INTERSTICES

AUCKLAND SCHOOL CENTENARY SPECIAL ISSUE

Journal of architecture and related arts

contents

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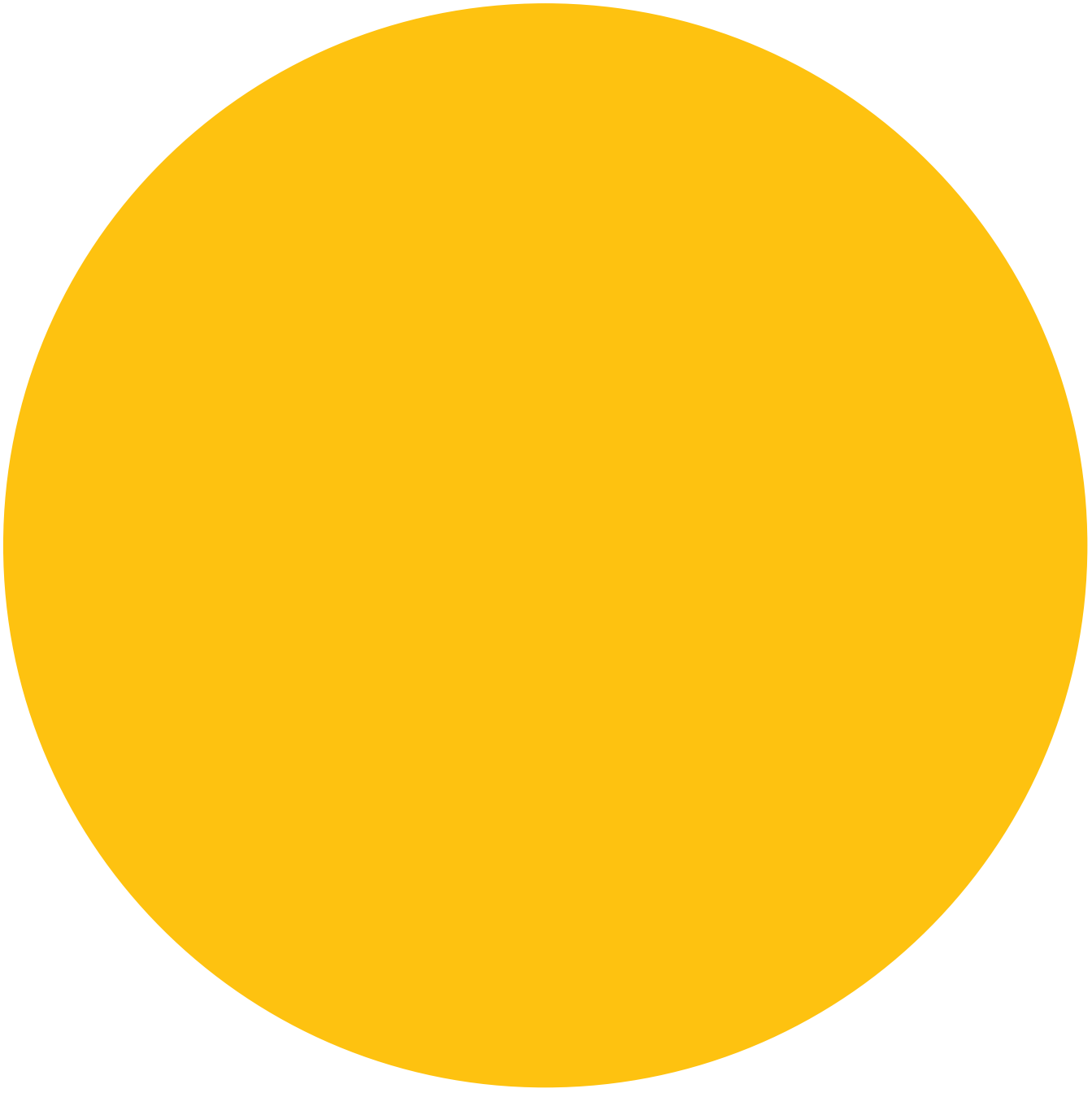
Cover: The entry to the Auckland School of Architecture in 1991. [University of Auckland Libraries and Learning Services, Record Number 557368]



editorial / JULIA GATLEY

From Beaux-Arts to BIM

Fig. 1 The entry to the Auckland School of Architecture in 1991. [University of Auckland Libraries and Learning Services, Record Number 557368]

In September 2017, the University of Auckland's School of Architecture and Planning celebrated its centenary. We launched a book on the School's history (Gatley & Treep 2017), and opened an extensive exhibition of drawings, photographs, models, and ephemera, also from the School's first 100 years (Milojevic, Treep, Barrie, & Gatley 2017). There were three further exhibitions: current student work (Manfredini & Rieger 2017); library and archive collections across the 100 years (Milojevic & Cox 2017); and a revised edition of the timeline on women in New Zealand architecture, prepared by Architecture + Women New Zealand (2017 [2013]). The latter newly named the women who had studied architecture in the School from the 1920s to the 1970s, when the institution started to become less particular about identifying women as such in its lists of student names.

This historic reflection followed survey texts on the history of architectural education in the United Kingdom (Crinson & Lubbock 1994) and the United States (Ockman & Williamson 2012). There is also a tradition of individual schools marking significant anniversaries with their own histories. Of these, the Architectural Association School of Architecture (AA) in London has been among the most prolific (Summerson 1947; Gowan 1973–75, 1975), while the Yale School of Architecture in New Haven, Connecticut, has produced perhaps the most exhaustive study of its own past (Stern & Stamp 2016). The School of Architecture at the University of Liverpool is one that has attracted the attention of multiple authors, particularly developments that occurred under Charles Reilly's leadership (Crouch 2002; Dunne & Richmond 2008; Richmond 2001; Sharples, Powers, & Shippbottom 1996).

In Australasia, the University of New South Wales celebrated 60 years of architecture in 2015 (Murray 2015), the University of Western Australia, 50 years of architecture in 2015 (George 2015), and Victoria University of Wellington, 40 years of architecture in 2016. The School of Architecture, Design and Planning at the University of Sydney celebrates its architecture centenary in 2018, while in 2019, the Faculty of Architecture, Building and Planning at the University of Melbourne celebrates both the centenary of that University's Architecture Atelier and the sesquicentenary of its teaching of architecture. The older planning programmes—those originally focused on town planning—were often established in schools or faculties of architecture, while more recent planning programmes have more diverse beginnings.

In addition to the centennial history and four exhibitions, the Auckland School of Architecture and Planning celebrated its centenary with a gala dinner enjoyed by 280 people, a series of panel discussions with alumni, and a symposium titled "Educating Architects and Planners, 1917–2017". This special issue of *Interstices* brings together seven of the 30 papers presented at the symposium.

The original call for papers for the symposium established our interests in a broad range of themes, including the formation and early history of schools and programmes, the gradual demise of the pupillage model, the extent to which Beaux-Arts methods were or were not used in particular schools, and more generally, the reliance on overseas models. Auckland's inaugural Professor of Architecture, for example, Cyril Knight, had trained at the University of Liverpool School of Architecture and worked in New York, and his background influenced the early direction of the School. British qualifications remained common among the Auckland staff until the 1950s, when greater diversity started to be seen, including the School's first European émigré staff. The early reliance on Britain extended to the professions, with ties to the Royal Institute of British Architects (RIBA) and the Town Planning Institute of London (TPI). This changed over time, as the New Zealand professions and the tertiary sector both matured. Thus, the modernisation and professionalisation of programmes were of interest to us. For most of the twentieth century, the New Zealand Institute of Architects (NZIA) was heavily involved in decisions about the opening of new architecture programmes in particular tertiary institutions; now it is hands-off, taking the view that whether or not a particular institution offers architecture is purely a business decision for that institution. Schools have also had changing priorities, and have responded to changing technologies, from environmental sustainability to the digital age, as well as changing demographics, including gender, ethnicity, and internationalisation. Key members of staff were another obvious theme, with their visions and their public voices, as critics or commentators. The work on our own centennial history had established further specific interests in accommodation, space, and the ways in which physical environments have influenced pedagogies at particular points in time.

While the symposium attracted a broad range of papers from across the region, the seven articles presented in this volume are tightly connected, and indeed interconnected, by virtue of their consistent focus on aspects of New Zealand architecture and planning education. As the Auckland School was New Zealand's only professional school of architecture until the mid-1970s, and also offered the country's first professional planning programme, this necessarily includes repeated reference to it and its history.

In the first article, "Persisting Beaux-Arts Practices in Architectural Education", Milica Mađanovic investigates the endurance of Beaux-Arts practices in the Auckland School of Architecture from 1927 to 1969. She focuses on the School's teaching of the history and theory of architecture, and more specifically on the books it recommended as reading for the history and theory courses. Her start date follows not the School's opening, but rather the publication of reading lists in its annual prospectuses, and their inclusion of conservative, historicist texts that supported Beaux-Arts emphases on classicism, composition, and unity. Her conclusion is that "The reading lists published between 1927 and 1969 documented three phases of the Beaux-Arts influence on history and theory teaching at the Auckland School: predominance, from 1927 to 1947; transition, from 1948 to 1958; and then decline, from 1958 to 1969."

The second article is by Ann McEwan, who is already the author of one of the key texts on the history of architectural education in New Zealand, "Learning by Example" (1999). Here, in "Learning in London", she focuses on the New Zealanders who studied architecture at the Architectural Association School of Architecture (AA) in London. This included the likes of Samuel Hurst Seager and Frederick de Jersey Clere in the nineteenth century, and a much larger number in the first few decades of the twentieth century. Her study is informed by archival research in London, complemented by extensive newspaper searches. She shows that most of the New Zealanders who studied at the AA in the early twentieth century returned to New Zealand and practised here, with a considerable proportion becoming well known. She compares their experiences to those of the New Zealand painters and writers who spent time abroad, and concludes that the AA training would have enhanced the standing of those architects who returned.

With his article "Ernst Plischke as Teacher", Christoph Schnoor moves the volume to modernism and, more specifically, to the teaching initiatives of the Austrian-born émigré architect, Ernst Plischke (1903–1992). Plischke gave public lectures in Wellington in the 1940s and applied for the position of Professor of Design at the Auckland School of Architecture in 1947. He was unsuccessful in this application, but 16 years later, in 1963, took up a professorial position in design at the Academy of Fine Arts in Vienna, and taught there for 10 years. While the Auckland School in 1947 sought a professor with academic experience, Vienna in 1963 privileged practice experience and design reputation. Thus, Schnoor asks the question of whether academic experience or practice experience is the more useful criterion for selecting and appointing professors of design. He argues that Plischke was more than just an ordinary teacher, expecting his students to produce high-quality work and developing in them a "moral compass" and, he hoped, a "noble mind".

In "Imric Porsolt: The 'Messenger of Modernism' in Exile", Linda Tyler focuses on another émigré architect-academic, Hungarian Imric Porsolt (1909–2005). She surveys his career, including his training and early work in Prague, and his move to New Zealand in 1939, at the age of 30. Porsolt worked as an architect in Auckland during and after the war, started teaching part-time in the Auckland School of Architecture in the late 1940s, and then worked full-time in the School from 1950 through to his retirement in 1974. He was important in broadening the scope of the history and theory teaching in the School, newly introducing modernism, the applied arts, and New Zealand architecture. He was also active as a writer on New Zealand art and architecture. Tyler shows that his personal

approach derived from German philosophy and aesthetics, rondo-cubist Czech architecture, and the Viennese school of art history and criticism. He had a mission to educate others about modernism, evidenced by his instruction for the words "A Messenger of Modernism" to be engraved on his headstone.

In "Mud on His Boots", Robert Freestone focuses on the career and teaching initiatives of a third individual—Professor Robert Terence Kennedy (1903–1997), the University of Auckland's first Professor of Town Planning, appointed in 1957 to set up the Department of Town Planning within the Faculty of Architecture, and running it until his retirement in 1969. Kennedy had no formal qualifications, but a wealth of practice experience from the United Kingdom. Freestone's research reveals Kennedy's insecurities as an academic, but also the high regard in which others held him; clearly he saw himself quite differently from how others saw him. Freestone argues that Kennedy was "an archetypal British expatriate architect-planner, somewhat patrician but principled, steeped in old-world planning but not dogma, and striving to adapt best practice to the New Zealand environment." He concludes that the expatriate Briton established a "firm footing" for New Zealand's first professional qualification in town planning.

The starting point for Gill Matthewson's article, "Where Do You Go To?", was her own experience as a first-year student at the Auckland School of Architecture in 1976. She was one of 24 women in a class of 74 students. Gender statistics in the School had shifted significantly that decade, following a dearth of women students throughout the 1950s and 1960s. Second-wave feminism gave women the confidence to imagine and pursue careers in the professions once again. Matthewson analyses the gender statistics from her own cohort, from pass and fail rates through to graduation and registration. She also explores the lives and careers of as many of her former classmates as she was able to track, providing a fine-grained reading of one particular student cohort from the School's history. She argues that the statistics and the stories demonstrate "the difficulty of architecture, both as a field of study and as a career"—for men, and especially for women—and shows that many alumni find rewarding work in architecture's "expanded field".

The final refereed article in this issue, "Propagating a Legacy", by Aaron Paterson and Michael Davis, is concerned with the Auckland School of Architecture's reputation, earned in the 1980s, as a "drawing school", with a recognised strength in "teaching and producing architectural media that challenges normative representations of the discipline". The pair have both taught second-year media in the School in recent years, including form-making and fabrication software such as Revit and Building Information Modelling (BIM). Their fear is that such programmes can encourage the production of work that is descriptive rather than speculative or critical; their aim is to teach the software in such ways as to maintain the School's critical drawing culture. They describe their response to this challenge, through encouraging "undisciplined drawings" and insisting that BIM can be considered "part of a design workflow that informs an idiosyncratic media practice, rather than an end in itself."

It is a pleasure to be presenting Lucy Vete's Master of Architecture (Professional) thesis project in this issue, titled "Shifting Grounds" and completed in the Auckland School of Architecture and Planning in 2017 under Jeremy Treadwell's supervision. With this project, Vete earned the top prize in the 2017 NZIA Student

Design Awards. In this annual competition, each of New Zealand's three schools of architecture is represented by four finalists, and a jury selects a winner and two highly commendeds. Vete's thesis abstract describes her research on Tongan conceptions of home and homeland.

The issue's non-refereed section combines photographs from the Auckland School of Architecture and Planning's 2017 centenary celebrations; a review, by Sam Kebbell, of a recent exhibition of work by Sarosh Mulla and Aaron Paterson, titled *Penumbral Reflections*; and a photographic essay by Patrick Reynolds, recording the University of Auckland's Conference Centre Building, ahead of its likely demolition in 2019 or 2020.

This issue of *Interstices* is a counterpart to the School's 2017 centennial history publication. It is our conclusion that the researching and writing of histories of architectural and planning education is a worthwhile endeavour, because so many practitioners remember their education and training very vividly; it is formative, and influences careers and both personal and professional networks for many years afterwards.

REFERENCES

Architecture + Women New Zealand, curators. (2017 [2013]). *100 years of architecture by women*. Auckland: School of Architecture and Planning, University of Auckland, September 8, 2017–July 24, 2018.

Crinson, M., & Lubbock, J. (1994). *Architecture: Art or profession? Three hundred years of architectural education in Britain*. Manchester and New York: Manchester University Press.

Crouch, C. (2002). *Design culture in Liverpool 1880–1914: The origins of the Liverpool School of Architecture.* Liverpool: Liverpool University Press.

Dunne, J., & Richmond, P. (2008). *The world in one school: The history and influence of the Liverpool School of Architecture, 1894–2008*. Liverpool: Liverpool University Press.

Gatley, J., & Treep, L. (Eds). (2017). *The Auckland School: 100 years of architecture and planning*. Auckland: School of Architecture and Planning, University of Auckland.

George, B. (Ed.). (2015). *UWA architecture: The first 50 years, 1965–2015*. Perth: Cullity Gallery and the Faculty of Architecture, Landscape and Visual Arts.

Gowan, J. (1973–75). *Projects, Architectural Association, 1946–71*. London: Architectural Association.

Gowan, J. (Ed.). (1975). *A continuing experiment: Learning and teaching at the Architectural Association, 1946–71*. London: Architectural Association.

Manfredini, M., & Rieger, U., curators. (2017). *Design studio in action.* Auckland: School of Architecture and Planning, University of Auckland, September 8–13.

McEwan, A. (1999). Learning by example: Architectural education in New Zealand before 1940. *Fabrications: The Journal of the Society of Architectural Historians, Australia and New Zealand, 9*, May, 1–16.

Milojevic, M., & Cox, S., curators. (2017). *100 years, 100 books*. Auckland: Architecture and Planning Library, University of Auckland, March–December.

Milojevic, M., Treep, L., Barrie, A., & Gatley, J., curators. (2017). *The Auckland school: 100 years of architecture and planning*. Auckland: Gus Fisher Gallery, September 8–November 4.

Murray, A., curator. (2015). *Architecture by hand and mind: 60 years of architecture at UNSW*. Sydney: Red Centre West Wing, University of New South Wales, 19-25 October.

Ockman, J., & Williamson, R. (2012). *Architecture school: Three centuries of educating architects in North America*. Cambridge, Mass: MIT Press.

Richmond, P. (2001). *Marketing modernisms: The architecture and influence of Charles Reilly*. Liverpool: Liverpool University Press.

Sharples, J., Powers, A., & Shippbottom, M. (1996). *Charles Reilly and the Liverpool School of Architecture* [Exhibition catalogue]. Liverpool: Liverpool University Press.

Stern, R., & Stamp, J. (2016). *Pedagogy and place: 100 years of architectural education at Yale*. New Haven, CT: Yale University Press.

Summerson, J. (1947). *The Architectural Association, 1847–1947*. London: Architectural Association.

MILICA MAĐANOVIC

Persisting Beaux-Arts Practices in Architectural Education: History and Theory Teaching at the Auckland School of Architecture, 1927–1969

> "Dis-moi ce que tu lis, je te dirai qui tu es," il est vrai, mais je te connaîtrai mieux si tu me dis ce que tu relis. (Mauriac 1959: 138)
>
> ["Tell me what you read and I'll tell you who you are," is true enough, but I would know you better if you told me what you re-read].

In architectural history, it is easy to focus on buildings and structures and, in doing so, to overlook the influence of the written word on architectural development—for various and, one might add, obvious reasons. The significance of the great treatises—from Vitruvius' *De Architectura* to Le Corbusier's *Vers une Architecture*—is acknowledged and widely discussed in architectural scholarship. But what about the numerous, less famous titles, subtly making their contribution to the course of architectural history? Literature has played a particularly important part in the history of institutionalised architectural education. It rose to prominence within the Beaux-Arts tradition. The academic intellectual climate of the French school nurtured the specific profile of the architects. Beaux-Arts students were well-trained academics, encouraged to assume the role of a scholar in the exploration of the past. The achievements of architectural history were condensed in treatises on composition, proportion, symmetry, ornamentation, etc. Books became a supplement to, or, in countries remote from Europe, a substitute for actual buildings. Furthermore, a tendency to perceive every historical phenomenon as a unique structure shaped by specific sets of conditions gained in strength since its emergence in the eighteenth century. The architectural past was no exception. To fully understand the architectural production of different époques and environments, architects needed to study the broader socio-economic, political, and cultural context. Historiography was their strongest ally.

The Beaux-Arts methods were systematically introduced into the Auckland School of Architecture by Professor Cyril Knight, the first Professor of Architecture, who took up his position in 1925 (Treep 2017: 25–31). Knight was living in New York at the time of his appointment and his first task was to purchase books for the architecture library. The telegram Knight received informing him about his professorship included £100 for this purpose. Unfortunately, the list of the titles Knight brought from New York has been lost. However, it is possible to

learn which books were deemed necessary for the education of architects from the School's annual Prospectus. These publications present valuable information about the Auckland School, including the reading lists for individual courses, or papers. There can be no doubt that the teachers sometimes deviated from the officially advertised content. They would have offered their personal interpretations, decided the extent to which individual books were to be used, and suggested other titles to their students. Nonetheless, the official School prospectuses documented the institutionalised intellectual climate that influenced the formal education of young architects in Auckland for decades (see Fig. 1).

The words by the influential French writer François Mauriac were an appropriate line of inspiration for this article. Exploring the titles students were—at least officially—encouraged to read and re-read, the article is focused on the teaching of history and theory at the Auckland School of Architecture. History and theory courses formed the conceptual nucleus of the curriculum in the educational tradition of the Beaux-Arts. In turn, knowledge and comprehension of the architectural past informed the teaching of design and drawing. However, a curious

Fig. 1 In the period covered by this article, the Auckland School of Architecture *Prospectus* was redesigned six times. Above are the cover pages for the years 1927 (a), 1944 (b), 1948 (c), 1958 (d), 1964 (e), 1967 (f), and 1970 (g).

dichotomy developed at the Auckland School. On one hand, the residues of a conservative Beaux-Art tradition were apparent in the recommended bibliography and descriptions of history and theory courses until as late as 1969. On the other, from the 1930s on, student designs were obviously influenced by modernist ideas. Tracing the gradual transformation of the history and theory courses from 1927 to 1969, the article explores the persistence of Beaux-Arts influences at the School, and, consequently, demonstrates that the once resounding ideas of the École des Beaux-Arts had echoes, even if increasingly faint, until well into the twentieth century.

"The World-Famous System": École des Beaux-Arts as the Model for New Zealand

The early history of architectural education in New Zealand has been discussed by Ann McEwan (1999, 2001) and Lucy Treep (2017). McEwan (1999, 2001) has shown that in New Zealand, as in Britain and the United States, the study of architecture existed for decades outside of the university context, prior to becoming a taught discipline. Aspiring candidates could learn their craft in the office of a senior architect, by correspondence or—for the few who could afford it—studying at an overseas university. However, the prosperous years of the early twentieth century instigated changes in New Zealand's architectural profession. The economy was recovering from the previous decades of crisis, and the colony became a dominion in 1907. In an atmosphere of growing national pride and general prosperity, confidence in the future of the architectural profession gained strength. The New Zealand Institute of Architects (NZIA) was established in 1905, and a three-year Diploma Course in Architecture was offered by Canterbury College from 1914, run in conjunction with the Schools of Art and Engineering. Determined to raise the profession to a more advanced level, architects campaigned for the establishment of an architectural school in New Zealand. After years of debate, the relentless efforts of the NZIA and individual practitioners ultimately bore fruit. The first New Zealand School of Architecture was officially established at Auckland University College in 1917.

One hundred years later, in the School's centennial history, Treep (2017) reveals the important role that Professor Knight played in the employment of Beaux-Arts methods during the early history of the Auckland School. His formal education and professional experiences were deeply rooted in the French tradition. Of Australian origin, Knight graduated with a first-class honours degree in architecture from the University of Liverpool. He broadened his understanding of the discipline through architectural studies in Europe—mostly Paris—and the United States. Lacking systematised architectural education, the United States and the United Kingdom adopted the Beaux-Arts model for the development of their tertiary-level instruction during the course of the nineteenth century. In both countries, architectural knowledge was previously acquired through the traditional system of apprenticeship. In contrast, the École des Beaux-Arts in Paris developed a centralised, government-funded, and systematic education from the middle of the seventeenth century (Drexler 1977; Egbert & Van Zanten ca. 1980). The United States employed the Beaux-Arts model for the first time at MIT in 1865 (Draper 1977; Noffsinger 1955). England got its first full-time architectural programme in 1895, again based on the Beaux-Arts system, at the University of Liverpool (Crouch 2002). Both the British and the American schools taught the Beaux-Arts design principles and, especially at first, aimed to employ French design tutors. However, they did not copy the programme of the École des Beaux-Arts—rather, the content taught at the French school was adapted to fit university teaching in the British and the American contexts.

Echoing American and English practices, Knight adopted the Beaux-Arts system at the Auckland School. This was proudly advertised in School prospectuses:

> The training in design is based upon the world-famous system adopted by the École des Beaux Arts at Paris, which has been followed by Liverpool, Manchester, and London University Schools of Architecture with such

> distinguished success. It is also the system operative at the Architectural Association School in London and most of the American Universities (*Prospectus* 1931: 6).

The School of Architecture was established as a part of the developing Auckland University College, which was undergoing an intensive expansion to meet New Zealand's needs for a better, more systematic education. As a result, and in keeping with the British and American precedents, in contrast to the seemingly laissez-fair atmosphere of the École's ateliers, where students progressed at their own pace, studio design instruction was integrated with the university lecture and class systems.[1]

A question logically follows: Why was the Beaux-Arts method such a fitting model for development of tertiary-level architectural curricula? Discussing Beaux-Arts influences on the architectural profession in the United States, Joan Draper (1977) formed some insightful conclusions, and ones that are also relevant to the British and New Zealand experience. The standardisation of education following the Beaux-Arts model offered solutions to two major problems. First, the establishment of systematic rules helped overcome the rampant pluralism of nineteenth-century architectural styles. The French school developed a precisely defined, universal formula of historic architectural styles and a rational method for applying it. Furthermore, the Beaux-Arts system helped the development of specific professional abilities which would differentiate architects from other professionals of the construction industry. This contributed to the emergence of a specific, standardised approach to architectural design and, officially supported and acknowledged by the public, institutionalised education therefore played an important role in the professionalisation of architecture.

"Architecture Confirmed History": The Beaux-Arts and the Importance of History

Beaux-Arts architects approached the design process through a scholarly comprehension of the past. Their practice was heavily influenced by historicism. Challenging the older Universalist conception, the historicist notions of individuality and development altered the way humans perceived history (Reynolds 1999). The historicist thinkers expressed the idea, today a default for historical scholarship, that each historical phenomenon—whether a person, an event, or a complex political structure such as a state—was unique, different from others, and shaped by a specific set of conditions. Maintaining that the present was a part of the historical stream of development, humans started conceiving of culture historically.

Architecture was traditionally deemed to be a product of "high" culture par excellence. Christchurch architect Richard Harman vividly illustrated the significance of architecture in an address given to the New Zealand Society of Artists in 1934. He stressed that the "people of the past were judged by their architecture and people of the future would judge those of to-day in the same way" ("Architecture and History" 1934: 12). Architecture was an integral part of civilisation. "Races without architecture were called barbarians, but those who built were held to be civilised. Architecture confirmed history …" ("Architecture and History" 1934: 12).

The intellectual climate of historicism contributed to the prestige of historical study. Gwendolyn Wright (1990) notes that history courses legitimised

professional training in architecture. According to Wright, professors of architecture at universities maintained that the history curriculum lifted their programmes above the technical schools where they were often first located: "History gave them autonomy and legitimacy within the academic setting" (1990: 17). Architects set off to examine the architectural production of the past, taking into consideration the wider, sociocultural background of any particular period. Students were encouraged to study the past not in the positivistic way of an archaeologist, but to understand the complex circumstances significant for the progress of human culture and their influence on forms and ornaments of architecture. The educated—and well-argued—choice of historic styles, dependent upon authoritatively generated precedents, resulted in a clearly identifiable model for architecture that was highly regarded throughout the Western world.

The belief in the relevance of the study of the past was deeply rooted in New Zealand architecture. Addressing the members of the Auckland Architectural Students' Association, the renowned architect William Gummer articulated this belief in a speech to Auckland architects in 1915. Gummer stressed that the purpose of historical study was comprehension, not the reproduction of "the structures of other peoples in other lands" (1915: 294). In the same year, Dunedin architect Leslie Coombs, in his lesson to architectural students, stressed that modern architecture should be in accordance with modern civilisation. And since:

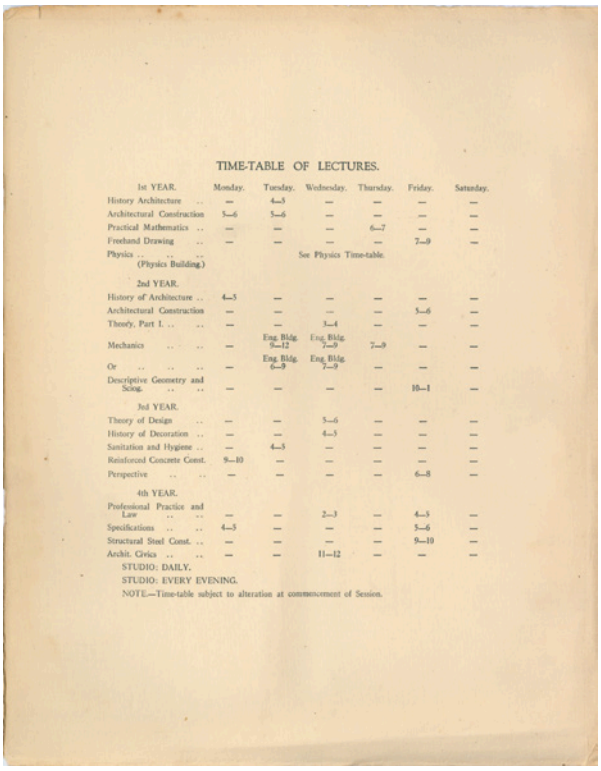
> … our civilization has developed from the experience of the past so our architecture should reasonably be expected to develop. Therefore study the history of architecture and the forms that were designed by the men who came before us, and make full use of the ideas. I say make use of the ideas, I do not say copy blindly the works (Coombs 1915: 199).

The Teaching of History and Theory at the Auckland School of Architecture

The degree structure at the Auckland School of Architecture remained largely unchanged for a period of 34 years, until 1961. Revolving around the thesis development, the fifth and final year allowed great freedom. In contrast, the teaching programme of the first four years demonstrated strong Beaux-Arts influences. For example, the fourth-year examination involved a typical esquisse-type Beaux-Arts test. The students had five days to develop a design solution for the programme to which they were introduced on the first day. An initial design concept had to be presented by the end of the first day. It could be further developed during the following four days, but the final design could not deviate from the original sketch "in its main line of compositions" (*Prospectus* 1948: 39).

The French tradition and importance placed on historical study in institutionalised education were even more evident in the first three years. The study of the architectural past was divided into three individual courses, taught from first- to third-year level.[2] Theory of Architectural Design was offered to second- and third-year students.[3] Architectural history directly informed the first-year Freehand Drawing paper. In the first part of the paper, the students were drawing the motifs of architectural ornaments from the cast, and, in the second, from memory. Descriptive Geometry and Sciagraphy offered in the second year included study of the "Ionic volute" and "geometry as a basis of ornamentation"

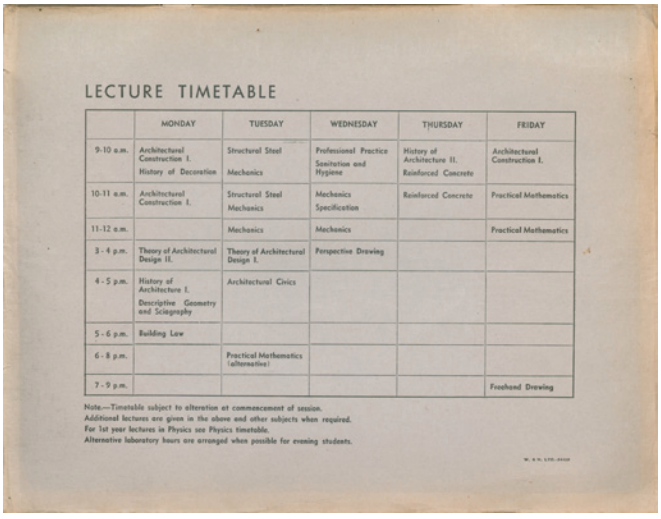
(*Prospectus* 1948: 38). While the study of history and theory was important in the conceptual shaping of the undergraduate programme, it did not dominate over the timetable of lectures in comparison with the hours allocated to other courses (see Fig. 2). For example, in comparison to Structural Mechanics, where the students had five hours per week in the second year, every individual history and theory paper was taught one hour weekly, at all levels of study.



TIME-TABLE OF LECTURES.

1st YEAR.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
History Architecture ..	—	4—5	—	—	—	—
Architectural Construction	5—6	5—6	—	—	—	—
Practical Mathematics ..	—	—	—	6—7	—	—
Freehand Drawing ..	—	—	—	—	7—9	—
Physics .. .. .. (Physics Building.)	See Physics Time-table.					
2nd YEAR.						
History of Architecture ..	4—5	—	—	—	—	—
Architectural Construction	—	—	—	—	5—6	—
Theory, Part I.	—	—	3—4	—	—	—
Mechanics	—	Eng. Bldg. 9—12	Eng. Bldg. 7—9	7—9	—	—
Or	—	Eng. Bldg. 6—9	Eng. Bldg. 7—9	—	—	—
Descriptive Geometry and Sciog.	—	—	—	—	10—1	—
3rd YEAR.						
Theory of Design ..	—	—	5—6	—	—	—
History of Decoration ..	—	—	4—5	—	—	—
Sanitation and Hygiene ..	—	4—5	—	—	—	—
Reinforced Concrete Const.	9—10	—	—	—	—	—
Perspective	—	—	—	—	6—8	—
4th YEAR.						
Professional Practice and Law	—	—	2—3	—	4—5	—
Specifications	4—5	—	—	—	5—6	—
Structural Steel Const. ..	—	—	—	—	9—10	—
Archit. Civics	—	—	11—12	—	—	—

STUDIO: DAILY.
STUDIO: EVERY EVENING.
NOTE.—Time-table subject to alteration at commencement of Session.



LECTURE TIMETABLE

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9-10 a.m.	Architectural Construction I. History of Decoration	Structural Steel Mechanics	Professional Practice Sanitation and Hygiene	History of Architecture II. Reinforced Concrete	Architectural Construction I.
10-11 a.m.	Architectural Construction I.	Structural Steel Mechanics	Mechanics Specification	Reinforced Concrete	Practical Mathematics
11-12 a.m.		Mechanics	Mechanics		Practical Mathematics
3 - 4 p.m.	Theory of Architectural Design II.	Theory of Architectural Design I.	Perspective Drawing		
4 - 5 p.m.	History of Architecture I. Descriptive Geometry and Sciography	Architectural Civics			
5 - 6 p.m.	Building Law				
6 - 8 p.m.		Practical Mathematics (alternative)			
7 - 9 p.m.					Freehand Drawing

Note.—Timetable subject to alteration at commencement of session.
Additional lectures are given in the above and other subjects when required.
For 1st year lectures in Physics see Physics timetable.
Alternative laboratory hours are arranged when possible for evening students.

Fig. 2 Timetable of lectures: 1931 (a), 1944 (b). [*Prospectus* (Auckland: Auckland School of Architecture, 1931; 1944)]

The place that history and theory courses held in the School curriculum is relatively clear. But who was behind them? Who were the people teaching history and theory at the Auckland School? The annual prospectuses regularly included a list of staff members. Interestingly, though it is possible to learn who was teaching subjects such as Architectural Construction, Physics, or Professional Practice and Law—and in what capacity—there is no official record of the history and theory lecturers. For some reason it was deemed unnecessary to record this information separately. It is well known that Knight was teaching architectural history for many years—his carefully prepared lecture notes, kept in the Architecture Archive at the University of Auckland, illustrate his enthusiasm for the subject. Additional information can be found in the passing comments in the "Annual Letters", written by Knight and included in the School prospectuses. For example, an Annual Letter from 1938 noted the contributions of Arthur Marshall, who was teaching construction and history to the second year. Imric Porsolt, a Hungarian who trained at Prague, was employed in 1950. Julia Gatley (2017) noted that Porsolt played an important role in the modernisation of history and theory teaching at the School: "He invigorated this subject area with interests that extended to modernism and also the applied arts" (50–51).

Finally, what tools did aspiring young architects have at their disposal for the exploration of professional principles validated and legitimised by centuries of

experience? What were the official sources for the study of architectural history and theory? The School prospectuses also included lists of the titles the students were expected to read for different courses. Regardless of the individual preferences of the teachers, the officially recommended bibliography records the dominant attitude of the Auckland School. The reading lists published between 1927 and 1969 documented three phases of the Beaux-Arts influence on history and theory teaching at the Auckland School: predominance, from 1927 to 1947; transition, from 1948 to 1958; and then decline, from 1958 to 1969.

1927–1947

As noted earlier, the prevalence of Beaux-Arts influences was initially advertised proudly on the first page in the School prospectuses. However, although no significant changes were made to the curriculum in 1940, the paragraph praising the "world-famous" French system was excluded from the prospectus documents from that time. The paragraph was omitted following Knight's (1937) return from his visit to approximately 40 architectural schools in the United States and the United Kingdom. In the 1938 "Annual Letter", Knight expressed his intention to make "many improvements" to the School curriculum as a result of the tour (Annual Letter 1938). The outbreak of the Second World War and its aftermath interfered with the realisation of his plans. Though there was awareness that Beaux-Arts methods were internationally perceived as outdated, the texts recommended for students studying architectural history and theory remained the same.

Fig. 3 A country residence: Fourth-year diploma time sketch, six hours, by R. Keith Land. [*Prospectus* (Auckland: Auckland School of Architecture, 1932)]

Fig. 4 A city hotel: Fourth-year design by J. Fairbrother. [*Prospectus* (Auckland: Auckland School of Architecture, 1938)]

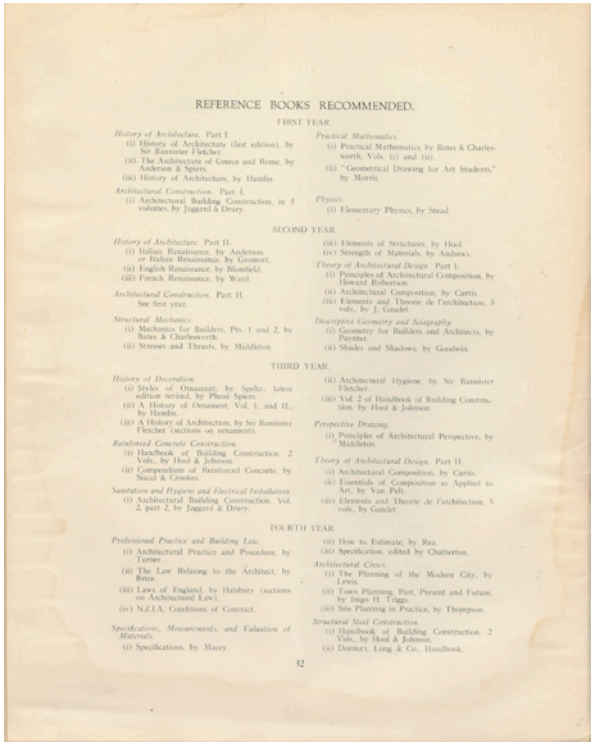
There was a growing dichotomy between the recommended reading and the most successful student designs, which were also included in the School prospectuses in these years (see Fig. 4). The design solutions gradually transformed from the traditional eclectic historical approach of the late 1920s, to pristine, ornament-free façades from the mid-1930s onward, as students were increasingly influenced by modernist aesthetics. The strict symmetry of the Beaux-Arts planning methodology remained in place for the designs for public buildings, while more freedom was apparent in the planning of residential structures, such as a design for a country residence from 1932 (see Fig. 3).[4] The shift in students'

designs coincided with the broader changes New Zealand architecture was going through at that time. Publications, immigrants, architects returning from overseas, and projects by the Department of Housing Construction significantly contributed to the dissemination of modernist ideas in the late 1930s and early 1940s (Clark & Walker 2000; Gatley 2008). The dichotomy was a result of the contrast in the curriculum itself, which, in turn, reflected the broader professional struggles of that period: architectural art or architectural science; historicist eclecticism or modernism? On one hand, history and theory courses drew lessons from the past, and in the spirit of Beaux-Arts tradition stressed the importance of ornament, preaching an art of architecture. On the other, courses such as Reinforced Concrete Construction or Sanitation and Hygiene were primarily focused on the future, relying on contemporary science and cutting-edge technologies. A similar pattern had developed at the Liverpool School of Architecture a decade earlier (Crouch 2002; Richmond 2001; Sharples, Powers, & Shippbottom 1996). Alongside historicist projects, Art Deco and modernist influences increased from the second half of the 1920s. However, though the history of the Liverpool School is a widely researched topic, history and theory courses have not been studied individually so far. Therefore, it is not possible to claim that a similar discord between the teaching of history and theory and student designs existed at the Liverpool School in this period—this can only be assumed.

What was the teaching of history and theory like at the Auckland School of Architecture? In the first two history courses, students learnt about the development of architecture from Ancient History to the modern period. In the historicist tradition, rather than discussing the architectural forms as an abstract, aesthetic category, students were expected to obtain "a general knowledge of the history of nations with reference to its influence upon architecture" (*Prospectus* 1927: 13). The first-year courses surveyed Egyptian, Assyrian, Persian, Greek, Roman, Byzantine, Early Christian, Romanesque, and Gothic architecture. The second-year paper focused on Renaissance architecture in Italy, France, and England. It also introduced modern architecture: "The tendency in modern design" was explored with regard to "the influence and value of ancient architecture" and "its effect in England, America, and the colonies" (*Prospectus* 1927: 14). This was "modern" architecture as in contemporary, or of its time, rather than of the Modern Movement.

The reading lists for both courses consisted of the conservative classic texts of architectural history (see Fig. 5). The first-year students were to study from three canonical texts—the latest edition of Sir Banister Fletcher's famous *A History of Architecture* (1898); *History of Architecture* (1909) by Alfred D. F. Hamlin, the esteemed American architectural historian and professor at Columbia University; and William James Anderson and Richard Phené Spiers' *The Architecture of Greece and Rome* (1902). Fletcher's 1898 *History* remained a recommended text for longer than any other. In 1968, after 41 years, it was the last of the 1927 titles to be removed from the history reading list. The sources for the second-year exploration of tendencies in "modern design" remain unclear—for 21 years the official reading lists for the second-year history paper consisted solely of traditionalist titles on the Renaissance (Anderson 1898; Blomfield 1900; Gromort 1922; Ward 1911).

The content of the third-year history paper clearly demonstrated the School's affiliation with the Beaux-Arts system. It covered architectural history from early Egyptian to late Renaissance, "with special attention to architectural ornament



REFERENCE BOOKS RECOMMENDED.

FIRST YEAR.

History of Architecture. Part I.
(i) History of Architecture (last edition), by Sir Bannister Fletcher.
(ii) The Architecture of Greece and Rome, by Anderson & Spiers.
(iii) History of Architecture, by Hamlin.

Architectural Construction. Part I.
(i) Architectural Building Construction, in 3 volumes, by Jaggard & Drury.

Practical Mathematics.
(i) Practical Mathematics, by Bates & Charlesworth. Vols. (i) and (ii).
(ii) "Geometrical Drawing for Art Students," by Morris.

Physics.
(i) Elementary Physics, by Stead.

SECOND YEAR.

History of Architecture. Part II.
(i) Italian Renaissance, by Anderson or Italian Renaissance, by Gromort.
(ii) English Renaissance, by Blomfield.
(iii) French Renaissance, by Ward.

Architectural Construction. Part II.
See first year.

Structural Mechanics.
(i) Mechanics for Builders, Pts. 1 and 2, by Bates & Charlesworth.
(ii) Stresses and Thrusts, by Middleton.
(iii) Elements of Structures, by Hool.
(iv) Strength of Materials, by Andrews.

Theory of Architectural Design. Part I.
(i) Principles of Architectural Composition, by Howard Robertson.
(ii) Architectural Composition, by Curtis.
(iii) Elements and Theorie de l'architecture, 3 vols., by J. Gaudet.

Descriptive Geometry and Sciagraphy.
(i) Geometry for Builders and Architects, by Paynter.
(ii) Shades and Shadows, by Goodwin.

THIRD YEAR.

History of Decoration.
(i) Styles of Ornament, by Speltz; latest edition revised, by Phene Spiers.
(ii) A History of Ornament, Vol. 1, and II., by Hamlin.
(iii) A History of Architecture, by Sir Bannister Fletcher (sections on ornament).

Reinforced Concrete Construction.
(i) Handbook of Building Construction, 2 Vols., by Hool & Johnson.
(ii) Compendium of Reinforced Concrete, by Stacel & Crookes.

Sanitation and Hygiene and Electrical Installation.
(i) Architectural Building Construction, Vol. 2, part 2, by Jaggard & Drury.
(ii) Architectural Hygiene, by Sir Bannister Fletcher.
(iii) Vol. 2 of Handbook of Building Construction, by Hool & Johnson.

Perspective Drawing.
(i) Principles of Architectural Perspective, by Middleton.

Theory of Architectural Design. Part II.
(i) Architectural Composition, by Curtis.
(ii) Essentials of Composition as Applied to Art, by Van Pelt.
(iii) Elements and Theorie de l'architecture, 3 vols., by Gaudet.

FOURTH YEAR.

Professional Practice and Building Law.
(i) Architectural Practice and Procedure, by Turner.
(ii) The Law Relating to the Architect, by Brice.
(iii) Laws of England, by Halsbury (sections on Architectural Law).
(iv) N.Z.I.A. Conditions of Contract.

