Austrian émigré modernists Karl Langer and Ernest Fooks introduced modernist ideals to the planning of estates and regional towns like Mackay, Qld (1945) and Swan Hill, VIC (1940), or as in Ascot Vale in 1948, where Best Overend as an influential member of the HCV’s Architects’ Panel producing a convincing modernist plan of a series of linear two and three-storey walk up flat blocks laid out to catch the sun. It was Overend too who teamed up with another émigré architect Frederick Romberg to propose the demolition of the Royal Exhibition Buildings in 1948 and its replacement with three 13-storey slabs and a 12-storey cross-wing containing 24 acres of office space and accommodating 20,000 public servants. But perhaps the most convincing beacons of modernist architecture and precinct planning were best seen in buildings for health, especially the major hospitals designed by the Melbourne and Sydney offices of Stephenson and Turner, like the Yaralla Military Hospital (1942) at Concord, NSW and the Royal Melbourne Hospital (1936-42) in Parkville, in inner-Melbourne. It was this last example, built as a series of conjoined high-rise modernist slabs on a massive campus site that seemed to suggest a new and bright future for health care and medical research. Across Royal Parade to the east, its neighbour, the University of Melbourne appeared decidedly of another age, its neo-Gothic buildings clustered in the centre of a park-like estate. In 1945 modernism had not stepped across into its grounds, indeed it had not done so on any other university campus across Australia at that time.

THE UNIVERSITY OF MELBOURNE DURING WORLD WAR II

During World War II, there were no new buildings constructed at the University of Melbourne but many plans were formulated. Vice-Chancellor John Medley urged the university in June 1943 to think ahead, and spoke of the need to develop a ‘fifty-year plan’. Advised by architect John FD Scarborough and geologist Professor Herbert St John Summers (1876-1963) who produced a series of plans in 1945, Medley had already defined the immediate building needs in July 1943 as a new medical school to be located directly on the Royal Melbourne Hospital site, an extension to Biochemistry, which at that time was located on the eastern side of the campus, the development of the Engineering precinct near
Brian Lewis and the 1951-2 Master Plan

Brian Lewis produced another master plan dated 1951-2. While Lewis again proposed the demolition of all the professors' houses, many elements of the 1948 plan had disappeared. Gone was the encircling 'wall' but remaining from the 1948 plan was the concept of modernist glass curtain-walled buildings but now freestanding and laid out zellenbaus fashion with long facades facing north and south and linear court spaces between. Gone also was the idea of homeless faculties allotted general space. Instead, clear functional zoning of the campus was suggested: new slabs for Physics in the east; an expansion from the north, biochemistry was the first and then four slabs each designated as a 'medical school unit'. To the east of medical school. Five linear slabs, running east-west, were arranged with equidistant spaces between along Royal Parade: five linear slabs, running east-west, were arranged with equidistant spaces between along Royal Parade: five linear slabs, running east-west, were arranged with equidistant spaces between along Royal Parade: five linear slabs, running east-west, were arranged with equidistant spaces between along Royal Parade: five linear slabs, running east-west, were arranged with equidistant spaces between along Royal Parade: five linear slabs, running east-west, were arranged with equidistant spaces between along Royal Parade: five linear slabs, running east-west, were arranged with equidistant spaces between along Royal Parade. Bates, Smart & McCutcheon’s ‘Siting Diagram ’Y’ of October 1954, designated as a master plan drawing not for the University as a whole but as part of a series of drawings for the proposed Russell Grimwade School of Biochemistry. This is the first identifiable moment of a fully-fledged medical precinct for the university, but it remained specifically to represent the development of a complete medical school. Five linear slabs, running east-west, were arranged with equidistant spaces between along Royal Parade: from the north, biochemistry was the first and then four slabs each designated as a ‘medical school unit’. To the east of these five slabs and connecting all five slabs was a north-south pedestrian mall shaded in part by a connected elevated walkway with bridge connections into a ‘central facilities’ slab on the eastern side of the mall. Importantly, to the north of this ‘central facilities’ building was to be a central university library, whose site had been designated in 1952. This is where the modernist glass curtain-walled Baillieu Library would be constructed from 1957 and be complete by 1959. Car parking for the new medical precinct was to be provided by a new north-south roadway coming off Grattan Street, giving delivery access to the new library and two minor roadways off it that would dive beneath the pedestrian mall and terminate at just two shared car parks between the first and second, and third and fourth slabs. In this way, the separation of cars and pedestrians would be achieved and with landscaping, no cars would be visible from either Royal Parade or Grattan Street.

