

# architecture institutions and change

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## Proceedings of the Society of Architectural Historians Australia and New Zealand Vol. 32

Edited by Paul Hogben and Judith O'Callaghan

Published in Sydney, Australia, by SAHANZ, 2015  
ISBN: 978 0 646 94298 8

The bibliographic citation for this paper is:

Goad, Philip. "Free Spirits, New Education and the New School: A Different Account of Modernism in Australian Architecture 1925-1975." In *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 32, Architecture, Institutions and Change*, edited by Paul Hogben and Judith O'Callaghan, 206-217. Sydney: SAHANZ, 2015.

## **Free Spirits, New Education and the New School: A Different Account of Modernism in Australian Architecture 1925-1975**

*Questioning the institution of school was a preoccupation of certain Australian educators interested in promoting alternative teaching methods in the twentieth century, especially amongst those associated with the international organisation, the New Education Fellowship (NEF) and its landmark Australian conference in 1937. A redefined space for the classroom and the natural environment were seen as key sites where experimental pedagogies might be realised, and where practices of traditional learning might be combined with those of art, music, and movement. At first, existing buildings and extensive landscape settings – such as Quest Haven at Mona Vale – were enlisted as aids to those alternative ends. At the same time, modernism across a range of disciplines was also implicated. Artists like Grace Cossington-Smith, photographer Max Dupain, and émigré artists Danila Vassilieff, Slawa Duldig, Eleonore Lange and ex-Bauhaus master Ludwig Hirschfeld Mack brought modernist ideas to these discrete experiments, all of which took place independently and largely within the closed setting of the private school. At the same time, modernist architects like Best Overend, Fritz Janeba, Harry Seidler and later Kevin Borland, Daryl Jackson and Evan Walker similarly worked closely with progressive educators to realise innovative spatial and formal alternatives to conventional notions of school. Drawn from a range of archival sources, this paper will chart a little known but rich history of interdisciplinary collaboration and practice. In doing so, it will posit a different, more nuanced, account of modernism for Australian architecture, where educators, artists and architects set out, often with mixed success, to re-think the basis and space of learning.*

The history of modernism in Australian architecture rarely features the spaces of education, particular those of primary and secondary schools. Instead, houses, hospitals, factories and high-rise buildings have been celebrated as the purveyors of a new aesthetic of abstract form or the careers of individual architects have been lionised as heroic prophets in a cultural wilderness. There are, of course, notable exceptions. In 1945, Walter Bunning in *Homes in the Sun* suggested that “Modern education, with its emphasis on ‘learning through doing’ and its concern with the physical and psychological well-being of the child demands a completely new type of school” but almost all of his examples were either American or British.<sup>1</sup> In 1947, Robin Boyd included Seabrook & Fildes’s MacRobertson’s Girls High School, South Melbourne (1933-4) as part of the 1934 “Revolution” in Victorian architecture.<sup>2</sup> Its Dudok-inspired language represented a decided break from the period-styled external appearance of state-sponsored educational buildings. But in reality, the spaces and the pedagogy followed within were utterly conventional. Apart from the occasional open-air classes conducted on the school’s roof,<sup>3</sup> it was, arguably, little more than a symbolic dressing of progressivism yet one that would be adopted across the nation in primary, secondary and technical schools from the mid-1930s to the late 1940s.<sup>4</sup> J. M. Freeland’s 1968 history of Australian architecture mentions no schools at all from the 1920s through to the 1950s apart from an image of the Hale School Memorial Hall at Wembley Downs, WA (1961), included only as a pictorial marker of stylistic shift as Freeland’s modernist story folded into so-called ‘Brutalism’.<sup>5</sup>