Specifications, Measurements, and Valuation of Materials.
(i) Specifications, by Macey.
(ii) How to Estimate, by Rea.
(iii) Specification, edited by Chatterton.

Architectural Civics.
(i) The Planning of the Modern City, by Lewis.
(ii) Town Planning, Past, Present and Future, by Inigo H. Triggs.
(iii) Site Planning in Practice, by Thompson.

Structural Steel Construction.
(i) Handbook of Building Construction, 2 Vols., by Hool & Johnson.
(ii) Dorman, Long & Co., Handbook.

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Fig. 5 List of recommended titles, 1931. [*Prospectus* (Auckland: Auckland School of Architecture, 1931)]

of each period" (*Prospectus* 1927: 14). Students also learnt about "sculpture, painting, ceramics and other methods practiced for decorative purposes" (*Prospectus* 1927: 14). Stressing the relevance of ornament and decoration in the best Beaux-Arts manner, the third-year paper strongly encouraged the discussion of architecture as an artistic category. The name of the paper itself was changed to History of Decoration in 1931. It was returned to History of Architecture, Part III almost a quarter of the century later, in 1955. Interestingly, the same year the name of the paper was first altered, "tendencies in modern decoration" (*Prospectus* 1931: 19) were added to the scope of the study, clearly showing the important place ornament held in the School's design methodology.

Students were encouraged to read about architectural ornament in the traditional titles—the extensive *Styles of Ornament* (1906), by the German author Alexander Speltz; the two influential volumes by Alfred Hamlin (1916); and the sections from Fletcher's *History* (1898). The third-year history paper was the most progressive of the three. In 1939 it was the first paper to include a book by a female author—*Art Through the Ages* (1936 [1926]), by the distinguished American art historian, Helen Gardner.[5] Furthermore, in 1943, *Art and Industry* (1934) by Herbert Read and Nikolaus Pevsner's *Pioneers of Modern Design* (1936) introduced the modernist perspective in the third-year history curriculum.

Heavily influenced by the Beaux-Arts design methodology, the first-year theory paper focused on the general principles of composition, proportion, scale, and unity. The students were instructed in the laws of contrast, composition of masses, and character in design. Particular emphasis was placed on the "composition of plan, relation between plan, elevation and section" (*Prospectus* 1927: 17). Then, in the second year, planning was explored in greater detail. Special attention was given to the form of masses, wall treatment, and types of façades.

For a period of 20 years, the students' understanding of architectural theory was developed—at least, officially—under the influence of the seminal works from the Beaux-Arts tradition. *Principles of Architectural Composition* (1924) by Howard Robertson was the first title on the list. Robertson accepted modernist ideas during the course of his career and in this very book raised the question of the appropriate architectural expression for modern buildings. However, when first published in 1924, the title considered the problems of unity, scale, composition, and architectural character from a Beaux-Arts perspective. A memento of French design methods in architectural education, for 40 years Robertson's *Principles* (1924) remained the official reference for theory courses at the Auckland School.

Students were also encouraged to read more traditional titles, such as *Theory and Elements of Architecture* (1926) by Atkinson and Bagenal, as well as the famous *Éléments* (1910) by the distinguished Beaux-Arts Professor Julien Gaudet. Finally, *Architectural Composition* (1923) by the American architect Nathaniel Curtis, the well-known survey examining the principles and practical applications of scale, balance, proportion, and symmetry, was included in 1928, and would remain on the list until 1965. The list of references for the second year of Theory of Architectural Design did not differ significantly from the first. It included the classic Beaux-Arts references—Gaudet's *Éléments* (1910), along with two titles on architectural composition by the American authors Curtis (1923) and John Van Pelt (1930).

1948–1958

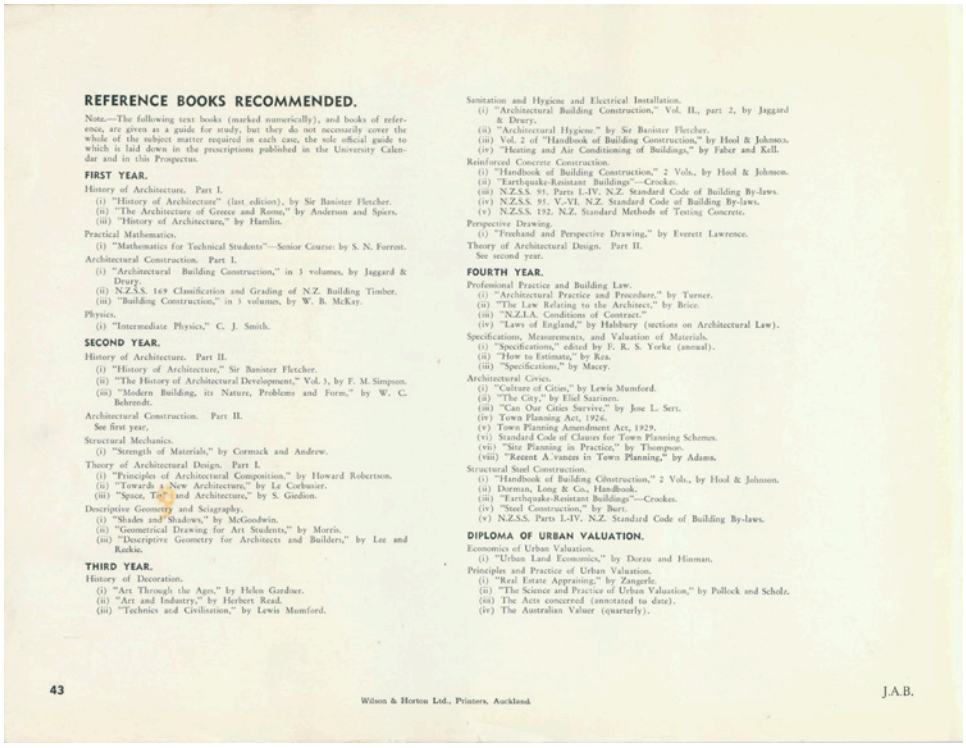
Reflecting the shifting—and conflicting—attitudes of the period, the reading lists for the history and theory courses changed in 1948. Though the Beaux-Arts titles—and influences—remained, from this year forward, a modernising tendency gradually gained in strength (McCarthy 2010). The change in history and theory teaching in 1948 followed a very particular series of events, outlined by Gatley (2017) in her centennial chapter on the post-World War II years at the Auckland School. In 1946, a group of second-year architectural students prepared a manifesto titled *On the Necessity of Architecture* and published the first issue of a magazine, *Planning* (Gatley 2010). The group consisted of young men and women, who were knowledgeable about modernism and increasingly disgruntled with the standard of education they were receiving. The next year saw student displeasure with the School's decision to appoint Charles Light, a conservative Beaux-Arts acolyte, for the Chair of Architecture in the area of design (Gatley 2017). Some would have preferred the appointment of another of the applicants, Ernst Plischke, an Austrian émigré and a well-known modernist architect who had arrived in New Zealand in 1939.

The situation intensified in 1948, when the Architectural Students' Society organised an Extraordinary Meeting which culminated in a vote of no confidence in the School's studio programme (Gatley 2017). The students wrote a report on the functioning of the School and submitted it to the College Council, demanding change. Among other issues, they complained about the extent to which the history and theory courses focused on past architectural styles. Instead, they wanted to learn about current architectural developments, and, more specifically, about modernism. Their vision for a restructured Bachelor of Architecture

included a revised history course, one surveying the period from the industrial revolution to the Modern Movement. The School rejected the majority of the student suggestions. The official response regarding the history and theory teaching was uncompromising:

> The treatment of History and Theory in this School as to both subject matter and method is in general accordance with that in University Schools of Architecture in England. The statutes cover the development of history and theory from ancient times to the present day. The subjects are not, as some students believe they should be, devoted in the main to recent work (as in the case of Studio work) but endeavour to promote a knowledge of the development of the cultures of different races concerned in the evolution of European civilization. In our view this approach is necessary to an understanding of present day architecture.[6]

However, in spite of the resolute official attitude of the School, changes were introduced to the history and theory programme (see Fig. 6). The descriptions of the courses remained the same, but the 1948 reading lists demonstrate a response to student requests. The theory courses were significantly altered. In the first-year paper, the modernist bible *Towards a New Architecture* (Le Corbusier 1927) and the influential *Space, Time and Architecture* (Giedion 1941), replaced Curtis' and Gaudet's classic references. The same year, a number of lesser known progressive titles were introduced to the first-year reading list (Faulkner, Ziegfeld, & Hill ca. 1949; Leathart 1940; Yorke & Penn 1939). The Beaux-Arts holy trinity of Curtis (1923), Van Pelt (1930), and Gaudet (1910) was off the list for the second-year theory paper, never to return; from 1949, the reference list was completely modernist.



REFERENCE BOOKS RECOMMENDED.

Note.—The following text books (marked numerically), and books of reference, are given as a guide for study, but they do not necessarily cover the whole of the subject matter required in each case, the sole official guide to which is laid down in the prescriptions published in the University Calendar and in this Prospectus.

FIRST YEAR.

History of Architecture. Part I.
(i) "History of Architecture" (last edition), by Sir Banister Fletcher.
(ii) "The Architecture of Greece and Rome," by Anderson and Spiers.
(iii) "History of Architecture," by Hamlin.

Practical Mathematics.
(i) "Mathematics for Technical Students"—Senior Course: by S. N. Forrest.

Architectural Construction. Part I.
(i) "Architectural Building Construction," in 3 volumes, by Jaggard & Drury.
(ii) N.Z.S.S. 169 Classification and Grading of N.Z. Building Timber.
(iii) "Building Construction," in 3 volumes, by W. B. McKay.

Physics.
(i) "Intermediate Physics," C. J. Smith.

SECOND YEAR.

History of Architecture. Part II.
(i) "History of Architecture," Sir Banister Fletcher.
(ii) "The History of Architectural Development," Vol. 3, by F. M. Simpson.
(iii) "Modern Building, its Nature, Problems and Form," by W. C. Behrendt.

Architectural Construction. Part II.
See first year.

Structural Mechanics.
(i) "Strength of Materials," by Cormack and Andrew.

Theory of Architectural Design. Part I.
(i) "Principles of Architectural Composition," by Howard Robertson.
(ii) "Towards a New Architecture," by Le Corbusier.
(iii) "Space, Time and Architecture," by S. Giedion.

Descriptive Geometry and Sciagraphy.
(i) "Shades and Shadows," by McGoodwin.
(ii) "Geometrical Drawing for Art Students," by Morris.
(iii) "Descriptive Geometry for Architects and Builders," by Lee and Reekie.

THIRD YEAR.

History of Decoration.
(i) "Art Through the Ages," by Helen Gardner.
(ii) "Art and Industry," by Herbert Read.
(iii) "Technics and Civilisation," by Lewis Mumford.

Sanitation and Hygiene and Electrical Installation.
(i) "Architectural Building Construction," Vol. II., part 2, by Jaggard & Drury.
(ii) "Architectural Hygiene." by Sir Banister Fletcher.
(iii) Vol. 2 of "Handbook of Building Construction," by Hool & Johnson.
(iv) "Heating and Air Conditioning of Buildings," by Faber and Kell.

Reinforced Concrete Construction.
(i) "Handbook of Building Construction," 2 Vols., by Hool & Johnson.
(ii) "Earthquake-Resistant Buildings"—Crocker.
(iii) N.Z.S.S. 95. Parts I.-IV. N.Z. Standard Code of Building By-laws.
(iv) N.Z.S.S. 95. V.-VI. N.Z. Standard Code of Building By-laws.
(v) N.Z.S.S. 192. N.Z. Standard Methods of Testing Concrete.

Perspective Drawing.
(i) "Freehand and Perspective Drawing," by Everett Lawrence.

Theory of Architectural Design. Part II.
See second year.

FOURTH YEAR.

Professional Practice and Building Law.
(i) "Architectural Practice and Procedure," by Turner.
(ii) "The Law Relating to the Architect," by Brice.
(iii) "N.Z.I.A. Conditions of Contract."
(iv) "Laws of England," by Halsbury (sections on Architectural Law).

Specifications, Measurements, and Valuation of Materials.
(i) "Specifications," edited by F. R. S. Yorke (annual).
(ii) "How to Estimate," by Rea.
(iii) "Specifications," by Macey.

Architectural Civics.
(i) "Culture of Cities," by Lewis Mumford.
(ii) "The City," by Eliel Saarinen.
(iii) "Can Our Cities Survive," by Jose L. Sert.
(iv) Town Planning Act, 1926.
(v) Town Planning Amendment Act, 1929.
(vi) Standard Code of Clauses for Town Planning Schemes.
(vii) "Site Planning in Practice," by Thompson.
(viii) "Recent Advances in Town Planning," by Adams.

Structural Steel Construction.
(i) "Handbook of Building Construction," 2 Vols., by Hool & Johnson.
(ii) Dorman, Long & Co., Handbook.
(iii) "Earthquake-Resistant Buildings"—Crockes.
(iv) "Steel Construction," by Burt.
(v) N.Z.S.S. Parts I.-IV. N.Z. Standard Code of Building By-laws.

DIPLOMA OF URBAN VALUATION.

Economics of Urban Valuation.
(i) "Urban Land Economics," by Dorau and Hinman.

Principles and Practice of Urban Valuation.
(i) "Real Estate Appraising," by Zangerle.
(ii) "The Science and Practice of Urban Valuation," by Pollock and Scholz.
(iii) The Acts concerned (annotated to date).
(iv) The Australian Valuer (quarterly).

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Wilson & Horton Ltd., Printers, Auckland.

J.A.B.

Fig. 6 List of recommended titles, 1948. [*Prospectus* (Auckland: Auckland School of Architecture, 1948)]

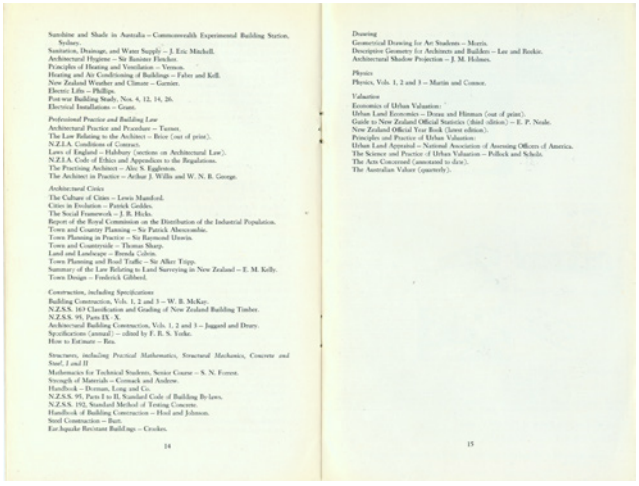
In comparison, the teaching of history was transformed at a slower pace. For example, the reading list for the first-year history of architecture paper changed for the first—and only—time in 1953, when *An Outline of European Architecture* (Pevsner 1948) was included. The year 1948 brought the first modernist title to second-year history—*Modern Building* (Behrendt 1937). Reflecting the dualism of Beaux-Arts and modernist approaches, two quite different books were added to second-year history in 1950—Pevsner's *An Outline* (1948) and Hamlin's *History of Architecture* (1909). The third-year history paper changed most drastically. *Technics and Civilization* (Mumford 2010) was added in 1948, followed by a number of other modernist and interdisciplinary titles in subsequent years (Childe 1964; Pevsner 1948; Summerson 1949). Interestingly, the list for the third-year history paper was excluded from the 1957 *Prospectus*, with an explanation that "the field of study in this subject is too wide to be covered by a list of some half dozen books" (*Prospectus* 1957: 14).

From this point on, the teaching of history and theory at the Auckland School started catching up with international practices. However, unlike other courses, it remained completely exclusive of certain topics in the period covered by this article. For example, as a response to local needs, the study of earthquake-resistant buildings and the official New Zealand building regulations was introduced in the paper on reinforced concrete construction as early as 1941 (*Prospectus* 1941: 14). Furthermore, the post-World War II period witnessed growing demands and efforts to develop a specific, New Zealand architecture. The result was a diverse architectural production since the late 1940s, with a distinguished current of New Zealand modernism (Gatley 2010). In contrast, as far as the history and theory courses were concerned, New Zealand's own architectural past did not exist. References exploring the local architectural achievements were not—at least officially—included in the period covered by this article.

1958–1969

From 1958, the *Prospectus* no longer presented the reference lists by courses and year levels. Instead, it consolidated them into the different areas of study (see Fig. 7). Traditional titles, such as Fletcher's *History* (1898) and *The Art of Architecture* (1938) by Richardson and Corfiato were still recommended. However, the following 10 years saw a gradual shift from general overviews of architectural history towards more specific research topics. Outdated titles like Ward's 1911 book on the French Renaissance and Hamlin's *History* (1909) were replaced (in 1958 and 1961 respectively) with more recent studies (Blunt 1999; Frankfort 1954; Hitchcock 1968). The 1960s prospectuses illustrated a humanist interest in broadening the understanding of architecture. The teaching of history was enriched with titles from other disciplines, most notably by major studies from the discipline of art history (Burckhardt 1945; Gombrich 1995; Wittkower 1959).

The merged theory list highlighted the contrast between the conservative Beaux-Arts tradition and modernising efforts. Contrary to the generally progressive attitudes of this period, *The Architecture of Humanism* (1914) by Geoffrey Scott was added in 1958. In this famous early twentieth-century treatise, Scott attempted to formulate the main principles of architectural classicism. In contrast, the introduction of titles such as *Contemporary Structure in Architecture* (Michaels 1950) attests to a shift to a more scientific design methodology. Similarly to the



Sunshine and Shade in Australia – Commonwealth Experimental Building Station, Sydney.
Sanitation, Drainage, and Water Supply – J. Eric Mitchell.
Architectural Hygiene – Sir Banister Fletcher.
Principles of Heating and Ventilation – Vernon.
Heating and Air Conditioning of Buildings – Faber and Kell.
New Zealand Weather and Climate – Garnier.
Electric Lifts – Phillips.
Post-war Building Study, Nos. 4, 12, 14, 26.
Electrical Installations – Grant.

Professional Practice and Building Law
Architectural Practice and Procedure – Turner.
The Law Relating to the Architect – Brice (out of print).
N.Z.I.A. Conditions of Contract.
Laws of England – Halsbury (sections on Architectural Law).
N.Z.I.A. Code of Ethics and Appendices to the Regulations.
The Practising Architect – Alec S. Eggleston.
The Architect in Practice – Arthur J. Willis and W. N. B. George.

Architectural Cities
The Culture of Cities – Lewis Mumford.
Cities in Evolution – Patrick Geddes.
The Social Framework – J. R. Hicks.
Report of the Royal Commission on the Distribution of the Industrial Population.
Town and Country Planning – Sir Patrick Abercrombie.
Town Planning in Practice – Sir Raymond Unwin.
Town and Countryside – Thomas Sharp.
Land and Landscape – Brenda Colvin.
Town Planning and Road Traffic – Sir Alker Tripp.
Summary of the Law Relating to Land Surveying in New Zealand – E. M. Kelly.
Town Design – Frederick Gibberd.

Construction, including Specifications
Building Construction, Vols. 1, 2 and 3 – W. B. McKay.
N.Z.S.S. 163 Classification and Grading of New Zealand Building Timber.
N.Z.S.S. 95, Parts IX. X.
Architectural Building Construction, Vols. 1, 2 and 3 – Jaggard and Drury.
Specifications (annual) – edited by F. R. S. Yorke.
How to Estimate – Reu.

Structures, including Practical Mathematics, Structural Mechanics, Concrete and Steel, I and II
Mathematics for Technical Students, Senior Course – S. N. Forrest.
Strength of Materials – Cormack and Andrew.
Handbook – Dorman, Long and Co.
N.Z.S.S. 95, Parts I to II, Standard Code of Building By-laws.
N.Z.S.S. 192, Standard Method of Testing Concrete.
Handbook of Building Construction – Hool and Johnson.
Steel Construction – Burt.
Fire Impulse Resistant Buildings – Crosbie.

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Drawing
Geometrical Drawing for Art Students – Morris.
Descriptive Geometry for Architects and Builders – Lee and Baskie.
Architectural Shadow Projection – J. M. Holmes.

Physics
Physics, Vols. 1, 2 and 3 – Martin and Connor.

Valuation
Economics of Urban Valuation:
Urban Land Economics – Dunn and Hinman (out of print).
Guide to New Zealand Official Statistics (third edition) – E. P. Neale.
New Zealand Official Year Book (latest edition).
Principles and Practice of Urban Valuation:
Urban Land Appraisal – National Association of Assessing Officers of America.
The Science and Practice of Urban Valuation – Pollock and Scholz.
The Arts Concerned (associated to date).
The Australian Valuer (quarterly).

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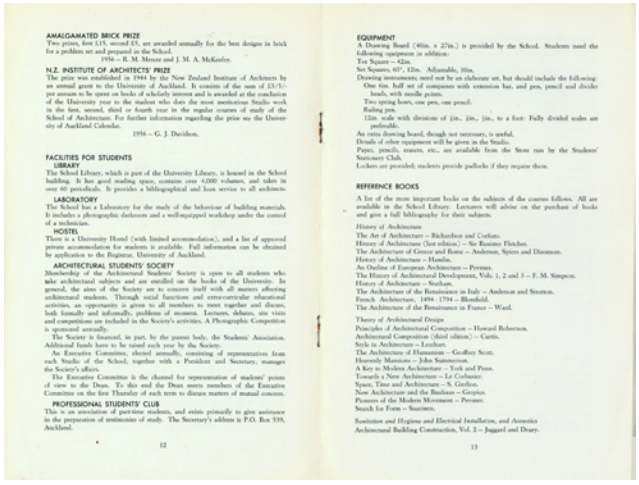

AMALGAMATED BRICK PRIZE
Two prizes, first £15, second £5, are awarded annually for the best designs in brick for a problem set and prepared in the School.
1956 – R. M. Mercer and J. M. A. McKeefry.

N.Z. INSTITUTE OF ARCHITECTS' PRIZE
The prize was established in 1948 by the New Zealand Institute of Architects by an annual grant to the University of Auckland. It consists of the sum of £5/5/- per annum to be spent on books of scholarly interest and is awarded at the conclusion of the University year to the student who does the most meritorious Studio work in the first, second, third or fourth year in the regular courses of study of the School of Architecture. For further information regarding the prize see the University of Auckland Calendar.
1956 – G. J. Davidson.

FACILITIES FOR STUDENTS
LIBRARY
The School Library, which is part of the University Library, is housed in the School building. It has good reading space, contains over 4,000 volumes, and takes in over 60 periodicals. It provides a bibliographical and loan service to all architects.
LABORATORY
The School has a Laboratory for the study of the behaviour of building materials. It includes a photographic darkroom and a well-equipped workshop under the control of a technician.
HOSTEL
There is a University Hostel (with limited accommodation), and a list of approved private accommodation for students is available. Full information can be obtained by application to the Registrar, University of Auckland.
ARCHITECTURAL STUDENTS' SOCIETY
Membership of the Architectural Students' Society is open to all students who take architectural subjects and are enrolled on the books of the University. In general, the aims of the Society are to concern itself with all matters affecting architectural students. Through social functions and extra-curricular educational activities, an opportunity is given to all members to meet together and discuss, both formally and informally, problems of moment. Lectures, debates, site visits and competitions are included in the Society's activities. A Photographic Competition is sponsored annually.
The Society is financed, in part, by the parent body, the Students' Association. Additional funds have to be raised each year by the Society.
An Executive Committee, elected annually, consisting of representatives from each Studio of the School, together with a President and Secretary, manages the Society's affairs.
The Executive Committee is the channel for representation of students' points of view to the Dean. To this end the Dean meets members of the Executive Committee on the first Thursday of each term to discuss matters of mutual concern.
PROFESSIONAL STUDENTS' CLUB
This is an association of part-time students, and exists primarily to give assistance in the preparation of testimonies of study. The Secretary's address is P.O. Box 539, Auckland.

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EQUIPMENT
A Drawing Board (40in. x 27in.) is provided by the School. Students need the following equipment in addition:
Tee Square – 42in.
Set Squares, 60°, 12in. Adjustable, 10in.
Drawing instruments need not be an elaborate set, but should include the following:
One 6in. half set of compasses with extension bar, and pen, pencil and divider heads, with needle points.
Two spring bows, one pen, one pencil.
Ruling pen.
12in. scale with divisions of 1in., 1/2in., 1/4in., to a foot. Fully divided scales are preferable.
An extra drawing board, though not necessary, is useful.
Details of other equipment will be given in the Studio.
Paper, pencils, erasers, etc., are available from the Store run by the Students' Stationery Club.
Lockers are provided; students provide padlocks if they require them.

REFERENCE BOOKS
A list of the more important books on the subjects of the courses follows. All are available in the School Library. Lecturers will advise on the purchase of books and give a full bibliography for their subjects.

History of Architecture
The Art of Architecture – Richardson and Corfiato.
History of Architecture (last edition) – Sir Banister Fletcher.
The Architecture of Greece and Rome – Anderson, Spiers and Dinsmoor.
History of Architecture – Hamlin.
An Outline of European Architecture – Pevsner.
The History of Architectural Development, Vols. 1, 2 and 3 – F. M. Simpson.
History of Architecture – Statham.
The Architecture of the Renaissance in Italy – Anderson and Stratton.
French Architecture, 1494–1774 – Blomfield.
The Architecture of the Renaissance in France – Ward.

Theory of Architectural Design
Principles of Architectural Composition – Howard Robertson.
Architectural Composition (third edition) – Curtis.
Style in Architecture – Lethaby.
The Architecture of Humanism – Geoffrey Scott.
Heavenly Mansions – John Summerson.
A Key to Modern Architecture – York and Press.
Towards a New Architecture – Le Corbusier.
Space, Time and Architecture – S. Giedion.
New Architecture and the Bauhaus – Gropius.
Pioneers of the Modern Movement – Pevsner.
Search for Form – Suarères.

Sanitation and Hygiene and Electrical Installation, and Acoustics
Architectural Building Construction, Vol. 2 – Jaggard and Drury.

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Fig. 7 List of recommended titles, 1958. [*Prospectus* (Auckland: Auckland School of Architecture, 1958)]

history courses, a number of books added to the theory reading list during the 1960s reflected the tendency to explore and experience architecture from an interdisciplinary perspective (Arnheim 2004; Kepes 1944; Rasmussen 1964).

Coinciding with the retirement of older staff members—starting with Professor Knight in 1958—the sixth decade of the twentieth century witnessed the end of Beaux-Arts influences at the Auckland School of Architecture. As illustrated by the best student work published in the prospectuses, Beaux-Arts aesthetics were long forgotten by this time. However, French academic teaching and design methods persisted. The final countdown for the Beaux-Arts was signalled in 1961, when the five-day esquisse-type test was deleted from the fourth-year studio (Gatley 2017). The same year significant changes were made to the history curriculum. Starting with 1961, architectural history at the School was divided into two courses, taught at the first- and the third-year levels.

In the following years, the titles in the Beaux-Arts tradition were gradually excluded from the theory teaching. Curtis' *Architectural Composition* (1923) was removed in 1965, and Robertson's *Principles of Architectural Composition* (1924) and Scott's *The Architecture of Humanism* (1914) were recommended for the last time in 1966. In 1967, 40 years after the Auckland School of Architecture printed its first *Prospectus*, the reading lists excluded all of the major works in the tradition of the Beaux-Arts. However, the echoes of the Beaux-Arts principles lingered for two more years. The sharp contrast between the contemporary design methodology and traditionalist principles remained apparent in the description of Theory of Architectural Design I. The functionalist approach to architecture was merged with a humanist "man as measure" ideal, and taught alongside the character-defining Beaux-Arts qualities of unity, rhythm, and scale (*Prospectus* 1969: 11). The 1970 *Prospectus* marked the end of an era. Completely redesigned, it was the first booklet devoid of even a faintest reference to the École des Beaux-Arts.

Conclusion

To return to Mauriac's words, the students at the Auckland School of Architecture were re-reading the seminal titles of the Beaux-Arts tradition in the period covered by this article. History and theory courses remained the main carriers of Beaux-Arts influences, informing design-related courses for decades. However, they were in contrast with the actual student designs, and essentially detached from the practically oriented courses. The most successful student work published in the annual School prospectuses demonstrates that the aesthetics of the historicist eclecticism were abandoned from the mid-1930s. The transition from traditionalist to modernist architectural forms was gradual, similar to that at the Liverpool School. Typically for the remoteness of New Zealand, it occurred with a decennial delay—since the mid-1930s. Courses such as Structural Mechanics, Reinforced Concrete Construction, and Professional Practice and Building Law were up to date with the most recent findings and closely related to practice in New Zealand. After all, architecture remains a niche profession in New Zealand, and the School attempts to prepare its students for it. The student designs and the majority of the curriculum show that, in general, the training at the Auckland School did not lag behind architectural practice in New Zealand.

Nonetheless, the prospectuses printed between 1927 and 1969 record the persisting Beaux-Arts practices at the Auckland School. The modernising aspirations of the late 1930s were interrupted by the outbreak of the Second World War and its consequences. In the pre-war period, following his visit to various architectural schools in the United States and the United Kingdom, Knight announced that there would be curriculum change and thus showed awareness that the teaching at the Auckland School needed to be brought up to date with international practices. But in the immediate post-war years, the leadership at the School took a rather conservative stand. They responded slowly to the mid-century modernising demands of the majority of students and some of the staff. The drastic increase of student numbers after the war made securing the sufficient funds for additional staff and adequate teaching spaces a priority. Under the circumstances, revaluation of the curriculum was considered less pressing. Perhaps the most telling choice made in the years following the war was the decision to employ Charles Light as the Professor of Design in 1947. The decision to hire a conservative Beaux-Arts acolyte, instead of a more progressive architect, should be seen both as a symptom of broader circumstances responsible for, and as a contributing factor towards, the slower modernisation of the Auckland School.

Although 1948 marked a beginning of the modernisation of the history and theory curriculum, the canonical Beaux-Arts texts continued—at least officially—to serve as valid references for two more decades. Consequently, the teaching of history and theory became anachronistic. The failure to adapt in a timely manner to the altered circumstances of the post-war period caused dissatisfaction and had far-reaching consequences. This can be seen as the moment when history and theory courses acquired the status they still have among students, who often struggle to comprehend their relevance to their primary aspirations in contemporary design.

However faint, the Beaux-Arts rhetoric was still present at the Auckland School of Architecture as late as 1969. Did this mean the School was producing Beaux-Arts architects in the late 1960s? Certainly not. However, it might have meant

two things. First, that there was someone in a leadership position convinced of the relevance of the French experience for contemporary architectural education. Furthermore, the ideas the students were reading about—the principles of composition, symmetry, proportion, and the idea of an architectural art—must, unavoidably, have left some traces. It would be interesting to re-examine the works of the prominent, progressive New Zealand architects who graduated in the 1950s and 1960s. Future scholarship might yet determine that it contains echoes off their Beaux-Arts influenced education.

ENDNOTES

[1] The system of student-run ateliers did exist in Auckland, since the Architectural Students' Association had established it in 1914 (Bassett 2011).

[2] Annual prospectuses for the Auckland School of Architecture published between 1927 and 1969.

[3] Between 1927 and 1931, theory was taught in the third and the fourth years. From 1931 onward, the theory papers were introduced earlier, in the second and the third years.

[4] Student design published in the 1932 *Prospectus*.

[5] Influencing art education in the United States, Gardner's book remained a standard textbook at the American schools and universities for decades (Kader 2000).

[6] A typed copy of the original "Report of the Faculty of Architecture", March 31, 1949. Auckland University College Council Minutes, 1949, Vol. 1, pp. 333–334. A copy is available at C. R. Knight Papers, Architecture Archive, the University of Auckland Library.

REFERENCES

Anderson, W. (1898). *The architecture of the Renaissance in Italy: A general view for the use of students and others*. London, New York: B.T. Batsford, Charles Scribner's Sons.

Anderson, W., & Spiers, R. P. (1902). *The architecture of Greece and Rome: A sketch of its historic development*. London: Batsford.

Annual letter in *Prospectus*. (1938). Auckland: School of Architecture, University of New Zealand.

Anonym. (1934, June 11). Architecture and history: Development of an ancient architecture, *Press, 70*(21187), 12.

Arnheim, R. (2004). *Art and visual perception: A psychology of the creative eye*. Berkeley: University of California Press.

Atkinson, R., & Bagenal, H. (1926). *Theory and elements of architecture*. London: Ernest Benn.

Bassett, D. (2011). The Beaux-Arts method in New Zealand. In Christine McCarthy (Ed.), *Good architecture should not be a plaything: New Zealand architecture in the 1920s* (p. 20). Wellington: Centre for Building Performance Research, Victoria University of Wellington.

Behrendt, W. (1937). *Modern building: Its nature, problems, and forms*. New York: Harcourt, Brace and Co.

Blomfield, R. (1900). *A short history of Renaissance architecture in England 1500–1800*. London: George Bell and Sons.

Blunt, A. (1999). *Art and architecture in France, 1500–1700.* New Haven: Yale University Press.

Burckhardt, J. (1945). *The civilization of the Renaissance in Italy.* New York: Oxford University Press.

Childe, G. (1964). *What happened in history.* Harmondsworth: Penguin.

Clark, J., & Walker, P. (2000). *Looking for the local: Architecture and New Zealand modern.* Wellington: Victoria University Press.

Coombs, L. (1915, August 1). A lesson on design to students of architecture. *New Zealand Building Progress, 10*(12), 399.

Crouch, C. (2002). *Design culture in Liverpool 1880–1914: The origins of the Liverpool School of Architecture.* Liverpool: Liverpool University Press.

Curtis, N. (1923). *Architectural composition*. Cleveland: J. H. Jansen.

Draper, J. (1977). The Ecole des Beaux-Arts and the architectural profession in the United States: The case of John Galen Howard. In Spiro Kostof (Ed.), *The architect: Chapters in the history of the profession* (pp. 209–238). New York: Oxford University Press.

Drexler, A. (1977). *The architecture of the Ecole des Beaux-Arts* [Exhibition catalogue]. London: Secker & Warburg.

Egbert, D., & Van Zanten, D. (ca. 1980). *The beaux-arts tradition in French architecture*. Princeton: Princeton University Press.

Faulkner, R., Ziegfeld, E., & Hill, G. (ca. 1949). *Art today: An introduction to the fine and functional arts*. New York: H. Holt.

Fletcher, B. (1898). *A history of architecture on the comparative method: For students, craftsmen and amateurs.* London: Batsford.

Frankfort, H. (1954). *The art and architecture of the ancient orient.* Harmondsworth: Penguin.

Gardner, H. (1936 [1926]). *Art through the ages*. Belmont: Thomson, Wadsworth.

Gatley, J. (Ed.). (2008). *Long live the modern: New Zealand's new architecture, 1904–1984.* Auckland: Auckland University Press.

Gatley, J. (2010). Who was who in the Group? In J. Gatley (Ed.), *Group Architects: Towards a New Zealand architecture* (pp. 29–33). Auckland: Auckland University Press.

Gatley, J. (2017). After Knight comes Light (and Toy): The modernising years. In J. Gatley & L. Treep (Eds.), *The Auckland School: 100 years of architecture*

and planning (pp. 40–74). Auckland: School of Architecture and Planning, University of Auckland.

Gaudet, G. (1910). *Éléments et théorie de l'architecture*. Paris: Librairie de la construction modern.

Giedion, S. (1941). *Space, time and architecture: The growth of a new tradition*. Cambridge: Harvard University Press.

Gombrich, E. (1995). *The story of art.* London: Phaidon Press.

Gromort, G. (1922). *Italian Renaissance architecture*. London: John Tiranti.

Gummer, W. (1915, May 1). The study of architecture, *New Zealand Building Progress, 10*(9), 293–298.

Hamlin, A. D. F. (1909). *History of architecture.* New York: Green Longmans.

Hamlin, A. D. F. (1916). *A history of ornament: Renaissance and modern*. New York: The Century Co.

Hitchcock, H. R. (1968). *Architecture: 19th and 20th centuries.* Harmondsworth: Penguin Books.

Kader, K. (2000). The bible of art history: Gardner's art through the ages, *Studies in Art Education, 41*(2), 164–177.

Kepes, G. (1944). *Language of vision*. Chicago: P. Theobald.

Knight, C. (1937). Architectural education in the British Empire: A report. Auckland University College Faculty of Architecture, Auckland.

Leathart, J. (1940). *Style in architecture*. London, Toronto: Thomas Nelson & Sons.

Le Corbusier. (1927). *Towards a new architecture*. New York: Brewer, Warren & Putnam. First published in French in 1923, under the title *Vers une architecture*.

Mauriac, F. (1959). *Mémoires intérieurs*. Paris: Flammarion.

McCarthy, C. (2010). The roaring forties: Reforming architectural education. In J. Gatley (Ed.), *Group Architects: Towards a New Zealand architecture* (pp. 29–33). Auckland: Auckland University Press.

McEwan, A. (1999). Learning by example: Architectural education in New Zealand before 1940. *Fabrications: The Journal of the Society of Architectural Historians, Australia and New Zealand, 9*, 1–16.

McEwan, A. (2001). An "American dream" in the "England of the Pacific": American influences on New Zealand architecture, 1840–1940 (Unpublished Thesis for the Degree of Doctor of Philosophy in Art History). University of Canterbury, Christchurch.

Michaels, L. (1950). *Contemporary structure in architecture*. New York: Reinhold.

Mumford, L. (2010). *Technics and civilization*. Chicago: University of Chicago Press.

Noffsinger, J. P. (1955). The influence of the Ecole des Beaux-Arts on the architects of the United States [Doctoral thesis]. Washington, D.C., USA: The Catholic University of America Press.

Pevsner, N. (1936). *Pioneers of modern design*. London: Faber & Faber.

Pevsner, N. (1948). *An outline of European architecture*. London: J. Murray.

Prospectus. (1927). Auckland: School of Architecture, University of New Zealand.

Prospectus. (1931). Auckland: School of Architecture, University of New Zealand.

Prospectus. (1941). Auckland: School of Architecture, University of New Zealand.

Prospectus. (1948). Auckland: School of Architecture, University of New Zealand.

Prospectus. (1957). Auckland: School of Architecture, University of New Zealand.

Prospectus. (1969). Auckland: School of Architecture, University of New Zealand.

Rasmussen, S. (1964). *Experiencing architecture*. London: Chapman & Hall.

Read, H. (1934). *Art and industry: The principles of industrial design*. London: Faber and Faber.

Reynolds, A. (1999). What is historicism? *International Studies in the Philosophy of Science, 13*(3), 275–287.

Richardson, A., & Corfiato, H. (1938). *The art of architecture.* London: English University Press.

Richmond, P. (2001). *Marketing modernisms: The architecture and influence of Charles Reilly*. Liverpool: Liverpool University Press.

Robertson, H. (1924). *The principles of architectural composition*. London: Architectural Press.

Scott, G. (1914). *The architecture of humanism: A study in the history of taste.* Edinburgh: University Press.

Sharples, J., Powers, A., & Shippbottom, M. (1996). *Charles Reilly and the Liverpool School of Architecture* [Exhibition catalogue]. Liverpool: Liverpool University Press.

Speltz, A. (1906). *Styles of ornament*. New York: Grosset & Dunlap.

Summerson, J. N. (1949). *Heavenly mansions: And other essays on architecture*. London: Cresset.

Treep, L. (2017). "A school of architecture for the Dominion": The first years. In J. Gatley & L. Treep (Eds.), *The Auckland School: 100 years of architecture and planning* (pp. 14–39). Auckland: School of Architecture and Planning, University of Auckland.

Van Pelt, J. (1930). *The essentials of composition as applied to art.* New York: The Macmillan Co.

Ward, W. H. (1911). *The architecture of the Renaissance in France: A history of the evolution of the arts of building, decoration and garden design under classical influence from 1495 to 1830*. London: Batsford.

Wittkower, R. (1959). *Art and architecture in Italy, 1600–1750*. Harmondsworth: Penguin.

Wright, G. (1990). History for architects. In G. Wright & J. Parks (Eds.), *The history of history in American schools of architecture, 1865–1975* (p. 17). New York: Temple Hoyne Buell Center for the Study of American Architecture.

Yorke, F. R. S., & Penn, C. (1939). *A key to modern architecture.* London, Glasgow: Blackie and Son.

ANN McEWAN

Learning in London: The Architectural Association and Early Twentieth-Century New Zealand Architects

The 2005 New Zealand Institute of Architects' (NZIA) centenary conference highlighted the experience of expatriate architects; in a similar vein the ninth issue of *Interstices* examined various aspects of expatriate design and theory (Gatley & Douglas 2008). Essays in the latter discussed the provenance of Amyas Connell's High and Over House in England (1929–31) and Wellington's Dixon Street Flats (1941–44). This article steps further into the past, to the early twentieth century when what is known colloquially as the "big OE" was "born" and first-generation Pākehā New Zealanders were drawn "Home" to study architecture.[1]

The story of the overseas experience of New Zealand writers, artists, and performers is widely known and well documented (Bones 2018; Dunn 1984–85; Edmond 2017; Swarbrick 2014). Similarly, the success of expatriate Kiwi scientists, actors, and singers, both historically and in the modern day, is commonly heralded in the media, even when some of the folk New Zealanders like to claim as their own left these shores as children. While New Zealand can scarcely claim an architect of the fame or stature of Ernest Rutherford or Lorde, the centenary of the University of Auckland's School of Architecture and Planning offered an opportunity to shine the spotlight on a group of New Zealanders who used study at London's Architectural Association School of Architecture (AA) to progress their education and enhance their professional development. That they did so at the same time as the foundation of the School of Architecture and Planning is further proof of the global movement to formalise architectural education in the early twentieth century (for context, see McEwan 1999).

Modern Learning at the AA

The AA was established in London in 1847. Against the backdrop of John Summerson's 1947 centenary history of the association, Mark Crinson and Jules Lubbock (1994) have identified the role played by the AA in the modernisation of the architectural profession in Britain. In the latter half of the nineteenth century, the AA, along with the Royal Academy, University College, and King's College in London, modelled a new educational path for architects that was subsequently developed by full-time academic programmes such as that offered at Liverpool University. According to Crinson and Lubbock, the AA, with its "anti-pupillage"

emphasis on design, "came to play a significant role in fostering most of the theories that came to reform architectural education" (1994: 56). New Zealanders who attended the AA in the late nineteenth and early twentieth centuries were therefore not only circumventing contemporary colonial limitations in the educational sphere but were also at the forefront of modern architectural education.

References to the AA appear in New Zealand newspapers from the 1880s, with possibly the earliest mention of membership by a New Zealand architect involving Frederick de Jersey Clere ("Industrial Association" 1880; "Labour Disputes" 1891; Untitled 1886). Clere (1856–1952), who stated he became a member of the AA during his time working in London in the mid-1870s (Clere 1917; "F. de J. Clere" 1917; Maclean 1993), is something of an outlier in this respect, given that the connection between the AA and New Zealand architecture is largely a twentieth-century one.

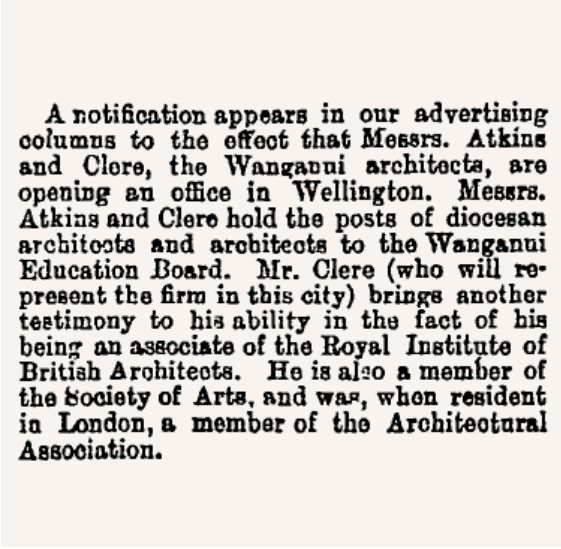

A notification appears in our advertising columns to the effect that Messrs. Atkins and Clere, the Wanganui architects, are opening an office in Wellington. Messrs. Atkins and Clere hold the posts of diocesan architects and architects to the Wanganui Education Board. Mr. Clere (who will represent the firm in this city) brings another testimony to his ability in the fact of his being an associate of the Royal Institute of British Architects. He is also a member of the Society of Arts, and was, when resident in London, a member of the Architectural Association.