This diagram would proceed as an unofficial master plan for the south-west corner of the campus, and as was typical, individual buildings were commissioned as a way of implementing a potentially longer term plan. Two personalities lie behind the first two buildings constructed: librarian Axel Lodewycks (1910-1991), who would work closely with architect Architectural historian George Tibbits in 2000 was careful though not to attribute this bold institutional move to the 1951-2 Lewis plan:

The Lewis plan did not cause the change of location, rather it represented the intentions of the eventually more powerful voices in the faculty and the university.

This situation lies behind all the planning in the university. That is, behind the scenes forces either go along with a plan, or mysteriously, and for reasons that are sometimes difficult to discern now, the plan is not followed and something unexplained emerges and is built.18

In other words, the modernism of the Lewis planning strategy evident in the 1951-2 drawing was more likely to have been a political move to dramatically recast the physical/intellectual character of the campus and satisfy perceptions of future growth and the achievement of synergy through proximity rather than reflect Lewis’s aesthetic and urban ideals. Indeed, Lewis’s contemporaneous master planning efforts at the Australian National University appear to have been relatively feeble in his understated, Garden City-inspired plan of 1947. Instead, perhaps the most striking aspects of Lewis’s 1951-2 master plan was that there was no central library indicated at all and that there was an extraordinary amount of space devoted to car parking, including along most of the length of Royal Parade and the Grattan Street frontage, and in great swathes directly adjacent to buildings like Old Arts, the Quadrangle, the Union Building and a new slab block for Engineering on Grattan Street. Car parking had become a problem on campus by the late 1940s though Lewis’s solution of a series of heavily trafficked cul-de-sacs would never have provided a satisfactory solution.

Instead, what would eventuate would be the growing power and united influence of “the appointment of vigorous young professors committed to the development of their disciplines at international standard”19 and who would prove to be the drivers behind the eventual move of the Medical School. This distinguished group of medical researchers and educators included, in order of their appointment to the university: (Sir) Roy Douglas ‘Pansy’ Wright (1907-1990) (Physiology, 1939); (Sir) Sydney Sunderland (1910-1993) (Anatomy, 1940); Victor Trikojus (1902-1985) (Biochemistry, 1943); Sydney Rubbo (1911-1989) (Microbiology, 1945); and Edgar S.J. King (1900-1966) (Pathology, 1951).

Bates Smart & McCutcheon and the 1954 Plan

More convincing as a modernist plan for the south-west corner of the Parkville campus was Bates, Smart & McCutcheon’s ‘Situation Report’ of November 1954, that proposed a master plan for the University’s life sciences precinct, south of the 1948 plans. This was the first significant step beyond the University’s initial plans to consolidate on Royal Parade, and it was drawn up specifically to represent the University of Melbourne as a university of world class standing. Bates, Smart & McCutcheon’s first step was to propose a new Medical School on Grattan Street, and connected to this would be the establishment of a new Library on or near Royal Parade, and a new Chemistry Laboratory to be located on the northern part of the campus. Bates, Smart & McCutcheon’s plan also proposed a series of new buildings for the University’s life sciences departments, and these would be located on or near Royal Parade. Bates, Smart & McCutcheon’s plan was the first significant step beyond the University’s initial plans to consolidate on Royal Parade, and it was drawn up specifically to represent the University of Melbourne as a university of world class standing. Bates, Smart & McCutcheon’s plan also proposed a series of new buildings for the University’s life sciences departments, and these would be located on or near Royal Parade. Bates, Smart & McCutcheon’s plan was the first significant step beyond the University’s initial plans to consolidate on Royal Parade, and it was drawn up specifically to represent the University of Melbourne as a university of world class standing. Bates, Smart & McCutcheon’s plan also proposed a series of new buildings for the University’s life sciences departments, and these would be located on or near Royal Parade. Bates, Smart & McCutcheon’s plan was the first significant step beyond the University’s initial plans to consolidate on Royal Parade, and it was drawn up specifically to represent the University of Melbourne as a university of world class standing. Bates, Smart & McCutcheon’s plan also proposed a series of new buildings for the University’s life sciences departments, and these would be located on or near Royal Parade. Bates, Smart & McCutcheon’s plan was the first significant step beyond the University’s initial plans to consolidate on Royal Parade, and it was drawn up specifically to represent the University of Melbourne as a university of world class standing. Bates, Smart & McCutcheon’s plan also proposed a series of new buildings for the University’s life sciences departments, and these would be located on or near Royal Parade. Bates, Smart & McCutcheon’s plan was the first significant step beyond the University’s initial plans to consolidate on Royal Parade, and it was drawn up specifically to represent the University of Melbourne as a university of world class standing. Bates, Smart & McCutcheon’s plan also proposed a series of new buildings for the University’s life sciences departments, and these would be located on or near Royal Parade. Bates, Smart & McCutcheon’s plan was the first significant step beyond the University’s initial plans to consolidate on Royal Parade, and it was drawn up specifically to represent the University of Melbourne as a university of world class standing.
Variation to the model – but only in form – came with the completion in 1968 of the new Medicine, Dentistry and Health Sciences building on Grattan Street, a Y-shaped, tri-radial series of slabs. A limited competition had been held in 1964 for a £3 million medical centre. The winning design by yet another modernist firm, Mockridge Stahle & Mitchell had each discipline occupying a leg of the Y: Physiology in the north slab, Pathology in the west and Anatomy in the east. In form, the building now completed the row of slab blocks along Royal Parade and the building’s gently curving arm of two slabs along Grattan Street echoed Lewis’s 1948 perimeter ‘wall’, thus keeping the interior of the campus free from tall buildings. As with the other lab slabs, the building, was as architect John Mockridge commented “architecturally well mannered”, with politely ordered grid façades and shaded as required, in this case, its most dramatic moment being the sculptural protrusion of the obligatory fan-shaped lecture theatre, now not one but two stacked on top of each other and finished externally in off-form concrete with an exposed bluestone aggregate finish.