However, if one considers the spaces of education as a field of experiment in alternative forms for the delivery of alternative pedagogies, or as the forum for the imparting alternative aesthetic ideas associated with modernism in art, or as a field of experiment in re-thinking the classroom as a space for learning, or even as a technique of production to meet a societal demand, then a different, complementary, account of modernism in Australian architecture might emerge. For example, Australia’s first open-air school at Blackburn in Victoria (1915), described as a ‘school for anaemics’, catered for malnourished children from the industrial inner suburb of Richmond.<sup>6</sup> While the schoolhouse was, in many respects, conventional stylistically – an adapted Craftsman bungalow – the approach to space and teaching was not. After travelling by train to Blackburn then walking for half an hour to the bush site, the children were fed, had lessons in their open-air classroom, had recess and then rested, more lessons then fed again on the open verandah, then deck chairs were set out and children rested, lessons resumed, then games, and more lessons and singing to finish the day. There was plenty of time to play and explore. It was a regime in which these children engaged for three to twelve months before returning to their regular Richmond schools. The point here is that, outside the conventions of state departmental education and the constrictions of conventional ideas of what constituted a classroom, there existed the possibilities of rethinking the boundaries of education and space.

Rethinking school and its attendant spaces preoccupied various groups of Australian educators interested in exploring alternative teaching methods in the twentieth century, especially amongst those associated with the New Education Fellowship (NEF), an

international organisation of professional educators first formed in 1914 and officially named as such in 1921. As a network of modern educationists the NEF was the equivalent of architecture's *Congres Internationaux d'Architecture Moderne* (CIAM). The NEF's landmark Australian conference in 1937, began first in Brisbane and travelled to most capital cities, and drew more than 8000 attendees. Academics, teachers and parents were treated to a veritable galaxy of leading international thinkers on progressive education, including Susan Isaacs, Beatrice Ensor, Harold Rugg, William Boyd and Cyril Norwood.

Redefining the space of the classroom and a physical engagement with the natural environment were seen as key strategies, sites where experimental pedagogies might be realised, and where practices of traditional learning might be supplemented and even combined with those of art, music, and movement. At the same time, modernism across a range of artistic disciplines was also implicated. Painters, sculptors and architects worked closely with progressive educators to realise innovative spatial and formal alternatives to conventional notions of school. This paper thus charts a little known but rich history of interdisciplinary collaboration and practice. In doing so, it exposes a relatively undiscussed aspect of modernism in Australian architecture, where educators, artists and architects set out, often with mixed success, to re-think the basis and space of learning. It also highlights, by default, how the story of schools (which necessarily includes those both private and government-funded) reveals two competing and contradictory strands within modernism: the desire for individual expression and formal experiment versus political and economic desires for rationalisation and systematisation, equity and efficiency.

## Experimental education, space and school

The idea of architecture, design and environment enabling or realising progressive and innovative educational aims in alternative Australian schools has been little studied. R. C. Petersen's PhD dissertation of 1968 still remains the most comprehensive survey of the mostly privately run experimental schools in the twentieth century while Henry Schoenheimer's edited volume *Good Australian Schools and their Communities* gives an inclusive view of the largely government-funded exemplars of innovative school practice in 1973.<sup>7</sup> However neither text focuses on the role of environmental factors such as school buildings, grounds and landscapes, and their connection to the progressive curricula that historically had often given such schools their distinction from other educational offerings.

For example, in Victoria, Presbyterian clergyman, pacifist, and educationist interested in psychology, John Lawton, established St Andrew's College in 1921 in 'Rangeview', a large Italianate mansion set on five acres of grounds with lawns, gardens, orchard and playing fields in Mont Victor Road, East Kew in outer Melbourne.<sup>8</sup> Irish-born psychologist Mary Sheridan's alternative school, Quest Haven (1935-40), in Mona Vale, New South Wales, operated from a huge, eclectically-styled mansion and its attendant buildings, formerly known as 'La Corniche', situated right on the beach and with a vast site that included an octagonal ballroom in a separate building and a disused polo field.<sup>9</sup> Sheridan, with others, was involved in the first NEF committee in Australia in 1926.<sup>10</sup> In 1929, she travelled