Fig. 1 Newspaper article mentioning Frederick de Jersey Clere's membership of the AA. [*Evening Post*, February 26, 1886, 2. PapersPast, National Library of New Zealand, Wellington]

Apart from Clere, 15 of the architects included in the "New Zealand Architecture Family Tree" (Barrie 2008) studied at the AA, according to the association's records. Of these, Heathcote Helmore and Guy Cotterill formed a successful partnership on their return to New Zealand, as did Hugh Grierson, Kenneth Aimer, and Malcom Draffin ("Auckland War Memorial" 1923: 7). R. Atkinson Abbott, Alva Bartley, Roy Binney, William Gummer, George Hart, Horace Massey, and William Trengrove all established successful practices on their return home. The oldest of the former AA students in the family tree are Samuel Hurst Seager (Lochhead 1996)[2] and Clere, whose partner L. E. Williams was also an AA alumnus ("Llewellyn Edwin Williams" 2016). The youngest of the cohort, Amyas Connell (1901–1980) and Basil Ward (1902–1976), established their careers in Britain where the firm of Connell, Ward & Lucas was "short-lived but hugely influential" ("Connell, Ward & Lucas" n.d.).

Study in the Aftermath of War

Service abroad during World War I gave a large number of New Zealanders the opportunity to study at the AA. Of the architects and architecture students whose names are inscribed in the Online Cenotaph, hosted by the Auckland War Memorial Museum, 13% were students of the AA during the first three decades

of the twentieth century. AA President Maurice Webb acknowledged the presence of between 60 and 70 men from overseas who were attending the school in 1919, and was reported as saying that "their presence would spread a knowledge of English architecture throughout the world, and bring a fresher outlook to England" ("New Zealand Architectural Students at Home" 1919: 11; Webb 1919: 175–76, 179). That said, not all of the New Zealanders who attended the AA during the war years went on to practise as architects. Walter D'Arcy Cresswell was one whose study was interrupted by the outbreak of World War I, and after completing his war service, he returned to New Zealand and became an influential literary figure (Broughton 1998).

Of the Kiwis who did not return to New Zealand, one made a particularly notable contribution to the AA itself. William Thorne Wilmot Ching was born in Auckland in 1888 and in 1904 he began his life in architecture in the office of Arthur Wilson. Ching enrolled at the AA in October 1909, at which time he was in the office of J. W. Troup. His application to study was supported by Roy Binney, who had entered the school in the previous year and was then working for Robert Weir Schultz in London.[3]

Ching competed his studies in 1914 and after his war service, for which he received a Military Cross, he returned to the AA as a house master at Bedford Square ("Military Cross Won" 1916: 9). Despite the fact that he remained for only four years, resigning to set up a heating engineering firm with F. B. Craig in 1923, he was evidently fondly remembered after his sudden death in 1924, resulting from the after-effects of his wartime poison gassing. Ching's Head, a student bar established in 1926, was named in his honour, as was Ching's Yard, an internal courtyard space that is known for its happenings and performances (Bottoms 2016: 60–65). Ching was recently described as an Englishman on the AA Conversations website, an error that cannot fail to grate with Kiwis who take pride in successful and influential expatriates (Pierce 2013).

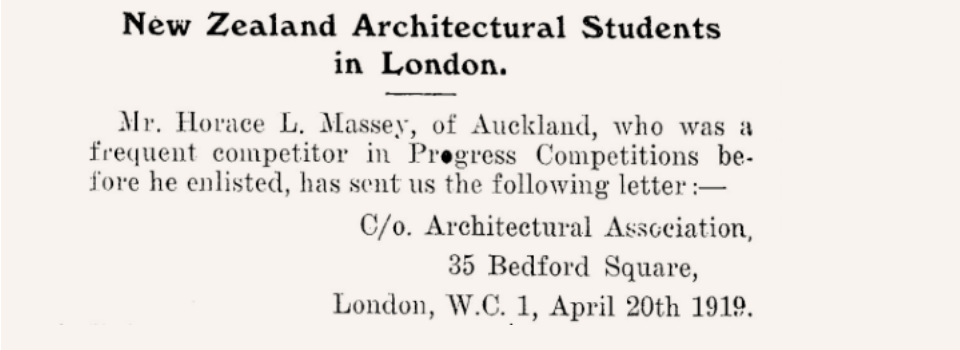
Another New Zealander who studied at the AA, H. Anthony Mealand (1894–1968), did not return home for many years. Supported in his membership application by Horace Massey (1895–1979), Mealand gained a Certificate in Town Planning at the AA in 1921 and was later co-author of Sir Patrick Abercrombie's "A Plan for Bath" in 1945 ("Personal" 1921a: 14).

Even before the war had officially ended, New Zealand servicemen were being given scholarships to attend the AA. Lance-Corporal Alfred John Brown (1893–1976), of the New Zealand Engineers, for example, was awarded a scholarship by the Lord Kitchener Memorial Fund in July 1918 ("Soldier Scholarships" 1918: 3; Willis 2013: 966). Brown later practised architecture in Auckland and, after 1930, town planning in Australia (Proudfoot 1993).

Horace Massey wrote to the editor of *Progress* in April 1919, describing his experience at the AA. Massey reported that "New Zealanders have stormed the Architectural Association" and there were at least 16 such students studying at Bedford Square. "The chance is ours now so I intend to avail myself of the opportunity before returning to good old New Zealand." The letter concluded by Massey saying he wished to keep up his subscription to *Progress*, in order to stay abreast of "things architectural at home" and that he was looking forward to his discharge from the army later in the month (Massey 1919: 13).

The Measure of Success

"Success in Competitions" by New Zealanders attending the AA was proudly reported in the local press. In January 1920, for example, the *Evening Post* noted E. W. (Ted) Armstrong, previously of the Wellington Infantry Regiment, had been studying at the AA since February 1919 and had just passed the examination to become an Associate of the Royal Institute of British Architects (RIBA). The *Post*



New Zealand Architectural Students in London.

Mr. Horace L. Massey, of Auckland, who was a frequent competitor in Progress Competitions before he enlisted, has sent us the following letter:—

C/o. Architectural Association,
35 Bedford Square,
London, W.C. 1, April 20th 1919.

Fig. 2 In 1919, Horace Massey used the AA as his mailing address. [*Progress*, August 1, 1919, 13. PapersPast, National Library of New Zealand, Wellington]

reported that Armstrong, who intended to go to America after he finished at the AA, had recently come third in a *Daily Mail* competition for labour-saving homes ("New Zealand Architectural Students" 1920: 15; "NZ Architectural Students" 1920a: 6; "NZ Architectural Students" 1920b: 6). In 1921, the *Herald* reported that Armstrong, along with fellow New Zealanders Eric Arthur and James White, had been shortlisted for Rome scholarships in architecture ("Rome Scholarship" 1921: 7). After the final design test, for a university arts hub, Armstrong was awarded second place and thus secured the two-year Henry Jarvis studentship, valued at £250 per annum ("Personal" 1921a: 12). Armstrong ultimately established a practice in London, in 1932 (Gatley 2007: 38).

Like fellow students A. P. Morgan and Massey, Armstrong had secured a New Zealand Expeditionary Force scholarship of £200 per annum for three years at the end of the war. Morgan and Massey had placed fourth in the aforementioned *Daily Mail* design competition and the duo placed second and third respectively in another competition for a town planning scheme for Oxford. The same *Evening Post* article listed Messrs E. T. Marr, G. Downer, E. S. C. Miller, H. F. Butcher, A. J. Brown, and J. H. White as other New Zealanders studying in London at that time ("NZ Architectural Students" 1920a: 6). Henry Butcher appears to have attended the AA briefly before being awarded the Lever prize to fund his studies in town planning at London University in 1920. He was appointed as a town planner in Wellington in 1927 and was an active member of the profession in the 1930s ("Personal" 1920: 7; "Town-Planning Expert" 1927: 10).

Not all of these men's names appear in the school's Membership Nominations and Applications records for the period 1904–27, which suggests not all applied for membership during or after their studies. J. H. White, for example, is not listed in the membership records but was noted in both the *New Zealand Herald* and the *Architectural Association Journal* as enjoying success while a student at the AA ("Annual Prize Distribution" 1920; "Architect's Success" 1921: 8; "Personal Items" 1922: 10). In 1921, White was joint winner of the Society of Architects' Victory Scholarship, which was open to "all students of the Empire under thirty-five" ("Personal" 1921b: 63; see also "Architect's Success" 1921: 8). After his

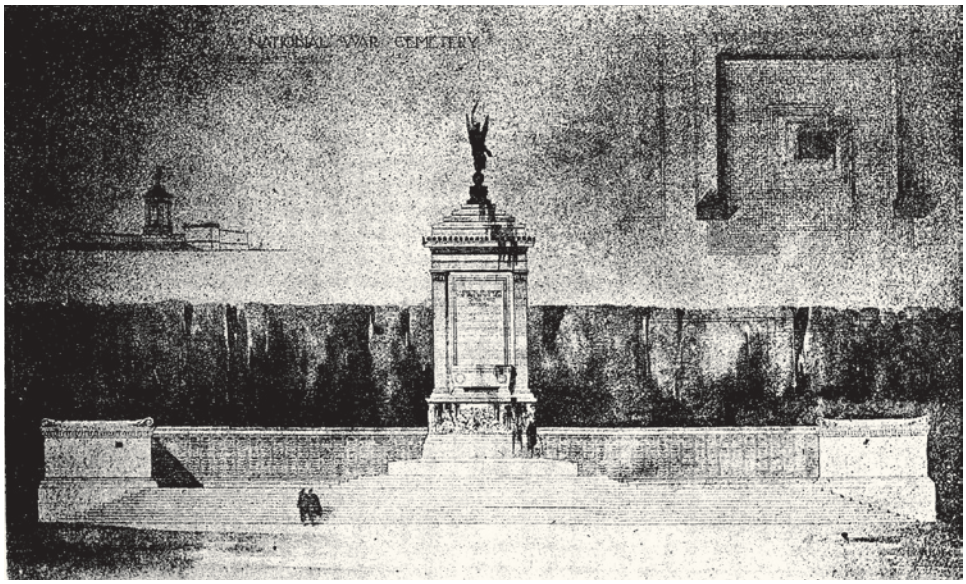


Fig. 3 A. M. Bartley's design for a Central Monument for the National War Cemetery, France. [*Progress*, December 1, 1919, 11. PapersPast, National Library of New Zealand, Wellington]

Auckland War Memorial.

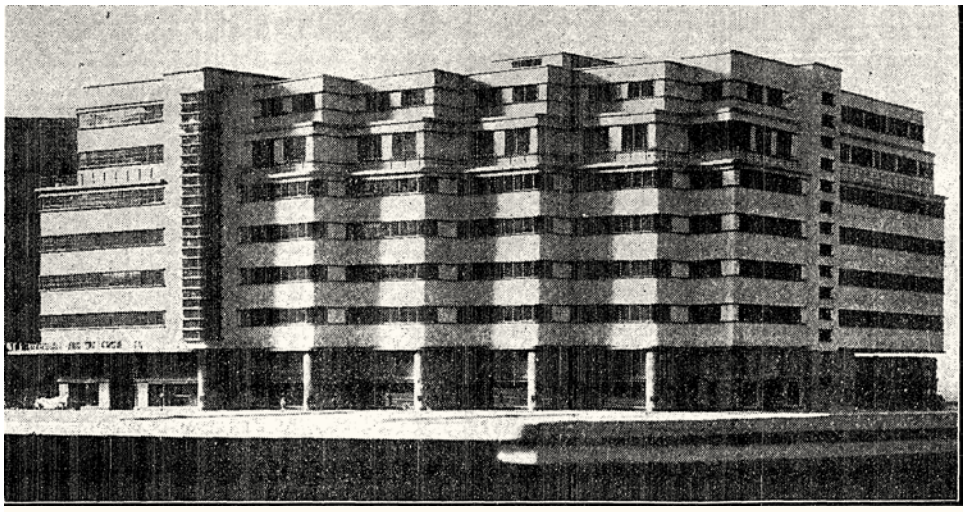
The winning design of the projected Memorial Museum, as prepared by Auckland architects for the open competition, which attracted designs from many different countries, has gained marked approval from numerous experts. The Mayor has received a letter from the Director of Education, Mr. R. Atkinson, under the London Architectural Association, who expresses pleasure at the success of old students of the Association's school, and congratulates Messrs. Draffin and Grierson upon their fine design. Mr. Atkinson adds that, generally speaking, New Zealand students make the best use of their time at the school, and are by far the best of the oversea students.

Fig. 4 The AA's Director of Education, Mr A. Atkinson, sang the praises of the School's New Zealand students. [*Progress*, March 1, 1923, 7. PapersPast, National Library of New Zealand, Wellington]

return to New Zealand in early 1922, White made a study tour of the United States with fellow AA graduate Horace Massey and later, in 1927, formed a partnership in Dunedin with another alumnus, Eric Miller, which became one of the leading firms in the city.

Christchurch man Edward Dowling won the Year Prize in his fourth year of study at the AA in 1932 (Untitled 1932: 14). It was reported from London that Dowling had "taken the opportunity, during his vacations, of touring on the Continent and in England and Scotland, always with the object and [*sic*] studying the architecture of the various countries" ("Architecture" 1932: 16). Dowling (1906–1986), who had been a member of the Christchurch Architectural Students' Association before he left for London, was to remain in Britain after he completed his studies and practised in England before retiring to Scotland ("Architectural Students" 1926: 3; "Edward Thorne Dowling" n.d.; "St Andrew's" 1934: 7; "Work of a Christchurch Architectural Student" 1933: 14). James Hall-Kenney (Wellington and Napier) was another reported as having toured the west of England and the Midlands during his studies at the AA in London ("New Zealanders Abroad" 1936: 18).

The same *Evening Post* report that celebrated Dowling's success noted that Miss M. J. Blanco-White, who was the recipient of a Holloway Scholarship and



WORK OF A CHRISTCHURCH ARCHITECTURAL STUDENT.—A set of drawings and a model of a large drapery store were the work of Mr E. T. Dowling (formerly of Canterbury College) in his last term at the Architectural Association School of Architecture, London. He has been awarded a fifth year travelling studentship and a special draughtsmanship prize.

Fig. 5 E. T. Dowling's final-year AA project. [*Press*, August 24, 1933, 14. PapersPast, National Library of New Zealand, Wellington]

the AA's Travelling Studentship, had completed her third year and that Miss Beryl Bickerton had gained an honourable mention in her fifth year ("London Personals" 1934: 15). (Margaret) Justin Blanco-White (1911–2001) was a Scottish architect but, as the granddaughter of Liberal politician William Pember Reeves, her success was evidently considered to be of interest to a New Zealand audience ("(Miss) Margaret Justin Blanco White" n.d.). Bickerton is discussed below.

Reginald Uren's "Success in Architecture" was reported by the *Evening Post* in November 1933 under the headline "Making a Name: Petone Boy at Home" (1933: 3). Uren (1906–1988) had won £350 for his design for a new town hall for Hornsey Borough in London ("Unique Award" 1936: 9). The *Post* reported that 280 architects had entered the competition. The value of the town hall was then costed at £200,000 and the architect's fees were estimated at £5000. Uren's father-in-law was quoted as saying that after Uren's earlier (1927) success in the design competition for the Petone foreshore, "New Zealand was too small for him" ("Making a Name" 1933: 3).[4]

A Space for Women

Not only did the AA welcome New Zealand ex-servicemen, but it also offered educational opportunities for female would-be architects. In 1917, the *Auckland Star* reported that the "Architectural Association, founded in 1847, is throwing open its doors to women" ("Women Architects" 1917: 16). Noting that the "scarcity of male students—there are only 20, compared with the usual 150—may have had some influence on the Council's decision", the newspaper implied that the AA path to the profession might be more accessible to women than the article system, for which "even women of the comfortable classes hesitate before asking their parents to article them to a calling demanding … a premium of 300 guineas or more" (see also "Hard Hit" 1915: 17). Membership of the AA subsequently became available to women in 1920, and by 1923 it was reported as having about 30 female students out of a student body of 200 ("Women as Architects" 1923: 36). Crinson and Lubbock state that the school quickly became "the most attractive venue for women [architectural] students" in Britain (1994: 84).

Alison Sleigh (1898–1972) became an Associate of the RIBA in June 1927, "the first lady student from New Zealand to gain this distinction" ("Miss Alison Sleigh" 1927: 11). Sleigh had studied art at Canterbury College and then entered Samuel Hurst Seager's office in 1917 to serve her articles. She completed these in Cecil Wood's office and subsequently headed to England in April 1921 to attend the AA.

Sleigh had meant to stay in London for two years but changed her plans so that she could complete the full course of study needed for associateship of the RIBA ("NZ Students" 1921: 3). In 1925, she placed second in the Tite Prize: "this prize is awarded for a purely practical subject, with full details of construction, so that for a woman to be placed second in this competition was indeed a very high honour" ("Miss Alison Sleigh" 1927: 11). As Julia Gatley has recounted, Alison Sleigh married a fellow AA graduate in 1928 and continued to practise architecture until her retirement in 1957 (2007: 20–45).

Another female attendee of the AA was Beryl Bickerton (1905–ca. 1996), the granddaughter of Professor A. W. Bickerton, a foundation lecturer at Canterbury College in Christchurch ("Bickerton, William Henry" n.d.). Beryl Bickerton worked in the office of Collins & Harman before studying in London and receiving an Honourable Mention on completion of her fifth year at the AA in 1932. In the same year, she was identified as the "first Christchurch girl" to be eligible to use the letters ARIBA, after studying "at a famous architectural school at Bedford Row, London" ("Personal Notes" 1932: 15). (It seems Cantabrians had forgotten Sleigh by this time). Bickerton practised under her maiden name after her marriage and news of her professional successes was reported in local newspapers ("London Personals" 1934: 15; "London Personals" 1936: 16).

Meanwhile, back at (lower case) home, it was not until 1933 that Merle Greenwood became the first female graduate of the School of Architecture in Auckland, suggesting that the AA gave New Zealand female architects a head start on their stay-at-home "sisters", in a similar way that going overseas opened doors for female painters and writers who might have been constrained by family responsibilities and social expectations (Willis & Burns 2017; c.f. Gill 1993). With reference to training in architecture at the AA, Willis and Burns acknowledge that "[m]ore objective entry criteria encouraged women to qualify, yet most women found their subsequent careers circumscribed by social mores and expectations" (2017: 134).

The AA as Local Role Model

The AA's twin foci of student-led design and formalisation of professional standards appears to have influenced the profession in New Zealand, just as it did in Australia, in the formation of the University of Melbourne's Architectural Atelier in 1919, for example (Crinson & Lubbock 1994: 56; Willis 2013). Former student Samuel Hurst Seager described the AA as the "parent association" of that formed in Christchurch in 1915 (Seager 1915: 19). The Auckland Architectural Students' Association (AASA) had been formed in the winter of the previous year; inaugural officeholders included W. H. Gummer (president), Horace Massey (secretary), and Alfred Morgan. Gummer had applied for membership of the AA in 1908, whereas Morgan was an NZ Expeditionary Force applicant in October 1918, and Massey, who had worked under Gummer, applied in May 1919. All three men maintained their membership of the AA into the 1920s. At the AASA's third

meeting in July 1914, Noel Bamford, who later became the first Director of the School of Architecture at Auckland University College, gave a talk about the competition topic he had set members of the association: "A Bath House in a Thermal District" ("Architectural Students" 1914: 5; Treep 2017: 15). Gummer was appointed patron when the association was revived in 1921 ("Auckland Architectural" 1921: 9).[5]

News of the Wellington Architectural Association's (WAA) first year of activities was published in *Progress* in July 1922 ("Wellington Association's Growth" 1922: 9). An earlier association had been established in 1918 and was revived briefly by AA member Frank Greenish in 1920 (Untitled 1919: 8). In 1921, the WAA met one or two nights a week, initially in a studio in the Free Kindergarten Building in Taranaki Street, under the patronage of Stanley Fearn ("Wellington Architectural" 1921: 57). It was reported in 1922 that the WAA had become affiliated with the NZIA's scheme for holding competitions amongst the four architectural associations around the country, and that this had led to an improvement in the standard of work of the WAA's 11 members. The same *Progress* article reported that one of the association's committee members, John D'Oyly, had left during the year to continue his studies ("Wellington Association's Growth" 1922: 9). D'Oyly applied for membership of the AA in London in October 1922.[6]

In Christchurch, the Architectural Association (formerly the Christchurch Architectural Students' Association, est. 1915) also hosted talks and ran student design competitions ("Christchurch Architectural" 1915: 20). In 1934, for example, R. A. Campbell, the engineer for the new State Insurance Building in Worcester Street, gave a talk to the association about the structural design of the building ("Architectural Association" 1934: 3; "Christchurch Architectural" 1934: 16). In 1945, student design competitions were held for a hillside house, a concrete water tower, a petrol station, and a domestic laundry ("Address" 1945: 6; "Architectural Association" 1945: 6; Untitled 1945: 4). Theo Schoon presented a lecture on modern architecture to the association in the spring of 1939, evidently beginning his talk with a quote from the "famous American architect" Frank Lloyd Wright ("Architectural Association" 1939: 6).


Miss Margaret Hamilton, winner of the Christchurch Architectural Association's senior designs competition.

Fig. 6 Margaret Hamilton, following her success in a Christchurch Architectural Association competition. [*Press*, December 20, 1938, 2. PapersPast, National Library of New Zealand, Wellington]

The AA had a physical presence in New Zealand in 1927, when it toured a collection of architectural drawings ("Architectural Association" 1927: 13; "Institute of Architects" 1927: 11). The *Otago Daily Times* described the origins of the AA as an entity "for the purpose of encouraging and providing facilities for the study of architecture", which had developed into a day school after 1900. By 1927, a five-year programme was offered by the AA and its school was reported to be "the largest in the British Empire, and usually has nearly 200 students attached to it, some of them coming from remote parts of the world". Examples of drawings and watercolours by students at all year levels were then being shown in Dunedin. The New Zealand tour was augmented by drawings from schools of architecture in Australia, from whence the AA collection had arrived in New Zealand ("Architectural Drawings" 1927: 4).

An Influential Experience?

It is difficult to quantify the value of an Architectural Association education for New Zealand architects and planners, beyond making some general comments about the professional success and standing that they later attained.

Government scholarships for military personnel enabled some to pursue their studies at the AA sufficient to qualify as an associate of the RIBA. Scholarships announced in June 1919 for Messrs Baker, Gordon, Haigh, Reidy, Downer, Miller, Butcher, Marr, and Reid were evidently tagged to specialism in town planning. "The Education Department has already done something in this direction of enabling its architectural students to visit under expert guidance such schemes of town-planning as are regarded as models—Bournemouth, and Port Sunlight, Wavertree (Liverpool) and Letchworth" ("NZ Architectural Skill" 1919: 7).

There was certainly some public awareness of the overseas experience of the New Zealanders who attended the AA, but whether that awareness was translated into anything more tangible than professional networking opportunities is hard to determine. In one isolated incident, it was noted in a letter to the editor of the *Hastings Standard* in October 1920 that the taxpayer contribution to AA study for returned servicemen might reasonably be expected to see a return in the form of an open competition to appoint an architect for the Hawke's Bay Fallen Soldiers' Memorial Hospital (1927–28) ("Soldiers' Memorial" 1920, October 7: 6). The letter writer got support from at least one other correspondent to the newspaper but in the event, and after considerable delay, the hospital was built to the design of the Government Architect, J. T. Mair ("Hawke's Bay" 1926: 1; "Soldiers' Memorial" 1920, October 9: 4; "Tenders" 1925: 6).

The AA was a benchmark for the development of the School of Architecture at Auckland University College. Citing the successful experience of Arthur Salmond at the AA after he had graduated from the Auckland programme, the College registrar M. R. O'Shea was reported in 1932 as saying that "it is felt that the Auckland training thus compares very favourably indeed with the work of the leading Home universities" ("Aucklander's Success" 1932: 5; see also "Study of Architecture" 1932: 10). Five years later, members of the Auckland Architectural Students' Association held their annual "Studio Stampede" at the College. "Plain and fancy dress was optional and many original costumes were seen in the large attendance of dancers" ("Studio Stampede" 1937: 3). The Dean of the Faculty, Professor Cyril Knight, welcomed the attendees and the *Herald* went to some lengths to list all of the women present.

The 1966 *Encyclopaedia of New Zealand* included a section on expatriates, including the biographies of New Zealanders who had "made names for themselves in their respective professions" ("United Kingdom" 1966). Architects Reginald Uren and Basil Ward in England, Eric Arthur in Canada, and Charles Honey in Malaysia were profiled in the encyclopaedia. By contrast, whereas individual expatriate scientists, artists, writers, and performers are featured in *Te Ara—The Encyclopedia of New Zealand*, the online encyclopaedia's architectural content is largely focused on typology rather than individual practitioners or the development of the profession, including its education pathways. Perhaps the story of New Zealand architecture has been so closely aligned with that of incomers, including the émigré architects of the post-World War II period and their modernist influence, that the story of the "out-goers" has been sidelined since the 1960s.

Conclusion

The traffic between New Zealand and the Architectural Association continued well beyond the early twentieth century. To take one example, Englishman David Sayers studied at the AA for five years from 1948 before emigrating to New Zealand in 1953. In the book chronicling his career that he self-published in 2010, Sayers acknowledged help from fellow AA alumnus Reg Uren in securing a short-term job with the Government Architect's office in Wellington, which was the beginning of his New Zealand practice. Uren was the NZIA representative on the council of the RIBA from 1946 until at least 1966 ("United Kingdom" 1966).

In late 1954, Sayers took up a junior partnership with Frank Gillman, and so began a 30-year career in Hamilton specialising in the design of hospitals and, to a lesser extent, dairy factories. Sayers recalled that the practical experience he gained at the AA, working on "a bomb site which was used for practical building instruction … stood me in good stead in later years" (2010: 216).[7]

"In good stead" might well describe the value of the AA to all of the New Zealand architects who passed through its doors. For many, study at the AA was likely the silver lining "OE" experience arising out of their wartime service. Most returned to New Zealand, some to become leaders in their profession. A handful remained abroad but were still claimed as New Zealanders in the mid-twentieth century, just as we claim writer Katherine Mansfield, artist Frances Hodgkins, and pre-eminent physicist Ernest Rutherford today (Priestley 2018; Swarbrick 2014). In contrast to the visibility of this cohort, however, those New Zealand architects who chose to live as expatriates are now little known beyond academic architectural circles.

For the returnees, study at the AA became one of the ingredients in their professional standing and success in New Zealand. Having recently celebrated the centenary of the University of Auckland's School of Architecture and Planning, it seems timely to acknowledge another link in the chain of the global development of architectural education to which the School belongs.

Acknowledgements

This paper draws upon archival research undertaken at the Architectural Association in May 2000. Historic records accessed at that time included AA Membership Nominations and Applications (1904–27), the AA Card Index List of Members (to ca. 1905), the AA Day School Students' Register (1901–14), the AA Evening School Students' Register (1908–09 and 1913–14), AA Subscriptions (1911–28), and the AA Record Books (1920–24). Various issues of the *AA Journal* were consulted at the same time.

ENDNOTES

[1] "OE" is a colloquial New Zealand expression, short for "overseas experience", referring to a period of study, travel and/or work abroad. Historically, New Zealanders' "OE" was undertaken in Britain, typically London.

[2] According to his *Dictionary of New Zealand Biography* entry, Seager studied at the AA, as well as University College, the National Art Training School (later the Royal College of Art), and the Royal Academy of Arts, in 1882–83 (Lochhead 1996; "Obituary" 1933: 13).

[3] Wilmot L. Ching, AA Session 1909–1910, No. 31, October 4, 1909, AA Membership Nominations and Applications, 1904–27, Box F504, Architectural Association, London.

[4] Uren had won the Petone design competition in association with C. T. Natusch & Sons, of which Stanley Natusch also studied at the AA immediately after World War I ("Petone Foreshore" 1927: 17). See also Stanley Natusch, AA Session 1919–1920, No. 27, July 1, 1919, AA Membership Nominations and Applications, 1904–27, Box F505, G–N, Architectural Association, London.

[5] Gummer wrote a letter in support of H. C. Morton's application to the AA in 1922, stating that "[s]uch has been your kindness & help to myself & other New Zealanders in the past that I felt it a necessary thing for Mr Morton to meet you as soon after his arrival [in London] as possible". Herbert [*sic*] Conrad Morton, AA Session 1921–1922, No. 127, May 30, 1922, AA Membership Nominations and Applications, 1904–27, Box F505, G–N, Architectural Association, London.

[6] John R. D'Oyly, AA Session 1922–1923, No. 24, October 20, 1922, AA Membership Nominations and Applications, 1904–27, Box F504, A–F, Architectural Association, London.

[7] Conversely, when Wellington-born George Robb applied to study at the AA in October 1905 his letter of support from Ernest Wellman of Johannesburg, South Africa, stated that "[Robb] has had a good practical experience & now desires to study more particularly the architectural & artistic side of the profession". AA Membership Nominations and Applications, 1904–27, Box F506, O–W, Architectural Association, London. See also "Personal" (1917: 24).

REFERENCES

Address on theatre architecture (1945, July 3). *Press*, p. 6.

Annual prize distribution. (1920). *Architectural Association Journal, 35*(402), August, 29.

Architect's success: Victory scholarship. (1921, October 20). *New Zealand Herald*, p. 8.

Architectural Association. (1934, January 30). *Press*, p. 3.

Architectural Association. (1945, May 8). *Press*, p. 6.

Architectural Association: Exhibition of drawings. (1927, March 23). *Otago Daily Times*, p. 13.

Architectural Association: Lecture by Mr. T. H. Schoon. (1939, September 5). *Press*, p. 6.

Architectural drawings: Valuable exhibits. (1927, March 24). *Press*, p. 4.

Architectural students: Annual meeting. (1926, December 3). *Press*, p. 3.

Architectural students: The first competition. (1914, July 6). *New Zealand Herald*, p. 5.

Architecture: Promising students. (1932, September 27). *Evening Post*, p. 16.

Auckland Architectural Students' Association. (1921, June 1). *Progress*, 9.

Auckland War Memorial. (1923, March 1). *Progress*, 7.

Aucklander's success: Architectural student; Work at London School. (1932, June 6). *Auckland Star*, p. 5.

Barrie, A. (2008). *New Zealand Architecture Family Tree*. Version 1.0, May. Retrieved from http://www.architecture-archive.auckland.ac.nz/docs/block-digital/2008-05-Block-Digital-Family-Tree.pdf

Bickerton, William Henry. (n.d.). In *Early New Zealand Photographers and their Successors*. Retrieved from http://canterburyphotography.blogspot.co.nz/2017/07/bickerton-william-henry_7.html

Bones, H. (2018). *The expatriate myth: New Zealand writers and the colonial world*. Dunedin: Otago University Press.

Bottoms, E. (2016). AA Personalities No. 3: W. T. W. Ching. *AArchitecture, 27*, January, 60–65.

Broughton, W. S. (1998). Cresswell, Walter D'Arcy. *Dictionary of New Zealand Biography*. Republished in *Te Ara—The Encyclopedia of New Zealand*. Retrieved from https://teara.govt.nz/en/biographies/4c42/cresswell-walter-darcy

Christchurch Architectural Students' Association. (1915, June 1). *Progress*, 20.

Christchurch Architectural Association. (1934, April 11). *Press*, p. 16.

Clere, F. de J. (1917, September 1). A cathedral design. *Progress*, 16.

Connell, Ward & Lucas. (n.d.). In *The modern house: Directory of architects and designers*. Retrieved from http://www.themodernhouse.com/directory-of-architects-and-designers/connell-ward-and-lucas/

Crinson, M., & Lubbock, J. (1994). *Architecture: Art or profession? Three hundred years of architectural education in Britain*. Manchester and New York: Manchester University Press.

Dunn, M. (1984–85). The other expatriate. *Art New Zealand, 33*, Summer. Retrieved from http://www.art-newzealand.com/Issues31to40/mcintyre.htm

Edmond, M. (2017). *The expatriates*. Wellington: Bridget Williams Books.

Edward Thorne Dowling. (n.d.). In *Dictionary of Scottish Architects (DSA) architect biography report*. Retrieved from http://www.scottisharchitects.org.uk/architect_full.php?id=403780

F. de J. Clere, FRIBA. (1917, August 1). *Progress*, 12.

Gatley, J. (2007). Alison Shepherd (nee Sleigh), ARIBA: "Success of New Zealand Lady Student" revisited. *Fabrications: The Journal of the Society of Architectural Historians, Australia and New Zealand, 17*(1), June, 20–45. http://dx.doi.org/10.1080/10331867.2007.10539598

Gatley, J., & Douglas, C. (Eds.). (2008). *Interstices: Journal of Architecture and Related Arts, 9*, Expat: Places/Spaces/Baggage. Retrieved from http://interstices.ac.nz/published-journals/interstices-09/

Gatley, J., & Treep, L. (Eds.). (2017). *The Auckland School: 100 years of architecture and planning*. Auckland: School of Architecture and Planning, University of Auckland.

Gill. L. (1993). Hodgkins, Frances Mary. In *Dictionary of New Zealand Biography, Volume Two, 1870–1900*. Wellington: Department of Internal Affairs and Bridget Williams Books. Republished in *Te Ara—The Encyclopedia of New Zealand*. Retrieved from https://teara.govt.nz/en/biographies/2h41/hodgkins-frances-mary

Hard hit by war. (1915, June 1). *Progress*, 17.

Hawke's Bay Fallen Soldiers' Memorial Hospital. (1926, October 22). *Manawatu Times*, p. 1.

Industrial Association. (1880, August 25). *Lyttelton Times*, p. 3.

Institute of Architects. (1927, November 18). *Evening Post*, p. 11.

Labour disputes in England. (1891, October 19). *New Zealand Herald*, p. 5.

Llewellyn Edwin Williams, 1884–1967. (2016). In *Wellington heritage, Wellington City Council*. Retrieved from http://www.wellingtoncityheritage.org.nz/architects/llewellyn-edwin-williams

Lochhead, I. J. (1996). Seager, Samuel Hurst. *Dictionary of New Zealand Biography, Volume Three, 1901–1920*. Auckland: Auckland University Press; and Wellington: Department of Internal Affairs. Updated May 2002, in *Te Ara—The Encyclopedia of New Zealand*. Retrieved from https://teara.govt.nz/en/biographies/3s8/seager-samuel-hurst

London personals. (1934, September 28). *Evening Post*, p. 15.

London personals. (1936, December 8). *Evening Post*, p. 16.

Maclean, S. (1993). Clere, Frederick de Jersey, *Dictionary of New Zealand Biography, Volume Two, 1870–1900*. Wellington: Department of Internal Affairs and Bridget Williams Books. Republished in *Te Ara—The Encyclopedia of New Zealand*. Retrieved from https://teara.govt.nz/en/biographies/2c22/clere-frederick-de-jersey

Making a name: Petone boy at home; Success in architecture. (1933, November 22). *Evening Post*, p. 3.

Massey, H. L. (1919, August 1). New Zealand architectural students in London. *Progress*, 13.

McEwan, A. (1999). Learning by example: Architectural education in New Zealand before 1940. *Fabrications: The Journal of the Society of Architectural Historians, Australia and New Zealand, 9*, May, 1–16.

Military Cross won: Another Auckland boy; Lieut. Wilmot Ching. (1916, October 5). *New Zealand Herald*, p. 9.

Miss Alison Sleigh, ARIBA. (1927, December 15). *Evening Post*, p. 11.

(Miss) Margaret Justin Blanco White. (n.d.). *Dictionary of Scottish Architects (DSA) architect biography report*. Retrieved from http://www.scottisharchitects.org.uk/architect_full.php?id=400816

New Zealand architectural students at home. (1919, December 1). *Progress*, 11.

New Zealand architectural students: Success in competitions. (1920, February 3). *Otago Witness*, p. 15.

New Zealanders abroad: Personal notes from London. (1936, April 2). *Press*, p. 18.

NZ architectural skill. (1919, July 25). *Auckland Star*, p. 7.

NZ architectural students: Success in competitions. (1920a, January 17). *Evening Post*, p. 6.

NZ architectural students: Success in competitions. (1920b, February 2). *Otago Daily Times*, p. 6.

NZ students at home. (1921, June 22). *Press*, p. 3.

Obituary: Mr. Samuel Hurst Seager; New Zealand architect. (1933, October 5). *Evening Post*, p. 13.

Personal. (1917, June 1). *Progress*, 24.

Personal. (1920, August 6). *Taranaki Herald*, p. 7.

Personal. (1921a, September 1). *Progress*, 12–14.

Personal. (1921b, November 1). *Progress*, 63.

Personal items. (1922, January 21). *New Zealand Herald*, p. 10.

Personal notes. (1932, July 21). *Evening Post*, p. 15.

Petone foreshore: Improvement scheme; Prize-winning proposals. (1927, May 25). *Evening Post*, p. 17.

Pierce, C. (2013). "Ching": A short etymological exposé. *AArchitecture, 20*, October 22. Retrieved from http://conversations.aaschool.ac.uk/ching-a-short-etymological-expose/

Priestley, R. (2018). Physics, chemistry and mathematics: New Zealand physicists overseas. In *Te Ara—The Encyclopedia of New Zealand*. Retrieved from https://www.teara.govt.nz/en/physics-chemistry-and-mathematics/page-3

Proudfoot, H. (1993). Brown, Alfred John (1893–1976). In John Ritchie (Ed.), *Australian Dictionary of Biography, Volume 13, 1940–1980*. Melbourne: Melbourne University Press. Retrieved from http://adb.anu.edu.au/biography/brown-alfred-john-9596/text16915

Rome scholarship: Success of New Zealanders. (1921, April 2). *New Zealand Herald*, p. 7.

Sayers, D. (2010). *The goodwill years: The remarkable story of a professional partnership*. Hamilton: SFT Books.

Seager, S. Hurst. (1915, November 1). Architects' Institute and the student. Criticism answered—who founded the Students' Association? *Progress*, November, 19.

Soldier scholarships: Two more nominations. (1918, September 5). *Evening Post*, p. 3.

Soldiers' Memorial architects. (1920, October 7). *Hastings Standard*, p. 6.

Soldiers' Memorial architects. (1920, October 9). *Hastings Standard*, p. 4.

St Andrew's College: Annual meeting of board of governors. (1934, April 10). *Press*, p. 7.

"Studio stampede": Architects' gay night; The College dance. (1937, July 19.) *New Zealand Herald*, p. 3.

Study of architecture: Success in England. (1932, June 6). *New Zealand Herald*, p. 10.

Summerson, J. (1947). *The Architectural Association 1847–1947*. London: Architectural Association.

Swarbrick, N. (2014). Creative and intellectual expatriates: Expatriation to Britain. In *Te Ara—The Encyclopedia of New Zealand*. Retrieved from https://www.teara.govt.nz/en/creative-and-intellectual-expatriates/page-3

Tenders: Massey, Hyland and Phillips. (1925, March 21). *New Zealand Herald*, p. 6.

Town-planning expert: Wellington appointment; Selection of Mr. H. Butcher. (1927, August 17). *New Zealand Herald*, p. 10.

Treep, L. (2017). " A school of architecture for the dominion": The first years. In J. Gatley & L. Treep (Eds.), *The Auckland School: 100 years of architecture and planning* (pp. 14–39). Auckland: School of Architecture and Planning, University of Auckland.

Unique award: Dominion architect; Mr Uren in England. (1936, May 12). *New Zealand Herald*, p. 9.

United Kingdom. (1966). In A. H. McLintock (Ed.), *An Encyclopaedia of New Zealand*. Wellington, Government Printer. Republished in *Te Ara—The Encyclopedia of New Zealand*. Retrieved from https://teara.govt.nz/en/1966/expatriates-biographies/page-32

Untitled. (1886, February 26). *Evening Post*, p. 2.

Untitled. (1919, September 22). *Evening Post*, p. 8.

Untitled. (1945, November 14). *Press*, p. 4.

Untitled photograph of Dowling. (1932, November 25). *Press*, p. 14.

Webb. M. (1919). Presidential address & prize giving. *AA Journal, 35*(391), September, 175.

Wellington Architectural Students' Association. (1921, November 1). *Progress*, 57.

Wellington Association's growth and work. (1922, July 1). *Progress*, 9.

Willis, J. (2013). The Architectural Association and the Architectural Atelier. In A. Brown & A. Leach (Eds.), *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 30, Open*. Gold Coast, Qld: SAHANZ.

Willis, J. & Burns, K. (2017). The antipodean diaspora, 1920–2000. In E. Darling & L. Walker (Eds.), *AA Woman in Architecture, 1917–2017* (pp. 129–145, 186). London: Architectural Association.

Women architects. (1917, November 17). *Auckland Star*, p. 16.

Women as architects. (1923, March 1). *Ladies' Mirror*, 36.

Work of a Christchurch architectural student. (1933, August 24). *Press*, p. 14.

CHRISTOPH SCHNOOR

Ernst Plischke as Teacher: Wellington (Auckland) Vienna

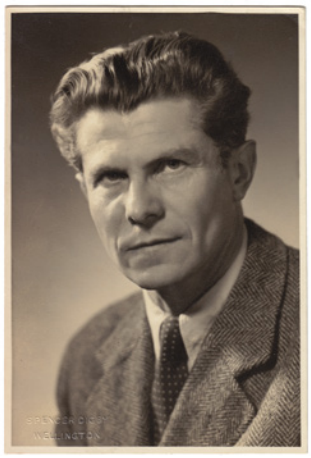


Fig. 1 Ernst A. Plischke, 1947. [Photograph by Spencer Digby, Wellington]

From early on in his career, Austrian-born architect Ernst Plischke (1903–1992) wished not only to be a practising architect but also to be able to pass on his knowledge as a professor. As an émigré in Wellington in the 1940s, he was able to give small series of lectures, sometimes in private circles, at other times in collaboration with the Architectural Centre. In 1947, he applied for a position of Chair of Design at Auckland University College. Although interviewed, the University preferred Charles Light, a Beaux-Arts trained, English candidate with considerable teaching experience. Instead of teaching at university, Plischke began his successful career as an independent architect (in partnership with Cedric Firth).

Sixteen years later, in 1963, Plischke left New Zealand to return to Vienna. While giving up his practice in Wellington, he was finally able to teach architectural design. For 10 years until 1973, Plischke taught his Master class at the Academy of Fine Arts. The teaching aspect of his career has not previously been researched extensively. In his autobiography of 1989, Plischke shows a few projects from this time, while Sarnitz and Ottilinger in their 2003 catalogue of Plischke's complete works only touch this subject ever so lightly. The most thorough documentation of his teaching stems from a 1976 publication of student designs, while the best documentation of the long-term results of his teaching is the collection of essays by his former students and assistants (also 2003) in which fourteen contributions are devoted to Plischke as teacher.

Some of his former students have formed the Plischke Society to keep the memory of their teacher alive. This alone indicates that Plischke had given more than just ordinary teaching. Plischke is well known as a staunch supporter of modernist architecture—indeed, of a light, elegant modernism. Did he teach what he practised? Drawing from literature and personal conversations, as well as archival material, this article aims to show that while Plischke was strict in expecting architectural modernism of a high quality from his students, more important to him may have been to teach his students a moral compass, to develop an underlying noble mind that would support their architectural endeavours.

A Modernist Architect with a Strong Sense of Aesthetics

Plischke and his Jewish wife Anna came to New Zealand in 1939 as refugees from the Nazis in Austria. From early on in his career, Plischke had developed a reputation as a modernist architect, and as such he was an exception in Austria. One of his best pieces of architecture is his Employment Centre in Vienna's suburb of Liesing (1930–31). This building was soon published internationally, for example by Alberto Sartoris in *Gli elementi dell'architettura funzionale* of 1935; but although the book title indicates functionalism, Plischke's architecture was driven by a strong underlying aesthetic sense, combined with his understanding of site, programme, and construction.

Having studied under prominent architects such as Oskar Strnad, Josef Frank, and Peter Behrens, all of whom were members of the Austrian Werkbund, Plischke graduated from the Academy of Fine Arts in 1926. Before emigrating to New Zealand, he was able to call a handful of houses, the double unit at the Werkbund settlement in Vienna, three employment centres, and a good 20 interior designs his realised achievements (Orosz 2003).[1] At the age of 33, he had won the *Großer Staatspreis*—the Great State Prize, a prize newly introduced by government.

Thus, when Plischke arrived in New Zealand in 1939, he had already made a name for himself.

Educational Engagement in Wellington

Early in his career, still in Vienna, Plischke developed the wish to teach architecture, to become a professor one day. In Vienna, the circumstances did not allow this to happen. In Wellington, while working in the Department of Housing Construction, he took up the opportunity with delight to realise his dream to participate in architectural education—even if this was on a modest level.