With the completion of the new medical school, Vice-Chancellor David Derham stated in September 1968 that:

> For the university, it is difficult to exaggerate the importance of the building’s completion. Not only does the University have one of the largest and best equipped medical schools in the English speaking world, of which we can be proud, but now, after many years during which the re-organization and re-equipment of the medical school has dominated our planning, we can turn our efforts to the re-equipment of other faculties.

But it was the observation of G.S. Christie, Professor of Pathology, that captured the planning implications of the project’s completion:

> The complex of medical and biological institutions in the immediate neighbourhood of the University of Melbourne is an advanced ‘medical centre’ by any standard. It comprises six major hospitals and a number of institutions with related interests. In addition to performing its service functions, this complex forms an enormous pool of facilities and expertise available for teaching...

In 1963, Victoria’s first government-funded dental hospital was built in Grattan Street, Parkville, directly opposite the Royal Melbourne Hospital and diagonally opposite the consolidating precinct of the Medical School of the University of Melbourne.

**Legacy And Change**

Fifty years since the completion of the tri-radial Medical School building, the medical precinct in the south-west corner of the Parkville campus of the University of Melbourne has proved its viability in terms of the original decision in 1951 to pursue co-location with RMH and WEHH. The broader precinct has seen consolidation with WEHH’s expansions in 1982-5 and 2012, the relocation of the Royal Women’s Hospital to the RMH site in 2003-8 and the construction of the Victorian Comprehensive Cancer Centre (VCCC) (2011-16) on the former Dental Hospital site on Grattan Street. The university too strategically consolidated its presence: the Peter Doherty Institute for Infection and Immunity was completed in 2013 on the south side of Grattan Street and in the modernist precinct of slabs, over the years additions had been made to Howard Florey (1993-6), Medicine (1997-8), and Microbiology (2000). The most dramatic change to the precinct came in 2011 with the demolition of the Russell Grimbade School of Biochemistry and its replacement with the much broader footprint of Lyons’ Kenneth Myer Building that houses the Melbourne Brain Centre and the Florey Institute of Neuroscience and Mental Health.

Today, the remaining 1960s buildings and their disposition remain largely intact but their future and their viability is uncertain. Given the high political and economic stakes involved in medical research, there is little doubt that these facilities are nearing the end of their useful life as state-of-the-art laboratory and teaching spaces. As their usefulness and functional relevance is also being brought into question, so too is the overall precinct’s urban relationship and its physical

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John FD Scarborough in developing the design of the Baillieu Library (1951-4) and later become the University Librarian (1956-73); and “one of the last great God-Professors”12, Professor of Biochemistry, Victor Trikojus (1902-1985), who would be the instrumental force in achieving the new Russell Grimbade School of Biochemistry. Both buildings formed the northern end of Bates, Smart & McCutcheon’s 1954 plan and as such, their completion would guarantee the reservation of the southwest corner of the campus for the future medical school.

Professor Trikojus had been campaigning for a new biochemistry building since the mid-1940s, after receiving the good news of a generous benefaction from Russell Grimbade. After working up a preliminary design in 1944 with Percy Everett, Chief Architect of the Victorian Public Works Department, plans were put on hold during the war, then revived immediately after. Trikojus undertook two research trips looking at laboratories, the first in 1946-7 promoted by the Universities Commission and sponsored by the Ministry of Post-War Reconstruction, and the second in 1951. He visited laboratories and medical schools and research institutes at Oxford, the Rockefeller Institute in New York, McGill University, Cal-Tech in Pasadena, sites across war-torn Germany, as well as the delayed but recently completed Mill Hill laboratories in outer London designed by Maxwell Ayrton in 1937.