to London and visited Dr Hugh Crichton-Miller's Tavistock Clinic and worked at the child guidance clinic of child psychologist and psychotherapist, Dr Margaret Lowenfeld. At the Notting Hill clinic, Sheridan was exposed to the use of sand trays ('wonder boxes'), toys and models that later became known as the Lowenfeld World Technique, and the inspiration for Dora Kalff's sandplay therapy. At Quest Haven, children engaged in similar activities. In a series of photographs by modernist photographer Max Dupain, the children are seen climbing monkey bars, calmly reading books, working in the carpentry shop, and learning at individual tables set at relaxed angles in what looks like a large drawing room. A key aspect of Quest Haven was that it comprised a rich and complex series of indoor and outdoor spaces that refuted the conventional settings of the traditional classroom, all without a sense of teacher-student hierarchy, and all promoting Quest Haven as a "free-will" school.<sup>11</sup> At Box Hill Grammar School in Melbourne, charismatic headmaster Charles Walker ran his Methodist-based co-educational boarding school (1926-7, 1929-63) in an informal, almost intuitive manner. Inspired by A. S. Neill's alternative school, Summerhill (Suffolk, UK) and the writings of Homer Lane, lessons were supplemented by camps, concert tours, the repair and maintenance of school buildings, and working in the school's vegetable garden and dairy. The school buildings were an odd mixture of purpose built structures, existing houses and a series of recycled and relocated buildings: the old Chemistry laboratory from the University of Melbourne's Queens College, a sports pavilion from Wesley College, a parcel store from the North Melbourne Methodist Mission (moved by sawing it in half), and another cast-off building from Methodist Ladies College in Kew. This ad-hoc collection of buildings that was converted to classrooms, a gymnasium and boarding houses gave the school its special character: "the battered buildings, comparatively undeveloped grounds and the presence of animals created an environment rich with possibilities for adventure and mythology. The 24-acre site had places of almost tribal significance... The school grounds were rather like a huge backyard where growing children could come to terms with an important part of themselves."<sup>12</sup> Margaret J. R. Lyttle's school Preshil (1931-) was first located in a house in suburban Kew with an old tram car in the garden, and from 1962 until 1970, when her niece (also Margaret), the school's children and architect Kevin Borland engaged in a participatory process of design and added an influential series of child-centred and collaboratively designed learning spaces and buildings to the school's Arlington campus, where they'd been since 1937.<sup>13</sup>

Most of these schools, often through lack of finance and circumstantial expediency, used existing buildings such as nineteenth-century houses with large gardens, church halls and attendant outbuildings (often relocated from elsewhere), or semi-rural or bush sites as the basis for their establishment. It was these non-institutional settings that gave such schools their immediate appeal but more importantly, it was also the possibility for alternative methods of delivering teaching beyond the confines of the traditional classroom that made these environments key parts of the school's mission and character.

A rare instance that from its inception involved the creation of new buildings was Clive and Janet Nield's Koornong School (1939-47) at Warrandyte outside Melbourne. It comprised

a series of modernist flat roofed structures laid out across a bush site that sloped down to the Yarra River.<sup>14</sup> The Niels attended the 1937 NEF Conference in Melbourne and were fully committed to linking psychoanalysis and education. They travelled overseas in 1938 to visit progressive schools in England, Europe and the United States, including the Dolphin School for Girls (New York), Dr Kurt Hahn's Gordonstoun (Scotland), Summerhill (Suffolk), and significantly Dartington Hall in Devon. There, modernist buildings by US-based architect William Lescaze and his English collaborator Robert Hening included 'High Cross' (1930-2), a house for headmaster William Curry, who previously had been the client for the innovative Lescaze-designed nursery building (1929) at the Oak Lane Country Day School in Pennsylvania. At Koorng, there was a similar detached principals' residence for the Niels, who lived on site. The architect for Koorng was young Melbourne modernist Best Overend, who'd worked in London for Wells Coates, Raymond McGrath as well as Serge Chermayeff and Erich Mendelsohn, and was best known in Australia for his existenz-minimum flats, 'Cairo' in Fitzroy (1935-6). The Koorng buildings were striking examples of Overend's utilitarian approach to modernist design: there were expansive areas of glass, fly-screened sleepout balconies, and flat roofs that served as playgrounds and open-air classrooms. Assisting Overend in designing and documenting the buildings, many of which had exposed timber stud frames and only internal linings, was Viennese émigré architect Fritz Janeba, who with his wife Kathe, a potter, lived nearby. The Niels believed that "Boys and girls in this school are happy and alert because their conditions produce physical and mental fitness and a general balance."<sup>15</sup> Part of the notion of 'mental fitness' was the inclusion of the arts (music, painting and drawing) "as part of the ordinary work of the school, not as extras" as well as "a general scientific study of the interesting natural bush environment of the school" and "the general problems of the modern world", made special at Koorng by the establishment of programs of co-operation and student self-government. In addition to the normal range of academic subjects, there were puppetry, weaving, music, cooking, metal and woodwork. Painting and sculpture, strong components of the curriculum, were under the control of émigré Russian artist Danila Vassilieff, who ran the school's extensive art program and encouraged mural painting by the children on the school walls. In 1947, Dr J. A. Lauwers, Deputy Chairman of the International NEF, observed that in Australia there was "only one school where the total school environment was planned and set up in the light of modern psychology and pedagogy so as to provide optimum conditions for the wholesome development of children."<sup>16</sup>