As early as 1941, he was invited by the Wellington Architectural Students' Club to deliver a lecture. Plischke reports to his life-long friend and confidante, the renowned potter Lucie Rie (1902–1995):

> The club of the students of architecture invited me to give a lecture on modern architecture. I spent plenty of time to prepare this lecture and enjoyed these preparations immensely. Then the material became too much for one evening, so we had to have a second one. We had a projector which enabled me to show them plenty of my foto-cuttings; if you remember them. After the first lecture for the second evening there came also our chief architect with his wife, the assistant architect and also private architects who had heard about it. We had lots of fun out of this evening and especially for the youngsters it was absolutely new and exciting (Plischke 1941).[2]

Thus, with some right, Plischke may have felt that he was able to attract an interested audience when speaking publicly about architecture. A little later, he was asked to deliver lectures at the History Department of Victoria University of Wellington, both in 1943 and in 1945. Plischke writes to Rie:

> I already have another and quite pleasant private job. I have been asked to have a serie[s] of lecture[s] at the university out here. I may pick any theme I like and they want to have it in the way of *kunsthistorisches Seminar* with

> discussions and so on. I hope that I will like it very much (Plischke 1943, April 19).

The "kunsthistorisches Seminar" was like a university seminar in art history, indeed on the topic of the Fine Arts. The seminar finished by the end of September. In a further letter, Plischke adds: "There were ten of [the lectures], one every week, perhaps the greatest fun I had since I am here, very exciting but also very strenuous" (Plischke 1943, September 30). In his application to Auckland University College in 1947, Plischke would list about 30 lectures he had presented overall (see further down).

At the same time, Plischke was able to lay down a few of his theoretical positions in two publications. Asked to write a design guide for returning servicemen, *About Houses* was published in 1943 by Government. This was extended into a veritable book which discussed good modern design on three scales—the interior, the house itself, and the urban environment. *Design and Living*, published in 1947, allowed Plischke to contribute to the design education of the general public.

His engagement in educational activities in Wellington extended into the early years of the Architectural Centre. The Centre was created at a meeting on July 23, 1946. Plischke was present, amongst architects such as Graham Dawson, Gordon Wilson, Helmut Einhorn, and Fritz Farrar, the two latter also being émigrés, and a group of students. Plischke became part of the executive committee (Salinger 1996: 69–78). He also participated in the publication of the Centre's journal, the *Design Review*, both with articles on his own work and, for a period, as member of the editorial board. As we have seen, Plischke had already delivered lectures to the Wellington Architectural Students' Club five years before the Architectural Centre was founded.

Because the only architecture school in the country was in Auckland, a strong driver for the Architectural Centre was to assist "students with their study in the form of an atelier"; thus with support from the Housing Division and Town Planning Office of the Ministry of Works, "in 1947 the Centre ran its first course in architecture" (Salinger 1996: 74). Plischke was invited to take part in the 1948–49 summer school studio session, which was held in August 1948. This was the starting point for the design and building of a contemporary prototype house, which became known as the Demonstration House (Gatley 1996: 89–95; Gatley & Walker 2014: 35–39). In this, Plischke was joined by his former superior, Gordon Wilson—"an interesting pairing", as Julia Gatley and Paul Walker observe, "given their much-hyped personality clash" (2014: 36). All of these moments show Plischke's wide engagement with architectural education of students as well as of the general public.

After leaving the Department in late 1947, a new phase in Plischke's life began when he officially went into partnership with Cedric Firth. The two young architects had met in 1939 in the Department of Housing Construction and began to cooperate soon thereafter,[3] while officially setting up their joint office as Plishke & Firth in early 1948. In Firth, Plischke found an equally committed supporter of modernist architecture. Firth had trained as a builder and studied at Auckland University College before travelling to Europe in 1931 and 1932 (Bowron 2000).

Application at Auckland University College

In December 1946, Auckland University College advertised for a Chair of Design in the School of Architecture (AUC 1947: 378–78a). Student numbers in the School had continuously increased from 66 in 1943, to 210 in 1946, and would continue to grow. Considering this increase, another two positions were advertised in 1946, that of a lecturer in construction and a permanent librarian (Gatley 2017: 42, 44). Also in 1946, several students had formed the Architectural Group, writing in their constitution that they would work on a development towards "1) group practice … on a co-operative basis" and "2) … to achieve an organization of planners and builders similar to the Deut[s]che Wer[k]bund, and including the ideas of the Modern Architectural Research Group [MARS, London] and the Association of Building Technicians in England" (Architectural Group 1946, in Gatley 2010: 20). Here was a call, made by young students, for modernist architecture in New Zealand. This would manifest itself a few years later in the Group Construction Company houses, designed and built by the Group in Auckland.

Ernst Plischke was made aware of this opening by friends, suggesting he apply. He writes to Rie:

> Since my last letter we had again a bit of excitement, but not too bad. Five months ago a new chair for design was created at the architectural school of Auckland University. It was advertised all over the empire. It is the only architectural school in New-Zealand. Some friends thought that I should apply and that I even might have a chance (Plischke 1947, June 14).

It was a new position, needed because of the increased student numbers, to be filled by someone who would work closely with the Dean, Cyril Knight—on whom Cedric Firth commented in a letter to Plischke: "Good Prof. Knight, may his bones rest in hell if not in worse" (Firth 1948). Knight, an Australian who had studied in England, Paris, and the United States, had been Professor and Dean at Auckland University College since 1925. He had set up the Bachelor of Architecture, which started in 1926.[4] Both his education and teaching had been strongly focused on Beaux-Arts methods and practices. Firth elaborates upon his criticism, made in the context of a visit he paid to architects at Harvard and MIT. On this occasion, he met with Professor William Wurster and Walter Gropius, calling the latter "an old and disillusioned man". He also says, however, that Wurster's and Gropius' work at these schools "makes the School at Auckland look quite foolish, and quite incredible" (Firth 1948).

Plischke put together his résumé and sent it off to Auckland—and to London, where the jury was assembling. Professor Lionel Budden of the University of Liverpool had been chosen as chair of the committee in England. Apart from Budden, this consisted of four officials, representing the Royal Institute of British Architects Board of Architectural Education, the Architectural Association School of Architecture, the Universities' Bureau,[5] and the University of New Zealand.[6] In a 2010 paper, Christine McCarthy has attempted to clarify the decision-making process for what might have become Plischke's professorship in Auckland (McCarthy 2010: 258–64). She discusses the composition of the appointment committee in detail, in order to determine a possible bias of the committee towards the Beaux-Arts or modernism. While this seems to be difficult to establish in retrospect, she concludes that Budden himself, although "a clear adherent to the Beaux Arts", was sufficiently liberal and modern to steer

the University of Liverpool towards the teaching of modernism (McCarthy 2010: 260–61). Budden compiled a shortlist of six of the 12 applicants for interview. These were the candidates: Ashworth, Breakwell, Bulmer, Harvey, Light, and Wood. "Professor Budden indicated that in his opinion Mr. Plischke would have been included in this list had he been available in England" (AUC 1947: 380). Plischke was considered to be a suitable candidate but could not be interviewed together with the other six shortlisted applicants. Thus he was in the strange situation to remain outside the main application process although he was present in the country where the position was to be filled. The interviews in London were conducted on April 21, 1947. The committee unanimously agreed on Charles Light as their preferred candidate, with Harry I. Ashworth as the runner-up. However, the committee saw itself "unable to recommend the appointment of any of the other candidates which it interviewed" (AUC 1947: 381).

A month later, Ernst Plischke was interviewed in Auckland. He had been given relatively short notice, receiving the telegram on May 20, six days before the interview (Registrar, 1947). He travelled to Auckland via plane. The AUC Council Minutes of May 26 state that "Mr. E. A. Plischke was interviewed by Council" and recommend that the chair be offered to Charles Light while asking the Senate "to approve of the following four applicants: H. I. Ashworth, R. H. Bulmer, A. C. Light and E. A. Plischke" (listed in alphabetical order and thus not giving away any hierarchy of the list) (AUC 1947: 350). In the letter to Rie from June 1947, Plischke summarises:

> A few days ago I got a cable to come to Auckland for an interview of the council. The chairman and part of the council was for me but the other professor who is Dean of the faculty was dead against me. He wanted of course an Englishman, with the routine experience of teaching, and [who] would be a mediocre architect and be no competition for him. So the final toss-up was between the Englishman and myself. Now his appointment has been announced in the newspaper (Plischke 1947, June 14).

The "other professor who is Dean of the faculty" and who was "dead against" Plischke, was Professor Knight. With the assumption that "the Englishman" Light would be no competition for Knight, Plischke indirectly says that he would foresee a competitive situation between himself and Knight because of his own strong architectural convictions that would not (easily) be reconcilable with those of Knight.

Returning to Wellington, Plischke muses over the event in a diary entry of the interview day. In view of the unfortunate circumstance that no official records of the interview have survived,[7] his recollection is the closest we will get to know about the conversation that took place:

> Whatever I said, Knight would have found it unsuitable or insufficient; either too aggressive or not forceful enough. Teaching experience as precondition. I have no English education. They asked many questions that were already answered in the application … Apart from Knight no one asked a question. It is *just as well* that the antagonism with Knight became visible now and not too late. Had I talked as I wished, there would have immediately been a row with Prof [Knight]. Should I have presented a prepared lecture? … Creative force of NZ youth. If I had ever enquired if the RIBA recognises our degree. *Prof. Knight did not query my qualification but that it is not a*

> *British training. What ever I could have said in my favour was an attack on Knight … I would endeavour to link my teaching—the work of the students—as closely as possible to the practice background and conditions of practice and every day life* (Plischke 1947, May 26).[8]

Plischke seems to have seen correctly that his lack of teaching experience presented a difficulty. Although the advertisement, while specifically asking for "qualifications and experience in Architectural Design", did not require a mention of teaching experience (AUC 1947: 378), in his application he had named all the lectures he had presented so far:

> A series of ten lectures on Fine Arts … in the History Department, Victoria University College, Wellington, in 1943 …
>
> A series of ten lectures at Victoria University College on the design of modern houses as an adult education course in 1945.
>
> Several lectures for the Army Education Service …
>
> A lecture to a Conference of the New Zealand librarians in Auckland on Community Centres.
>
> Lectures on design and criticism of esquisses for the Wellington Architectural Students' Club.
>
> Three lectures on problems of modern design to the Architectural Centre Summer School of Design, Wellington. (Plischke 1947, February 3: 3)

About 30 lectures are surely more than nothing, but this enumeration certainly does not compare favourably with the comprehensive teaching and administrative experience of some of his competitors. Plischke also saw clearly that his lack of an English background made it more difficult for him to be successful. Whether his perceived discord with Professor Knight would have been as strong in reality as it was in his imagination cannot be answered. And given his difficulties with other strong minds—such as Clemens Holzmeister in Austria or Gordon Wilson in Wellington—it might very well have.

Julia Gatley reiterates McCarthy's findings, stating that "Plischke [who] was a respected architect, was never a strong contender for the position because the College sought a person with both practice and academic experience, and Plischke had comparatively little of the latter" (Gatley 2017: 44–45). While the job description stated the "right to private practice" (unless it interfered with the duties at the College) and required a statement about the candidate's experience in architectural design, the advertisement was surprisingly mute on both the expected teaching experience *and* practice experience (AUC 1947: 378); in this, the ad was perhaps imprecise. And the surprise is that Charles Light who was appointed as Professor, as per the short CV in the Council Minutes, did not have any practice experience at all. He had indeed won important design prizes—but there is no mention of running an architectural practice or having been employed in one (AUC 1947: 374).

Plischke thought that in the end it came down to a decision between Charles Light and himself, and until the end of his life this is how he saw the event.[9] This possibility cannot be ruled out entirely for two reasons: the committee in England saw itself "unable to recommend the appointment of any of the other candidates

which it interviewed", and the fact that Plischke was able to refer to the shortlist of two can only mean that members of the Council at his interview must have indicated as much. So perhaps "the final toss-up" was indeed between Light and himself, even if McCarthy claims that this was not the case (2010: 262). First, she notes that "the short-listing privileged experience and post-graduate qualification over practice, and experience over youth" (2010: 261). With this in mind, she re-formulates her question to ask whether or not another one of the British candidates should have been offered the position. This was William Walter Wood, a practising modernist architect with teaching experience who already had been Head of School at three polytechnic schools (2010: 261). McCarthy concludes that on strength of the material available, William Wood would have been at least a strong contender for the job, if not better suited than Light. But he was not chosen—and so this hypothetical scenario is perhaps unrewarding.

However, McCarthy importantly points out it appears that the English "committee's bias was against a professor conducting practice" (2010: 262). Indeed, the report by the Universities' Bureau clearly argued against this possibility by stating William Wood was "a very ambitious man, but the Committee considered that he was likely to be more interested in the building up of a large private practice than in the development of a University School" (AUC 2010: 381). Plischke might easily have received the same comment had he been present at the interviews in England: his thought after the interview that "*I would endeavour to link my teaching—the work of the students—as closely as possible to the practice background and conditions of practice and every day life*" makes his position on the relationship between teaching and practice very clear. And it is a useful, modern position that would resonate in any similar application today. In a letter of June 1, 1947, to his family back in Vienna, Plischke goes into more detail, and his thoughts regarding teaching and practice seem relevant here:

> Last night then was the meeting of the University Council and I [was] presented and interviewed. Of all the applicants only one architect in England and myself are left on the shortlist. Very honouring, isn't it? The President of the Senate absolutely wants me. The Dean (of the Architecture Faculty) wants the Englishman. Here, a teaching architect has not been allowed to practice until now. This is different for this new position, since one begins to accept that practice is important also for teachers. But it is an innovation. As of yet, an applicant for a teaching position only had to demonstrate teaching practice at other schools … The Senate is divided and I think that the Englishman will get the position. When I realised this during the interview where the Dean was present, I got very depressed and disappointed (Plischke 1947, June 1).[10]

So what emerges from a renewed study of the application process, with new material by Plischke at hand, is that the committee—and thus, one has to conclude, Auckland University College—was not sufficiently interested in a Professor of Design who would continue to maintain a design practice. Charles Light was their preferred candidate because of his uninterrupted academic experience and because he did not "threaten" to practise. As McCarthy has shown, his inclination towards the Beaux-Arts might have helped.

Perhaps Plischke's last sentence in his reflections on the train back to Wellington can open a discussion: in the Universities' Bureau report on the applicants, Light

was recommended for being "the only one of the candidates who appeared to have a clear conception of how to teach the theory of design" (AUC 1947: 380). It would be interesting to compare Plischke's ability to formulate his own theory of design: How would the committee have judged him? Plischke had continuously developed his own theoretical stance on architecture and design since the early 1920s and had advanced far beyond what he was able to lay down in *Design and Living*—which had been published almost at the same time as the interview in Auckland was conducted.[11] Would he have been able to convince the jury in London?

It seems important here that Plischke, who in his own personal reflections often maintained the need for an *Innerlichkeit*, perhaps to be translated as inwardness that reflects one's fundamental stance towards life as a whole, in these notes referred to the "conditions of practice and everyday life": he had become well versed in the conditions of the making of architecture in New Zealand and understood what the students would benefit from. Plischke had both an interest and an ability to put himself in the students' shoes.

But perhaps that was only one aspect of the story. In 1947, resentments against Germans (or, as in this case, German-speaking people) were still running high (Beaglehole 1988). In a twist of irony, Plischke's disadvantage was not only to be of the German language but through being a migrant in the colony he had become somehow a local. He was the only applicant who lived in New Zealand. Seen from today's perspective, the intimate local knowledge (own practice, planning for Government both in housing and in town layouts and community centres) should have given him a solid advantage over any other non-local applicant.

This question of teaching experience remains, and is to be re-considered in the light of his appointment in Vienna: at the Academy in Vienna, teaching experience was not even considered. What counted was that candidates were prolific practising architects.

Appointment at the Academy in Vienna

In January 1960, while still in practice with Firth in Wellington, Plischke received a letter from architect Roland Rainer, who at the time was Rector of the Academy of Fine Arts in Vienna. Rainer enquired if Plischke was willing to return to Vienna to become full Professor at the Academy (Rainer 1960). To add to the surprise, this meant that Plischke would take over Clemens Holzmeister's professorial chair. Holzmeister (1886–1983) was a successful and politically active conservative modern architect who had emigrated to Turkey in 1938 and returned to Austria in 1954. He had been Plischke's nemesis in the years before the war. Or so at least Plischke felt. He saw Holzmeister as being directly behind his difficulties in obtaining any commissions after 1933 and believed Holzmeister had been against him winning the Great State Prize in 1935 (Plischke 1989: 181, 199). With his first assumption, Plischke may have been right, but in the second case, he erred: as part of the jury, Holzmeister had suggested that Plischke should win this prize, giving consideration to the many difficulties he encountered as a young architect in 1930s Austria (Posch 2010: 254).

Plischke answered Rainer with ambivalence: in his letter of January 18, he speaks about their "lovely house and beautiful big garden" and about a hesitation to "deal with the question what a new uprooting and a back-transplantation would

implicate"; first of all he wished to discuss technical details with Rainer (Plischke 1960).[12] But in the ensuing correspondence between the two architects, Plischke did show himself prepared to leave New Zealand in principle. His wife Anna agreed more reluctantly since it meant a lot to her to be close to her adult sons (Henry Lang living in Wellington and Franz Lang living in Sydney, both with their families). Still, in the following three years, Plischke went through various phases of ambivalence and agony: this is how long the decision-making process in Vienna took. Again and again, he did not know whether they would finally leave for Austria or not. For example, on May 20, 1960, he writes to his friend Rie, expressing his unease:

> We live and work as usual, but in reality everything is totally unsettled with us. One day we think we are leaving N.Z. for good—sell our house and the garden where we have taken roots during those 20 years and go back where we left then. Another day we kind of hope that we stay here. No, Lucie—I have no illusions; I am very aware of the mental climate of Vienna from our last visit (Plischke 1960).

With this last comment, Plischke refers to his first visit back to Vienna in 1953, to celebrate his 50th birthday. He had not seen his family since their emigration in 1939. However, in Vienna he experienced an overwhelming disgust at the continued presence of "Nazis"—those who had either been in power during the Third Reich or been opportunist followers. A return to Austria was, if not impossible, at least loaded with mixed feelings. However, Plischke's attitude changed, and he did hope to be appointed in Vienna, while remaining very sceptical that it might not happen. In this letter, he continues:

> Anyhow I think the whole lot of trouble is again a waste of time—there is no real likelihood that they will take me. In their coalition *proporz* [proportional representation] system 50% is red and 50% black—Rainer is the red half and Holzmeister and his chair is the black one. I have never been or will be a Clerikaler [cleric] in my life. And that is what finally counts with the people who make the decision (Plischke 1960).

This is a reference to the political system of post-war Austria which, in some ways, has been continued until this very day, with half of posts and jobs being given to social democrats and the other half to members or allies of the conservative party (Berger 2007: 278–81).

Implicitly, Plischke also refers to a letter by Holzmeister of a few weeks earlier (April 1960) in which Holzmeister speaks of his Chair and that the Institute for Sacral Art was attached to it. Because he wanted this tradition to be continued, he was keen to know whether Plischke had built any churches (Holzmeister 1960). The leading nature of this question annoyed Plischke and, in his eyes, demonstrated the politicisation of this case (A. Plischke n.d.). In his scepticism, Plischke was right in principle, however, in this case his worries were unnecessary: Rainer had prepared the ground for Plischke long before 1960; at least that is what appears to be the case when we closely follow the faculty meetings at the Academy.

Roland Rainer (1910–2004), seven years younger than Plischke and a prolific modernist architect, had brought Plischke up for discussion in these meetings as early as 1957, repeating his mention of Plischke's name several times up and until 1960. Thus, it seems that Rainer was eager to make his colleagues aware

of Plischke and his achievements—perhaps to prepare them for a favourable decision at a later date. And if this was his tactic, it was fully successful. In the meeting on June 24, 1960, Rector Professor Christian Martin informed his colleagues that:

> Professors Dr Rainer and Dr Holzmeister have asked to set the replacement of the chair of the Master School, Prof Dr Holzmeister, on the agenda.
>
> Simultaneously, those above-named professors have named following architects for a list of three candidates, to be suggested to the Federal Ministry of Education:
>
> Ernst Plischke, born 26 June 1903, in Austria, currently in New Zealand;
>
> Arne Jacobsen, born 1902 in Copenhagen, Denmark;
>
> Heikke Siren [*sic*], born 1918 in Helsinki, Finland. (Academy of Fine Arts Vienna 1960)

Martin concludes by saying: "Prof Dr Rainer emphasized that the above named were outstanding and world-renowned architects. This dignifying appointment alone would cause a sensation in architectural circles internationally and bring honour to the Academy" (Academy of Fine Arts Vienna 1960). This was indeed something of a coup since by naming the world-famous Arne Jacobsen, Plischke's own standing was automatically strengthened. Was it Rainer's calculation that Jacobsen would not accept the offer anyway? This is not to say that Plischke would not have had an impeccable reputation in his own right. But being compared to an internationally renowned architect like Jacobsen would have helped Plischke's position. Jacobsen indeed declined the offer. In the end, the list was changed to Plischke, German architect Egon Eiermann, and Heikki Sirén. In the decisive meeting of May 1962, the group of professors at the Academy agreed to Rainer's suggestion and recommended Plischke as their first choice (Academy of Fine Arts Vienna 1962). It was not until March 1963 that the council of ministers accepted Plischke's appointment.

How Much does Teaching Experience Matter?

Does it matter if a candidate for Professor of Architectural Design—whatever the actual job title—has considerable teaching experience when appointed? It seems that the German and Austrian system differs fundamentally from the system employed in Britain and New Zealand in this regard. Without going into depth about cultural differences in educational systems—here Anglo-Saxon, there continental—one can observe a different attitude with regard to the way in which practice experience in architecture is acknowledged.

For the Austrian professors at the Academy of Fine Arts in Vienna, there was no question whether Plischke (or any other of their suggested candidates) had teaching experience or not. What mattered was that the new Chair would have the design experience and international standing that would allow him to attract and educate keen students. The selection process of the new professor was also different from the British procedure: in Vienna the members of the faculty made suggestions as to whom they would like to appoint as a new Chair—that is, as their new colleague. This is, of course, fundamentally different from applying for a job opening. In New Zealand in 1947, things were very different.

There is the question whether a design professor should be a career academic or a practitioner who teaches students, while keeping his practice. It appears that in the Auckland process the committee preferred Light over the other candidates not only because of his ability to teach and administer but also because he presented no "threat" of suddenly wishing to practise. They said:

> … and though he has a good deal of practical architectural experience the Committee has no doubt that his chief interest lies in teaching and it does not consider him likely to wish to develop a private practice to the detriment of his teaching duties (AUC 1947: 380).

While from the committee's point of view this judgment makes perfect sense, it means that such a system sees no merit in the knowledge transfer that happens between teaching and practice. The German/Austrian system which is based on such transfer is not without conflicts for exactly the reasons that the committee had outlined in the case of Light and Wood: often, design professors find it hard to combine their teaching with a successful running of their practice. Since it is their practice experience that helped them obtain the position in the first place, it is often seen as desirable by the university that the professor in question keeps up his practice, with all the ensuing time and workload conflicts. The author of these lines has seen many cases in which this works well and an equal number of professors for whom it became necessary to decide for the one or the other.

Would Plischke have made a good professor in the sense of what Auckland University expected? Perhaps not. As mentioned, he recorded in a note to self: "I would endeavour to link my teaching—the work of the students—as closely as possible to the practice background and conditions of practice and every day life" (Plischke 1947, May 26). Here, Plischke stresses the point of practice—and probably did so in the interview. He had no wish to give up practicing at all. In fact, he would resign from the civil service at the end of 1947 to go back into practise from January 1948 onwards—and thoroughly enjoyed this move: "Altogether I am satisfied, especially I enjoy my freedom" (Plischke 1949).

The "Graph", the Essence of Plischke's Architectural Thinking

Two years after his return to Austria, Plischke was appointed Rector of the Academy. That year, 1965, he also gave his inaugural speech at the Academy. In it, Plischke brought together his lifelong grappling with the contradictory elements of architecture in one precise but flexible definition. Not often in his career did he get the opportunity to define, to the point, his theoretical position. Here, the occasion allowed him to make a programmatic statement about his fundamental attitude towards architecture. He says:

> In my view, the aim of a fully developed modern architecture needs to be the unity of a spatial concept on the one hand and a *Bauplastik* [a built sculpture] on the other hand. These two qualities nevertheless need to be developed from a fulfilment of the function of the building and of its structure.
>
> The principal quality of such a fully developed architecture lies in the tension between the spatial concept and the building's function on the one side and the vision of a sculptural building and the structure on the other hand. Only this tension brings a building to life, and makes its architectonics

> noticeable. Without this tension we end up with either pure utilitarianism or with an abstract built sculpture (Plischke 1965b: 11–12).[13]

In this definition, which he later completed with an explanatory diagram which he called the "graph", Plischke does something very interesting: he extends the Vitruvian triad of *utilitas*, *firmitas*, *venustas* (utility, firmness, beauty) by splitting *venustas* into two aspects: the interior and the exterior beauty—space and sculpture. Through this manoeuvre, he arrives at a construct that allows him to identify the tensions between its elements: between space and function on the one hand and sculpture and tectonics on the other hand. These tensions are well-observed, and through this comparison Plischke demonstrates an understanding of an essential principle of architecture. This understanding was not only central to his own design work, he also placed it at the heart of his teaching.

A Supportive but Strict Teacher

Plischke would teach his Master class at the Academy for 10 years, from 1963 to 1973. Classes were small, with about 10 students per year. A total of 103 students graduated from Plischke's class, while another 86 studied one or more semesters in his class. These are small numbers, and they may highlight the more personal approach to teaching in this type of Master class, compared to today's year groups in New Zealand architecture schools.

In 2002, 10 of his former students formed the Ernst-A.-Plischke Society in Vienna to keep the memory of their teacher alive. To honour the centenary of Plischke's birthday in 2003, they decided to publish a book with essays on their former professor. The list of 10 grew into 25 names of contributors to the book that is now jokingly known as the "red book" (because of the colour of its cover). Not all of these had been his students, some were colleagues, friends, or his assistants at the Academy. But this fact in itself indicates that Plischke had given his students more than just ordinary teaching.

In conversations, architects Luigi Blau and Matthias Mulitzer have pointed out how much Plischke strove to assist his students. Blau, born 1945, studied in Plischke's Master class from 1966 to 1973. He says: "The positive aspect of his teaching was that he tried to encourage, to support, when a student was near and dear to him" (L. Blau, personal communication, August 30, 2016). Mulitzer, who later interviewed Plischke (1985 and 1986) as preparation for Plischke's autobiography and helped assemble the material for it, was too young to study under Plischke (he graduated from the Academy in 1986). But through his conversations with Plischke he developed an intimate understanding of the Master class and Plischke's teaching. He says, almost with the same words as Blau, that Plischke tried to support his students and to help them where he could (M. Mulitzer, personal communication, August 30, 2016). At the same time, Plischke appears to have been a strict, at times unrelenting, teacher. He gave his students a heavy design workload before they would be able to receive the *Abtestur*—maybe "attestation" in English. Mulitzer describes it as giving his students "hard nuts to crack". Apparently, Plischke added detail on detail drawing before he approved a design. Where there was a difference in opinions, he would argue with his students, "but", as Blau asserts, "not in a bad way, instead disputing in a good way" (L. Blau, personal communication, August 30, 2016).

Not Indoctrinating but Anachronistic?

Architect Alessandro Alverà, who studied under Plischke from 1967 to 1971, states that it came as a big surprise to him that Plischke's students did not rail against their professor as was common at the other schools during the 1968 protest years: "I think that Plischke's lectures as well as his teaching style explain the loyalty of his students" (Alverà 2003: 98).[14] This opens the question of how Plischke's teaching sat within the radical challenges and changes of those years.

Architect Dietmar Steiner remembers a case in which the given brief was a single-family house—in 1971. He found the idea of having to design a house for one family appalling and changed the brief into designing a communal house for 20 people. Plischke's reaction apparently was to ask: "So my Anna would have to stand in the kitchen with other women?" He then declared disinterest in the project (Steiner 2003: 126). Steiner was allowed to continue working on the project—but with one of his assistants, not with Plischke. Steiner consequently shows himself unimpressed with Plischke's teaching but remains with respect for what he calls a "relic from another time" (2003: 126).

This is an odd incident when compared with an observation of Janet Paul. Paul and Plischke had been friends since the 1940s when she designed the inscription for Plischke's 1942 Tasman Memorial. She remembers that Plischke had told her of his efforts to design with cultural awareness. Being tasked to design multi-units for Ōrākei in Auckland from 1939 onwards (Schnoor 2014: 805–16), Plischke apparently was well aware that they were intended for Māori of the Ngāti Whātua iwi (tribe), the original residents of Ōrākei:

> In private conversation, Plischke later related how, since these houses were to be lived in by Maori families, he had tried to find out the future residents' specific preferences: these were for communal kitchens where all meals were prepared and eaten, as well as for the well-used deep verandas such as were commonly found in Maori meeting houses. In his initial design, Plischke had altered the small separate spaces of the kitchen, the tiny dining area, and the sitting room of the typical state house to make instead one large kitchen/living room, which opened on to a sheltered sun terrace. The sketch went up through the Housing Department as far as a final arbiter—the Prime Minister, Peter Fraser—who then rejected it on the grounds that "our Maoris deserve the same housing as is made for Pakeha New Zealanders" (Paul 1998: 193).

When he had shown so much progressive sensibility in the 1940s, how come a student's idea to design a communal kitchen in 1971 Vienna angered him?

Steiner also compares Plischke and Grete Schütte-Lihotzky, the designer of the Frankfurt kitchen of 1926. He shows himself surprised how little interest both of them showed in political and societal challenges of their time. "They followed an inner position and searched to justify it morally and politically. In that, however, they neglected much that actually developed in politics and society of these times" (Steiner 2003: 128).[15] It is fair to say that Plischke, despite his closeness to the big events of the twentieth century, indeed remained surprisingly apolitical. Party politics were not his means of engaging with society. However, in his

designs of both social housing and community centres he remained driven by a fundamentally philosophical stance towards life.

Steiner's view of a politically and socially disinterested teacher is countered by Martin Spühler's observations. Spühler, one of Plischke's many Swiss students, who graduated from the Master class in 1967, claims that Plischke's teaching allowed great freedom and was in no way indoctrinating. In trying to answer the question of why Plischke was of such sustained importance to him as a teacher, he refers to the congruence of the person Plischke and his work (Spühler 2003: 130).[16] Spühler remembers Plischke's Tuesday lectures as "unsystematic but always accurately prepared", adding that the students had to assemble the whole picture from mosaic pieces. "This concept, at first sight didactically unclear in its setup, suppressed the student as consumer; it required perseverance and patience" (Spühler 2003: 131).[17] Alessandro Alverà adds that the lectures often served as a platform for lively discussions that were primarily led by the more mature students (Alverà 2003: 98). "In the ensuing discussion on the respective topic we discussed, on the same level, in the most engaged manner. Often, very critical voices could be heard" (99). Thus, even with only letting a few voices speak, a complex image of a strict, at times unrelenting, but helpful teacher begins to form—one who fostered discussion but may have ignored positions he disliked.

A good designer does not necessarily make a good design teacher. How does Plischke compare in this sense? In his autobiography, Plischke remembers:

> My aim however was not to produce nothing but small Plischkes, but rather to foster the strengths of the individual students, in order to help them become independent architects, able to expand, who would keep up my *Baugesinnung* (mindset relating to architecture) (Plischke 1989: 423).[18]

There are two parts to this quote: first, in a conversation, Luigi Blau answered the question of whether Plischke had tried to educate "small Plischkes". Blau thought Plischke had not, saying: "Even if Plischke did not really listen very well, he however tried to read the design attempts of the students as best as possible in order to help them, as best as he could" (L. Blau, personal communication, August 30, 2016). The other part of the quote refers to the *Baugesinnung*, a neologism made up by Plischke. "Bau" means building or "bauen": to build. "Gesinnung" is more difficult: attitude, mindset, beliefs, all these could be "Gesinnung" but it is also an old-fashioned word. What Plischke means by it is a noble mindset that underlies all architectural activity—in fact, a philosophical stance towards life in general that is characterised by humility and the above-mentioned inwardness (*Innerlichkeit*). What he, according to his former students, tried to achieve on a daily basis was to help them understand and continue this underlying humble stance towards architecture. In a lecture in 1965, Plischke said: "The *Baugesinnung* is a matter of knowledge, of restraint, of tact" (Plischke 1965a).[19]

Studio Teaching: Light-Weight Structures and a "New Landscape of Living"

Towards the end of the 1960s, when changes in study organisation and content were discussed all over the world, Plischke seems to—once again—have been in an ambivalent position: on the one hand, he attracted many students from

Roland Rainer, who, as Viennese contemporaries tell, was very authoritarian; and maybe, Plischke's personal attitude helped avoid a severe clash between professor and students, as Alverà suggests in the above quote. On the other hand, Plischke was not entirely of this new time. He was a staunch modernist and did not agree with postmodernist ideas at all.

But this does not mean that he would have been anachronistic in the sense suggested in the section above. While he did not show much interest in blob structures as they were en vogue with the students in the early 1970s, organic and tensile constructions—above all Frei Otto's Munich Olympic Stadium—formed a core part of Plischke's teaching and are reflected in his students' works. Thus, the publication on work by students of Plischke's Master class of 1976, entitled *Designs and Projects*, opens with the illustration of a structural model used for the class's exhibition in 1967, an elegant tectonic sculpture made of metal, mesh, and string, by one of the students, based on purely tensile and compressive forces within the structural members (Plischke 1976: 9).

"Organically differentiated" is the title of the first chapter, showing tensile structures, space-frames, and tectonically expressive structures. These works are very different from Plischke's own designs and perhaps somehow surprising when compared with his site-inflected modernist houses, but it appears that he had a great interest in exploring the possibilities of such elegant lightweight structures. The other main trajectory of Plischke's design teaching has to do with urban planning. Soon after his return to Vienna, Plischke took a small group of students to the old Danube river arm outside the city, to introduce a project for a new district, or one could even say for a whole new city outside the existing city centre of Vienna, called *Wohnbezirk Alte Donau*—"Residential area old Danube".

In the accompanying text and in the respective chapter of his autobiography, Plischke refers to his own experiences with housing and community planning schemes. He speaks of wishing to develop an alternative to the Viennese courtyard housing projects of the 1920s. As a student, Plischke had worked briefly on drawings for Karl Ehn's famous project of the Karl-Marx-Hof and had, so he remembered, despised its monumentality (Plischke 1989: 72). He had also submitted a project for another courtyard scheme competition, together with his American friend William Muschenheim. Strangely, Plischke never appreciated the tenement blocks of "Red Vienna", despite their achievements both in urban design and in liveability for the tenants. From his days in Vienna onwards, he always preferred the model of the *Siedlung*, smaller scale houses with adjacent gardens in a much lower density. "There is no doubt for me that the single family house, whether as terraced house or detached, constitutes the best form of living, particularly because of its garden" (Plischke 1976: 68).[20] One could easily say that with this preference in mind, the New Zealand way of living suited him more than the typical Viennese density. In this publication text and in his autobiography, he mentions as precedents both his hometown Klosterneuburg (for its size of ca. 25,000 inhabitants and its density), together with his community designs for Trentham or Naenae, north of Wellington (Plischke 1989: 451–55). Plischke suggested a *Neue Wohnlandschaft*, a new landscape of living (1976: 69).

This project of autumn 1963 was indeed forward-looking in two respects: the so-called *Donau-City* became reality after 1990 and, with the United Nations buildings, forms a new high-rise area outside the city of Vienna. With the

Wohnbezirk Alte Donau, Plischke also anticipated the many harbour revitalisation projects all over the world that were to be realised from the 1990s onwards.

Most of the student projects, however, employed a much higher density than those two precedents. The illustrations also demonstrate that the students were given substantial freedom to develop their own interests. What the publication overall demonstrates is that Plischke did not mind so much if a student designed in an architectural language different from his own preference. What remained crucial was that students stayed away from formalism and utilitarianism.

Conclusion: Teaching or Practice

Plischke was as devoted a teacher of design as he was an architect. The publication of his former students in 2003 speaks of this devotion, as discussed here. Much to his regret, Plischke did not receive many more architectural commissions after his return to Vienna. He was merely able to realise one school building and two more houses, with the Frey House in Graz (1970–73) an accumulation of his life-long experiences in bringing function, space, structure, and *Bauplastik* into one. Such lack of commissions, however, meant that he was now able to devote his time almost exclusively to teaching. It is perhaps the irony of history that thus, in Vienna, he—involuntarily—fulfilled one of two main requirements that the commission for the Auckland professorial post had set. Similarly, in the late 1940s, he would have been the professor that the Academy of Fine Arts in Vienna wanted him to be. In Auckland, he would have tried to bring practice and teaching as closely together as possible—exactly what the expectation was at the Academy in Vienna when he was appointed in 1963. The Academy wanted him to participate in public debate—much more than he did. This situation perhaps then characterises Plischke: that he was always somewhat out of place. Or, as he had written to his brother-in-law, the painter Max Frey, in 1939: "It is the outland/foreign that attracts me … The foreign, between which one lives without really belonging—the air and the distance to ones surrounding" (Plischke n.d., ca 1939: 6).[21]

Acknowledgement

This article is part of a bigger research project on Ernst Plischke. This includes a book in the German language about to be published in Vienna, and which is planned to be published in English also. An earlier version of the article was presented at "Educating Architects and Planners, 1912–2017", a symposium at the University of Auckland in 2017. I am grateful for the opportunity to discuss Ernst Plischke's contribution to architectural education. All translations from German are my own, unless noted otherwise.

ENDNOTES

[1] Though published in Sarnitz and Ottilinger (2003), Orosz's catalogue was unfortunately not included in the English edition of this book (Sarnitz & Ottilinger 2004).

[2] In this letter to Rie, Plischke refers to the lectures having taken place "this last winter", i.e. mid-1941.

[3] Linda Tyler suggests that Firth wrote the specifications for the house Plischke designed for Otto Frankel in Christchurch in 1939–40 (Tyler 1996: 34). See also Firth's job diary of the years after 1944. Cedric Firth Papers, No. 94–132, Alexander Turnbull Library, Wellington.

[4] First set up as Bachelor of Architectural Science, it had by 1933 become the Bachelor of Architecture (BArch) that remained in place until the introduction of the Master of Architecture (Professional) (MArch(Prof)) (Treep 2017: 27).

[5] "In 1907, the League of Empire sponsored an Imperial Conference on Education; in July 1912, the first Congress of the Universities was held in London, representing 53 universities and with 60% of delegates having had direct experience of living and working in the Empire. A Central Universities Bureau of the British Empire was established at the Imperial Institute in 1913" (Bush 2014; see also Pietsch 2013).

[6] "Professor L. B. Budden, Professor of Architecture, University of Liverpool, *in the Chair*; Mr. Martin S. Briggs, Senior Vice-Chairman of the Board of Architectural Education, R.I.B.A.; Mr. C. St. Clair Oakes, Senior Master of the Architectural Association School of Architecture; Mr. S. Ziman, representative in Great Britain of the University of New Zealand; Mr. J. F. Foster, Universities Bureau of the British Empire (Secretary)" (AUC 1947: 380).

[7] It appears that the records for the Auckland School of Architecture for the year 1947 have gone astray. Information kindly provided by Elizabeth Nichols, Auckland University Records Management Programme Manager, January 2018.

[8] Original diary entry in German with English parts. Translation by the author. Parts that are English in the original have been set in italics.

[9] And this is what he conveyed to Linda Tyler when she visited Plischke in Vienna in 1984 as part of the research for her Master of Arts thesis on Plischke.

[10] "Gestern abend war also die Sitzung des Universitätssenates und ich vorgestellt und interviewt. Von den gesamten Bewerbern ist nun nur noch ein Architekt in England und ich in der engsten Wahl. Ganz ehrend, nicht? Der Präsident des Senates will unbedingt mich. Der Dekan der (architektonischen) Fakultät will den Engländer. Hier hat bist jetzt ein unterrichtender Architekt keinerlei Praxis haben dürfen. Das ist anders für diese neue Lehrstelle, weil man einzusehen beginnt, dass Praxis auch bei Lehrern notwendig ist. Aber es ist eine Neueinführung. Bis jetzt hatte ein Anwärter für eine Lehrstelle nur Praxis an andern Schulen nachzuweisen. [...] Der Senat ist geteilt, und ich glaube, dass der Engländer die Stelle bekommen wird. Als mir das gestern bei dem Interview, bei dem auch der Dekan anwesend war, klar wurde, bin ich sehr, sehr niedergedrückt und enttäuscht geworden."

[11] Plischke (1947, June 14) reports having just sent Lucie Rie a copy of the book, meaning it was published by this date.

[12] "Wir leben hier in unserem lieben alten Haus und schönem großen Garten seit über zwanzig Jahren. [...] Bevor ich mich aber innerlich zuviel damit auseinandersetze, was eine neue Entwurzelung und Rückverpflanzung mit sich bringen würde, ist es notwendig, in einigen Punkten klarer zu sehen."

[13] "Das Ziel einer vollentwickelten modernen Architektur muß meiner Ansicht nach eine Einheit sein zwischen einem räumlichen Konzept einerseits und einer Bauplastik andererseits. Diese beiden Qualitäten müssen aber aus der Erfüllung der Funktion des Bauwerkes und seiner Konstruktion erarbeitet werden. Die wesentliche Qualität einer solchen vollentwickelten Architektur liegt in der Spannung zwischen dem Raumkonzept und der Funktion einerseits und zwischen der Vision einer Bauplastik und der Konstruktion andererseits. Es ist erst diese Spannung, welche einen Bau lebendig macht und zu einem Spürbar-werden seiner Architektonik führen kann. Ohne diese Spannung haben wir entweder einen reinen Utilitarismus oder eine abstrakte Bauplastik."

[14] "Bei meinem Übertritt war es eine große Überraschung für mich zu sehen, dass die Plischke-Schüler nicht über ihren Professor schimpften, wie es an anderen Schulen damals üblich war. Ich denke, dass Plischkes Vorlesungen sowie seine Lehrmethode die Loyalität seiner Schüler begründeten."

[15] "Sie folgten einer Haltung und suchten dies moralisch und politisch zu begründen. Dabei ließen sie aber vieles, was sich tatsächlich in Politik und Gesellschaft in diesen Zeiten entwickelte, außer acht."

[16] "Als Ganzes zeigt das Bild eine Übereinstimmung von Mensch und Werk."

[17] "Dieses auf den ersten Blick didaktisch unklar aufgebaute Konzept verdrängte den Studenten als Konsumenten, es verlangte Ausdauer und Geduld."

[18] "Mein Ziel war es aber nicht, lauter kleine Plischkes zu produzieren, sondern die Stärken der einzelnen Studenten zu fördern, um selbständige und entfaltungsfähige Architekten aus ihnen zu machen, die meine Baugesinnung aufrecht erhalten."

[19] "Die Baugesinnung ist eine Sache des Wissens, der Zurückhaltung, des Taktes."

[20] "Es besteht für mich kein Zweifel, daß das Einfamilienhaus, ob als Reihenhaus oder freistehend, die beste Wohnform ist; vor allem aber wegen seines Gartens."

[21] "Es ist die Fremde, die mich anzieht ... Das Fremde, zwischen dem man lebt, ohne so wirklich dazu zu gehören—Die Luft und der Abstand zu seiner Umgebung."

REFERENCES

Academy of Fine Arts Vienna. (1960, June 24). Minutes of the 6th Faculty Meeting, Academic year 1959/60. Archive of the Academy of Fine Arts Vienna.

Academy of Fine Arts Vienna. (1962, May 23). Minutes of the 4th Faculty Meeting, Academic year 1961/62. Archive of the Academy of Fine Arts Vienna.

Alverà, A. (2003). Vermittlung. In F. Kurrent & W. Stelzhammer, *Ernst Anton Plischke: Architekt und Lehrer* (pp. 100–109). Salzburg: Anton Pustet.

Architectural Group. (1946). Constitution of the Architectural Group. Republished in J. Gatley (Ed.), (2010). *Group Architects: Towards a New Zealand architecture* (p. 20). Auckland: Auckland University Press.

Auckland University College. (1947). Council Minutes. Volume 1. Registry Archive, University of Auckland.

Beaglehole, A. (1988). *A small price to pay: Refugees from Hitler in New Zealand 1936–46*. Wellington: Allen & Unwin and Department of Internal Affairs.

Berger, P. (2007). *Kurze Geschiche Österreichs im 20. Jahrhundert*. Vienna: Facultas.

Bowron, G. (2000). Firth, Cedric Harold. *Te Ara—The Encyclopedia of New Zealand*. Retrieved from https://teara.govt.nz/en/biographies/5f6/firth-cedric-harold

Bush, B. (2014). Review of Pietsch (2015). Review no. 1541. Retrieved from http://www.history.ac.uk/reviews/review/1541

Firth, C. (1948, July 9). Letter, New York, to E. Plischke. Plischke Archive, Academy of Fine Arts, Vienna.