The Russell Grimbade School of Biochemistry was designed in 1953 by Bates, Smart and McCutcheon, was under construction by 1956 and officially opened in 1958.13 However, the building was only partially completed, and was not fully occupied until 1961. The steel framed laboratory wing, initially three then extended to five storeys, had lightweight floors of prefabricated metal units, a north face of aluminium window frames and sunhoods, and window spandrels faced with grey-anodised ribbed aluminium. Connected by a glazed lobby to lecture theatres to the north, it was a building that blended the structural and material innovations of BSM’s high-rise work with skins of textured brick and low-key decorative elements located near entry points to contextually soften the bold prismatic slab form.

### CONSOLIDATION OF A PRECINCT

In the University of Melbourne Gazette in October 1962, two images appeared of the Medical School. The first showed the 1863 Medical School building as it was in 1880: a polite Renaissance Revival-styled building facing the ornamental lake that had once graced its grounds before becoming in the 1960s what is now known as the ‘Concrete Lawn’. Below this bucolic image was a photograph of a model of the medical precinct, including the fully completed Biochemistry Building: four tall multi-storey slabs, the tallest at 12 storeys, each with a projecting fan-shaped lecture theatre protruding from its north face. It was clear in 1962 that the University had become fully committed to achieving its modernist medical precinct.

Over the next six years, three more slabs would be added. In 1962, the nine-storey Howard Florey Institute for Experimental Physiology designed by the modernist practice of Yuncken Freeman, then working on its competition-winning scheme for the Victorian State Offices (1962-70), Royal Insurance (1962-5) and Scottish & Amicable Buildings (1966). Constructed largely from private donations from the Rockefeller Foundation of New York, the Baillieu-Myer families and Ian Potter, the building was designed to handle technologically advanced mechanical services, and where as Cross-Section noted “ductwork runs continuously on the outside of the columns and within spandrels, which results in windows being deeply recessed behind the pre-cast concrete chadding.”

In 1964, another slab was complete: Microbiology and Immunology, designed by another modernist practice, Romberg & Boyd. Designed in close consultation with Sydney Dattilo Rubbo (1911-1969), Professor of Microbiology (1948-69), this six-storey slab had a rigorously modulated facade of exposed concrete frame with clear and white glass infill, and to the north continuous concrete sunshades. A dramatic sculptural counterpoint to the efficient slab was the projecting and elevated lecture theatre on the north side. Set on ‘legs’ and with a fan-shaped plan, it conformed exactly to the 1962 image of the precinct model.
connections to the broader precinct as the construction of Metro Tunnel and an underground railway station commences beneath the intersection of Grattan Street and Royal Parade, a project that when completed by 2026 will dramatically recast the university’s multiple centres of gravity with regard to pedestrian movement and connections with the broader city. It will also mean that the university will have to move south of Grattan Street to build anew if it is to maintain its presence as a key player in a precinct devoted to health care and medical research.

For the moment though, the continuing, albeit tenuous, presence of the modernist slabs of the University’s medical precinct along Royal Parade represents a key post-war moment when a university campus turned outward to engage with the broader city and it did this through strategies of functional adjacency and proximity and with a correspondingly modern language of architectural representation that departed radically from traditional images associated with university buildings. The urban morphology of the modern hospital campus became the inspiration for a recasting of the university’s image. As a precinct, arguably unique in Australia, it continues to represent, historically and aesthetically, a significant post-war meeting of long-term institutional ambitions for high quality state-of-the-art facilities - driven by powerful and ambitious research professors - with the successful deployment of a planning and architectural strategy that showcased the work of Melbourne’s progressive architects over a period of more than fifty years.

2 See Morton Herman, ‘Urban Housing’, Architecture (October 1937), 221-7.
3 The architects for Erskineville were officially Louis S Robertson & Son in association with WR Richardson. See ‘Erskineville Re-Housing Scheme’, Architecture, 27, 12 (1938), 292; Building (24 December 1938); and Morton Herman, ‘The Erskineville Re-Housing Scheme’, Art in Australia, 74 (February 1939), 68-73.
4 Caroline Butler-Bowdon and Charles Pickett, Homes in the sky: apartment living in Australia (Carlton, Vic.: The Miegunyah Press, 2007), 129.
5 DT Morrow & Gordon was also responsible for, on behalf of the NSW Housing Commission, ‘Greenway’ at North Sydney (1949-54), Australia’s largest residential development at the time of its completion.
10 George Tibbits, The planning and development of the University of Melbourne: an historical outline, Parkville, Vic.: History of the University Unit, University of Melbourne, 2000, p. 64.