### Artist émigrés and schools

Vassilieff's presence as a modernist artist at an independent private school, was not exceptional or unusual. Grace Cossington-Smith, for example, taught painting and drawing and oversaw schoolboys contribute to a mural of the building of the Sydney Harbour Bridge in the large schoolroom<sup>17</sup> at the short-lived Turrumurra College (1921-8), an experimental school run by Felix Barton. The college drew much from Barton's visits to the British progressive schools Bedales, Sidcote and Persse, his attendance at Homer Lane's lectures and his interest in psychoanalysis.<sup>18</sup> Significantly there were numbers of émigré modernist

artists who, through desire or more commonly straitened financial circumstances in a new land, became art teachers at private schools, where experiment in art was not only accepted but actively encouraged. At Quest Haven School, art was taught according to the method of free expression advocated by Austrian art educator Franz Cizek who'd staged an influential exhibition of children's art in London in 1934. There was also a room dedicated to puppetry. When Mary Sheridan had run her clinic at Burdekin House, Allan Lewis, who later taught carpentry at Quest Haven, was deeply influenced by a performance of 'David and Goliath' by Sydney Marionettes at Burdekin House's Basement Theatre. German-born artist, sculptor and art educationist Eleonore Lange, who'd arrived in Australia in 1930, and illustrator/designer Edith Lanser had earlier presented the Sydney Marionettes' first performance and staged the biblical story of 'Joseph and His Brethren' in 1932 at Burdekin House.<sup>19</sup> Lange was active in Sydney at the time, attempting to convince schools and the NSW Department of Education of the educational potential of puppets. Her troupe performed at Frensham Girls School at Mittagong, and she later became an influential art mistress at Frensham from 1947 until 1954, and also at Loreto Convent.

Other émigré artists who taught at private schools included artist-industrial designer Slawa Duldig (nee Horowitz), who was the inventor of 'Flirt', the world's first foldable umbrella in 1929. After fleeing Vienna in 1938, she was interned at Tatura in 1940, then taught at Korowa Anglican Girls School, Melbourne (1944-6) before being appointed senior art and craft instructor at St Catherine's Girls School (1947-63). Her husband Karl Duldig was art master at Mentone Grammar School (1945-67).<sup>20</sup> But the most celebrated modernist to teach within the private school system in Australia was ex-Bauhaus student, artist and educator Ludwig Hirschfeld Mack, who fled to England in 1936, then was deported as an enemy alien on the *Dunera* to Australia in 1940 and interned at Hay, Orange and Tatura before being released in 1942 due to the efforts of Geelong Grammar School headmaster, Dr James Darling. Hirschfeld-Mack, art master at Geelong from 1942 until his retirement in 1957, introduced boys, through his Bauhaus-inspired subject 'Study of Materials', to avant-garde painting techniques, wood carving, weaving, making musical instruments, leatherwork and colour-coded experimental xylophones, as well as exhibiting the students' work at Peter Bray Gallery in Melbourne in August 1954.<sup>21</sup> Other émigrés associated with education included German-born sculptor Inge King who worked at Melbourne's Institute of Early Childhood Education, Czechoslovakian-born Liverpool-trained architect Paul Ritter who worked with artists and children on sculptural panels for kindergartens in Perth and published *Educreation* (1966), a book advocating the educational benefits of child-centred art-based education,<sup>22</sup> and even émigré architect Harry Seidler, whose little known post-war project for the NEF was an unbuilt design (1952) for an adult education centre at Clissold Road in Wahroonga commissioned by NSW NEF member Clarice McNamara.<sup>23</sup>