Gatley, J. (1996). A contemporary dwelling: The Demonstration House. In John Wilson (Ed.), *Zeal and crusade: The modern movement in Wellington* (pp. 89–95). Christchurch: Te Waihora Press.

Gatley, J. (Ed.). (2010). *Group Architects: Towards a New Zealand architecture*. Auckland: Auckland University Press.

Gatley, J. (2017). After Knight comes Light (and Toy). In J. Gatley & L. Treep (Eds.), *The Auckland School: 100 years of architecture and planning* (pp. 40–73). Auckland: School of Architecture and Planning, University of Auckland.

Gatley, J., & Walker, P. (2014). *Vertical living: The Architectural Centre and the remaking of Wellington*. Auckland: Auckland University Press.

Holzmeister, C. (April 6, 1960). Letter to E. Plischke. Archive of the Academy of Fine Arts, Vienna.

McCarthy, C. (2010). Imagining Prof Plischke. In M. Chapman & M. Ostwald (Eds), *Imagining... Proceedings of the 27th International SAHANZ Conference* (pp. 258–264). Newcastle, NSW: Society of Architectural Historians, Australia and New Zealand.

Orosz, E. (2003). Catalogue of works. In Sarnitz & Ottilinger (2003).

Paul, J. (1998). Ernst Plischke. In James Bade (Ed.), *Out of the shadow of war: The German connection with New Zealand in the twentieth century* (pp. 192–199). Auckland: Oxford University Press.

Pietsch, T (2013). *Empire of scholars: Universities, networks and the British academic world, 1850–1939*. Manchester: Manchester University Press.

Plischke, A. (n.d.). Letter to Dr R. Lang. Carbon copy. Archive of the Academy of Fine Arts, Vienna.

Plischke, E. (n.d., ca. 1939, August). Letter to M. Frey. Private archive, Vienna.

Plischke, E. (1941, September 15). Letter to L. Rie. Private archive, Vienna.

Plischke, E. (1943, April 19). Letter to L. Rie. Private archive, Vienna.

Plischke, E. (1943, September 30). Letter to L. Rie. Private archive, Vienna.

Plischke, E. (1947, February 3). Application for Chair of Design, Faculty of Architecture, Auckland University College. Plischke Archive, Academy of Fine Arts, Vienna.

Plischke, E. (1947, May 26). Diary entry.

Plischke, E. (1947, June 1). Letter to his family, Vienna. Private archive, Vienna.

Plischke, E. (1947, June 14). Letter to L. Rie. Private archive, Vienna.

Plischke, E. (1949, October 17). Letter to L. Rie. Private archive, Vienna.

Plischke, E. (1960, January 18). Letter to R. Rainer. Archive of the Academy of Fine Arts, Vienna.

Plischke, E. (1960, May 20). Letter to L. Rie. Private archive, Vienna.

Plischke, E. (1965, January 12). Lecture. In A. Alverà (2003). Gehört und Geschrieben. Auszüge aus den Dienstag-Vorlesungen von EAP. In F. Kurrent & W. Stelzhammer, *Ernst Anton Plischke: Architekt und Lehrer* (p. 109). Salzburg: Anton Pustet.

Plischke, E. (1965, November 24). Die Vielfalt der bildenden Kunst in der Welt von heute. Inaugural Speech at the Academy of Fine Arts Vienna.

Plischke, E. (1976). *Entwürfe und Projekte: Meisterschule E. A. Plischke*. Vienna: Prachner.

Plischke, E. (1989). *Ein Leben mit Architektur*. Vienna: Löcker.

Posch, W. (2010). *Clemens Holzmeister. Architekt zwischen Kunst und Politik*. Salzburg: Müry Salzmann.

Rainer, R. (1960, January 4). Letter to E. Plischke. Archive of the Academy of Fine Arts, Vienna.

Registrar, Auckland University College. (1947, May 20). Telegram to E. Plischke. Archive of the Academy of Fine Arts, Vienna.

Salinger, L. (1996). A breath of fresh air: The Architectural Centre Inc. In John Wilson (Ed.), *Zeal and crusade: The modern movement in Wellington* (pp. 69–78). Christchurch: Te Waihora Press.

Sarnitz, A., & Ottilinger, E. (Eds.). (2003). *Ernst Plischke: Das Neue Bauen und die Neue Welt*. Munich: Prestel. Republished in English as: Sarnitz, A., & Ottilinger, E. (Eds.). (2004). *Ernst Plischke: Modern architecture for the new world*. Munich: Prestel.

Schnoor, C. (2014). Between Werkbund and wartime sobriety: Ernst Plischke's designs for Orakei. In C. Schnoor (Ed.), *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 31, Translation* (pp. 805–816). Auckland: SAHANZ and Unitec ePress; and Gold Coast, Queensland: SAHANZ.

Spühler, M. (2003). Reflexionen eines Schülers aus der Schweiz. Vermittlung. In F. Kurrent & W. Stelzhammer, *Ernst Anton Plischke: Architekt und Lehrer* (pp. 130–133). Salzburg: Anton Pustet.

Steiner, D. (2003). Meine Anna sollte hier mit anderen Frauen in der Küche stehen?". In F. Kurrent & W. Stelzhammer, *Ernst Anton Plischke: Architekt und Lehrer* (pp. 126–128). Salzburg: Anton Pustet.

Treep, L. (2017). "A school of architecture for the dominion": The first years. In J. Gatley & L. Treep (Eds.), *The Auckland School: 100 years of architecture and planning* (pp. 14–39). Auckland: School of Architecture and Planning, University of Auckland.

Tyler, L. (1996). The urban and urbane: Ernst Plischke's Kahn House. In John Wilson (Ed.), *Zeal in crusade: The modern movement in Wellington* (pp. 33–38). Christchurch: Te Waihora Press.

LINDA TYLER

Imric Porsolt: The "Messenger of Modernism" in Exile

Hungarian Imric Porsolt (1909–2005), a graduate in architecture from the Czech Technical University in Prague, arrived in Auckland as a 30 year old in June 1939. He practised as an architect for over a decade and then taught full-time at the Auckland School of Architecture, in both architectural history and design studio, from 1950 until his retirement in 1974. Speaking with a pronounced middle European accent, he brought a dramatic presentational style and breadth of learning to his lectures.

Porsolt was employed in the School of Architecture only a short time after it had experienced a period of revolt against poor studio teaching. After World War II, staffing of the School was meagre: Professor Cyril Knight as Head of School was joined by English academic Charles Light, who was appointed to a professorial Chair in Design in 1947; Edmund Ferriday, Sammy Crookes, and Arthur Marshall taught construction; muralist James Turkington taught art, with Vernon Brown and Richard Toy in studio. Recent graduates and current students worked as part-time tutors. In 1946, the Architectural Group produced a magazine, *Planning*, with a content critical of the limited scope of the School's curriculum. In 1948, they and others offered a new vision for the Bachelor of Architecture and their complaints were escalated to the University's Professorial Board (Gatley 2017: 44–50). The students had requested changes to the history and theory courses in particular, and although Knight defended the focus on "the evolution of European civilisation" (Gatley 2017: 50), it is evident that Porsolt's encyclopedic approach to teaching the history of buildings—which included African, Persian, Chinese, and Japanese construction—was an attempt to redress the imbalance of his predecessors. Porsolt took challenges to his content and ideas in good spirit, later remembering that in those early years, "I met a very restive generation of young architects" (Porsolt 1984b: 3). Five years after he retired, the School of Architecture invited him to publish 12 of his architectural history lectures as study papers, inaugurating the School of Architecture series: *Italian Architecture* (1980); *Axial Symmetry in Classical Greece* (1980); *Romantic and Nineteenth Century Architecture* (1980); *The History of Building: An Outline History of Structural Thought* (1980); *A Brief Outline of World History* (1981); *A History of the Dwelling and of Places of Meeting Considered Together* (1981); *The History of City Forms as Artifacts in the Landscape* (1981); *The History and Design of Vertical*

Communication (1981); *Italianate Architecture in Europe* (1981); *Preliminary Notes to Twentieth Century Architecture* (1981); *Outline History of the Architectural Profession* (1981); and a single essay on architectural conservation, *Architecture in the Landscape and the Revolution of Bath* (ca. 1983 [1981]). These constitute the major documentation of the focus of his architectural history teaching. He also published articles on furniture and, as Julia Gatley notes, was a valuable counterpoint to Cyril Knight, whose own history/theory teaching, with its focus on "the evolution of European civilisation", was conservative and traditional:

> Porsolt was an important addition in overcoming concerns about the teaching of history and theory in the School. He invigorated this subject area with interests that extended to modernism and also the applied arts. From 1955, a revised history/theory curriculum included a course on architecture from the eighteenth century to the post-war period, with a New Zealand component (Gatley 2017: 50–51).

Roger Walker was one former student who found Porsolt's knowledge and understanding of history impressive. In a 2016 interview with John Walsh, on the occasion of his New Zealand Institute of Architects Gold Medal, Walker remembers,

> Imi really embedded a sense of history and what was happening in Europe, and put New Zealand in context. He didn't put New Zealand down but clearly established the pecking order of architectural history and that was very important to me (Walker in Walsh 2016: 1).

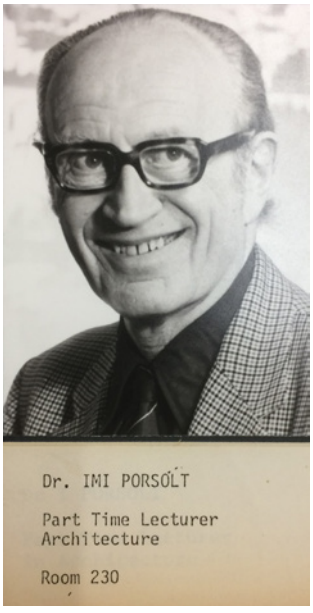


Fig. 1 University of Auckland staff photograph of Imric Porsolt, ca. 1975. [APPFA Staff Photographs Collection, Architecture Archive, University of Auckland Libraries and Learning Services]

Porsolt kept a minor private architectural practice going while teaching, although he admitted, "I think I was lacking in the necessary business acumen" (Porsolt 2005: 34). Nevertheless, his work has attracted acclaim from historians of modernism. The Pollard House in Titirangi makes it into Bill McKay and Douglas Lloyd-Jenkins' list of the top 50 New Zealand houses of the twentieth century (Lloyd-Jenkins & McKay 2000: 75). McKay and Gatley consider the Pollard House evidentiary of the existence of connections between the international and the regional in New Zealand modernism (McKay & Gatley 2010: 206–07). Gatley also observes that:

> Porsolt differed from many of New Zealand's émigré architects, who tended to favour the flat roofs and clean white surfaces of international modernism, as his houses were soon gabled and woody, as demonstrated by the Pollard House in Titirangi (1962) (2017: 60).

If his architectural projects seem limited in scope for a 50-year career in New Zealand, it might be due to the energy and time he expended on his teaching and on writing about art and design for the *Herald*, *Home & Building*, and *Landfall*. He approached writing for the popular and literary press with a kind of missionary zeal, driven by a desire to educate his audience. His art criticism evinces a transcultural approach typical of the Viennese school and analogous to the writing of his Australian contemporary, the Austrian-born art critic Gertrud Langer (1908–1984) in Brisbane. He frequently compares local painters to their European and American peers and discusses local manifestations of art styles and movements in an international context.

Porsolt was a keen advocate for the conservation of heritage buildings, in particular Old St Mary's in Parnell, but ironically, given that the generation of architects

he taught included several important postmodernists, he was vehemently opposed to the preservation of façades of old buildings to preserve streetscapes. He saw postmodernism, which he referred to as "neo-pre-modernism" or "neo-prene modernism", as meretricious and appealing only to the nouveau riche and share-market speculators, writing in 1984:

> It is old-fashioned: its philosophical idol is Pierce, and its semiological hero, de Saussure. And, as I tried to demonstrate, even these obsolescent theories are unapplicable. Their practice is a sort of "anything-goesism": eclectic stylism, arbitrary axialism, wilful mannerisms of all kinds, and not really surprisingly, a steady "revival" in a playful way of mechanistic, pseudo-structural formal elements that have come down from Functionalism. Amusing and clever. An amusement of the jaded rich. Of whom else? (Porsolt 1984b: 3)

He knew both Vladimir Cacala (1926–2007) and Viennese-trained Heinrich Kulka (1900–1971), who were fellow Czech émigré architects in Auckland, and was the sponsor for the family of Czech architect Robert Fantl (1923–2016), who stayed with Porsolt on his arrival in New Zealand in October 1940 at the age of 17 (Fantl 2005: 32). Fantl remembers:

> I watched Imi at work at night, we talked about architecture, and I read some of his books on the subject. Even to a fairly raw and under-educated youngster, it became clear that Imi was highly intelligent, well-educated, cultured, very knowledgeable, original both in his thought and his design, and a lateral thinker with a great sense of humour. He was highly influential in my decision to take up architecture after my discharge from the air force (Fantl 2005: 32).

After graduation, Fantl joined the Housing Department where he met Viennese émigré architect Ernst Plischke (1903–1992). In 1960, he joined Plischke in private practice in Wellington.

This article argues that there are three distinct aspects to Porsolt's contribution and that these assume equal importance when calculating his legacy, and also informed his teaching. These are the buildings he designed, the articles he wrote on design, and, finally, his significance as an art critic. In his writing on abstraction, in particular the paintings from the 1950s and 1960s by Milan Mrkusich and Colin McCahon, he shows a depth of understanding of the international context for abstraction that led McCahon to remark, "before the advent of Mr. Porsolt there was no criticism in New Zealand" (Bell 2017: 144). Porsolt's depth of understanding of abstraction distinguished his writing from other critics such as A. R. D. Fairburn, who famously dismissed McCahon's paintings in a *Landfall* article in 1948, snidely suggesting that they "might pass as graffiti on the walls of some celestial lavatory" (Fairburn 1948: 49–50). Parochialism of this sort was anathema to the cosmopolitan Imric Voytich Porsolt.

Background and Training

Born in Pozony in Hungary in 1909 (now Bratislava in Slovakia), Porsolt grew up speaking both Hungarian and German as a citizen of the Austro-Hungarian empire. The classical revivals were still dominant when he began studying at the Technical University in Prague, where he graduated with a Diploma in

Architecture in 1935, and his writing and teaching were influenced by the materialism of Gottfried Semper (1803–1879), the most influential and prolific German architectural theorist of the nineteenth century. Porsolt never shook off the classical influence, choosing to write his doctoral thesis on axiality in Greek antiquity some 40 years later. In keeping with the materialism of Semper, he situated his discussion of the origins of architecture in anthropology and archaeology (Porsolt 1973b: 1). Fellow students at the Technical University were Oldrich Tyl, Jan Visek, Ludvik Kysela, and Josef K. Riha, who formed a club of architects called "For New Architecture", publishing the monthly magazine *Stavba* (which translates as "Construction") from 1922 to 1938, and inviting Walter Gropius, Le Corbusier, Adolf Loos, J. J. P. Oud, and Amédée Ozenfant to speak in Prague (Sayer 2014: 20). They drew inspiration from several avant garde art and architecture movements and publications: Le Corbusier's *Vers une Architecture*, Russian constructivism, the Bauhaus, and Dutch De Stijl, turning to functionalism and constructivism to create a Neue Sachlichkeit (New Objectivity) in Czech architecture. An editor of *Stavba*, Karel Teige, was invited to lecture at the Bauhaus by Hannes Meyer, and published *Czechoslovak Architecture* in 1927 in the Bauhaus Books series (Sayer 2014: 27). Porsolt describes how he was "brought up in an anti-Beaux Arts, anti-axial design spirit, and also in the belief that artistic attitudes don't just happen but are the outcome of deep-seated and complex social factors" (1973a: 11). Modernism represented a radical departure for him from the old way of life of the Austro-Hungarian Empire. It symbolised cosmopolitanism and internationalism, as well as a new optimism.

Czech functionalism was the result of fascination with industrial development, engineering, and machine technology. Its programme was formulated by Karel Teige (1900–1951) and Jaromir Krejcar (1895–1950), and Josef Havliček was one of its principle exponents. An image of Havliček's functionalist State Pension Building (1932) was published by Max Rosenfeld in his 1944 article, "The Culture of Czechoslovakia", in the quarterly periodical *Art in New Zealand*. Highly influential for Porsolt were the slightly older generation of architects such as Josef Chochol (1880–1956) and Pavel Janák (1882–1956)—known as the Prague Vitruvius—who formulated spiritualist philosophies of design and a dynamic ideal of planar form derived, in part, from Cubist art. Janák began to move away from purely angular forms, believing that active curves could create a new, spiritually charged architecture. In 1918, he proclaimed the discovery of typically Czech architectural forms, which allegedly emerged from a sociologically conceived study of the customs of Czech family and social life, and would be described as "rondo-cubism", the perfect national style for the new Czechoslovak state (Lahoda 2010: 223).

Following graduation in 1935, Porsolt married his first wife Gerda Porzsoltova (1909–1964) and undertook two years of compulsory military service, during which he worked as a clerk in the army, before he began to practise as an interior architect. Three days after Hitler's annexation of Czechoslovakia on March 15, 1939, the young couple fled to Holland, then England, before being accepted as refugees by New Zealand, arriving in Auckland via Vancouver and Sydney on the RMS *Niagara* on June 12, 1939. Interviewed shortly after they arrived, Porsolt, fluent in English, spoke of the amazing developments in building blocks of flats in Prague. Perhaps here he was referring to Chochol's rondo-cubist apartment building, Neklanova ulice, Prague (1913). Rather than replicate what he knew

from his home country, though, Porsolt said that he intended "to study the tastes of New Zealanders for architecture, with emphasis towards interior decoration" ("International Day" 1939: 11). Porsolt remembered:

> The same day we were taken by friends to the "Jewish Welfare Society" where I was told that there is nothing doing for architects up here, and the place for me is Wellington. The same friends took us rightaway to Mr Morris van Staveren, who picked up his phone straightaway and got me an interview with his architect, Mr Alva M. Bartley, in whose office I started a three-weeks probationary period three days later (Porsolt 1984b: 2).

Working on the Design for 1ZB Radio Studios

In partnership with Norman Wade, Alva Bartley had designed the New Zealand Broadcasting Building in Shortland Street in 1934, and by 1939 had the commission for a new building in Durham Street West, to be designed for the contract price of £80,000 as the flagship for the commercial radio station 1ZB, which had begun broadcasting in 1926. Bell states that Bartley prized Porsolt for his "Continental ideas" and familiarity with both modern building types and radio (2017: 170). Perhaps he was interested to see how the "rondo-cubism" and active curves of Czech architecture would marry with the Streamlined Moderne language imported from America.

Porsolt would have been familiar with the operation of Radio Prague, which had begun broadcasting in 1919, but it did not carry advertisements. Unlike 1YA, the New Zealand Broadcasting Board's building in Shortland Street, which was funded with money from radio licences and built with Depression labour in 1934, 1ZB was a commercial station, a different proposition from the radio stations Porsolt knew from Europe. Porsolt suggested to Bartley that the form of the building be used to create a visual identity for the station, attracting both advertising clients and audiences. In the press release for the 1ZB building, Porsolt described himself as "a bit incredulous when told that this new building was to be the first sizeable city building in the style we call 'Modern' in Europe" (McLaughlin 1990: 34). It is possible to interpret the design as an adaptation of the curves of rondo-cubism to the New Zealand context, giving a continental inflection to the local variant of modernism. The heavily glazed, Streamlined Moderne building featured a corner entrance with an elongated rectangular fin holding the neon call sign, "1ZB", aloft. Its sculptured cantilevered stairwell and extensive use of glass bricks made for a breathtakingly modern foyer and attracted considerable attention in the local press. It is these features that indicate Porsolt's hand in the design.

Czechoslovakia is known for its tradition of glass-making, maintained today in Bohemian crystal. Czech-born Sigfried Giedion (1888–1968) made much of the possibilities of glass in his first book, *Building in France, Building in Iron, Building in Ferroconcrete*, published in Leipzig in 1928, where he argued that the main principle of the new architecture was Raumdurchdringung, or space penetration, facilitated by the new technologies of glass bricks and reinforced concrete, in contrast to the Stütze und Last or load bearing that had prevailed in architecture previously. Due to the country's pre-eminence in glazing, Le Corbusier chose to publish all four parts of his paeon to the brilliance of glazed materials, "Glass, the Fundamental Material of Modern Architecture", in the

Czech trade journal *Tchéco-Verre* in 1935, the year that Porsolt graduated from architecture school. It is likely that Porsolt would have studied the photomontages in Giedion's book and read these articles, or may have known of the Maison de Verre, a design collaboration between Pierre Chareau (a furniture and interiors designer), Bernard Bijvoet (a Dutch architect who had been working in Paris since 1927), and Louis Dalbet (a craftsman metalworker) and built in Paris in 1932.

Fig. 2 Alva Bartley and Imric Porsolt's Broadcasting House, corner Durham Street West and Durham Lane, Auckland, 1942. [Photograph by Doree & Sache. Sir George Grey Special Collections, Auckland Libraries, 915-Album-148-1]

When it opened in October 1941, the most remarked-upon aspect of Broadcasting House (as it was called) was the thousands of glass bricks used in its construction. These were considered "a stylish and futuristic blending of form and function" (McLaughlin 1990: 34). Porsolt had been vexed by "the problem of designing a façade for a function which by the logic of its planning was to remain buried in the bowels of the building" (McLaughlin 1990: 24) and wanted to maintain an honesty in his expression of materials as well as transparency of forms. Juxtaposing these "industrial" materials and fixtures with more traditional features of décor like linoleum, he sought to express the function of radio through the use of symbolism. In addition to creating a building that would become a visual symbol of modernity, he designed 1ZB's official logo, a large bolt

of lightning combined with a musical note and overlaid with the station's name. It featured in the wall and floor coverings. Porsolt described it as "a good clean piece of technico-constructivist fun, a manifesto of structural functionalism" (1984b: 3).

Porsolt's diffidence about the incorporation of a branding element in each street façade of Broadcasting House was counteracted by what he called "the vertically accentuated intimacy of Durham Street … [which was] exactly the sort of streetscape known to me from Prague" (Porsolt 1984b: 3). The relationship of plan to elevation, however, ran counter to Porsolt's training and belief, where the positioning of individual spaces and their mutual relationships were meant to correspond to the function and purpose the building was to serve. Yet he was hugely proud of the building as expressive of Auckland's nascent modernity. Speaking years later to art historian Leonard Bell, Porsolt said that he always felt at home in Durham Street:

> I feel it as part of myself … I still think that the old 1ZB is not only an historic landmark, but a damn good piece of architecture … Sharp-lined clarity and simplicity, curves and odd angle shapes, handled under command of a sense of proportion, and with a taste forged … yes, by Classicism (Bell 2017: 170).

Patricia McLaughlin noted the incorporation of references to technology: rails on the fourth floor receded back, with the tower appearing as the funnel of a ship, and the interior had porthole type windows into the studios (2000: 34). Perhaps this indicates Porsolt's knowledge of Le Corbusier's writing in *Vers une Architecture* (1927), which praised ocean liners, aeroplanes, and automobiles for their streamlined form.

Where the "rondo-cubism" is most apparent is in Porsolt's design for the magnificent internal staircase. Its cantilevered curved form was, he said, expressive of human movement, and creates a series of interpenetrating spaces like the forms of a cubist sculpture. Staircases are always an opportunity for technical bravura, he writes in *The History and Design of Vertical Communication*, a study paper that was published by the School of Architecture after his retirement (Porsolt 1981b: 1–26). In his treatment of this curved staircase at Broadcasting House, he tempers bold modernism with the use of classical motifs. The winged horse Pegasus, tamed by Bellerophon, is a metaphor for radio waves and electricity being deployed in broadcasting, and its inclusion over the staircase shows Porsolt's love of classicism, as does the mural of Terpsichore with her lyre in the recording studio. Porsolt's relationship with classicism remained fraught, however. As a Jewish exile, he recognised the potentially Fascist overtones of the Stripped Classical architecture of the National Socialists, yet maintained a life-long interest in classical architecture. As well as being the basis for his doctoral thesis, patterns in classical architecture were fundamental to many of his art history lectures, several of which were published as study papers after he retired. *Axial Symmetry in Classical Greece* (Porsolt 1980a: 1–4), for example, focused on the symmetry and patterns of nature as expressive of the deep geometries that recurred in Western architecture.

Fig. 3 Alva Bartley and Imric Porsolt's Broadcasting House, 1942. [Photograph by Doree & Sache. Sir George Grey Special Collections, Auckland Libraries, 915-Album-148-7]

Becoming an Academic at the Auckland School of Architecture

In his narrative of his early years in Auckland, Porsolt (1984b: 2) describes how he remained working with Bartley until "all architecture in the civilian field stopped after Pearl Harbour, December 1941", and Bartley found him a role designing interiors in the office of the Auckland construction firm of Noel Cole, the builders of Broadcasting House. On advice from fellow émigré Max Rosenfeld on how to avoid being classified as an Enemy Alien, Porsolt explained that he sought a position as a draughtsman with the American Army, gaining the experience to become chief draughtsman for Gummer & Ford and then working for the Auckland architectural practice of Alleman & Land (1984b: 3). Work in the post-war years was scarce, which led him to become an academic:

> Meanwhile, I tried with some success to build up a private practice (the so-called "pee-jay" = private jobs), made quite a few friends in- and outside the Jewish community; built my own house too, and joined the NZ Institute of Architects, having been compelled to take a few fourth-year subjects at the School of Architecture. This brought me into touch with a very restive generation of young architects, from whom the famous "Group" was formed—Bill Wilson and his crowd. My efforts to expand my pee-jay practice were only moderately promising, so I did jump to the suggestion of one of my friends, Mick Cutter, who was just appointed as lecturer at the School, that I should go there too. I applied, and was gladly accepted by Professor C.R. Knight, the Dean, and lecturing also in the History of Architecture. My interest in the subject was by then somewhat known. Two years later, I became permanent staff member, and another five years later Senior Lecturer with History of Architecture as my "subject" and the normal duties of a studio lecturer in design (Porsolt 1984b: 3).

Ross Jenner (2005: 32) recalls: "Imi was a memorable, if not always entirely comprehensible lecturer—he never lost his heavy European accent." His study papers, with their frequent typewritten capitalisations and under-linings, give the flavour of the emphases of his pronunciation. In the introduction to his outline history of structural thought, for example, he explains how structure and construction are technical aspects;

> ... they will BOTH have a marked influence on the actual FORM of the building, although we may consider their role of less importance than those design aspects which aim at the satisfaction of human needs—both bodily and mental comfort. WE SHALL FIND THAT THESE TECHNOLOGICAL ASPECTS ARE IN FACT RESTRICTIONS, WHILE THE HUMAN ASPECTS ARE THE DRIVING FORCES OF THE DESIGNER'S CREATIVENESS (Porsolt 1980b: 1).

In this study paper, he traces the history of building from the tent and the cave ("nomadic building"), through megalithic builders, Mesopotamia, Egypt, Asia Minor and the Iranian High Plateau, Minoan Crete, Mycenean Greece, Classical Greece, Etruria, Rome, The Middle Ages, Gothic Construction to The New Age, Military and Civil Engineering, Modern Times, The Concrete Revival, and, finally, The Expression of Structural and Material Truth (Porsolt 1980b: 1–26). For each, he emphasises the social and historical context of the architecture. In this he follows Semper, particularly the approach taken in *Der Stil in den technischen und tektonischen Künsten* (1860–63) (the title translates as *Style in the Technical and Tectonic Arts*), where Semper shows how construction techniques can result in particular styles. Jenner describes how these lectures were illustrated by images projected from books by deploying an epidiascope—the forerunner for the overhead projector. This technology often ended in disaster when Porsolt lingered too long on a page while he was explaining his point: "his fondness for the epidiascope often ended in smoke, if not flames" (Jenner 2005: 32). Clearly he greatly enjoyed teaching, remarking himself that, "I found what I think was my real forte: academic life" (Porsolt 1984b: 3). He remained a firm believer in the importance of education generally. Summarising his career in architecture, however, he underplayed his own achievements, remarking "To what extent I have made a mark with these [buildings] in the architecture of this city is for others to judge—probably a very modest one". He then explained where he thought his legacy lay:

> But I have stronger reason to believe that my educational activity was more effective, especially as I did not confine it to the School but branched out into art criticism in the daily press and periodicals. Through it all, however, I remained faithful to my old love: the history of architecture (Porsolt 2005: 34).

Writing on Architecture and Architects

Auckland's ubiquitous wooden architecture was novel to Porsolt, and one of the first articles he published after taking up his lecturing position was on the Kiwi bach. His design for a hillside holiday house was published on the cover of *Home & Building* in 1950. What is so unusual in this two-storeyed structure is that Porsolt opened up one large space for domestic purposes, with partitions only for essential divisions such as the washroom. Employing an open plan, merging interior and exterior space and using only partitions to regulate space was justified

in the text as being functional, technically accomplished, and very economical, but would have struck many Kiwis as rather unusual.

Later, when writing about fellow émigré Heinrich Kulka for *Landfall*, Porsolt remarked that he himself, like Kulka, had had to "learn weatherboards" (1971: 89–92). He found Auckland's ubiquitous colonial villas and bungalows to be quaint, writing, "In my early years this side of the Equator, I was often intrigued by an odd spectacle: greenery cut into stark cubic forms, and the florid fretwork of architecture as its complement." Porsolt went on to explain that to his eye, the floriated fretwork belonged to nature and the cubes to architecture, and his own house designs for New Zealand demonstrated this approach.

Architectural Designs

Porsolt's clients were the educated few—mostly Jewish like him, and active in the creative arts. The artist and muralist John Holmwood, the fashion designer Emma Knuckey, the musician Ernst Specht, the alternative bookseller Robert Goodman, the French lecturer Walter Pollard, and Czech-born Dr Ruth Black (nee Blumenthal), who was a member of the Board of Management for the Broadcasting Corporation as well as a pioneer in the field of family planning, founding and chairing the New Zealand Family Planning Council in 1963–64, and representing New Zealand on the International Planned Parenthood Federation of Southeast Asia and Oceania. None of his clients were wealthy, but they were all interested in good design.

One of his first commissions came from a fellow Czech émigré, Robert Goodman, who owned an alternative bookshop in the city. The Goodman House at 3 Canterbury Place in Parnell was built in 1956 and published in *Home & Building* in 1958, in an article entitled "Privacy in a Glass House". It is a two-storeyed house, built in the shape of a pentagon with a glazed living room on the upper level and the exposed Oregon beams of the living area extended out over the concrete block balcony to complete the apex of the pentagon. It was designed, Porsolt said, to have great views of the North Shore, Rangitoto, and the Auckland Harbour Bridge, through floor-to-ceiling glass sliding doors. Porsolt's specifications for the house originally had it clad in vertical boards of oiled cedar, which as it weathered would change to a soft grey colour. In this neighbourhood of multi-millionaires, the house was quickly dubbed The Chalet, locals recognising something foreign, possibly Swiss, in its design.

Fig. 4 and 5 Imi Porsolt, The Goodman House, Parnell, Auckland, 1956. [Photographs by Stephen Robinson, 2011]

The Pollard House, commissioned by Walter Pollard, a friend of Porsolt's and a lecturer in French at the University of Auckland, was built as a pole house in the Titirangi bush, showing an appreciation of the new environment and an ability to use it in a sensitive way. It was published in *Home & Building*, where it was described in anthropomorphic terms: "The house stands on this spur, or rather has its heels dug into its flanks; the toes rest on steel pipe stilts, which, it is hoped, will soon be overgrown again by the bush" (Porsolt 1963a: 36).

Designed to be an integral part of the landscape, the house curves around the brow of a hill with a living room that fans out to encompass the panoramic bush view and a wide roof open like an umbrella over the entry way and deck. It was described as "a house that lives in the tree tops and touches the land lightly" by Bill McKay in the *Block* itinerary for modernist houses in West Auckland (2008). Porsolt himself described the reflexive relationship between site and structure succinctly: "the shape of the land approximates the geometry of the house" (Porsolt 1963a: 36). Echoing the topography, the occupant or visitor steps down into the living area and the wood-finished interior, utilising both native and exotic timbers. It adopts two features promoted by Bauhaus teacher Marcel Breuer in that it is bi-nuclear, with separated sleeping areas, and has a butterfly roof:

> The narrow eastern part of the wedge-shaped central space houses the kitchen: you can't look into it, only over it, from the western part, the living area proper (dropped three steps, approximating the fall of the spur). You look at the bush again, along the slope of the ceiling-roof. This of course means a butterfly roof, at any rate for the central space: dished shape over the living area, part of a flat pyramid over the kitchen. The living wing roof is symmetrical, the living room under it isn't—the northern bay of the roof shelters the open deck. Logically, the straight western boundary line of the roof terminates against the sky with upturned corners. Geometry lends the roof wings (Porsolt 1963a: 36).

Fig. 6 and 7 Imi Porsolt, The Pollard House, Titirangi, Auckland, 1962. [Photographs by Simon Devitt, 2007]

Geometry also predominated in the design of Dr Ruth Black's house in William Fraser Street, Kohimarama, from 1959. It comprised a series of flat-roofed rectangular blocks over a free plan of open spaces which were partitioned. The progressive aspect of the house was tempered by specific New Zealand devices—its steel-reinforced frame was clad in traditional wood.

Writing on Art and Design

Porsolt's interiors were characterised by built-in furniture, a modernist feature which he championed in the article, "To Build It In or Not to Build It In" (1950b). Porsolt argued convincingly that having modern furniture would be more time effective as it would limit the amount of time moving furniture to clean beneath and behind. His use of myriad materials and forms is the signature treatment for his domestic projects. He appears to straddle the regional/internationalist divide in New Zealand architectural modernism, as Alvar Aalto did in Finland. Porsolt's houses are architectural collages, synthesising modernist, vernacular, and natural motifs. This eclectic approach is echoed in his writing on design for the popular press.

Like Ernst Plischke in his book *Design and Living* (1947), Porsolt illustrated his ideas about furniture design—tables and chairs—with his own drawings, and continued to advocate for the use of glass:

> In contrast to cabinets which are the permanent dwellings of our odds and ends, tables are temporary places of abode for the same things … Bruised legs tell a disappointing story of anybody's experiences … A fully transparent glass top has the advantage of eliminating the darkness under the table and giving even a small space an airy and spacious character—the main aesthetic requirement of our day (Porsolt 1950a: 69).

Porsolt wrote about art in architectural terms, noting with approval "the suave regularity of the geometric forms" in a Milan Mrkusich painting and commenting on the "purposeful symmetry" and "geometric framework" within his compositions. These terms are reminiscent of the tools of formal analysis developed by the German art historian Heinrich Wölfflin (1864–1945) in his *Principles of Art History* (1929). Porsolt told *Landfall* readers that "Mrkusich also used abstraction, most determinedly among Auckland painters, his kaleidoscopic paintings which one felt to be a very geometric kind of impressionism rather than straight out constructions" (1959: 364). Porsolt's architectural approach to painting suited the period when modernist artists were exhibiting at the Architectural Centre in Wellington, and Mrkusich was working as an architect with Brenner Associates in Auckland.

Erudite and internationalist, Porsolt was wary of nationalism and parochialism. He made connections between the arts of various periods, places, and cultures, as well as emphasising the importance of art history for contemporary artists just as he cultivated a love for architectural history in his students at the School of Architecture. While he acknowledged the importance of English art critic Clive Bell's formalist method, Porsolt's writing in fact appears more informed by Wölfflin and Viennese School art historians like Alois Riegl and Franz Wickhoff, writers whom he may have read in the original German. Their focus on the formal aspects of painting as the primary way to communicate the meaning in the

art led to his championing of abstraction. As Bell points out: "Against the grain of mainstream critical opinion, Porsolt vigorously promoted local abstract painting (when there was not much of it) as 'the algebra of art', and without 'algebra' there was an absence of the experimental and exploratory" (2017: 152).

How Porsolt promoted the art of abstraction was by concentrating his writing on the emotional content of the pure physicality of the painting. In this he followed the German art historian Wilhelm Worringer (1881–1965), whose book *Abstraction and Empathy* had argued that the key to understanding abstraction was recognising the emotional content of the physical properties of paintings—form, line, and colour. Porsolt championed McCahon as an artist whose relation to representation continually equivocated between the autonomy of the means—paint applied to the surface—and a search for the truth about the existence of God. Porsolt saw McCahon's work as loaded with emotional expression and experiences, something he referred to as "content" (1959: 366). For Porsolt, McCahon's content "[excluded] the possibility of rendering details, this style permits concentration on the essence of natural forms, as perceived and strongly felt by the artist. It also forces him to employ his powers of design to express his feelings" (1959: 365).

Porsolt found it useful to use musical analogies to introduce abstraction to his readers. In 1959, he wrote that *The Northland Panels* (1958):

> … were perhaps the best McCahon has exhibited so far … which should be read together like a musical suite, with rising and falling rhythms, changing lyrical moods and an intellectually nostalgic background thought which he gives intermittent verbal expression by actually writing it out in so many words as part of the pictorial but also poetic component. Beneath the visual search lurks the search for emotional anchorage (Porsolt 1959: 366).

In this same article, he goes on to write about McCahon's *The Wake* (1958) as the "creation of a pictorial-poetic unity of music and verse in song. In that sense it is a music style painting, although of literary origin" (Porsolt 1959: 366). He commends McCahon for his wavering writing on the canvases and use of the trunks of kauri trees as interstices, seeing this as a step towards the emancipation of painting from reliance on literature towards a greater abstraction. He described New Zealand painting as having a symbiotic relationship to literature, growing like "a strange rata vine which may become a tree one day, although it is unlikely to kill off its host" (Porsolt 1959: 365). He also deploys a musical analogy in his analysis of the McCahon painting that won the Hay's competition in Christchurch in 1959, describing its four rectangular shapes as being like the four movements of a simple symphony.

Porsolt believed that in inscribing *The Northland Panels* with the phrase "a landscape with too few lovers", McCahon was "longing to love what one feels one ought to", and was wrestling with the idea that his painting should reflect his New Zealand character (Porsolt 1959: 365). Wölfflin and Worringer were art historians who believed in a German style of art that reflected the national character. Like many who had escaped Nazism, Porsolt avoided nationalism but believed that local circumstances had to be acknowledged. He consciously built up the European context for McCahon's primitive figures as "medievalizing" and related the structure of McCahon's compositions to "Mondrian, Cézanne, Picasso, Michelangelo, Titian … It would be absolutely wrong to regard these stylisings as

artificial inseminations of the imagination … [rather they are] deliberate tests of the painter's own ability to digest influence" (Porsolt 1963b: 272).

Conclusion

Porsolt was proud to call himself a New Zealander, and believed that he was responding to the environment in his own architectural design. In one of his pieces of writing on architecture, he was critical of examples of colonial architecture in Auckland which he felt failed to acknowledge local context such as the French Renaissance-styled Customhouse (1888–1890) designed by Edward Mahoney. Architectural historian John Stacpoole reacted immediately, "Not being a New Zealander Mr Porsolt cannot be expected to fully appreciate that the Customhouse built when Auckland was 48 years old was a considerable achievement then" (Stacpoole 1973: 3). Porsolt retorted in his own letter to the editor of the *Listener* the following month, "[Stacpoole] refers to me as a non-New Zealander. As a matter of fact I am one, not by the blind accident of birth, but by a conscious act of choice" (Porsolt 1973a: 4).

Porsolt's teaching and writing at the School of Architecture emphasised the continuity of Western architecture from antiquity, particularly ancient Greece, through the classical revivals to twentieth-century modernism. His art writing sought to build an appreciation for abstraction by educating readers about the importance of compositional structure. He was a distinctive voice, not only because of his strong Central European accent, but also because he was a modernist who was outspoken in his defence of Auckland's architectural heritage. He was well attuned to a regional dynamic, as his description of Auckland shows: "an unsettled city, roaming people from the south, from Britain, and other foreigners … this volcanic city likes to be disrespectful of established values" (Porsolt 1962: 295). Porsolt was a significant architect, art writer, and architectural history and design teacher in the loose cosmopolitan subculture that emerged in the 1940s and 1950s in Auckland. A key supporter of the development of abstraction in painting when New Zealand-born critics decried it, and a practitioner of both rondo-cubism and Pacific regionalism in architecture, he used his "foreignness" to advantage.

The notion that European émigrés brought a homogeneous modernism with them to New Zealand has been discredited. Nonetheless, Porsolt saw himself as a kind of missionary, leaving instructions that the words "A Messenger of Modernism" be engraved on his headstone. As a messenger, he was highly important, if somewhat idiosyncratic.

REFERENCES

Bell, L. (2017). *Strangers arrive: Emigrés and the arts in New Zealand, 1930–1980*. Auckland: Auckland University Press.

Fairburn, A. R. D. (1948). Art in Canterbury. *Landfall, 2*(1), March, 49–50.

Fantl, R. (2005). In, Imric Vojtech Porsolt, 1909–2005. *Architecture New Zealand, 5*, 32–34.

Gatley, J. (2017). After Knight comes Light (and Toy): The modernising years. In J. Gatley & L. Treep (Eds.), *The Auckland School: 100 years of architecture and planning* (pp. 40–74). Auckland: School of Architecture and Planning, University of Auckland.

International Day. (1939, July 11). *New Zealand Herald*, p. 11.

Jenner, R. (2005). In, Imric Vojtech Porsolt, 1909–2005. *Architecture New Zealand, 5*, 32–34.

Lahoda, V. (2010). Cubism translated? The western canon of modernism and central/eastern European art history. *Art in Translation, 2*(2), 223–238.

Lloyd-Jenkins, D., & McKay, W. (2000). Top 50 homes New Zealand. *Home and Entertaining*, December–January, 75.

McKay, B. (2008). West Auckland guide. Retrieved from http://www.architecture-archive.auckland.ac.nz/docs/block-digital/2008-04BlockDigital-WestAkGuide.pdf

McKay, B., & Gatley, J. (2010). Buildings for the sub-tropics: The Group and other moderns. In J. Gatley (Ed.), *Group Architects: Towards a New Zealand architecture* (pp. 197–207). Auckland: Auckland University Press.

McLaughlin, P. (1990). 1ZB from design to demolition, 1939–1990. (Unpublished Thesis for the Degree of Bachelor of Architecture). University of Auckland, New Zealand.

Porsolt, I. V. (1950a). All manner of tables. *Home & Building*, June–July, 35, 69, 71–72.

Porsolt, I. V. (1950b). To build it in or not to build it in. *Home & Building*, April–May.

Porsolt, I. V. (1958). Privacy in a glass house. *Home & Building*, January.

Porsolt, I. V. (1959). Painting in Auckland, 1959. *Landfall, 15*(4), 364–367.

Porsolt, I. V. (1962a). One man shows in Auckland. *Landfall, 16*(3), 295–297.

Porsolt, I. V. (1962b). Primitive sculpture: A festival of Auckland exhibition at the Auckland Museum, *Home & Building*, June, 58–59, 113–116.

Porsolt, I. V. (1963a). Pollard House, Titirangi. *Home & Building*, July.

Porsolt, I. V. (1963b). Retrospectives: M. T. Woollaston and Colin McCahon. *Landfall, 17*(3), 272–275.

Porsolt, I. V. (1971). Henry Kulka, architect, 1900–1971. *Landfall, 99*, 89–92.

Porsolt, I. V. (1973a, August 13). Letter to the editor, *New Zealand Listener*, 6.

Porsolt, I. V. (1973b). Origins of axio-symmetrical town and sanctuary design in Greek antiquity. (Unpublished Thesis for the Degree of Doctor of Philosophy). University of Auckland, New Zealand.

Porsolt, I. V. (1977). Colonial architecture in New Zealand by John Stacpoole. *Art New Zealand, 6*, June–July, 31.

Porsolt, I. V. (1980a). *Axial symmetry in classical Greece*. Auckland: School of Architecture, University of Auckland.

Porsolt, I. V. (1980b). *The history of building: An outline history of structural thought*. Auckland: School of Architecture, University of Auckland.

Porsolt, I. V. (1980c). *Italian Architecture*. Auckland: School of Architecture, University of Auckland.

Porsolt, I. V. (1980d). *Romantic and nineteenth century architecture*. Auckland: School of Architecture, University of Auckland.

Porsolt, I. V. (1981a). *A brief outline of world history*. Auckland: School of Architecture, University of Auckland.

Porsolt, I. V. (1981b). *The history and design of vertical communication*. Auckland: School of Architecture, University of Auckland.

Porsolt, I. V. (1981c). *The history of city forms as artifacts in the landscape*. Auckland: School of Architecture, University of Auckland.

Porsolt, I. V. (1981d). *A history of the dwelling and of places of meeting considered together*. Auckland: School of Architecture, University of Auckland.

Porsolt, I. V. (1981e). *Italianate architecture in Europe*. Auckland: School of Architecture, University of Auckland.