The collective presence of modernist artists within the spaces of education has been little studied in Australian accounts of modernism. In reality, as teachers, most made do with existing classrooms or former houses converted to become studios and art teaching spaces. The modernist émigré presence would however influence broader moves to improve the

state of art teaching within the public system. In Bernard Smith's 1958 edited collection *Education Through Art in Australia*, the result of a UNESCO seminar on the role of the visual arts in education held in Melbourne in 1954<sup>24</sup> and intended to influence education policy makers, Hirschfeld-Mack, for example, was critical of outmoded practices, and argued that the study of arts and crafts could be done even under the most straitened of circumstances. In Victoria, however, it would not be until after the mid-1960s that dedicated art and craft buildings began to be constructed in its state primary schools.<sup>25</sup>

## Between private and public

If some private schools were receptive hosts to alternative teaching methods in art, most schools – public and private – had a conventional focus on the three 'r's of reading, writing and arithmetic delivered in conventional classroom spaces. In the public sector, modernist experiment linking space, pedagogy and architecture was especially slow in coming. Given the circumstances of the Great Depression then World War II (which effectively spelt the demise for the very small private progressive schools), this was understandable. Beyond the progressive symbolism of some 1930s schools, priorities – political and fiscal – after 1945 were focused heavily on production for the greatest number. Rationalisation and systematisation were key themes to post-war school design. While programs such as the importation of prefabricated aluminium Bristol and Hawksley classrooms represented expedient and successful strategies of supply across the entire nation, experiment in educational space design by state public works in the 1940s and 1950s was rare. One of the few examples was a series of hexagonal classroom schools designed in 1946 by Victorian Public Works Department Chief Architect Percy Everett. The unusual classroom shape was argued on the basis of the panoptic strategy of visual and auditory access to the teacher, the optimisation of natural daylight through window-walls and clerestories, and as a natural gathering shape for learning: the prototype for a "classroom planned around the pupils".<sup>26</sup> Everett also suggested "Queensland type" blinds be fitted externally to achieve appropriate solar control.<sup>27</sup> His aim – a modern classroom space that was flexible and environmentally rational – echoed the health-giving plans of patient rooms in tuberculosis sanatoria, especially his zigzagging plan for the FVG Scholes Block (1947) at Fairfield Infectious Diseases Hospital.<sup>28</sup> Everett proposed at least twenty hexagonal classroom schools for Victoria between 1947 and 1952. Only eight have been positively identified as being constructed, the most notable examples being 'Solway', Ashburton (1948-50), described in 1952 as "one of the world's most modern primary schools"<sup>29</sup>, Moorabbin West (1948), North Balwyn (1947-50) and Newlands in North Coburg (1951), all in suburban Melbourne, and Red Hill Consolidated School (1947) on the Mornington Peninsula. However cost forced these experiments to cease and Everett transformed his inventive polygonal classroom designs into the repeatable and very successful Light Timber Construction (LTC) schools of the 1950s and 1960s, which came to dominate educational architecture in Victoria at both primary and secondary level. Over the next 15 years, more than 700 primary, secondary and technical schools were built in Victoria using the LTC system.

Alignment between the experimental private sector and pragmatic public sector began to

narrow in the late 1960s and 1970s, at the same time that local interest in the radical 'de-schooling' ideas of Ivan Illich (brought to Melbourne in May 1972) and Paulo Friere (who visited in 1974) began to intensify. In Victoria, for example, architects who worked actively between both sectors were Evan Walker and Daryl Jackson. Walker, son of Box Hill Grammar headmaster Charles Walker was, by the early 1970s, part of a think-tank of educators that included teacher Joan Kirner (future Victorian State Labor Premier) and school principals Tony Delves and Gerry Tickell, and it was through these meetings that he came to write for the activist education journal, *The Open Book* in 1974. Jackson and Walker designed for Lauriston Girls School a 'Special Studies Court' (1965-8) that characterised the spaces of school as a 'town', with spatial connections in and out of the central courtyard resembling streets and lanes. Shortly afterward, in 1971, the pair worked closely with Princes High School principal Allan Sier on a three-storey addition (1973) with a double height library as the building's "heart", science rooms at the top, general classrooms at mid-level, and theatre and art rooms on the ground floor, with outdoor learning spaces opening directly onto the street. With its unadorned language of concrete block, off-form concrete and industrial glazing, the addition was a contemporary "factory" of learning, where stairwells, corridor intersection and entries were treated as if elements of the everyday city. For the private, alternative school, Tenaden (1973) at Belgrave in the Dandenongs, Jackson and Walker provided for principal John Crook, "an essentially indeterminate building, able to react to user requirements as they became more apparent."<sup>30</sup> A series of clerestory lit, barn-like basic units or pods had intermediate or mezzanine levels introduced into the main volumes to allow for withdrawal from the main group teaching spaces and for individual study. The word "classroom" formed no part of this school. The eventual grouping of the pole-framed and diagonal timber-clad rectangular pods, tied together with stairways and decks, had as intended "open and closed spaces with a strong 'village' sense, intimately related to the bush environment."<sup>31</sup> These design themes of open/closed; public/private; home/village; private/shared; fixed; indeterminate and an unpretentious architectural language that was essentially a low-tech kit of parts (lightweight timber construction and standard window modules) informed Jackson and Walker's collaboration with progressive educationist and principal Michael Norman at Woodleigh School (1975-) at Baxter on the Mornington Peninsula. There, on a semi-rural site of eighteen and a half acres, Norman's concept was simple but compelling: students would belong to "homesteads" (Merchant Builders' 'Garden Houses' adapted as double classroom blocks with a breezeway between) scattered radially and located in natural clearings in the bush and within easy walking distance of the subject specialist area, which constituted a virtual 'town centre' of timber framed buildings and spaces with dedicated functions such as the art and craft block, science block, library and multi-purpose hall. The analogy of this central grouping of buildings as a town, where "a slice of life" might be experienced was not by accident. It formed the basis of Norman's innovative curriculum timetable which encouraged movement across the physical environment of the campus and its landscape throughout the day – back and forth from the 'homestead' to 'town' – as well as its extensive extra-curricular program that took students outside the school for another 'slice of life'.<sup>32</sup>

Across the public system, similar ideas were being explored. As Julie McLeod has observed, experiments by the Victorian Education Department such as the Swinburne Community School (1972), which operated from a church hall in Hawthorn, Brinsley Road School, Camberwell (1973-5), housed in a former mansion with extensive gardens, and Huntingdale Technical School, which began in 1972 as a collection of portable classroom and makeshift buildings on the site of a former golf links, all commenced with similar spatial and architectural themes of making do as had the earlier alternative schools of the 1920s and 1930s.<sup>33</sup> Across Australia, there were different sorts of experiments that linked pedagogy and space. In South Australia (as in other states) the public system began experimenting with the open-plan classroom, most notably with the development in 1968 by English architect Peter Falconer within the South Australian Public Buildings Department (SAPBD) of what became known as the “Burnside” classroom unit. Each “Burnside” spatial unit comprised two classes in an open area, and was able to be made into one classroom or subdivided into smaller sections, and was first tested at Burnside Demonstration School, and then in multiple combinations at seven other South Australian schools.<sup>34</sup> Innovations in school master planning took place within the NSW Government Architect’s Office c.1962-5, with Michael Dysart’s doughnut-shaped classroom blocks grouped around a large central space, an acknowledgement not of progressive pedagogy as such but that the external environment of the school might shift the emphasis from the classroom interior, hence spaces such as courtyards, niches and open ‘squares’ as places of learning and socialisation.<sup>35</sup> Chris Johnson’s relaxed, child-scaled designs for open-plan teaching spaces within pavilions planned around courtyards at Hampden Park School, Sydney (1978) then furthered these innovations being pursued within the NSW Government Architect’s Office.<sup>36</sup> For the Queensland Public Works Department, architect Eddie Codd developed in 1974 the Industrialised Building (IB74) school, a systems approach to open-plan school building inspired by Ezra Ehrenkrantz’s early 1960s School Construction Systems Development (SCSD) project, that would result in 56 schools being constructed though not fully realising Codd’s intentions for the flexibility of his system.<sup>37</sup> In each of these public cases, the venture into the open-plan classroom model was combined with efforts to achieve repeatability and construction economy. All of these developments, in many respects, were attempts to resolve modernism’s apparently contradictory strands: they indicate the modernist aim of a transformed spatial environment for free learning that might affect social change at the level of public provision, achieved – remarkably – when all state public works departments operated within different educational policy contexts.