Porsolt, I. V. (1981f). *Outline History of the Architectural Profession*. Auckland: School of Architecture, University of Auckland.

Porsolt, I. V. (1981g). *Preliminary notes to twentieth century architecture*. Auckland: School of Architecture, University of Auckland.

Porsolt, I. V. (ca. 1983 [1981]). *Architecture in the landscape and the revolution of Bath*. Auckland: School of Architecture, University of Auckland.

Porsolt, I. V. (1984a). Appendix to my curriculum vitae: My architectural creed in a nutshell. P838s Sheppard Collection, Architecture and Planning Library, University of Auckland.

Porsolt, I. V. (1984b). The run of my life (curriculum vitae). P838s Sheppard Collection, Architecture and Planning Library, University of Auckland.

Porsolt, I. V. (2005). In, Imric Vojtech Porsolt, 1909–2005. *Architecture New Zealand, 5*, 32–34.

Rosenfeld, M. (1944). The culture of Czechoslovakia. *Art in New Zealand, 63*, March, 7–9.

Sayer, D. (2014). Modernism, seen from Prague, March 1937. *Artl@s Bulletin, 3*(1), 19–29.

Stacpoole, J. (1973, July 2). Letter to the editor. *New Zealand Listener*, 6.

Walsh, J. (2016). Roger Walker in conversation. Retrieved from https://www.ntazia.co.nz/explore/interviews/roger-walker-in-conversation

ROBERT FREESTONE

Mud on His Boots: R. T. Kennedy and the Beginnings of Planning Education at the University of Auckland

Formal university training in town planning only commenced in New Zealand in the late 1950s during the town and country planning era. The University of Auckland's first professor of town planning was Robert Terence Kennedy (1903–1997), who was appointed in 1957 and retired in 1969. With no formal academic qualifications but an impressive background in design practice and administration in Britain, Kennedy found the going tough as a teacher and a professor and seemed relieved when it came time to step down.

This article offers a biographical account of Kennedy, known as Terry to friends. Biography provides insights into broader narratives in history. As a human-centred methodology for planning history, it places individual lives and careers within broader ideological and institutional currents to illuminate, in more nuanced fashion, agendas, achievements, and failings (Freestone 2018). Kennedy's timeline instructively intersects with several critical junctures in the history of modern architecture and design at both ends of the world: in Britain through participation in social housing projects pre-World War II, the mission of post-war reconstruction through the Ministry of Town and Country Planning, and the new towns programme, and in New Zealand through the promotion of town planning, urban renewal, and the institution of tertiary planning education. This article concentrates on the latter episode with Kennedy switching from his practitioner-bureaucratic roots into an academic role in which he made significant contributions in an antipodean setting. The article sketches Kennedy's early career as a prelude to his time in New Zealand, the background to the establishment of a planning programme at the University of Auckland, development of the early curriculum and staffing, and the legacy laid. It draws on two earlier conference presentations (Freestone 2014a, 2014b) and additional research utilising private papers subsequently lodged with the University of Auckland. It constructs an assessment of Kennedy as an archetypal British expatriate architect-planner, somewhat patrician but principled, steeped in old-world planning but not dogma, and striving to adapt best practice to the New Zealand environment. Despite self-doubts about his life achievements, within the educational sphere he is the key figure in establishing planning education on a firm footing in New Zealand.

Fig. 1 R. T. Kennedy, ca. 1944. [Courtesy of Philip Kennedy]

Kennedy's Early Career

Kennedy (see Fig. 1) was a Mancunian destined to follow the career of his architect-father. He studied at the Manchester College of Technology and School of Arts but never completed a formal architectural qualification. From 1925 to 1939, he worked successively with three local governments: Manchester, Essex County, and Liverpool City, where he was involved with several central area redevelopment projects. From 1940 to 1943, he teamed up with Professor William Holford on wartime building contracts for factories and worker hostels on behalf of the Ministry of Supply. In 1943, he joined the new Ministry of Town and Country Planning which gathered together some formidable talent (Ward 2012). This was Kennedy's first entrée into town planning proper, working in the "Planning Technique" section alongside Holford, Gordon Stephenson, Colin Buchanan, and, briefly, Thomas Sharp, with the focus on new planning standards and techniques. After the war he was appointed Chief Planning Officer in the Directorate of Technical Services in the Ministry of Housing and Local Government. In this role he was involved in a more expansive range of town and country planning matters: the replanning of blitzed cities; the selection, designation, and planning of 12 new towns; designation of national parks; and examination of advisory city, regional, and county borough plans. In 1955, he entered private practice with Holford in London. The working relationship proved less satisfactory second time round (Cherry & Penny 1986). Despite taking a long time deliberating on leaving the Ministry, by 1956 he was looking for another opportunity when the Auckland position came up.

The New Zealand Planning Scene in the Early 1950s

The broader institutional and statutory backdrop to Kennedy's appointment is well covered in Miller's history of the New Zealand Planning Institute (NZPI) (Miller 2007). An active town planning movement dated from the 1910s and a major product of its efforts was the *Town-planning Act* of 1926, which enabled local authorities to prepare comprehensive town planning schemes overseen by the central government. Amendments in 1929 introduced regional planning provisions. By the early 1950s, only a handful of towns and boroughs had approved plans and larger New Zealand cities had little control over land development (Miller 2000). Metropolitan Auckland, with a population of nearly 400,000 by the mid-1950s, was said to be feeling the strain under the pressures of modernisation. The city was coming of age as a "national metropolis" but rapid growth and ad hoc development were bequeathing problems of residential blight, traffic congestion, and sewerage disposal, prompting thoughts toward limiting future expansion (Pownall 1950, 1951).

The early post-war years saw a renewed enthusiasm for planning, as they did globally, with energetic propaganda and lobbying campaigns including the first home-grown planning textbook in 1949 (Barry Martin 1949). Complementing the fledgling professional discourse was a growing community appreciation of the need for expert land use management and design control (Schrader 2010).

The passage of a new *Town and Country Planning Act* in 1953 provided a significant fillip to the planning cause. This required every city, borough, and town board to provide and maintain a district planning scheme. Regional planning

provisions were also retained. Regulations to the Act promulgated in 1954 provided more detailed guidelines to preparing planning schemes leading to "a rather standardised approach to plan writing" (Miller 2007: 23). The Ministry of Works provided oversight and a Town and Country Planning Appeal Board was empowered to deal with appeals resulting from council decisions. Qualified planners remained thin on the ground, assembled from the ranks of British immigrants, ex-servicemen, and dedicated individuals undertaking external study to meet the British Town Planning Institute's (TPI) requirements. The Town Planning Institute of New Zealand, founded by John Mawson in 1930, had only 31 full members by 1954 (Aitken Rose 2017: 230). While the demand for planners from local authorities having to meet their obligations under the Act was set to grow, the institutional environment for professional education remained undeveloped. A notable non-government initiative from 1949 to the early 1950s was the town planning section of Wellington's Architectural Centre, which formalised the historic practice of senior professionals mentoring students undertaking external study for TPI membership, with lectures by leading planning advocates such as John Cox, George Porter, Al Gabites, Maurice Patience, and Helmut Einhorn (Gatley & Walker 2014).

The Auckland Chair

The University of New Zealand was the only tertiary entity able to institutionalise this approach and Auckland University College was the obvious host as the only architecture school in the nation. As early as 1929, Cyril Knight, foundation Professor of Architecture, had developed a town planning diploma proposal involving papers in history, law, practice, engineering, and design (Miller 2000: 458–59). Depression, war, and the departure of Mawson cooled this early enthusiasm but from the late 1940s, Knight, who saw planning and architecture as "two phases of the same activity", resumed his efforts. Various bodies took up the cudgels alongside him including the Town Planning Institute of New Zealand, the Town and Country Planning Association, and the Institute of Professional Town and Country Planners. Other professional bodies like the New Zealand Institute of Surveyors were also in the mix along with lobbying from the Chamber of Commerce and the City Council in Auckland.

The preferred model by 1948 was a professorial Chair in Planning as head of a separate school within the Faculty of Architecture. Various committees endorsed this approach including the University Council in April 1949. In mid-1952, the Academic Board "after an exhaustive investigation" also endorsed a new chair and following further examination the University Senate approved the proposal in August 1954. The latter decision was subject to available funding, which was the main sticking point throughout this protracted mini-saga. An approach to the Minister for Education was agreed (Principal[?] 1954). The key move at this time came from a member of University Council, Norman Spencer, who pledged an endowment of £7,200 to support the chair for the first four years. Spencer was a businessman, lawyer, and philanthropist involved in the transport industry, and chairman of the Auckland Transport Board from 1955 to 1964 (Glenie 1972; Sinclair 1983: 211).

Appointment of Kennedy

Applications for the chair were invited in early 1956 to reach the University by August 31. The number of applicants is unknown but two shortlisted candidates soon emerged. One was Neil Abercrombie, son of the legendary Sir Patrick. Apart from that credential, he had just taken up the position of Town and Country Planning Commissioner of Tasmania after five years as senior lecturer in Town and Regional Planning at the University of Melbourne (1951–55). Before that he had worked with the Department of Local Government in Sydney and the Illawarra Planning Authority in Wollongong, New South Wales. Neil was a gentleman architect-planner with interests in coastal planning and conservation; he was a competent administrator who would have brought a different sensibility to the role with a likely accent on regional planning.

Kennedy, then aged 53 years and coming off an unsuccessful application for Architect of the City of London, was arguably the lesser name. He was not a planner by training but his decade in the Ministry made him a key participant in a momentous period in British planning and in 1951 he had been awarded a CBE in recognition of his services to town and country planning. Kennedy enlisted influential support from Dame Evelyn Sharp, the secretary of the British Ministry of Housing and Local Government; Robert Matthew, Professor of Architecture at Edinburgh University; Gordon Stephenson, by then head of City and Regional Planning at the University of Toronto; and Holford, who was also a referee for Abercrombie. Applications were deliberated on by various University entities including the Professorial Board and there was a report of a special "London Committee". Spencer was actively involved in this process, filing a report with his "impressions" of both candidates.

The post was offered to Kennedy in October 1956. He accepted and sailed with his family from Southampton on the *Southern Cross* and arrived in May 1957. The position of Professor and Chair of the Department of Town Planning carried an annual salary of £1,792.8.0 for an initial period of five years and compulsory retirement at 65. The "Conditions of Appointment" (dated May 1956) specified several responsibilities: fostering public interest and participation in town planning matters as well as directing and undertaking planning research; establishing and teaching into a new Diploma in Town Planning plus ancillary teaching into the architecture programme; and the right of private practice as a planning consultant.

Planning Philosophy

Kennedy was a self-confessed newcomer to planning having learnt on the job in the British civil service. His formative views were thus shaped largely by practice and through his working associations rather than a formal professional education. Intellectually, his influences were not Patrick Geddes or Raymond Unwin, both of whom he regarded as eccentric, but Lewis Mumford, whose *Culture of Cities* (1938) he found inspiring, Patrick Abercrombie, Clough Williams-Ellis, and, perhaps surprisingly, William Lethaby, whose essay "Towns Fit to Live In" (1918) had first stimulated his interest in planning (Kennedy 1959). "As soon as greater interest in town life can be aroused improvements must be undertaken in every direction", wrote Lethaby (1922: 27).

Kennedy's inaugural professorial address delivered in University Hall in the Arts Building fronting Princes Street on March 27, 1958 establishes an ideological outlook to which he remained true. The occasion marked the transition of the Auckland University College of the University of New Zealand into a university in its own right (Kennedy 1958a, 1958b). The "purpose of planning", he explained, was "the control of land use for the creation of a physical environment conducive to better living". His elaboration reveals an incipient appreciation of the local scene and the challenges posed by increasing car ownership, tourism, and uncoordinated development. He had already perceived a divide between the clarity of the original town grids in New Zealand and the "mere agglomerations of buildings" growing up within them. There are other themes which would resurface in his endorsement of planning that was holistic, cooperative, based on common-sense, and not "compromised by legal complexities" (Kennedy 1958a: 59–68).

Kennedy was first and foremost a physical planner. Time and again he returned to three crucial yardsticks in making and evaluating plans: the economic, the social, and the aesthetic. He was a firm believer in the importance of what we would now term urban design—though rarely using that term—for its power in communicating the visions and elaborating the details that matter for successful planning on the ground. He was also an unapologetically pragmatic planner, which could be attributed partly to his years in Whitehall: "a theoretical future is so often at odds with immediate and practical solutions" (Kennedy 1969a: 14). Alongside that was the need for simpler, realistic planning schemes. He channelled many of his ideas into constant critiques of the *Town and Country Planning Act 1953*. He saw it as overly prescriptive and legalistic, particularly in its voluminous regulations, and offering few opportunities for positive planning or community involvement. He mounted an ultimately unsuccessful legal challenge to the unsympathetic erection of a residential apartment building immediately adjacent to his family home in the Auckland suburb of Remuera, a cause célèbre case which only confirmed his jaundiced view of the malleability of the Act's regulations and council administration of them (Northey 1966: 9–11). His criticisms of the complexity and the administrative demands of the legislation were not well received by the Town and Country Planning Directorate within the Ministry of Works. Nevertheless one of his most original ideas did call for greater centralisation, namely that planning survey research and data gathering be resourced at the national level (Kennedy 1968), an idea that would have come from his experience in central government in Britain (Kennedy 1969b).

In terms of the built environment, Kennedy was anti high-density, which he saw as compromising standards of living. He saw New Zealand's main urban problems stemming not from British-style "blitz and blight" but traffic (Kennedy 1960). While acknowledging the general quality of material life, he was also critical of the regimented and sprawling suburban landscape; "in physical terms, a mess" (Kennedy 1968). His middle way looked towards the better integration of land use and transport planning; encouraging mixed use through more flexible land use zoning rather than monolithic spatial segregation; combining public and private development; and enhancing urban design standards. His overriding yardstick was securing a common-sense balance of individualistic demands and collective welfare in the "public interest", a theme he returned to frequently in his writings (Kennedy 1965b). What was notably missing to latter-day eyes was a true appreciation of environmental management and virtually no mention of Māori or lifestyles beyond the stereotypical nuclear family.

Establishing a Department

Kennedy's brief from the University was for instruction to commence in the first session of 1958. He had first to build a department. The offices and lecture rooms were initially located at 28 Symonds Street (on the present-day site of the Faculty of Engineering) and then moved to 8 Symonds Street in 1964, expanding to 10 Symonds Street (shared with Political Studies) in 1968. Derek Hall recalls the scene at number 10 in the late 1960s:

> This was a two-storey house with a basement which was the student common room. Out the back was a garden with fruit trees in it … An annex at ground level had added a further three student rooms. Existing rooms provided offices and further student rooms, and one bigger room which was used for seminars and lectures. [They then started] using a proper lecture theatre across the road in Botany for lectures (D. Hall, personal communication, April 22, 2017).

Betty Cutter was appointed departmental secretary. Initially, there were no other staff except Gerhard Rosenberg, who had been appointed a senior lecturer in town and country planning in the School of Architecture by Cyril Knight in 1955. Rosenberg was a German Jew trained in architecture and town planning in the United Kingdom (MacKenzie-Hooson 2014). Elizabeth Aitken Rose notes that while Kennedy always retained "a certain technocratic British essence", Rosenberg was "quintessentially European" (2017: 233). Nonetheless, a strong working relationship would develop between the men and many years later Rosenberg wrote to Kennedy that he was "quite proud of having spent so many years as part of [his] team" (Rosenberg 1986).

Developing a Programme: The DipTP

Kennedy arrived to what Nancy Northcroft described as "a blank slate" with little information on important issues like student demand (Northcroft 1969: 10–11). Before coming to New Zealand, Kennedy had begun his research on planning programmes at various British universities. He was well aware of the deliberations of the Schuster Committee in the United Kingdom, which in 1950 endorsed an expansive social science-infused approach to planning education underpinned by inter-professional collaboration and ideally delivered as a two-year postgraduate programme (Ministry of Town and Country Planning 1950). After his arrival he spent nearly a year in consultation with architects, surveyors, engineers, and government officials to arrive at an educational programme acceptable to all.

The eventually agreed structure was a one-year full-time postgraduate diploma, a step down from a full master's degree but pragmatically defended as the best way of producing work-ready town planners at a time of urgent need. Kennedy did not see this as a narrowly-focused academic qualification but more a post-professional experience aimed at men [*sic*] with "mud on their boots", a phrase used in an address to the Institute of Surveyors in Gisborne. This hands-on approach was all about devising a "stimulating" and applied experience rather than just providing "men [*sic*] with an opportunity to add another qualification to their name" (Kennedy 1958b: 213).

Six subjects were devised: a foundational paper in Town Planning Theory and Techniques, complemented by instruction in Geography, Civil and Traffic Engineering, Surveying, Architecture, and Law, all as related to town planning. An additional thesis was "a test of how you apply what you know to a particular problem" and students were also exposed to "Drawing Office and Field Work" through various assignments. This curriculum evolved incrementally but was substantially intact a decade later. By then, Theory and Techniques had become two distinct courses, Surveying was dropped, Architecture included Landscape, Law became Statutory Planning and Administration, and a dissertation (a "written discourse" of up to 10,000 words) was added in a new Honours stream. At various times, Kennedy confessed that the programme had weaknesses, "particularly in relation to the examination prescriptions of the Town Planning Institute" (Kennedy 1965a). The absence of a dedicated economics, and particularly land economics, paper was acknowledged along with the need to cram so much into a one-year programme. Communication skills, positive rather than legalistic planning, and cross-professional learning were all valued highly. To keep things fresh and relevant, Kennedy displayed daily news cuttings and items of interest on the student noticeboard (Kennedy 1963: 4).

The Teaching Staff

Papers were taught by both core planning staff and part-time lecturers. By 1968, the core staff had grown to five members—Kennedy, Rosenberg, two former star students (Jim Dart commencing in 1962 when Rosenberg was on leave, and Mike Pritchard who started in 1965), and Harry Turbott, who taught landscape and urban design part-time from 1966. Kennedy was able to cultivate good relations with other people around and outside the University. The slowly increasing core staff was complemented by a changing cast of professors and practitioners. Early inputs came from Professors N. A. Mowbray (Engineering), F. J. Northey (Law), Cyril Knight (Architecture), and Kenneth Cumberland (Geography), although Kennedy was "always a bit wary of the Geography Department in Cumberland's day, running courses to expand his territory" (Kennedy 1991b). Well-respected professionals were also conscripted such as J. W. Cox (Ministry of Works), F. W. O. Jones (Auckland Regional Planning Authority), and Nancy Northcroft (Christchurch Regional Planning Authority).

By all accounts, this was a strong, well–assembled, and harmonious team. Kennedy's colleagues were united and loyal; they respected his directness, integrity, worldliness, experience, pragmatism, loyalty, and immersion in and knowledge of current events. He could be a harsh critic, but didn't spare himself. Kennedy was a good manager bringing to bear his senior British experience from both private practice and the civil service. Mike Pritchard remembers his collegiality with informal examiners' meetings over lunch at his house in Remuera (M. Pritchard, personal communication, August 8, 2012).

Students

Students generally had to have a first professional qualification in architecture, engineering, or surveying (University of Auckland 1960). Full-time candidature with a demanding workload was preferred. Kennedy warned the fresh intake of 1965 that their lectures, seminars, visits to various offices and sites, excursions,

and set exercises would be demanding; "full-time means full-time and overtime" (Kennedy 1965a).

The diploma struggled early in attracting students. Kennedy recalls the "birth pangs" as "agonising" (1984). In 1958, there were 14 students (only four full-time); by 1969 this had risen to 59 students (12 full-time) (Northcroft 1969). Most full-time students were sent and supported by the Ministry of Works and local councils. The part-timers were largely employees of government or planning practices around Auckland who were given time off to attend (D. Hall, personal communication, April 22, 2017; Aitken Rose 2017: 234–38). By 1968 bursary scholarships were offered by the surveying and architect institutes and the Auckland City Council.

Teaching Planning

Kennedy's main teaching responsibilities were two co-taught papers. One was the foundational paper on Theory and Techniques, with contributions from Rosenberg. This provided an overview of planning history, governance, design, surveying, and methods. The primary topics when offered for the first time in 1958 were:

— The main contributors to town planning thought and the application of their theories and ideas, with historic examples;
— The objects of present-day planning;
— The inter-relation of social, economic, and physical planning;
— The role of the physical planner;
— The organisations and agencies for planning and development in New Zealand and abroad;
— Studies of regional and town planning schemes;
— The design of new towns and redevelopment areas;
— The design of industrial, commercial, residential, and recreational areas.

The 1966 syllabus for Town Planning Theory provides a more detailed breakdown of lectures (see Table 1). This was not a theory course as that term is presently understood, but rather an introduction to the profession, its history, and the major foci of spatial planning.

Fig. 2 The Town Planning Theory lecture programme included garden cities and suburbs, such as Hampstead Garden Suburb, designed by Parker & Unwin. [Photograph by Julia Gatley]

Table 1: Town Planning Theory lectures, 1966

First Term (March 1 to May 3)	1.	Objects of Present-Day Town Planning—R. T. Kennedy (RTK)	
	2.	Historic Development Up to End of Nineteenth Century—Gerhard Rosenberg (GR)	
	3.	Geddes	GR
	4.	Howard, Unwin	GR
	5.	Mumford	GR
	6.	Garnier, Le Corbusier, CIAM	GR
	7.	French Grand Ensembles, Reichow, Kahn	GR
	8.	Buchanan	GR
	9.	Regional Planning Theories	GR
Second Term (May 31 to August 9, with mid-term break)	10.	Regional Planning Examples	GR
	11.	Rural Areas, Agriculture and Forestry	GR
	12.	Social Factors in TP	RTK
	13.	Economic Factors in TP	RTK
	14.	Aesthetic Factors in TP	RTK
	15.	Role of Physical Planner (Schuster)	RTK
	16.	Residential Areas	GR
	17.	Industrial Areas	GR
	18.	Recreational Areas	GR
	19.	Town Planning Schemes I	RTK
	20.	Town Planning Schemes II	RTK
Third Term (September 6 to October 4)	21.	Central Areas	RTK
	22.	Comprehensive Redevelopment Areas	RTK
	23.	New Towns	RTK
	24.	Planning Organisations	RTK
	25.	Planning Organisations	RTK

His second co-taught paper was architecture for planners. This offered an introduction to architectural composition and materials, site planning, and landscape and urban design. The 1958 synopsis was as follows:

— Architectural composition and the grouping of buildings;
— Urban street and open space patterns;
— Studies of historic and contemporary examples;
— Site planning in relation to topography and climate;
— Preservation of architectural and historic places;
— Use, colour, and texture of building materials;
— Street furniture;
— Landscape, natural, and man-made patterns;
— Planting for use and amenity;
— Park, garden, and recreation area design.

By the mid-1960s, Kennedy's input had retracted as the landscape dimension was enhanced with the arrival of the Harvard-trained Turbott (see Table 2).

Table 2: Provisional programme for Architecture and Landscape lectures, March–October 1965

March–October 1965	1.	Introduction—R. T. Kennedy (RTK)	
	2.	Natural Man-Made Patterns of Landscape—Harry Turbott (HT)	
	3.	Patterns of Landscape	HT
	4.	Historic Examples: Hippodamus' Roman Towns, Medieval Contribution—Gerhard Rosenberg (GR)	
	5.	Renaissance, to Haussmann's Paris	GR
	6.	Rome—Imric Porsolt (IP)	
	7.	Form and Function in Building	RTK
	8.	Architectural Expression: Historical and Contemporary	RTK
	9.	Scale and Proportion in Building	RTK
	10.	Structure, Materials, Texture and Colour	RTK
	11.	Architectural Criticism	RTK
	12.	Townscape, Spaces Between Buildings	GR
	13.	Cullen, Lynch—Visits to Sites	GR
	14.	Preservation of Historic Places—Cyril Knight (CK)	
	15.	Street Furniture and Lighting	GR
	16.	Twentieth-Century Architect-Planners	GR
	17.	Le Corbusier, Tony Garnier	GR
	18.	Unwin	GR
	19.	Niemeyer	GR
	20.	Modern Landscape Architecture	HT
	21.	Parks, Recreation Areas, Trees in Towns	HT
	22.	Motorway Planting	HT
	23.	Suburban Landscape	HT
	24.	Effect of Buchanan, Retirees	GR

Kennedy, who had departmental secretary Cutter type out all his lectures, was not, by his own estimation, a good lecturer. He later recalled:

> Just think of the bloody awful lectures that I had to give. I had never before given a lecture—on anything. I was no scholar, had had an insufficient education, had no degree, had even failed matriculation … When I saw what I thought I had said when typed out by Betty I was appalled and ashamed (Kennedy 1986).

The late Jim Dart, student and later colleague to whom this confession was addressed, remembered differently. He saw Kennedy as "a natural teacher … not dogmatic in any way" and often reacting to current events (J. Dart, personal communication, August 7, 2012). Further, he was:

> … always stimulating in his enthusiasms and his passions, always constructive in his criticisms of poor design and indignant at the crassness, lack of vision and ad hocery of so much civic decision-making. Like the Ancient Mariner, once within range of his voice, he would capture his audience with talk at great length on a wide range of topical issues and always with a total recall of past events (Dart 1998: 2).

Bill Robertson, a distinguished alumnus who became President of the NZPI, captures further the character of the classroom:

> His courses were all about the process and the various options and not expecting right answers. He would stand there looking at you over his rimless glasses and always able to suggest another point of view when one thought one had finally settled on a "right" point of view. He was very good at providing wider references when various planning issues arose. He could always find alternative ideas or references to keep the planning possibilities open … He used the diversity of student backgrounds to encourage us all to see the value of other skills, points of view and techniques (B. Robertson, personal communication, July 20, 2011).

Former students have mixed recollections. Michael Wearne remembers him in the late 1960s as still "somewhat schoolmasterish" and a practitioner rather than a theorist, "not surprisingly" (M. Wearne, personal communication, July 22, 2011). Henry van Roon and Richard Smyth both remember an intense and alert lecturer with a wide general knowledge who cared about his students (H. van Roon, personal communication, September 27, 2012; R. Smyth, personal communication, November 14, 2011).

Someone so steeped in British planning orthodoxy was not going to change radically overnight and the time he spent in government in London would remain the foundation of Kennedy's planning ideas. To convey the realities of planning process, he would often tell stories about the politics of planning in Britain and how the Ministry had worked. Richard Smyth recalls that for his Architecture course the main textbook was *Town Design* (1953) by Frederick Gibberd, the designer of Harlow (R. Smyth, personal communication, November 14, 2011). In the 1960s, there were design exercises interpreting the parameters laid out by London County Council for its proposed new town of Hook (London County Council 1961). Other former students recall a similar Anglocentric treatment. Bill Robertson, who remembers Kennedy as "an approachable learned person with certain English reserve", notes that, "He did convey a strong sense of the 1940s and 1950s planning approach. We were taught about the 1947 UK planning act, new towns and classic architecture in UK and Europe" (B. Robertson, personal communication, July 20, 2011). Robert Riddell remembers that over time Kennedy became "more of a Kiwi" and the quality and relevance of his lectures picked up enormously (R. Riddell, personal communication, June 27, 2011).

Kennedy tacitly acknowledged criticism that he was parlaying "just old-fashioned ideas from another country … not really applicable to New Zealand" (M. Pritchard, personal communication, August 8, 2012). But as he gained a greater grasp of the New Zealand scene he began to more confidently distance himself from the solutions of his past. He criticised the 1953 Act as based too closely on the British experiences. The same extensive derelict industrial lands, scale of slum housing, and regional imbalance of economic opportunity were not replicated in New Zealand. Notes for a lecture in his Town Planning Theory course provide a concise statement of the position he had reached by 1965:

> It is, I think, a mistake to look for exact parallels in other countries to justify our town planning approach, legislation and practice. The economic and social conditions that have created almost insuperable problems in the building and rebuilding of cities and the development of agricultural and mineral resources in older countries have not been paralleled in this country to anything like the same extent. We have our own social, economic and

> aesthetic problems to solve and should find solutions to them in our own way, solutions that are politically acceptable and suited to the way of life we have decided to follow (Kennedy 1965c).

University Life

Mike Pritchard remembers Kennedy as an inspiring "battler" rather than an establishment figure; someone who was not afraid to critique orthodoxy and fight for what he felt was right in professional and personal terms—the fight to preserve the amenity of his own living space conflating both these ambitions (M. Pritchard, personal communication, August 8, 2012). Kennedy participated in broader aspects of University life but his firm views about issues and individuals placed him occasionally on the outer.

He had an inferiority complex about his lack of traditional academic qualifications and some of his professorial peers were apparently all to ready to remind him of it. His opposition to the proposed relocation of the University to a suburban greenfield site at either Tāmaki or Hobson Bay, a row that was in full cry when he arrived, put him offside with some senior University figures. At a hearing of the Town and Country Planning Appeal Board in July 1960, he spoke compellingly against any move and this resulted in his criticisms of moving away from the Princes/Symonds Street precinct being upheld. He had presented a range of criteria pointing to the superiority of the central city site (Planning the University 1957). Amid a general atmosphere of bitterness and resentment—which turned nasty for Kennedy when the Pro-Chancellor accused him of "not being a university man" (Kennedy 1987)—he resigned from the Professorial Board and associated committees (Sinclair 1983: 239).

While the affair did not damage his association with Vice Chancellor Kenneth Maidment, it further estranged him from the powerful Chancellor William Hollis Cocker. In a 1995 oral history tape, Kennedy tells of two extraordinary encounters with Cocker, who was blind. The first saw him as a newly arrived professor grilled inquisition-style in a darkened room by Cocker and members of the University Senate; the second alleges that Cocker attempted to sabotage his inaugural lecture in a stand-off with the Vice Chancellor through unflattering lighting and the absence of any of the usual protocols of such a significant event (Kennedy 1995).

Conclusion

Robert Kennedy was relieved to step away from University life, and while his retirement was long it was not particularly happy and was marked by harsh self-judgments about an "up and down" serendipitous career. His admissions to Gordon Stephenson seem far too bleak. In 1980, his summation was that "I am not—was not—much good as a Town Planner/academic and most of my efforts in practice fell on stony ground" (Kennedy 1980). A decade later came a similar sentiment:

> Unlike you I was never a dedicated Town Planner and unlike you never academically trained for the job. My lectures were an agony to me, my talks and addresses very ordinary. I wrote no books. I relied almost entirely on experience of town planning in the Ministry but made no name for myself outside it … I have no great thoughts on the subject. Unlike you I was never

> dedicated. Often I was sceptical and inwardly critical of much town planning activity, so many plans, so many words, so much talk and so much paper (Kennedy 1990).

There is significant counter evidence to suggest this was a life worth living and a career that made a difference. The Auckland diploma remained the principal means of providing professional training for town planners in New Zealand until 1974. When Kennedy retired in 1969, there had been 66 graduates representing perhaps two-thirds of all professionally qualified planners in New Zealand (Kennedy 1969a), half of whom had been admitted as full members of the NZPI (Northcroft 1969). The *Town Planning Quarterly* stated that "there is barely a government department involved in aspects of land use planning or a territorial local authority of any consequence that does not have at least one ex-student on its staff" (Fact and Opinion 1969: 4). Many of the graduates from the first decade went on to have distinguished planning careers in New Zealand and Australia. One story might illustrate several. Richard Smyth recalled that only when he actually travelled to Europe did he fully appreciate the value of Kennedy's enthusiasm for urban design which in turn influenced his decision to set up the first such unit in the Department of Environment and Planning in New South Wales in the 1980s (R. Smyth, personal communication, November 14, 2011). Jim Dart conveyed a pervasive influence on the Department's first generation of graduates: "they gradually wove what they gained from Kennedy into their own thinking, their own work, whether it was harbour board work or ministry works, roading or first attempts at regional metropolitan planning … He opened the eyes of many people" (J. Dart, personal communication, August 7, 2012).

According to Aitken Rose, Kennedy "epitomised the post-war reverence for rational comprehensive plans guided by a consensus 'public interest' and a progressive thrill of the modern" (Aitken Rose 2017: 240). He was certainly a product of his time, training as an architect-planner, with the early sensibility to urban design standing out. He was a classic "pracademic" of the old school. There were no refereed publications but plenty of public addresses. Research grants were conspicuously absent although there was some contract research. His primary interest was not traditional scholarship but practical interventions into real-world problems like the Auckland waterfront and the Wellington city centre. Derek Hall casts him as "more of an organiser and just what planning in New Zealand and the University needed at that time" and an individual who, "given all the surrounding circumstances", delivered outcomes that might not have been bettered (D. Hall, personal communication, April 22, 2017). In his valedictory NZPI address, Kennedy saw his step from practice to academia as undoubtedly a good thing:

> I first entered university life late in my own life … I have not regretted it. It has done for me what it has I hope done for most university staff and students. It has enlarged my own understanding of the world around me and by the intellectual stimulus it has provided made me think more deeply than I otherwise would have done of many things (Kennedy 1969a: 16).

Kennedy later reflected that his life had "not been adventurous, daring, distinguished, not even notorious. I have just bobbed about on the life stream" (Kennedy 1991a). It was nonetheless purposeful enough for him to have been awarded in 1985 the NZPI Gold Medal for exceptional service to planning.

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REFERENCES

Aitken Rose, E. (2017). "All the problems and also the advantages of youth": The planning years. In J. Gatley & L. Treep (Eds.), *The Auckland School: 100 years of architecture and planning* (pp. 226–259). Auckland: School of Architecture and Planning, University of Auckland.

Barry Martin, D. E. (1949). *Town and country planning*. Auckland: A. H. & A. W. Reed.

Cherry, G., & Penny, L. (1986). *Holford: A study in architecture, planning and civic design*. London: Mansell.

Dart, J. (1998). Obituary: Robert Terence Kennedy CBE, 1903–1997. *Planning Quarterly*, March, 2.

Fact and opinion. (1969). *Town Planning Quarterly, 17*, September 4.

Freestone, R. (2014a). Auckland calling at the bottom of the dial: The journey of British architect-planner R. T. Kennedy. In C. Schnoor (Ed.), *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 31, Translation* (pp. 681–690). Auckland: SAHANZ and Unitec e-Press.

Freestone, R. (2014b). The contributions of R. T. Kennedy to New Zealand planning. In M. Gjerde & E. Petrović (Eds.), *UHPH_14: Landscapes and Ecologies of Urban and Planning History, Proceedings of the 12th Conference of the Australasian Urban History/Planning History Group* (pp. 147–161). Wellington: Australasian Urban History/ Planning History Group.

Freestone, R. (2018). Biographical methods. In C. Hein (Ed.), *The Routledge handbook of planning history* (pp. 60–75). London: Routledge.

Gatley, J., & Walker, P. (2014). *Vertical living: The Architectural Centre and the remaking of Wellington*. Auckland: Auckland University Press.

Gibberd, F. (1953). *Town design*. London: Architectural Press.

Glenie, V. W. Bro. J. P. (1972). Norman B. Spencer: Citizen, humanitarian, Freemason. *United Masters Lodge 1687: Lodge of Masonic Research, 19*(16), October, 267–278.

Kennedy, R. T. (1958a). Design in environment. *Journal of the New Zealand Institute of Architects*, April, 59–68.

Kennedy, R. T. (1958b). A diploma course in town planning. *New Zealand Surveyor*, 213.

Kennedy, R. T. (1959). Notes for a talk, Otahuhu Rotary [typescript], June 23. Kennedy Papers, Box 7, Architecture Archive, University of Auckland.

Kennedy, R. T. (1960). Traffic tangles. Talk delivered at the North Island Motor Union, Wairakei, September 18. Kennedy Papers, Box 15, Architecture Archive, University of Auckland.

Kennedy, R. T. (1963). Auckland: A conspectus for planners. TCPI Annual Conference, Auckland, May (10 pp. typescript).

Kennedy, R. T. (1965a). General introduction talk to all students. Talk delivered in Town Planning Theory and Techniques, March 1. Kennedy Papers, Box 12, Architecture Archive, University of Auckland.

Kennedy, R. T. (1965b). Planning and the public interest. *New Zealand Local Government*, June, 3–5.

Kennedy, R. T. (1965c). Town Planning Theory, May 31. Kennedy Papers, Box 5, Architecture Archive, University of Auckland.

Kennedy, R. T. (1968). *Planning and the public interest*. J. T. Stewart Lecture in Planning No. 2. Manawatu: New Zealand Geographical Society.

Kennedy, R. T. (1969a). A backward and forward view of town planning. *Planning Quarterly, 17*, September, 14–17.

Kennedy, R. T. (1969b). A ministry for all town planning in England and Wales. *Traffic Quarterly, 3*, 138–148.

Kennedy, R. T. (1980, December 5). Letter to G. Stephenson. Kennedy Papers, 1/136, University of Liverpool Archives, Liverpool.

Kennedy, R. T. (1984, February 29). Letter to J. Dart. Kennedy Papers, Dart Correspondence (in possession of P. Kennedy; since transferred to University of Auckland).

Kennedy, R. T. (1986, April 19). Letter to J. Dart. Kennedy Papers, Dart Correspondence.

Kennedy, R. T. (1987, April 30). Letter to J. Dart. Kennedy Papers, Dart Correspondence.

Kennedy, R. T. (1990, September 10). Letter to G. Stephenson. Stephenson Collection, Box 2, University of Western Australia Library, Perth.

Kennedy, R. T. (1991a, August 13). Letter to J. Dart. Kennedy Papers, Dart Correspondence.

Kennedy, R. T. (1991b, September 26). Letter to J. Dart. Kennedy Papers, Dart Correspondence.

Kennedy, R. T. (1995). Oral History Tape. Courtesy of Philip Kennedy.

Lethaby, W. R. (1922). *Form in civilization: Collected papers on art and labour*. London: Oxford University Press.

London County Council. (1961). *The planning of a new town. Data and design based on a study for a new town at Hook, Hampshire*. London: London County Council.

MacKenzie-Hooson, M. (2014). Translating architecture and planning from Berlin and Britain to New Zealand: The work and life of Gerhard Rosenberg. In C. Schnoor (Ed.), *Proceedings of the Society of Architectural Historians, Australia and New Zealand: 31, Translation* (pp. 735–747). Auckland: SAHANZ and Unitec e-Press.

Miller, C. (2000). Town planning in New Zealand, 1900–1933: The emergent years—concepts, the role of the state, and the emergence of a profession (Unpublished Thesis for the Degree of Doctor of Philosophy in Planning). Massey University, Palmerston North, New Zealand.

Miller, C. (2007). *The unsung profession: A history of the New Zealand Planning Institute 1946–2002*. Wellington: Dunmore Press.

Ministry of Town and Country Planning. (1950). *Report of the Committee on qualifications of planners*. London: HMSO.

Mumford, L. (1938). *Culture of cities*. London: Secker and Warburg.

Northcroft, N. (1969). Professor Kennedy retires. *Town Planning Quarterly, 17*, September, 10–11.

Northey, J. G. F. (1966). A legal case-note. *Town Planning Quarterly, 5*, September, 9–11.

Planning the University. (1957). *Civic digest*, June, 17–18. Article previously published in *New Zealand Herald*.

Pownall, L. L. (1950). Metropolitan Auckland 1740–1945: The historical geography of a New Zealand city. *New Zealand Geographer, 6*, 107–124.

Pownall, L. L. (1951). Metropolitan Auckland: The contemporary character of a New Zealand metropolis. *New Zealand Geographer, 7*, 21–42.

Principal[?]. (1954, November 16). Memo, to Chair, University Grants Committee. Appointment of Town Planning Professor File, University Archives, University of Auckland.

Rosenberg, G. (1986, September 29). Letter to R. T. Kennedy. Kennedy Papers, Miscellaneous (in possession of P. Kennedy; since transferred to University of Auckland).

Schrader, B. (2010). City planning. *Te Ara—The Encyclopedia of New Zealand*. Retrieved from https://www.teara.govt.nz/en/city-planning

Sinclair, K. (1983). *A history of the University of Auckland: 1883–1983*. Auckland: Auckland University Press.

University of Auckland. (1960). *Calendar 1960*. Auckland: Whitcombe and Tombs.

Ward, S. V. (2012). Gordon Stephenson and the "galaxy of talent": Planning for post-war reconstruction in Britain, 1942–1947. *Town Planning Review, 83*, 279–296.

GILL MATTHEWSON

Where Do You Go To?: The Class of ’76

Fig. 1 The Auckland School’s Old Heavy Breather Network/Annual, 1976. [Cover graphic by Geoff Fletcher]

In 1976, each student in the University of Auckland School of Architecture received a booklet (see Fig. 1) with the names, addresses and phone numbers of all the students (Auckland School of Architecture 1976). Spread across the four professional years of the degree are 310 people, 74 of whom were first-year students, including the author. This article tracks that first-year cohort over the 40-plus years since; a time span that gives an opportunity to trace the ins and outs, and ups and downs of architectural study and careers. It also allows the outcomes of this cohort to be compared with available statistical data (including some incomplete data from the 1978 and 1980 student contacts booklets) to help test and understand that data.

There has traditionally been a mismatch between the social stereotypes of architects held by the public and the actuality of being an architect, which means that many students who begin architectural study do not complete it (Cuff 1991: 117). For those who graduate and wish to participate in the profession, economic and other conditions sometimes render a continuing career in architecture difficult. So, what happened to the first-year students of 1976, and how might their journeys illustrate the complexities of architecture, its education, and practice?

In 1976

The School of Architecture at the University of Auckland was established in 1917 and was until the mid-1970s the only school in New Zealand. Those arriving in 1976 came into a School that had recently had its “narrow” professional training focus questioned by student protest in 1972, which subsequently ushered in a wider range of course content and options (Francis 2016).

This period at the School is described by Bill McKay in the formal history of the School as “the loose years”, marked by hippiedom and a somewhat anti-intellectual kind of humanism (McKay 2017: 98). Perhaps one sign of that looseness is the contacts booklet itself. Twenty-first-century privacy legislation means that such a document would be very unlikely to be formally distributed today. Even in the 1970s, there must have been some awareness of the potential for the booklet to permit both privacy invasion and unsavoury behaviour because it is titled “Old Heavy Breather Network/Annual”, and the cover graphic by Geoff Fletcher

(a final-year student in 1976) of an eye-popping, salivating, archetypal "dirty old man" leaves little to the imagination.[1]

Protests in architectural schools across the world of the like that occurred in Auckland in 1972 were not unusual at this time when the post-war consensus that modernism was the best (only) basis for an architectural education was seriously and, at times, aggressively challenged. As Mary McLeod argues for North America, all architecture schools there were affected by the convulsions caused by the civil rights movement, anti-Vietnam war protests, and second-wave feminism (McLeod 2012: 163). Separately, and collectively, these led to the questioning of many aspects of architecture including its role in the exploitation of resources and people (Francis 2016: 282), and its alliance with power elites (McLeod 2012: 163).

The impact of feminism was particularly visible in one of the most notable characteristics of the 1976 first-year intake: the number of women. Of the 74 students, 24 (very nearly one-third) were female. At the newly opened Victoria University of Wellington School of Architecture women were similarly around one-third of their intake (D. Cranko, personal communication, September 11, 2017).

The 1970s saw significant growth in the number of women entering and succeeding in professional education across the world. Unpacking the situation in the United States, Stacey Jones argues that a complex combination of socio-economic shifts in the late 1960s and early 1970s contributed to rocketing female enrolments in professional schools (Jones 2011). These included changing and loosening expectations of women's role in society, the availability of reliable contraception, a decline in demand in the teaching profession (the traditional destination for most university-educated women), and civil rights legislation leading to a broadening of challenges to all discrimination, including that of gender. In 1972, those challenges resulted in a ruling that rendered blocking the entry of women into education programmes funded by the U.S. federal government illegal (as cited in Stratigakos 2016: 21). Jones maintains that once in the professional schools, women attained a critical mass that made previous deterrent factors, such as isolation and discrimination, less sustainable (Jones 2011: 349). The effect of all these shifts and changes is clearly visible in the composition of graduates of U.S. architecture schools over the decade: in 1970, women made up a low approximately 7% of graduates, but by 1979 that figure had jumped to 27% (Stevens 2014).

In New Zealand, there was also a particular structural/cultural impediment to women entering the University of Auckland's School of Architecture. From 1961 to 1970, candidates for architecture were required to complete an intermediate year comprising Physics plus two subjects from a prescribed but broad list of offerings from across the University (University of Auckland 1961: 308; University of Auckland 1969: 451). At the time, many all-girl schools in New Zealand did not offer Physics as part of their curriculum, nor was it a particularly popular subject for girls in co-ed schools where it was on offer. Physics was, at the time, simply not seen as a "suitable" subject for girls to study. This cultural norm interacted with the structural condition to form an impediment to women entering architecture, because without a foundation in Physics at high-school level, success in the subject at University level was difficult. However, from 1971 candidates for architecture selected one subject from each of three groupings, and Physics was

grouped with Mathematics and Applied Mathematics (University of Auckland 1970: 492). With Physics now optional, more women were able to successfully complete the intermediate and apply for the four professional years of study at the School of Architecture. This single change in the entry requirements strongly contributed to a significant jump in the number of women accepted into the School in 1972, from a handful a year (if any) to double digits for the first time: 13 out of approximately 70, or 18% (Civil 2016).