## Expanding the context

A history of modernism as described by the spaces and protagonists of progressive education and the late adoption by government agency across states with different educational policies and aims, is invariably piecemeal and predictably, one might argue, messy and incoherent. However by attempting to frame its hazy structure, different names, different figures, different professional networks and different design priorities emerge. Historians of education focus to a significant degree, on the provision of education through the public system, and understandably so also do architectural historians such as Andrew

Saint and Dale Gyere,<sup>38</sup> whose ethical focus on the institution of the state reveal the tensions and politics of production rather than experiment in pedagogy and space and the complex interaction of architects, artists and educators, and the educative role which modernism saw as one of its key aims. A rare exception is Cathy Burke's biographical study of Margaret Medd, whose career bridged of architecture, education and pedagogy and would have effect across the whole of England.<sup>39</sup> The significance here is to dismantle the art-historical focus on creative genius and the designed object and instead look more closely at the complex, interdisciplinary interaction of all protagonists involved and the role that space and pedagogy played in that interaction. Easily forgotten is that at the 1914 Deutscher Werkbund in Cologne in 1914, there was an entire Montessori Room.<sup>40</sup> Or that for the first CIAM meeting at La Sarraz in 1928 Le Corbusier had drafted six questions for the congress, the fifth being primary school education (ultimately little discussed due ironically Le Corbusier's hijacking of the program to focus on the first four questions – modern architectural expression, standardisation, hygiene and urbanism – despite great interest from much of the CIAM cohort).<sup>41</sup> Or that modernist architects like Bruno Taut, Johannes Duiker, Richard Neutra and Alfred Roth had lifelong commitments to designing for education. While there exist recent individual accounts and edited collections on education and space such as those by Gutman and de Coninck-Smith, Burke and Grosvenor, Ogata and Chatelet et al., a comprehensive history linking modernism and the spaces of education has yet to be written.<sup>42</sup> Recent exhibitions like *Century of the Child* (2012) at New York's Museum of Modern Art<sup>43</sup> show that there is still more to be uncovered. What is revealing is that the Australian story is just as interesting and as relevant, and perhaps as yet, a significant and undiscovered constellation<sup>44</sup> in a world-wide reappraisal of education and space in the twentieth century.

### Acknowledgements

The research for this paper was supported under Australian Research Council's Discovery Project funding scheme (DP110100505). The assistance of Sianan Healy, Daryl Jackson, Cameron Logan, Julie McLeod, Darren and Loftus Overend, Evan and Judith Walker, and the Mitchell Library at the State Library of New South Wales in the research for this paper is gratefully acknowledged.