Fig. 2 shows the depressing effect this combined structural and cultural barrier had on the proportion of women graduates from the school over the decade it was in place, and their rise once this (and other constraints) were removed. The latest figures show women comprising around 60% of the Auckland School's graduates, a figure that is much higher than the 51% average for the three New Zealand schools (Australian Institute of Architects 2015). Auckland is also an outlier among schools of architecture in Australasia (average 47% in 2014), the United Kingdom (41% in 2014–15) (Mirza & Nacey Research 2017), and the United States (44% in 2012) (Stratigakos 2016: 21).

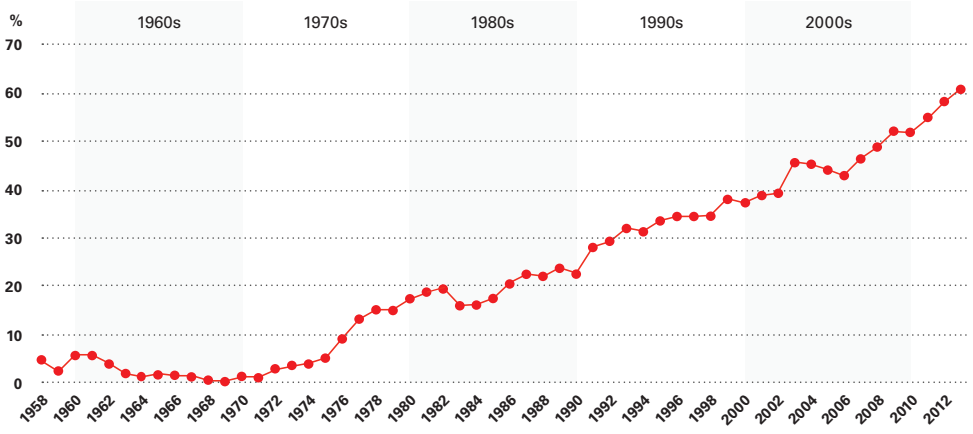

Fig. 2 Proportion of female graduates from the Auckland School of Architecture (known since 2006 as the School of Architecture and Planning). The data have been "smoothed" by taking the average for the year plus the previous two years. Smoothing evens out abrupt year-on-year changes and allows the overall pattern to be discerned. [Sources: *University of Auckland Calendar* (1958–61); University of Auckland Convocation for the Conferment of Degrees and Diplomas (1959–98); and Architecture Schools of Australasia (2001–15)]

The high number of women (24 or 32%) in the 1976 first-year intake did not, however, signal a trend. The 1978 and 1980 student contacts booklets give partial information on the gender makeup of the School in those years as, unlike the 1976 booklet, full names are not given in these years except for the first-year class of 1978. In 1978, there were just 12 women out of 71 accepted (Auckland School of Architecture 1978)—half the 1976 figure and similar to the 1972 intake. Women were approximately 21% of the first years in 1980—57 of the 70 are gender-identifiable, 12 of whom are women (Auckland School of Architecture 1980).

The high number of women in the 1976 intake meant that women's proportion of the School's students that year lifted to over 20% for the first time (65 of the 310) (Auckland School of Architecture 1976). The School as a whole roughly kept this proportion into 1978 (299 students, with 60 women out of the 287 who are gender-identifiable), mainly because many of the 1976 intake were still present at the School, now in their third year. However, by 1980, the proportion of women dropped to under 20% (approximately 18%; 290 students with 48 of the gender-identifiable 264 being women).

The high number of women in first-year architecture in 1976 was so unusual that some featured in an article (see Fig. 3) in the *Auckland Star* (Untitled 1976),

where the novelty of women on a building site (albeit a training one) posing with hammers was indicative of the changing nature of sex roles over the decade—notwithstanding the condescending comments of the Head of Carpentry at Carrington Technical Institute in the accompanying text. The following Sunday, another member of the class was also pictured in a newspaper as the naked "Sunday Male" in the weekly tabloid *Sunday News* (1976)—another indication of the changing social attitudes towards gender of the decade.

These Auckland University girls are learning the practical side of their architectural studies.

They are spending four hours a day for a week at Carrington Technical Institute, helping carpentry students build houses.

"They'll never make carpenters," said carpentry department head, Mr R. Willson, "but they're enthusiastic and it will help them appreciate the problems of carpenters on the site."

In a fortnight, two groups of girls have both framed a house with help from carpentry students.

Mr Willson says the visit have been so successful the will be repeated.

Fig. 3 Women architecture students profiled in the *Auckland Star*, August 9, 1976, p. 5. [Stuff/Auckland Star]

Acceptance into the School and successful completion are two separate matters. By the end of 1976, 11 of the 74 (or 15%) had not been successful in first-year studio, according to the passes published in the *New Zealand Herald* (University Passes, Studio I 1976), which appear to be reasonably accurate. Some of those who successfully completed the year did not continue, and at least three who were not successful or dropped out, returned. By the beginning of 1978, another 15 of the 74 (a further 20%) had either failed or decided not to continue with their studies in architecture.

Class cohort sizes fluctuated from one year to the next with some students joining (or leaving) through repeating a year, or returning after some time out, either working in an office, travelling, or both. While a year out working was a requirement in many architecture degrees in Australia at the time, this was not the case in New Zealand. There was little financial or academic penalty involved in breaking continuity of study in whatever manner, because tertiary education was in effect free and students were well supported. Some also entered the degree with advanced standing, such as those with the New

Zealand Certificate in Draughting who were exempted from the intermediate and first professional year (University of Auckland 1976: 354). Consequently in 1977, approximately a dozen "draughties" joined the cohort's second year.

These movements meant that by 1978, in the third professional year of the degree, there were 79 in the year group, 42 (or 57%) of whom were from the first-year class of 1976. Another eight of the original cohort took some time out in 1978, but returned to complete the degree at a later date. According to the passes listed in the *New Zealand Herald*, 18 of that third-year cohort, or nearly one-quarter (23%), were not successful (University Passes, Studio 3 1978). This was an abnormally high failure rate for the School; my recollection, and that of my peers, is that this failure level came as a great shock. The high level of failure can be seen when compared with the third years in 1976 and 1980 of 17% and 16% respectively (University Passes, Studio III 1976; University Passes, Studio 3 1980).

By the mid-1970s, due to pressures on space and the 1972 shake up of the School, studio teaching was divided into three sub-schools, each with a different pedagogical philosophy and design programme. This variety was a result of, and contributed to, the "looseness" of the School, which meant there was an eclectic openness to different ways of teaching. The sub-schools were named after the construction of the building in which they were housed and, roughly speaking, Timber Studio was conservative and profession focused, Brick was highly experimental including vertical studios, and Steel was somewhere in between (McKay 2017: 81–84). Member of staff John Hunt describes some of the meetings for moderating student studio grades becoming battlegrounds for the differing philosophies (as cited in McKay 2017: 98). Many in the cohort believed that those who were victims of the high failure rate in 1978 were the collateral damage of these battles where scores were settled, and results bore little relationship to students' ability. Given that two-thirds of the 18 who failed returned, graduated, and have become successful and award-winning architects, there is perhaps some merit in that belief.

Critically, the shock of failure was not evenly spread across the cohort: as cohort member Anna Kemble Welch pointed out to me, women were particularly targeted (A. Kemble Welch, personal communication, July 11, 2017). Women comprised 11 (or 61%) of the 18 not-successful/failed in 1978 and thus were disproportionally represented in this group. As a result, by the end of 1978, women fell from constituting one-third of the year group to one-quarter. In 1976 and 1980, third-year women also had a higher failure rate than their proportion in the class, but not nearly as disproportionate as in 1978—in both years, women comprised 16% of the year, 14 students were not successful, three (or 21%) of whom were women. Women did, however, comprise eight of the 12 who returned after their failure in 1978 to repeat the year and graduate. But two transferred to the School of Architecture at Victoria University to do so. Of the 310 students listed in the 1976 contacts booklet, 252 eventually graduated, three from Victoria and these three were all women.

Kemble Welch explicitly transferred to the Wellington School because of the presence of two female staff there—Wendy Light and Helen Tippett (A.

Kemble Welch, personal communication, July 11, 2017). In contrast, there were none at the much larger Auckland School, where the first female staff member, Sarah Treadwell, was not appointed until 1981 (Barrie 2017: 103). Earlier in the School's history, women starting architecture study were told that many of them would drop out, and/or that they could be a woman or an architect but not both (Matthewson 2010: 178). Such overt discrimination (often delivered under the guise of "friendly advice") was perhaps less prevalent by the late 1970s, but clearly the path for the women students at the time was not unproblematic, despite their increased numbers.

Graduation

Of that first-year class of 1976, 47 of the 74 (or 64%) graduated with a degree in architecture (University of Auckland 1959–1994). Of the 27 who did not, 24 had decided to leave study sometime within the first two years of the four-year professional degree. These non-graduates went into careers including art, book illustration, maths, accountancy, draughting, property and project management, and social work. Juliet Newson switched to geology and was the president of the International Geothermal Association from 2013 to 2016 (Twose 2015). At least two—Jackie Gilmore and Phillip Thomass—went into the film industry. Gilmore was the assistant art director for the multi-award-winning New Zealand movie, *The Piano* ("Jackie Gilmore" n.d.). A move into film for those who had studied or graduated from architecture was not unusual at this time before there were qualifications in film in New Zealand. At least another four people listed in the 1976 contacts booklet have had very successful careers in film—Stuart Dryburgh, Neil Kirkland, Kirsten Shouler, and Kim Sinclair—with Sinclair receiving an Oscar for his work on the blockbuster movie *Avatar* ("Kim Sinclair" n.d.).

In an analysis of Australian student graduation data from 1987 to 2013, I extrapolated an approximate figure for the percentage of first years who do not graduate to be around 40% (Matthewson 2017: 174). The 36% non-graduation rate for the first-year class of 1976 is a little lower than that figure. This may be due partly to the structure of the degree in New Zealand during the 1970s being different from that of Australia (intermediate year plus four professional years at the Auckland School compared with generally a full five years at a school of architecture in Australia). Mainly, however, in the Australian calculation I assumed that the degree is completed within a defined number of years, as I compared first-year numbers to graduation numbers a set number of years later. While I acknowledged that this makes it a very approximate calculation because this is seldom the case, the first-year class of 1976 clearly demonstrates just how seldom this happens and therefore how approximate that calculation is. The individuals in the class graduated over a period of five years.

Only just over half of the 1976 first-year cohort (55%) completed the degree in the minimum numbers of years, with their degrees conferred in 1980 (26 of the 47), 11 graduated a year later, three the following year, four the next, two were conferred in 1984, and one outlier finally graduated in 1994. This dispersal pattern appears to be similar for others listed in the 1976 contacts booklet: 68% of second years completed the degree in the minimum number

of years for their stage of study. Even for the third-year students, who had just two years to go, nearly one-quarter of them (24%) took longer. This "stretching out" of graduation for architecture cohorts complicates the calculations of the Australian data.

Perhaps the best illustration of that complication comes when examining the 47 graduates from the first year of 1976 by gender. Women were eventually a high 34%, or 16 of the 47, of the first-year cohort who graduated, but measured as a proportion of each graduating year, women did not reach over 30% until the mid-1990s (see Fig. 2). This was partly because the 1976 intake level of nearly one-third women was not matched in the immediate following years, as previously noted. And partly because women over this period took longer than men to complete the course of study. Table 1 shows how for almost every year group listed in the 1976, 1978, and 1980 contacts booklets, and the School overall, a lesser proportion of the women completed within the minimum time than the men. This was not necessarily due to failure (although it was for eight of the women in the 1976 first-year cohort), but also to taking time out. That more of the women seemed to do this than the men is another sign that things were awry for women in the School at that time. They were, perhaps, taking a breather from the world of "old heavy breathers".

Table 1: Completion within the minimum number of years, by gender, for graduating students listed in the 1976, 1978, and 1980 contacts booklets.

	1st Year			2nd Year			3rd Year			4th Year			All school		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
1976	61%	44%	55%	74%	42%	68%	76%	75%	76%	92%	100%	93%	78%	62%	75%
1978	43%	38%	42%	31%	44%	33%	81%	57%	74%	93%	100%	94%	64%	60%	63%
1980	38%	42%	39%	50%	43%	49%	60%	58%	59%	85%	60%	80%	58%	51%	57%

In fact, the women in the original 1976 first-year class were slightly more successful at graduating than their male classmates. They comprised 34% of all those who eventually graduated but were 32% of the class in 1976. I did not expect this result because multiple studies have maintained that more women than men dropped out of architecture study, particularly at this time, due to harassment, gender bias, and discrimination (Ahrentzen & Anthony 1993; Anthony 2001; Shannon 1996). The Australian data I analysed also strongly suggest greater attrition for women students of architecture: the difference between the proportion of female first years who do not graduate averages out at between 3.5% and 4% higher than the males (Matthewson 2017: 174). If women were simply taking longer to complete the degree, then perhaps the attrition of women was not as severe as these earlier studies, and my more recent analysis, suggested.

There are, however, several caveats to this interpretation. First, small numbers can create instability in generating percentages. Second, the women of the class of 1976 may have been a particularly tenacious group, but they also had some advantages over previous groups of women at the School. Within their cohort they comprised 32%, comfortably over the commonly touted critical mass figure of 30% that marks a shift in culture, reducing isolation and discrimination. Drude Dahlerup argues that the concept of a "critical mass" of women representing a definitive tipping point is debatable, but the principles that more women

reduces isolation and that negative stereotypes lose some of their potency still pertain (Dahlerup 2006). Third, and importantly, the cohort had the example of some particularly strong women as role models in the years above them, notably Fiona Christeller and Amanda Reynolds. Role models are crucial for naturalising the presence of women in a profession or holding a particular position (Ely, Ibarra, & Kolb 2011: 477). In 1979, Reynolds and Christeller along with '76 cohort member Janet Thomson also battled misogyny in the School and the profession head-on by setting up the Women's Institute of Architecture (Matthewson 2009; McKay 2017: 92). Finally, looking at all the women who were in the School in 1976 (rather than the smaller number in the first-year cohort), although they did indeed take longer to complete, fewer of them overall did so. Of the 310 students, 56 (or 18%) did not graduate; 23% of the women and 17% of the men. Effectively, women tallied 21% of the School in 1976, but 19.7% of all those who eventually graduated. Both calculations demonstrate a higher attrition rate for the women students. For the 1978 contacts booklet, women comprised 19.1% of the graduates and 20.9% of those who were gender-identifiable in the School, again indicating a higher attrition rate for women students (there are too many in the 1980 booklet that I am unable to gender-identify to do the calculation for that year).

Notwithstanding the attrition rate of all architectural students (not just the women), the number of graduates per year heading out into the population rose over the 1970s and continued to rise. Around 1970 there were 40 graduates a year, for a population of 2.85 million, giving a rate of 1.4 for every 100,000 people and women were just 0.02 of that 1.4 figure (Statistics New Zealand 2017; University of Auckland 1959–1994). By 1980, there were 70 graduates per year (including those from Victoria University of Wellington) generating a 2.3 rate (women 0.5, and men 1.8). The rate for 1990 was 2.9 (women 0.8), and currently sits at around 4.0 with that figure almost evenly split between men and women (Australian Institute of Architects 2015). While women have increased their impact on this figure, men have stayed relatively stable—a similar result to Australia where women graduates have accounted for most of the growth of architectural graduates relative to the population (Matthewson 2017: 172).

So what happened to the 47 graduates? Where did they go? And what did they do with their architectural education?

Registration

Registration or the license to practise architecture is one of the few measurements of participation in the profession. It is a rather crude measure because it is possible to work in architecture and not be registered—it is only required legally for calling oneself an architect and running a practice in New Zealand, as is the case in Australia and the United Kingdom. Registration also does not track the alternate routes that those who study architecture can find open up to them across their careers. Nonetheless, a study of registration helps to delineate what happened to some of the class of '76. Of the 47 graduates, 26 (55%) have New Zealand registration (NZRAB n.d.), although four have relinquished it.[2] Another seven can call themselves architects in the United Kingdom or Australia (ARB-NSW n.d.; ARB-UK n.d.; ARBV n.d.; BOAQ n.d.).

The cohort's level of 55% registered in New Zealand is higher than the rate that others have calculated. In 2010, Errol Haarhoff tracked every graduate from New

Zealand architecture schools between 1987 and 1999 and found an average rate of 38% registration for those who graduated; no single graduation year exceeded 50% (Haarhoff 2010: 18). This figure is higher but similar to registration rates found for Australian graduates: in New South Wales, Rob Cowdroy concludes that "the proportion of graduates eventually registering is unlikely to reach thirty percent" (Cowdroy 1995: 12). And a recent South Australian study found a 26% registration rate for all graduates in that state from 1999 to 2011 (Shannon, Webb, Zeng, & Holder 2014: 1544).

Was the class of '76 more committed to obtaining the title of architect and participating in the profession in this formal way? To answer that question requires considering the registration data further back than Haarhoff's date of 1987. Fig. 4 plots the percentage of each graduating cohort from the Auckland School of Architecture who registered under the *Architects Act 1963* and shows overall declining rates of registration for graduating cohorts since the beginning of the data in the 1960s. Until the mid-1970s, well over 70% of Auckland graduates registered. For the next decade until the mid-1980s, the average was over 60%. This means that at 55% registered, the first-year class of 1976 was actually below the average for graduating cohorts of the decade. It is also below that for all the graduates listed in the 1976 booklet, 62% of whom registered. In comparison, 63% of all graduates from the 1978 booklet and 68% from the 1980 booklet registered. Fig. 4 shows the registration rate dropping again for those who graduated in the mid-to-late 1980s, perhaps due to the registration process changing to include logbooks in addition to the traditional interview. The trajectory overall continues down for the rest of the century.

This declining rate of registration for graduates is undoubtedly affected by the increasing number of graduates per head of population (discussed earlier), as well as the changing nature of the profession where the increasing dominance of large firms (Cuff 2014) means that registration is less important for employees. In addition, perceptions of the importance of registration vary among graduates (Shannon et al. 2014: 1548–49).

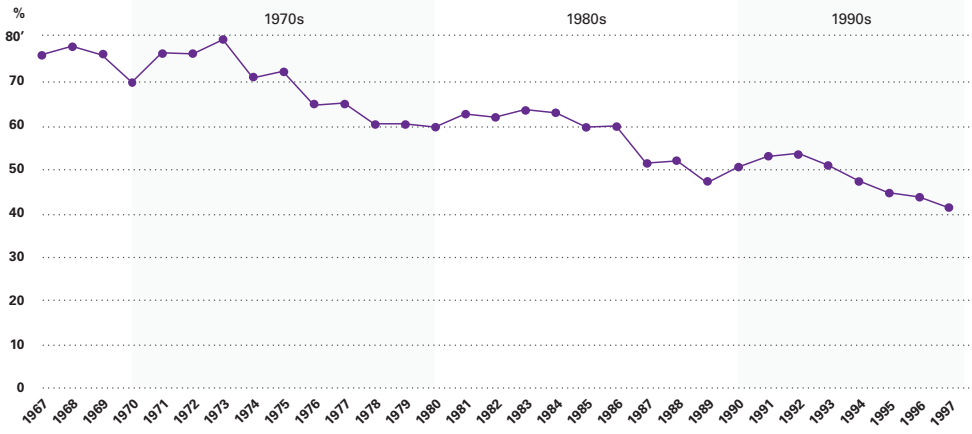

Fig. 4 Percentage of Auckland graduates registered under the New Zealand *Architects Act 1963*. Data smoothed by taking the average of prior three years. [Source: NZRAB (n.d.)]

There is some discrepancy between the Fig. 4 figures and those of Haarhoff's study, partly because he aggregated all the New Zealand schools, and partly because graduates can become registered many years after graduating; a period of working overseas, for example, might delay New Zealand registration. For the class of '76, over half (14) of those who registered had done so within five years,

but four took longer than 10 years. Typically for graduates in the 1970s and 1980s, around two-thirds registered within five years, and less than 10% took longer than 10 years. The cohort of '76 deviates from this pattern, generally taking longer. However, with small numbers (just 26) such deviation does not necessarily signify much.

The gender breakdown is curious—half of the 14 who registered within five years were women. There were two lines of thought at the time about registration that I recall. One was that to register was to "sell out" and conform to an old-fashioned, conservative, and oppressive vision of architectural practice—another hangover from a certain kind of anti-authoritarianism prevalent at the time and a serious will to practise in a non-exploitative manner (Francis 2016: 282; McKay 2017; Shannon 1996: 58). The second (and opposing) line of thought was strong among women graduates: an impetus to register in order to boost the ranks (the military analogy is deliberate) at a time when there were strong doubts that women could or should be architects (Matthewson 2009). Clearly, some of the women of the class of '76 heeded that call. Nonetheless, the two taking the longest time to register were both women. For all those who graduated between 1965 and 1997, a bare 1% of graduates registering took longer than 20 years, and women comprised one-third of that 1%. Just as women took longer to complete their studies, some took longer to become registered. Speed of graduating or registering is less an indication of "success" or otherwise for the graduates, but that women typically took longer at both does indicate that they faced barriers to becoming architects.

There is also typically a gender difference in the overall attainment of registration. From 1965 to 1997, women constituted 20% of graduates (405 of 1,992) but 15% of all those graduates who registered (169 of 1,151); 62% of all the male graduates over that period registered, compared with 42% of the females. This repeats the findings from both Haarhoff (2010: 23) and Shannon et al. (2014: 1544) that women are significantly less likely to register than men. The latter study delved into reasons why women were more hesitant to register and found that gender bias in the profession and the construction industry contributed. Such biases may be less blatant in the twenty-first century than in the period in which the class of '76 graduated (Matthewson 2009), but nonetheless continue to contribute to women being less likely to register.

Curiously, the women in the class of '76 make up 38% of those of the cohort who registered. This is again a higher proportion than expected. But again, this is measuring against a first-year intake cohort (and generated with small numbers). Over the period of time that all but one of the cohort graduated (1980–84), the proportion of women graduating averaged 18% (279 graduates, 49 female). Over the same period, women's percentage of those graduates who registered was 13% (173 registered, 23 women). Once again, the high proportion of women in the first-year class of '76 who went on to register is not reflected in an analysis of the graduating cohorts. The year was clearly anomalous for the number of women and also for their eventual success as measured by graduation and registration.

Lives in Architecture

Registration is a formal measurement and gives no indication of the wide variety of lives in—and stemming from—architecture of the 47 graduates from the class

of '76. These lives are more difficult to trace and I have relied on email addresses from the New Zealand Registered Architects Board (NZRAB) register, Google, and the recall of those acknowledged at the end of this paper. This kind of search also raises questions such as what does success in architecture mean, and what ought a career look like compared to what it does look like.

Like those who did not graduate, some graduates used their architecture education to launch into other often related fields. Alan Brown became a painter and printmaker as well as architect ("Alan Brown" n.d.), Rob Morrison was a project manager with the New South Wales Government (R. Morrison, personal communication, August 28, 2017), and Paul Hamilton "looks after" a self-contained oil-company town in Bahrain dealing with everything from rubbish collection to the water supply, security issues to new buildings, and houses to hospitals (P. Hamilton, personal communication, July 2, 2017). Anna Kemble Welch mixes standard architectural work with organising Wellington's Newtown Festival, the largest community festival in the country, and considers building community to be as much architecture as designing and constructing buildings (A. Kemble Welch, personal communication, July 11, 2017).

Geographically, the graduates are spread across the world. Although nearly half worked overseas at some stage, some of those returned to New Zealand and two-thirds are now based in the country that educated them. There is a cluster of seven in Australia, two in the Middle East, two in Europe, and one in the United States. Some have been involved with formal matters concerning architects: Pip Cheshire was president of the New Zealand Institute of Architects (NZIA) from 2014 to 2016; Simon Crispe established the Arabian Gulf Chapter of the Royal Institute of British Architects and was the first chair of the chapter (S. Crispe, personal communication, August 16, 2017); and Jane Aimer was the last chair of the Architects Education Registration Board prior to its disestablishment in the mid-2000s.

The majority of those whose lives I have been able to trace are still in architecture in some way: 29 in practice (nine women and 20 men) and four in architectural education (three women, one man). I have been unable to track six, three have died, and one retired. Just three no longer work in architecture, leaving during one of the all-too-numerous economic slumps that have occurred since their graduation (including the one into which the majority of the cohort graduated in the early 1980s). It appears that only one never used the degree in any direct way since graduation, although she argues that her architectural training and skills were useful in the other fields she ventured into (J. Thompson, personal communication, July 4, 2017).

Over 70% of the graduates opted to become architects in the more formal sense through registration (if overseas registration is included), but their practices range widely demonstrating the breadth of possible careers within architecture. Of the 29 graduates of the class of '76 who are still in some form of practice, 20 are directors of their own practices (including six women) and these range from small local ones to very large international firms. Eight of the cohort's businesses have three or fewer in the practice, five consist of four to nine people, three of 10 to 15 people, two of 16 to 30, and two in excess of 100 employees. There are no women owners of practices of more than 16 people—this spread is typical as women owners tend to cluster in smaller practices (Civil 2016; Parlour 2017).

Eight of the practices owned by the class of '76 are named after their owners, either by their full name or surname only—a long-held naming tradition in architecture. But this convention was challenged in the 1970s—along with much else—and some formed collectives, while others have selected names that bear no relation to that of the owner/s. Nine of the cohort are owner/directors in such practices, including Graeme Fanselow of Fat Parrot, Anna Kemble Welch of Red Design Architects, John Leijh of Architos, and Jane Aimer and Lindley Naismith of Scarlet Architects. Another three have become directors of large older firms that retain the names of their founders, a sign of stability and continuity important for the kind of clients that large practices serve. There are two routes to this outcome. One is by moving up the hierarchy, such as Chris Bowkett at Walker Group Architects and Simon Crispe at Atkins Global. The other is by being parachuted in from a small, usually award-winning practice, a kind of head-hunting by the larger firms to refresh design talent, as was the case for Andrew Barclay at Warren & Mahoney Architects.

Dana Cuff calls working for oneself the "guiding vision" for architects (Cuff 1991: 137), as this gives access to the mechanisms the profession uses to reward architectural work: awards and media. The most successful of the '76 cohort in these terms is Pip Cheshire, who has the highest architecture profile within New Zealand. He is a multi-award-winning designer and the recipient of the NZIA Gold Medal in 2013 (NZIA n.d.). The work of his practice appears in a number of books about New Zealand architecture (Lloyd Jenkins 2004: 253, 256, 276–79; Shaw 1991: 193–94, 210–11, 226; Walker 2005: 217), and he has written one himself (Cheshire & Reynolds 2008).

However, Mal Bartleet was the first of the '76 cohort to have built work appear in a book, *The Elegant Shed*, published a scant four years after his graduation (Mitchell & Chaplin 1984: 100). Bartleet, Cheshire, Barclay, and Richard Priest all appear in Douglas Lloyd Jenkins' romp through twentieth-century New Zealand design, *At Home: A Century of New Zealand Design* (2004).

Cheshire's career (and that of some of the others named above) adheres to the classic "ideal" image of an architect as a single person of outstanding design ability and vision, author of work that is identified and published as his. It is an ideal that is promoted by architectural history, award systems, and the media, but it is both fraught and anachronistic for many reasons (Boyle 2000: 90; Willis 1998). It is not the norm for an architectural career, as many of the class of '76 demonstrate. Much of the work of architects gains no public plaudits or publication of any kind and extends beyond the well-publicised and glamorous scenarios of starchitects or award systems. It is nonetheless a powerful and persistent narrative and reared its head when some of the '76 first-year cohort seemed a little reluctant to talk to me, aware that their life in architecture did not match that narrow ideal.

Another from the cohort forged an alternate route towards recognition in the architectural world in a manner that was uncommon at the time of graduation. Mark Wigley has international renown as Professor of Architecture and former Dean at the Columbia University Graduate School of Architecture, Planning and Preservation in New York (Faculty n.d.). Within eight years of graduating with his Bachelor of Architecture (and with a PhD also from Auckland under his belt), Wigley was in New York co-curating with Philip Johnson the influential

Deconstructivist Architecture exhibition at the Museum of Modern Art (Johnson & Wigley 1988). In the early 1980s, postgraduate study was only just beginning to be seen as an option by graduates (McKay 2017: 98). Wigley is well-published and an often-cited architectural theorist, and has influenced generations of architecture students both nationally and internationally (Barrie 2017: 114). Another three of the cohort—Diane Burgess, Diane Brand, and myself—entered academia, although after a period in practice, and, like Wigley, are concerned with improving the quality of architecture through shaping the education of architects.

Some of the cohort have not followed either this or the established route that leads to traditional architectural acknowledgement, as nearly one-third (nine) of those from the cohort who are in practice are employees, not owners. There are risks and obligations involved in ownership with which not all architects are comfortable. Ownership involves hustling for work in a highly competitive environment. Or it can be a role that is typically more about management than architecture. Matt Adams characterised his ownership role in a practice with five employees as "dogsbody, run-around and gap-filler" (M. Adams, personal communication, July 6, 2017). At the other end of the scale, Simon Crispe claimed his role was mainly wrangling staff of over 2,500 construction professionals (S. Crispe, personal communication, August 16, 2017).

Instead, those of the graduate cohort who are employees are to be found at the next level down from ownership in trusted associate positions typically in medium to larger sized firms. Such firms tend to offer the opportunity to work on challenging and interesting projects, "getting things done". Morgan McKewen described himself as an "engine room" person (M. McKewen, personal communication, June 29, 2017). The practise of architecture at this level, particularly of ushering in a built work with all its complex problem solving, can lead to rewards other than awards, publication, or identifiable authorship. These include the satisfaction of contributing to important buildings, a sense of adding to society, and the formation of social relationships with others (Caven & Diop 2012).

Architectural sociologist Paul Jones argues that the work of the architecture profession is incredibly diverse, but *culturally* the profession valorises just one aspect of what architects do (Jones 2009: 2523). The graduates of the first-year class of '76 show that diversity and in doing so reveal the narrowness of the "ideal" image of an architect as the identifiable singular author of work. There is much talk about the expanded field of architecture—architecture is already expansive, it is just that, collectively, but the profession values a small portion of it.

Given that part of the aim of the 1972 protest at the School was to open up architectural education from its intense professional focus, the high number of those who graduated from the class of '76 who are still strongly connected to the architecture profession, suggests that perhaps the opportunities offered by this "looser" education were not taken up. Yet the variety of practices that the graduates encompass is very wide (perhaps even very loose), ranging greatly not just in size but from the corporate to the community-focused. And if we look at that number (33) compared to the original class of 74, less than half remain in the field. This has implications for architectural education—if less than half of a cohort stay in traditional practice, then how a school understands and communicates what the profession is has lasting ramifications. There have always been tensions between schools and the profession, and probably always will be,

but the class of '76 demonstrates the sheer breadth of the range of options, both within the profession and outside of it, with which those with an architectural education engage.

Conclusion

Narrowing the focus onto one class of first-year students or those who were enrolled in a particular year allows a relatively fine-grained examination of what happens to those who study architecture. However, it can also throw up anomalies because small numbers can cause statistical aberrations and a year group is not necessarily representative of a time period. For example, the 1976 intake saw significantly more women enter the school than in previous or subsequent years and these women were comparatively successful in terms of the formal measurements of graduation and registration.

As a group, the class of first-year students in the Auckland School of Architecture in 1976 demonstrates the high fall-out rate while studying. The women of the group were slightly more tenacious than the men and proportionally more of them graduated, but this was not typical for the period. They did, however, take longer to complete, which was typical. After graduation, the class of '76 shows the wide variety of possible lives in architecture. Some have come close to the "ideal" of the acknowledged architect of known (at least in New Zealand) buildings, but the cohort reveals much more of the wide diversity possible in architecture well beyond that ideal. All those in practice have applied their architectural thinking to their work across a wide range of buildings in New Zealand and across the world. And those who did not graduate, and some of those who did, have used their education in ways other than traditional practice.

Overall, the class of '76 is loosely of its "loose" time. It was also a time when graduates were rarer in the population than they are currently, which means that the statistics and lives of those in the cohort cannot be extrapolated to represent all those who have passed, or may pass, through an architecture school. But the cohort does highlight some of the issues that still confront those who choose architecture as an education and a career.

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ENDNOTES

[1] G. Fletcher (personal communication, September 10, 2017) denied that the cover might be a caricature of a member of staff, but every female student I have spoken to from that period is convinced otherwise.

[2] The NZRAB website lists all those who have ever been registered in New Zealand.

REFERENCES

Ahrentzen, S., & Anthony, K. H. (1993). Sex, stars, and studios: A look at gendered educational practices in architecture. *Journal of Architectural Education, 47*(1), 11–29. Retrieved from http://www.jstor.org/stable/1425224

Alan Brown. (n.d.). *Design & art Australia online.* Retrieved from https://www.daao.org.au/bio/alan-v-brown/personal_details/

Anthony, K. H. (2001). *Designing for diversity: Gender, race, and ethnicity in the architectural profession.* Urbana & Chicago, IL: University of Illinois Press.

ARB-NSW. (n.d.). *New South Wales Architects Registration Board.* Retrieved from https://www.architects.nsw.gov.au/

ARB-UK. (n.d.). *Architects Registration Board.* Retrieved from http://architects-register.org.uk/

ARBV. (n.d.). *Architects Registration Board of Victoria.* Retrieved from http://www.arbv.vic.gov.au/for-consumers/search-the-register/

Auckland School of Architecture (1976). Old Heavy Breather Network/Annual [Student handout]. Copy in possession of author.

Auckland School of Architecture (1978). Phone contacts [Student handout]. Copy supplied by L. Treep.

Auckland School of Architecture (1980). Phone contacts [Student handout]. Copy supplied by L. Treep.

Australian Institute of Architects. (2015). *Architecture Schools of Australasia.* Barton, ACT: Australian Institute of Architects National Office.

Barrie, A. (2017). "Architecture to a fault": The post-modern years. In J. Gatley & L. Treep (Eds.), *The Auckland School: 100 years of architecture and planning* (pp. 102–127). Auckland: School of Architecture and Planning, University of Auckland.

BOAQ. (n.d.). *Board of Architects of Queensland.* Retrieved from https://www.boaq.qld.gov.au/BOAQ/Search_Register/BOAQ/Search_Register/Architect_Search.aspx?hkey=b057ad1c-2fc3-4b3b-9cc6-34d238b01569

Boyle, B. M. (2000). Architectural practice in America, 1865–1965: Ideal and reality. In S. Kostof (Ed.), *The architect: Chapters in the history of the profession* (pp. 309–344). Berkeley, CA: University of California Press.

Caven, V., & Diop, M. (2012). Architecture: A "rewarding" career? An Anglo-French comparative study of intrinsic rewards in the architecture profession. *Construction Management and Economics, 30*(7), 513–523.

Cheshire, P., & Reynolds, P. (2008). *Architecture uncooked: The New Zealand holiday house through the architect's eye.* Auckland: Godwit.

Civil, D. (2016). *The pioneer class*. Retrieved from http://www.architecturewomen.org.nz/archives/pioneer-class-denise-civil

Cowdroy, R. (Ed.) (1995). *Architects' transition from graduation to registration*. Sydney: The Board of Architects of New South Wales.

Cuff, D. (1991). *Architecture: The story of practice.* Cambridge, MA: MIT Press.

Cuff, D. (2014). Commentary: Architecture's undisciplined urban desire. *Architectural Theory Review, 19*(1), 92–97. doi:10.1080/13264826.2014.899071.

Dahlerup, D. (2006). The story of the theory of critical mass. *Politics and Gender, 2*(4), 511–522. doi:10.1017/S1743923X0624114

Ely, R. J., Ibarra, H., & Kolb, D. M. (2011). Taking gender into account: Theory and design for women's leadership development programs. *Academy of Management Learning and Education, 10*(3), 474–493. doi:10.5465/amle.2010.0046

Faculty. (n.d.). *Columbia GSAPP.* Retrieved from https://www.arch.columbia.edu/faculty/33-mark-wigley

Francis, K. (2016). Ether: An atmosphere of possibility. In K. James-Chakraborty (Ed.), *Proceedings of the fourth international conference of the European Architectural History Network* (pp. 272–284). Dublin: UCD School of Art History and Cultural Policy. Retrieved from https://eahn.org/app/uploads/2016/07/eahn_proceedings_2016.pdf

Haarhoff, E. (2010). *Practice and gender in architecture: A survey of New Zealand architecture graduates, 1987–2008.* Auckland: The University of Auckland.

Jackie Gilmore. (n.d.) *Internet Movie Database*. Retrieved from https://www.imdb.com/name/nm0319534/?ref_=ttfc_fc_cr40

Johnson, P., & Wigley, M. (1988). *Deconstuctivist architecture*. New York, NY: Museum of Modern Art.

Jones, P. (2009). Putting architecture in its social place: A cultural political economy of architecture. *Urban Studies, 46*(12), 2519–36. doi:10.1177/0042098009344230

Jones, S. M. (2011). Teachers and tipping points: Historical origins of the teacher quality crisis. In P. W. Rhode, J. L. Rosenbloom, & D. F. Weiman (Eds.), *Economic evolution and revolution in historical time* (pp. 336–356). Stanford, CA: Stanford University Press.

Kim Sinclair. (n.d.) *Internet Movie Database*. Retrieved from http://www.imdb.com/name/nm0801662/

Lloyd Jenkins, D. (2004). *At home: A century of New Zealand design.* Auckland: Random House.

Matthewson, G. (2009). You have no idea: Women in architecture in the eighties. In C. McCarthy (Ed.), *"... ponderous pedantic pediments prevail ... good, clean fun in a bad, dirty world": New Zealand architecture in the 1980s* (pp. 57–61). Wellington: Centre for Building Performance Research, Faculty of Architecture and Design, Victoria University of Wellington.

Matthewson, G. (2010). House work: Women and the Group. In J. Gatley (Ed.), *Group Architects: Towards a New Zealand architecture* (pp. 178–183). Auckland: Auckland University Press.

Matthewson, G. (2017). The gendered attrition of architects in Australia. *arq—Architectural Research Quarterly, 21*(2), 171–82. https://doi.org/10.1017/S1359135517000367

McKay, B. (2017). The counter-culture and its containment: The loose years. In J. Gatley & L. Treep (Eds.), *The Auckland School: 100 years of architecture and planning* (pp. 74–101). Auckland: School of Architecture and Planning, University of Auckland.

McLeod, M. (2012). The end of innocence: From political activism to postmodernism. In J. Ockman & R. Williamson (Eds.), *Architecture School: Three centuries of educating architects in North America* (pp. 160–201). Cambridge MA: MIT Press & Association of Collegiate Schools of Architecture.

Mirza and Nacey Research. (2017). *RIBA Education Statistics 2015/16.* Retrieved from https://www.architecture.com/-/media/gathercontent/education-statistics/additional-documents/educationstatistics201516pdf.pdf

Mitchell, D., & Chaplin, G. (1984). *The elegant shed: New Zealand architecture since 1945.* Auckland: Oxford University Press.

NZIA. (n.d.). *The NZIA Gold Medal.* Retrieved from https://www.nzia.co.nz/awards/gold-medal

NZRAB. (n.d.). *The New Zealand Architects Register*. Retrieved from https://www.nzrab.nz/Search/

Parlour. (2017). *The numbers in a nutshell: Women in architecture, Australia*. Retrieved from http://archiparlour.org/wp-content/uploads/2017/06/Numbers-in-a-Nutshell-2.pdf

Shannon, S. (1996). Architecture and equity: Education and practice. *Architectural Theory Review, 1*(1), 48–62.

Shannon, S., Webb, N., Zeng, Y., & Holder, J. (2014). Why architecture graduates do not register as architects: A quantitative and qualitative South Australian study, 1999–2011. *Creative Education, 5*. Retrieved from http://www.scirp.org/journal/ce

Shaw, P. (1991). *New Zealand architecture: From Polynesian beginnings to 1990*. Auckland: Hodder Moa Beckett.

Statistics New Zealand. (2017). *Population of New Zealand*. Retrieved from http://archive.stats.govt.nz/browse_for_stats/population/estimates_and_projections/historical-population-tables.aspx

Stevens, G. (2014). *Women in architecture 2: Squish those big swinging dicks*. Retrieved from http://www.archsoc.com/kcas/ArchWomen2.html

Stratigakos, D. (2016). *Where are the women architects?* New York, NY: Princeton University Press.

Sunday male. (1976, August 15). *Sunday News*, p. 4.

Twose, H. (2015, May 22). Executive success: It took a while to get up to steam. *New Zealand Herald*. Retrieved from http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11452604

University of Auckland. (1961). *The University of Auckland, Calendar 1961.* Auckland: Whitcombe and Tombs Ltd.

University of Auckland. (1969). *The University of Auckland, Calendar 1970.* Auckland: Whitcombe and Tombs Ltd.

University of Auckland. (1970). *The University of Auckland, Calendar 1971.* Auckland: Whitcombe and Tombs Ltd.

University of Auckland. (1976). *The University of Auckland, Calendar 1976.* Auckland: Whitcombe and Tombs Ltd.

University of Auckland. (1959–1994). *Convocation for the Conferment of Degrees and Diplomas, 1959–1994*.

University passes, studio I 15.410. (1976, December 6). *New Zealand Herald*, p. A11.

University passes, studio III 15.412. (1976, December 8). *New Zealand Herald*, pp. A1, A11.

University passes, studio 3 15.301. (1978, December 14). *New Zealand Herald*, p. A10.

University passes, studio 3 15.301. (1980, December 19). *New Zealand Herald*, p. B6.

Untitled. (1976, August 9). *The Auckland Star*, p. 5.

Victoria University. (1983). *Victoria University of Wellington, Calendar 1983.* Auckland: Whitcoulls.

Victoria University. (1984). *Victoria University of Wellington, Calendar 1984.* Auckland: Whitcoulls.

Walker, C. (Ed.). (2005). *Exquisite apart: 100 years of architecture in New Zealand.* Auckland: Balasoglou Books, for the New Zealand Institute of Architects.

Willis, J. (1998). Invisible contributions: The problem of history and women architects. *Architectural Theory Review, 3*(2), 57–68.

AARON PATERSON & MICHAEL DAVIS

Propagating a Legacy: Undisciplined Drawings and Evolving Technology

The University of Auckland's School of Architecture and Planning has a legacy of teaching and producing architectural media that challenges normative representations of the discipline. This was made evident in Auckland during 2017, at the School's centennial exhibition, *The Auckland School: 100 Years of Architecture and Planning* (Milojevic, Treep, Barrie, & Gatley 2017). It showed that although technology had changed many representation methods over the years, there has been a continuum of students developing idiosyncratic representation styles and an insistence on students demonstrating a critical position in representation. Since the 1980s, when the Auckland School developed a reputation as a "drawing school" (Barrie 2017: 108), a culture of rigorous media use has been cultivated by many teachers and through the shared memory of many beautiful drawings produced by students and staff. The "critical" approach to media was championed by Sarah Treadwell, who joined the School in 1981, and was originally employed to teach disciplinary types of drawings including plan, section, elevation, and axonometric. Teaching "criticality" can be described as a process of asking students to question why they are drawing in a certain way, and to see drawing, making, and architecture as intrinsically connected. Treadwell taught her students that the use of media was never a neutral act and could be much more than a mechanical representation process. The insistence that drawings could be considered a work of art put her at odds, in a collegial way, with Patrick Hanly, a painter of considerable note and a teacher of freehand drawing at the Auckland School. Treadwell recalled that Hanly refused to see architectural drawing as art. Instead, he saw it as a utilitarian form of representation, separate from his art practice (Treadwell 2016). Moving from the mechanical to the artistic and critical was in line with the theoretical turn and the growth of intellectual thoughtfulness throughout architectural academia. It represented a shift in how drawing, or media as it is now called, was taught at the Auckland School. Media now looked to challenge the dogma of the discipline and ideas of culture, gender, and occupation.

Students at the Auckland School are still encouraged to use representation as a means to explore ideas beyond building-as-usual, or to pursue the founding challenge of the academic journal most closely associated with the School, *Interstices*, as "the spaces between ideas" (About Interstices 2017). Traditionally, the School

has taken pride in understanding the periphery, rather than the cutting edge of technology, making students adept at exploring the pitfalls and unintended consequences of technology as well as challenging the discipline through its critical use of architectural and non-architectural media. Thus, Andrew Barrie, who had been a student in the Auckland School in the 1990s and was appointed as its Professor of Design in 2009, has observed that its reputation for representation has broadened in recent years from "drawing" to "making" (Barrie 2017: 125). This article considers how the introduction of architectural software focused solely on "making" in media may neglect a genuine legacy of students producing idiosyncratic graphic styles and exploring the periphery of the discipline in favour of mechanical drawing. It shows that criticality and making must coexist to continue the School's critical legacy in media.