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- 1 Walter Bunning, *Homes in the Sun* (Sydney: W. J. Nesbit, 1945), 79-85. For example, Richard Neutra's Corona Avenue School, Bell, Los Angeles, California, USA (1935) and Gropius & Fry's Impington Village College, Impington, Cambridgeshire, England (1938-9).
  - 2 Robin Boyd, *Victorian Modern* (Melbourne: Victorian Architecture Students Society, 1947), 28.
  - 3 Christine Phillips, "Planting the Seeds of Modernism: The Work of Seabrook and Fildes 1933-1950" (M.Arch thesis, University of Melbourne, 2007), 42. Seabrook and Fildes also designed a series of open-air classrooms for Mentone Boys Grammar School in 1944. See Phillips, "Planting the Seeds of Modernism," 42.
  - 4 Key examples include Adelaide Boys High School, Adelaide, South Australia (1940-52); the Tasmanian schools of S. W. T. Blythe; the technical schools of Victorian PWD architect, Percy Everett, and the technical colleges designed by Harry Rembert within the Office of the NSW Government Architect.
  - 5 James Maxwell Freeland, *Architecture in Australia* (Melbourne: F. W. Cheshire, 1968), 287.

- 6 Sarah Mirams, "Situated Among the Gum Trees: The Blackburn Open Air School," *Journal of the Public Records Office of Victoria* 10 (2011).
- 7 Robert Charles Petersen, "Experimental Schools and Educational Experiments in Australia, 1906-1948" (PhD dissertation, University of Sydney, 1968); Henry Schoenheimer, ed., *Good Australian Schools and their Communities* (Melbourne: Technical Teachers Association of Victoria, 1973).
- 8 Desmond Gibbs, "John Thomas Lawton (1878-1944): Biography of an Educational and Social Reformer" (M.Education thesis, University of Melbourne, 1978), 38-39.
- 9 Philip Goad, "Space, Place and Home: Sydney's First Progressive School" (paper presented at AARE Conference, Adelaide, December 2013).
- 10 Yvonne Larson, "The World Education Fellowship: Its Origins and Development with Particular Emphasis on New South Wales, the first Australian Section," *Working Papers in Australian Studies* 16 (Australian Studies Centre, Institute of Commonwealth Studies, University of London, February 1987), 8.
- 11 Dorothy Colley, "The Freewill School," *Woman*, May 23, 1935, 28.
- 12 Richard Cotter, "CF Walker and Box Hill Grammar 1929-1963: An Unconventional Headmaster and his School" (MA thesis, University of Melbourne, 1984), 112.
- 13 Doug Evans, *Kevin Borland: Architecture from the Heart* (Melbourne: RMIT Publishing, 2006), 41-44, 141-59.
- 14 Philip Goad, "A Chrome Yellow Blackboard with Blue Chalk: New Education and the New Architecture: Modernism at Koorngong School," *History of Education* 39, no. 6 (2010): 731-48.
- 15 "Koorngong School: Provisional Prospectus of a New School at Warrandyte" (typescript, n.d., c1939). Koorngong Papers, Nield Archive (held by Lawrence Nield).
- 16 Joseph Albert Lauwerys, "Educational Pioneering in Centralised Systems," *The New Era in Home and School* (February 1947): 28.
- 17 Gwen Spencer, "The Mural Painters of Turrumurra," *The Home*, November 1927, 23.
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- 28 See also Everett's articles on hexagonal rooms for hospital wards: Percy Everett, "A Room with a View for Everybody: An Improved Ward Unit on Hexagonal Lines," *The Modern Hospital* 70, no. 1 (January 1948): 51-53; "Un Projet Australien: Deux chambres particulières dans la même salle d'hôpital," *Techniques Hospitalières* 47/48 (Aout/Septembre 1949): 33-34.
- 29 *Cairns Post* (Queensland), January 28, 1952, 4.

- 30 Daryl Jackson Evan Walker Pty Ltd, Briefing documents, Tenaden School, c1974, held by the Jackson Architecture Office Library.
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- 32 Philip Goad, "Designing Woodleigh School: Educator and Architects in Context," *History of Education Review* 43, no. 2 (2014): 190-206.
- 33 Julie McLeod, "Experimenting with Education: Spaces of Freedom and Alternative Schooling in the 1970s," *History of Education Review* 43, no. 2 (2014): 172-89.
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