Is the Auckland School's Critical Legacy at Risk from Normalising Software?

In design studio and media classes, the biggest threat from technology to the School's critical legacy does not come from cutting-edge technologies like virtual and augmented realities or robotics, to name a couple of upstart disruptors, but from architecture's flabby commercial middle, the promise of Building Information Modelling (BIM) software. Software packages like Revit and ArchiCAD are positively historic now, but this technology, more than others, still feels foreign in the studios of the Auckland School. The lack of uptake of industry-standard BIM software by students creates a schism between how the academy makes and how the profession draws. The question remains: To what extent should the Auckland School be a vocational tool for practice? BIM and other software with a bias towards fabrication and construction are viewed here as a normalising force that is descriptive (a "how-to" methodology), rather than speculative. BIM challenges the legacy of the Auckland School's resolve for students developing critical positions. It is argued here that the incorporation of BIM into media courses need not be at the expense of the situated practices concerned with the "what" of architecture if students are taught the disciplinary biases of the technology and use software as one tool among an array of options.

Methodologies over Software

Many schools across New Zealand and Australia feel pressure from the profession to deliver practice-ready graduates. It is often argued that students require new knowledge acquisition with a bias towards project delivery and media outcomes that are descriptive. The potential of BIM in practice is well established; it dissolves the gap between construction delivery, the production of design intent, and the transmission of information (Garber 2014: 120–27). BIM challenges the primacy of design and the divisions between disciplines as well as notions of collaborative authorship. Architects, as the controllers of the one-to-one digital model, are given back a lost agency during the construction process. All these positives in practice are problematised in academia when academics are pushed by industry to produce graduates that are BIM-ready or, more simplistically, Revit-ready. The resistance in academia is understandable given that the primacy of design in studio is at odds with the woefully poor design features of the BIM software. Peggy Deamer (2011) has championed a need for the integration of BIM

into architectural education, asking where it should be taught. Is BIM a software issue and, therefore, should it be taught as a support course or an elective? Or is it a new way to design collaboratively?

Architectural practitioners around the world have used BIM and parametric modelling to make innovative design responses that do not adhere to professional norms—to name a couple, the Perot Museum of Nature and Science designed by Morphosis (2012) and Kaohsiung Port Terminal by Reiser + Umemoto of RUR Architecture (2012–16). Similarly, architecture schools worldwide have embraced digital fabrication in their course programmes. Most schools have digital fabrication equipment and many offer programmes that specialise in transdisciplinary design research with a focus on constantly evolving digital technologies. For example, RMIT's Spatial Information Architecture Laboratory (SIAL) offers a Master of Design Innovation and Technology.[1] There is not a specific programme for digital fabrication at the Auckland School, but students are adept at picking up new technologies for fabricating including the use of robotic arms, 3D printing, and virtual and augmented realities. Barrie has consistently offered a postgraduate design stream focused on fabrication using timber technologies. When designing the learning objectives for a second-year media course at the Auckland School, we wanted to ensure that BIM and parametric techniques did not become the sole content of the course. However, we did want these techniques to assist students with form-making and the production of drawings that communicate fabrication thinking. For these reasons, we incorporated into the course BIM and other architectural software with embedded tendencies towards construction.

This course is taught during the third semester of a Bachelor of Architectural Studies (BAS) and follows on from the more speculative first-year introductions to media. The course is sequenced in the Bachelor's degree to enable students to consider the idiosyncratic nature of their workflows. BIM and parametric software are used to communicate spatial ideas as well as test fabrication and assembly. The course's learning outcomes push students to understand fabrication methodologies over BIM software, like Revit. It is important that BIM is integrated into an existing suite of media skills that assist with learning-by-making. These skills include hand drawing, physical and digital modelling, collage, and animation. The aim is to problematise BIM in relation to an overall workflow made up of a series of relationships between separate media practices.

Representation of Fabrication Methodologies in Architectural Media

What types of representations are produced when fabrication and assembly are pushed in a media course? Traditionally, drawings that explore fabrication, assembly, and tectonics have been particular tools of investigation in the dialogue between design and realisation. Jean Prouvé called these "constructive ideas" (Picon 1983), with the view that drawing constructs how architects design. Contrary to this insistence that drawing is the driver of design, digital modelling operations give primacy to the one-to-one model as both the object and constructible output of architecture. It is revealing that we revert to traditional architectural representation to tell the story of fabrication. This is because it ties back into the disciplinary history of architectural representation and allows

abstract critical thinking. Drawings produced by second-year media students include: unfolded / developed surface; exploded axonometric; axonometric; material assembly; façade / elevation study; digital fabrication cutting sheet; *analytique*—multi-informational drawings; and operative perspective. What knowledge do these drawings privilege and how does this measure up to the School's critical legacy of media?

A Contemporary Disciplinary Bias of the "How"

Architecture, as a spatial practice, often reveals its disciplinary knowledge through representations. In this respect, media is understood as discursive (Kulper 2013), representing the disciplinary knowledge and discourses privileged during different eras. Amy Kulper invokes Foucault's understanding of a discipline as a regime that produces knowledge. The contemporary operations of architecture's discursive representations reflect a shifting disciplinary bias towards "architectural images whose sole aspiration is to communicate the techniques of their own making" (Kulper 2013: 42). The digital fabrication cutting sheet (see Fig. 1) represents a merging of design and fabrication practice for the discipline. The drawing is a demonstration of its construction and assembly. Kulper claims that contemporary design research and architectural images of fabrication focus on the techniques and protocols of the design process and privilege the "how" over the "what". A danger for media pedagogy is that the technique may become the content. This concern is magnified when trying to incorporate BIM into media courses. Its normalising defaults and design tools overly predict formal outcomes to make all drawings look the same.

Fig. 1 Louie Tong, MArch(Prof) thesis student, Constructed pavilion and digital fabrication cutting sheet, 2016.

The bias of the "how" overshadows representations of the situated practice, or what Stan Allen refers to as the practice of architecture "marked by this promiscuous mix of the real and the abstract" (2009: xvii). Kulper asserts that:

> Architecture's disciplinarity is best represented by recognising the reciprocity of its techniques for making with the political, social and cultural

> contexts it engages. How architects do what they do is a critical aspect of the continuity of the discipline, but our disciplinary discourse must aspire to more (2013: 64).

Alessandro Zambelli in "The Undisciplined Drawing" argues that transdisciplinary drawings, sitting between the thresholds of disciplines, can be described as "undisciplined" (2013: 357–79). This undisciplined character is true for abandoned drawing types such as Piranesi's multi-informational drawings that use perspective in an uncanny, undisciplined manner. It could be argued that Piranesi's drawings are all about technique. However, there is also an implicit critique of the discipline because the drawings reveal the inadequacies of mid-eighteenth-century drawing conventions for communicating his aims. There is a long history of undisciplinary representation at the Auckland School, and it is important that contemporary students understand their drawings and other architectural representations as part of a discourse so that they may explore the space between the "how" and the "what".

Let's Do the Time Warp Again

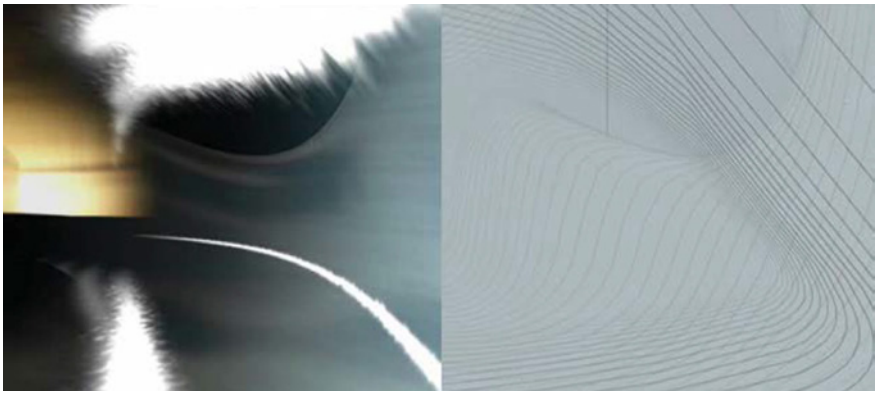
At this point, it is worth considering if there are pedagogical lessons to be learnt from the mainstreaming of the digital in the 1990s when this undisciplined intruder challenged the School's legacy of valuing hand-drafted speculative drawings. Studio culture was in flux at the turn of the century, with the introduction of computers and the way students used the design studio. In 1996, Jules Moloney, who was on the staff from 1995 to 2005, advocated for computer use in the design studio rather than their isolation into labs (Barrie 2017: 123). This bold strategy was adopted with poppy-coloured iMacs distributed around the studio spaces on levels 2–4 of the Architecture Building. Before the School refurbishments in 2002, there was an air of the "Wild West" about studio spaces, with students bringing their own furniture and creating ad hoc structures to house their cliques. This led to staff navigating student shanty towns with army-surplus tarpaulin tepees strewn across the studio and drawing boards used for makeshift communal kitchenettes. This lo-fi environment could not be further from the rigid fit-out and clear hierarchy between student and teacher that was instated in 2002 and continues today. Radical student experimentation was valued and rewarded as an outcome of this chaotic studio culture. This was a time before digital skills became prosaic and there was the view among students that their digital knowledge put them apart from practising architects who did not possess such skill. This is not to argue that the quality of the design projects being produced was better than the present; many celebrated student projects of the time had very little traditionally recognisable architectural content and left elder practising architects scratching their heads. The animations of the era seem pixelated and simple, the architectural equivalent of a first-generation cellphone, all chunky and oversized. However, there is something to be said for the spirit of the times, which fostered a level of creative representational radicalism that has scarcely been seen since. The "anything goes" attitude of the studio space enabled a critical adoption of digital tools.

The shift towards new digital representational techniques was made explicit in the comparison of the media of Sean Flanagan and Sam Cuttriss (see Figs. 2 and 3), both of whom were selected to represent the Auckland School in the 2000

New Zealand Institute of Architects (NZIA) Student Design Awards—an annual competition between New Zealand's three schools of architecture, in which each school is represented by four finalists. Without falling into false dichotomies of analogue and digital, Flanagan's detailed work was characterised by an approach to drawing that was esteemed at the Auckland School. Here, privilege was given to architectural composition that consisted of parts set in relation to other parts, an approach that was considered typical of work in the field of "modernist tectonics". Cuttriss' proposal for a synthetic expression took theoretical inspiration from American computer scientist and futurist Ray Kurzweil's *The Age of Spiritual Machines* (1999), which asserted the day was coming where human bodies would become synthetic, and would be eventually replaced by spiritual robots. In Cuttriss' words, his architectural exploration "critically engages the nature of synthetic space, and develops an environment as a continuation, an extension of reality. A substrate within which our synthetic other may exist" (Cuttriss in NZIA Student Design Awards 2001). This can be considered a moment at the Auckland School when architecture made an appearance outside its discipline and declared architecture's ability to merge its own and other disciplinary methods.

Fig. 2 Sean Flanagan, Auckland Regional Civil Defence Station, 2000.

Fig. 3 Sam Cuttriss, *Synthetic Expression* [Still from animation], 2000.



The digital turn of New Zealand architecture schools was slower to become mainstream when compared with others around the world. This was unceremoniously pointed out by Howard Raggatt, an adjunct professor at Melbourne's RMIT and the international judge for the 2000 NZIA Student Design Awards. Raggatt said he was given a "little fright" seeing New Zealand students still clinging to traditional pencils: "Computer-generated designs are entirely ubiquitous at RMIT," he explained,

> I would be shocked if anything else appeared—in fact I doubt the students can use a drawing board or physically write in the traditional sense. So, to walk into a room where graduates are producing work that is not a reproduction or output, but crafted like an art work, was a little shocking—like walking into a time warp (Raggatt in NZIA Student Design Awards 2001: 75–76).

Given Raggatt's penchant toward the new and digital it was not surprising that the winning project for the first year of the new millennium was a boundary-pushing digital animation full of speculative optimism, but bereft of human presence and traditional architectonic craft. A lament for the death of hand drawing followed, alongside recognition of an emerging digital craft (Davis 2009: 82–91) and media outcomes exploring new fields that included film animation, web design, and gaming. Although Cuttriss pushed furthest away from the School's legacy of valuing hand-drafted speculative drawings as outcomes, it did not diminish its insistence on the aesthetic and speculative at the forefront of emerging digital representational techniques. In retrospect, this was less about the death of the handcraft than the emergence of new areas of representation and hybrid experimentation.

The success of Cuttriss' proposal encouraged other students to explore the "digital", as it was referred to at the time. In effect, it was an un-nuanced marker for anything to do with a computer. In 2003, a close-knit group of students from the Auckland School produced an exhibition titled *Quickenings: Digital Film Architecture* (Bellard & Chua 2003). The exhibition explored the intersection of film, architecture, and the digital through final-year student work made between 1999 and 2002. Stand-out work included Melanie Tonkin's *Emotional City* (2002), an animation that examined a glitch in a prosaic landscape, resulting in a Turner-esque dematerialised space that challenged traditional orthographic and perspective representation (see Fig. 4). Equally challenging was Eu Jin Chua's *Wallpaper* (2000), which questioned the norms of "good taste" in architectural representation. The animation was a pointed response to disparaging comments

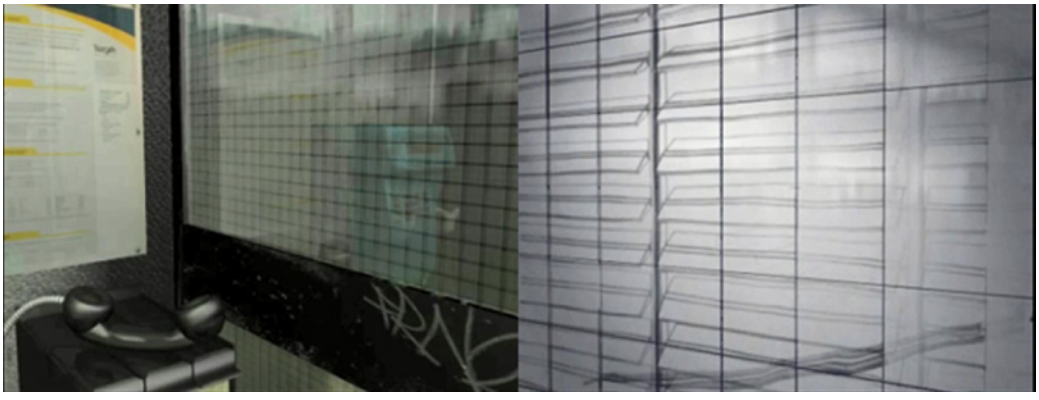


Fig. 4 Melanie Tonkin, *Emotional City* [Still from animation], 2002.

about interior design as "wallpaper", implying that interior design was the lesser art form compared to architecture.

The exhibition highlighted the transdisciplinary ambition of the Auckland School and its ongoing legacy of critique aimed at destabilising the bastions of architectural discipline. Sarah Treadwell summed up the zeitgeist in the *Quickenings* exhibition catalogue, drawing allusions to the weather as a metaphor for digital space and its connection to media practice:

> Weather is always about future conditions mapped with signs from the past. Architecture, too, is caught in a complex oscillation between representations weighed down by history and technologies that imagine a future in the present. Anxiety about weather is a consequence of its unpredictability, and architecture suffers a similar anxiety as it negotiates new forms arising from anticipated conditions and changing technologies. Weather and architecture, seemingly opposed states, can be seen to share aesthetic and social inclinations (Treadwell 2003: 20–22).

Quickenings' animations presented digital technique as content and, in an "undisciplined" moment, they also challenged the discipline's orthodoxies.

Fast-Forward to Now: Making, Hybridity, and the Undisciplined Drawing

If we take this "undisciplined" approach as a lesson about contemporary challenges in teaching architectural media, we can imagine how asking students to invest in the idea of fabrication could produce diverse media outcomes. Since the Auckland School's first digital turn, there has been a consistent emphasis on the hybrid use of media pointing to a continuation of explorations that attempt to reveal the "how" and the "what" of Kulper's dichotomy. Treadwell advanced a hybrid analogue and digital approach as the most productive way to solve architectural problems. With this model, students should be encouraged to move from one mode of representation to another to discover the potential and anomalies of each, as teaching media is not about the "technical acquisition of a skill, a digital skill, but rather it's a mode of critical thinking about the subject" (Treadwell 2016). This kind of hybridity suits the contemporary way that students learn the use of digital modelling, and BIM is one subset of media that students must master, along with physical modelling, digital fabrication, sketching, animation, and virtual and augmented realities.

Second-year media, as taught in 2017, continues the Auckland School's legacy of making, hybridity, and undisciplined drawing, where students are encouraged to examine the content of the construct represented. Students begin with sketching and generative model-making, which becomes the basis for a digital/BIM model that allows the students to focus on how to communicate fabrication and occupation. From here, digital collage and cut-out techniques are used to embed narrative into architecture, allowing stories to unfold. Drawing styles jump from fantastical to technical and are used to discover narrative content that exceeds the parameters of construction. The hybrid use of media is a consequence of a design workflow particular to each student assembling a portfolio with a range of media outputs. This forces the

student to think about the specific aspects of their practice and helps them to explore relationships between different types of media.

The portfolio of Vinayak Garg (see Fig. 5) exemplifies the work of recent and current second-year media students. He examined the narrative potential of merging fabrication ideas with a hybrid collage of media that included collage (cut out and digital), fabrication cutting sheets, plaster models from digital patterns, and animation. Garg's drawings are loaded with references to architectural precedents, from the drawn style of Superstudio to the built work of Louis Kahn. The construct's surface is embedded with characters from Hieronymus Bosch's oil painting, *The Garden of Earthly Delights* (ca. 1490–1505). An animation plays with the conventions of the exploded fabrication drawing. Similarly, Fin Forster's drawing for the course (see Fig. 6) uses a hybrid media process to test how a construct may be occupied and operated. Both drawings evoke worlds with numerous meanings and tectonic possibilities.

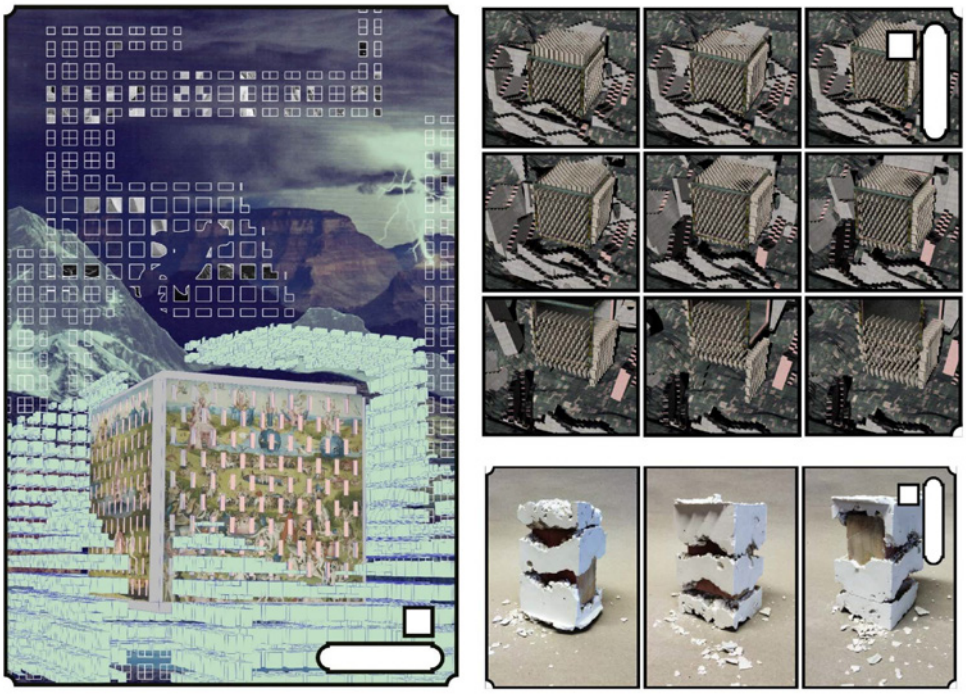


Fig. 5 Vinayak Garg, second-year media student, Collage combining plaster physical models, made from a BIM model, and animation, 2016.

The student work produced in this course reveals an interesting area of productive digital speculation that merges the fabrication potential implicit in BIM, Grasshopper, and collage techniques. Sam Jacob sees the speculative value in "collage culture" that privileges curation, editing, narrative, assemblage, and Photoshop. This type of post-digital representation offers a reconnection with architectural images as "polemical assemblages". Jacob states,

> The digital drawing tools we now have at our disposal have changed the relationship we now have to images—both as we consume and make them. But at the same time these tools can allow us to engage with the long disciplinary history of architectural representation (2017).

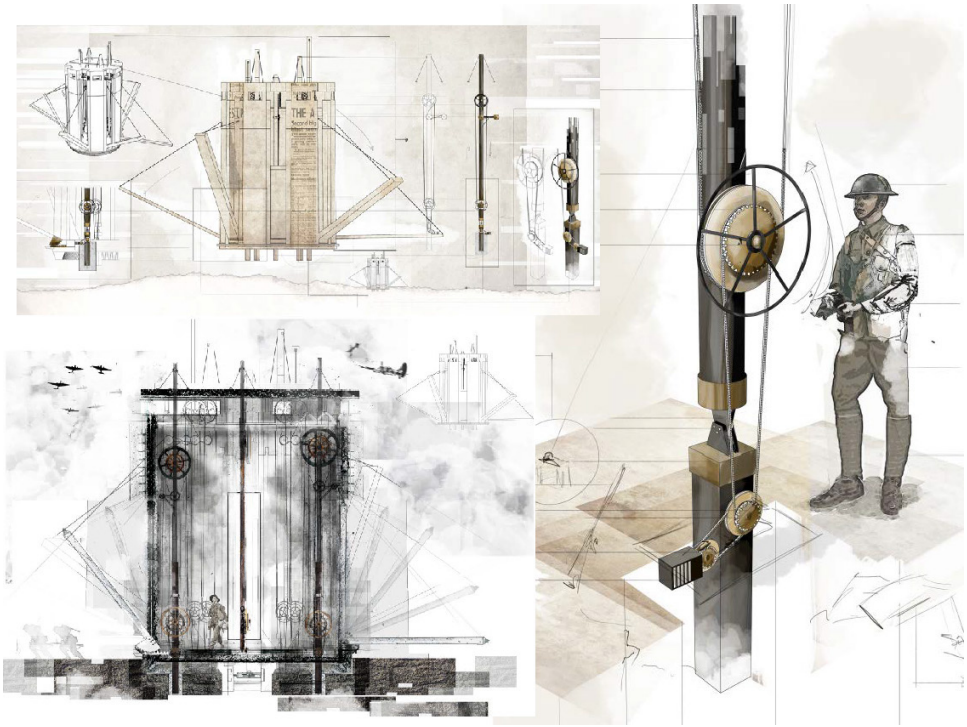


Fig. 6 Fin Forster, second-year media student, Hybrid drawing, 2017.

The hybrid collages point to ways forward that continue the speculative legacy of media while embracing fabrication and BIM. The introduction of BIM into studio, while important, should not be a primary aim without critically positioning it within a workflow. BIM is not implicitly obvious in the drawings; it is subsumed in the process, making part of the drawing possible and leading the work to a place that embraces fabrication, materiality, texture, and craft unexpectedly. These hybrid drawings express an interest in a compositional tectonic of parts. Curiously, this is a move back to Flanagan's tectonic expression as distinct from Cuttriss' atmospheric surface with students toggling between the abstract and the real.

Since the 1990s, the syllabus has shifted from teaching the disciplinary drawing of plan, section, elevation, axonometric, and physical modelling. Digital modelling and animations have been added to this media suite. Now we accept that media practice informs design. We talk about communicating fabrication thinking and encourage students to embrace the engagement potential of augmented and virtual realities. One element that is consistent between eras is the desire to teach students to understand the privileged disciplinary knowledge behind media positions and to raise questions about what constitutes creative engagement with drawings and technology. In this way, BIM, as a tool for the communication of fabrication thinking, can be used critically rather than merely describing learning outcomes. It is vital that we encourage students to think beyond the act of representation, demonstrate their understanding of drawing as part of a larger discourse, and produce undisciplined drawings where appropriate. In this way, we will see the propagation of the Auckland School's critical legacy.

ENDNOTES

[1] For an overview of RMIT's Master of Design Innovation and Technology (MDIT) coursework programme, see http://www.sial.rmit.edu.au/sial-study/

REFERENCES

About Interstices (2017). *Interstices: Journal of Architecture and Related Arts*. Retrieved from http://interstices.ac.nz/about-interstices/

Allen, S. (2009). *Practice: Architecture, technique and representation*. New York: Routledge.

Barrie, A. (2017). "Architecture to a fault": The postmodern years. In J. Gatley & L. Treep (Eds.), *The Auckland School: 100 years of architecture and planning* (pp. 102–127). Auckland: School of Architecture and Planning, University of Auckland.

Bellard M., & Chua, E. J., curators. (2003). *Quickenings: Digital film architecture*. Auckland: Film Archive, February 20–April 2.

Chua, E. J. (2000). *Wallpaper* [animation / MP3 file]. Auckland.

Davis, M. (2009). Maintaining the abstract critical facility in post-digital drawing practice. *Interstices: Journal of Architecture and Related Arts, 11*, 82–91.

Deamer, P. (2011). Introduction. In P. Deamer and P. G. Bernstein (Eds.), *BIM in academia*. New Haven, CT: Yale School of Architecture.

Garber, R. (2014). No more stopping. In *BIM design: Realising the creative potential of building information modelling* (pp. 120–127). Somerset, GB: Wiley.

Jacob, S. (2017). *Drawing as project: Post-digital representation in architecture*. Retrieved from http://strangeharvest.com/wp17/?p=4047

Kulper, A. C. (2013). Representing the discipline: The operations of architecture's discursive imagery. *Architecture and Culture, 1*(1), 42–66.

Kurzweil, R. (1999). *The age of spiritual machines: When computers exceed human intelligence*. New York: Viking.

Milojevic, M., Treep, L., Barrie, A., & Gatley, J., curators. (2017). *The Auckland School: 100 years of architecture and planning*. Auckland: Gus Fisher Gallery, September 8–November 4.

NZIA Student Design Awards. (2001). *Architecture New Zealand*, January–February, 75–78.

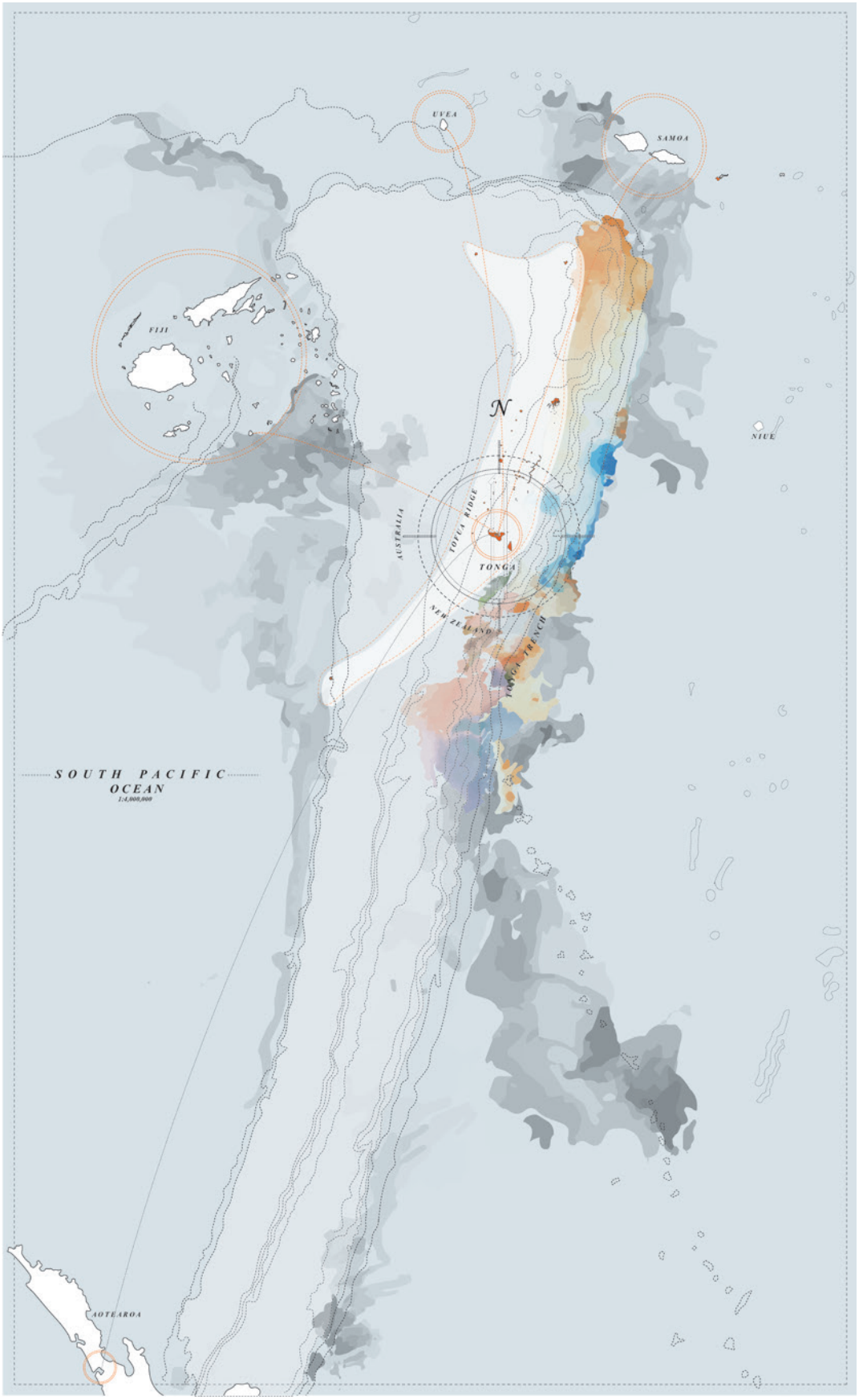
Picon, A. (1983). Is drawing dead? In *Jean Prouvé: l'Idée constructive*. Paris: Dunod.

Tonkin, M. (2002). *Emotional city* [animation / MP3 file]. Auckland.

Treadwell, S. (2003). Digital weather: Pacific space. In E. J. Chua & M. Bellard (Eds.), *Quickenings: Digital film architecture* [Exhibition catalogue] (pp. 20–22). Auckland: The NZ Film Archive.

Treadwell, S. (2016, September 28). Personal interview with L. Treep, Auckland.

Zambelli, A. (2013). The undisciplined drawing. *Buildings, 3*, 357–379.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LUCY VETE

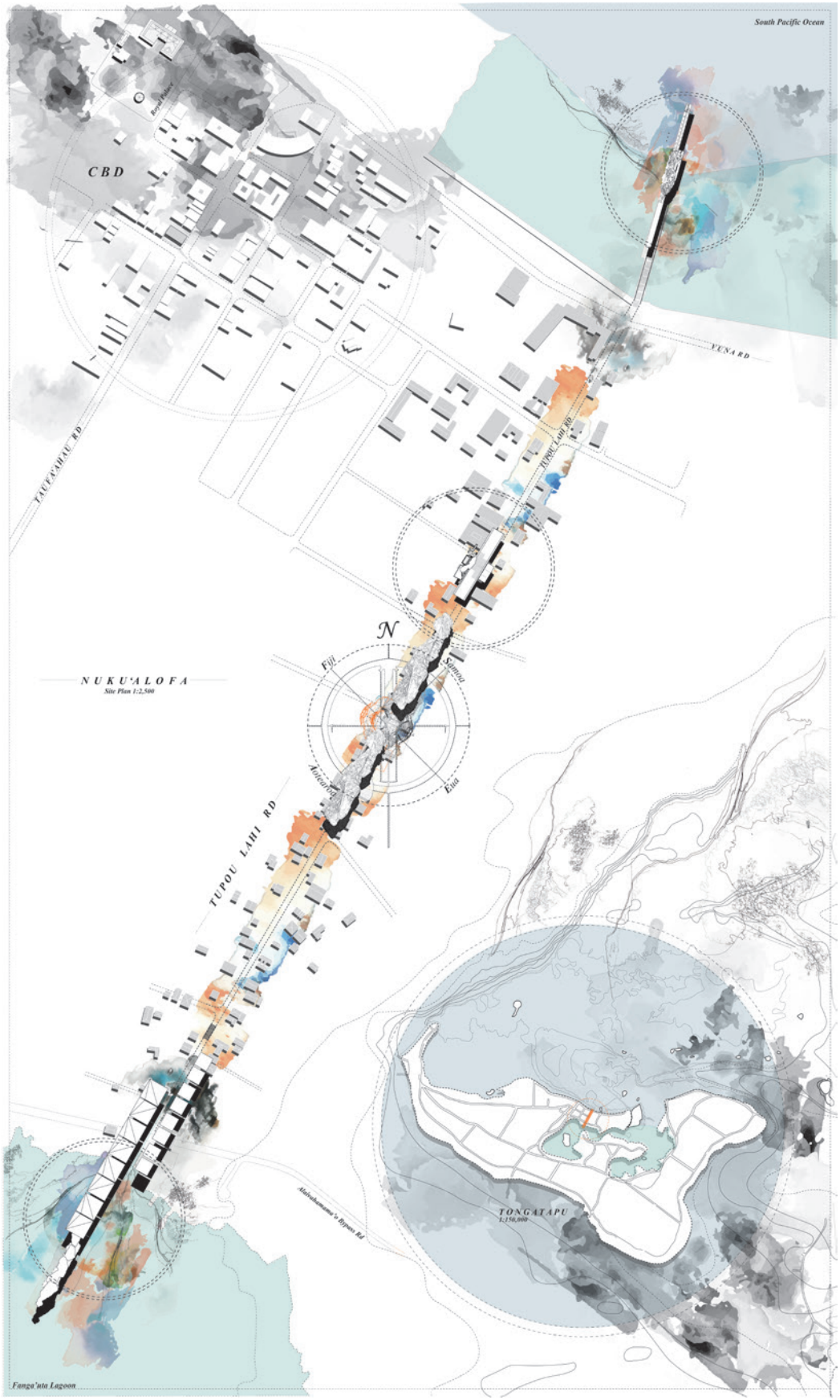
NZIA Student Design Awards Winner, 2017

Shifting Grounds: Conceptions of the Homeland and the Journey to Emergence

Postgraduate Creative Design Research Project

Shifting Grounds explores the convergence of the past and present, and of the physical and social worlds in a journey through the emergent possibilities of Tonga and its people. As a "home", "homeland", and "imaginary homeland", Tonga exists as a malleable construction of ideas, stories, traditions, and history. This thesis draws from these numerous "conceptions" and presents a projective imagining of how architecture can be used to stimulate progression and movement in the everyday social realm.

The project imagines a trajectory of composed social spaces along the north-eastern axis of Tupoulahi Road, within the heart of Nuku'alofa. Binding across the "homeland" from one body of water to another, the project responds to the expansive conception of Tonga; integrating expressions of cosmological stories and domains as a way to reimagine social space and create an architecture of emergence. The act of journeying becomes an inherent and necessary process for the formation of the scheme, taking precedent from the dynamic history of exchange between islands in and outside Tonga's archipelago. This active and constantly shifting network of islands mirrors the emergence and dissipation of its people. As contemporary way-finders, Tongan communities have grown and developed "oceans" away in new lands and surroundings. Central to the core of this thesis research is the exploration of a contemporary Tongan condition that actively seeks to encompass these communities of the growing diaspora. Here, architecture functions as a catalyst for the translation of these ideas and stories into spatial and material expressions. As a reimagining and portrayal of social space, the project speculates on the nature of identity and perception on Tongan ground and asks, How can the various conceptions of Tonga help to inform an architecture for and about Tongans?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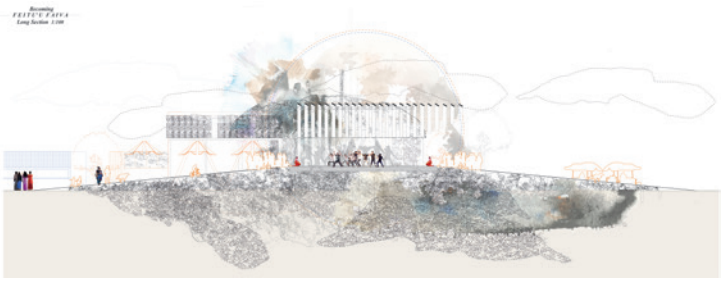
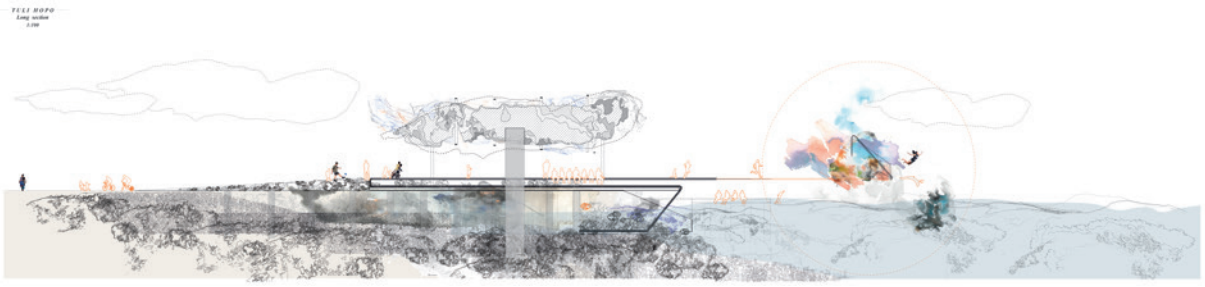
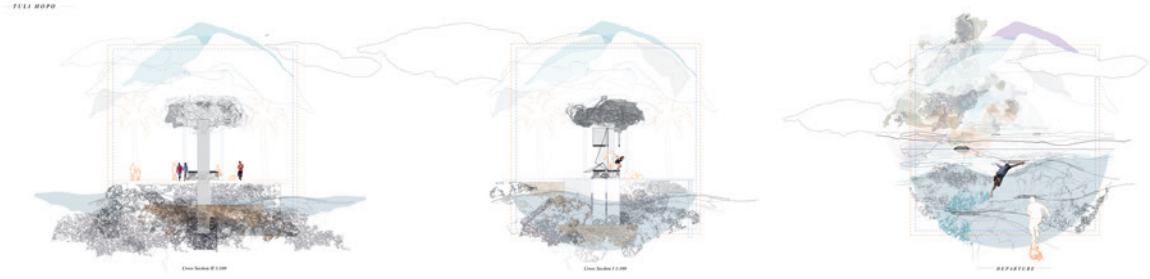
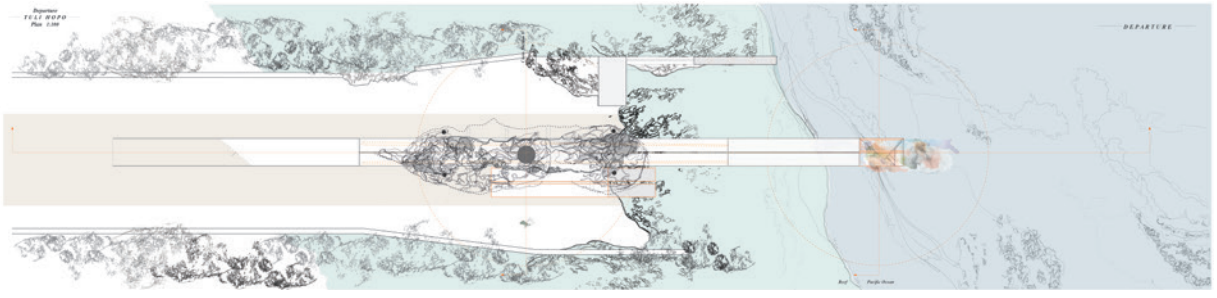








PHOTOGRAPHIC RECORD

Auckland School of Architecture and Planning Centenary, 2017

As noted in the editorial to this special issue of *Interstices*, the University of Auckland School of Architecture and Planning marked its centenary in September 2017 with a book on the history of the School, four exhibitions, the symposium at which the refereed articles in this volume were presented, a series of panel discussions with alumni, and a gala dinner. Presented here are photographs from the exhibitions and the dinner.

The Auckland School: 100 Years of Architecture and Planning

The main School centenary exhibition, *The Auckland School: 100 Years of Architecture and Planning*, curated by Michael Milojevic, Lucy Treep, Andrew Barrie and Julia Gatley, was held at the Gus Fisher Gallery. The exhibition focused on student work produced across the 100 years, particularly drawings, as well as coverage of key staff, publications and stories.

Photographs by Sam Hartnett, for the Gus Fisher Gallery.

Design Studio in Action

The exhibition of current student work, *Design Studio in Action*, was curated by Manfredo Manfredini and Uwe Rieger, and held in the School's Level 3 Exhibition Studio. It included drawings and models as well as digital work, with exhibition goers invited to use headphones to listen to recordings of students talking about their work.

Photographs by Joe Hockley, for the NZIA Festival of Architecture.

100 Years, 100 Books

Michael Milojevic and Sarah Cox curated a series of eight exhibitions throughout the centenary year, under the broad banner of *100 Years, 100 Books*, shown in the Architecture and Planning Library. The eight were:
(i) *Words and Pictures: "The Architecture Book" as a Conveyor of Architectural Information*;
(ii) *The Civic*;
(iii) *Observe and Record*;
(iv) *The Glossies: Architectural Periodicals*;
(v) *Architecture + Photography*;
(vi) *Beautiful Theses: Students as Book Designers*;
(vii) *The Technical Detail*; and
(viii) *Essentiality and Sensibility*.

Photographed here are *The Civic* (top left) and *Words and Pictures* (top right; Photographs by Sarah Cox); *Architecture + Photography* (Photograph by Johanna Holzke).

100 Years of Architecture by Women

Architecture + Women New Zealand have exhibited their timeline on several occasions since 2013. The 2017 version, *100 Years of Architecture by Women*, included the addition of dark blue panels carrying the names of women architecture students from the 1920s to the 1970s.

Photographs by Joe Hockley, for the NZIA Festival of Architecture.

Alumni Gala Dinner

The culminating centenary event was an alumni gala dinner, held at the Pulman Hotel and attracting 280 people. Senior lecturer Elizabeth Aitken Rose served as MC, while the late David Mitchell delivered an outstanding speech, reflecting on the School and its history, and Courtroom Brown, a band of architecture graduates, provided a musical interlude.

Photographs by Andrew Lau Photography (http://andrewlauphotography.com).

review / SAM KEBBELL

Penumbral Reflections
Sarosh Mulla and Aaron Paterson
Objectspace, Auckland
May 12–June 23, 2018

Fig. 1 A big black egg in an orthogonal nest? [Photograph by David St George]

There is something slightly disconcerting about walking into an unfamiliar dark room, especially when there is a weird thing in the middle of it, but it also ignites my curiosity. The room, in this case, is the main gallery at Objectspace, and the weird thing was made by Aaron Paterson and Sarosh Mulla, both of PAC Studio and the University of Auckland School of Architecture and Planning. At first glance, it looks like a big black egg in an orthogonal nest, but it's not.

What is it? The big black egg is in fact a dark-tinted reflective disc. From the side at which I arrived, it is totally black, which is why it looks like an egg, but when I move around it I can see it has a slightly convex curve that distorts

the reflections of the projectors aimed at it. I read in the project description on the wall that it is a Claude glass. Wikipedia tells me that in the eighteenth century, a Claude glass was a portable black-tinted convex mirror that tourists and landscape painters used to turn expansive views of the landscape into an image, so I am looking at a Brobdingnagian version of that. The nest is not really what I thought either. As random as the framing appeared when I walked in, it is actually a finely made metal frame that forms a 3.6 x 3.6 x 3.6-metre cube with vertical members spaced evenly down each side and embedded within it is a slightly rotated framework of similar proportions. The shadows of the frame appear on the Claude glass and in the puddle of light in front of it. The rotated smaller framework sets up a diagonal geometry that also provides some lateral bracing. There are projections on the walls behind us too, which were produced in gaming engines as a digital simulation of certain visual qualities in the metal contraption.

How do I look at it? If I was an eighteenth-century painter using this Claude glass, these projections are where the landscape would be. I would be using the Claude glass to look at that landscape, but here I am inclined to use that landscape to look at the Claude glass. Partly because I prefer to look at the finely crafted object and the complex play of light and shadow across it rather than the projected pixels on a flat wall. I circle it a few times wondering if I might stand in the puddle of light and take a good hard look into the Claude glass as

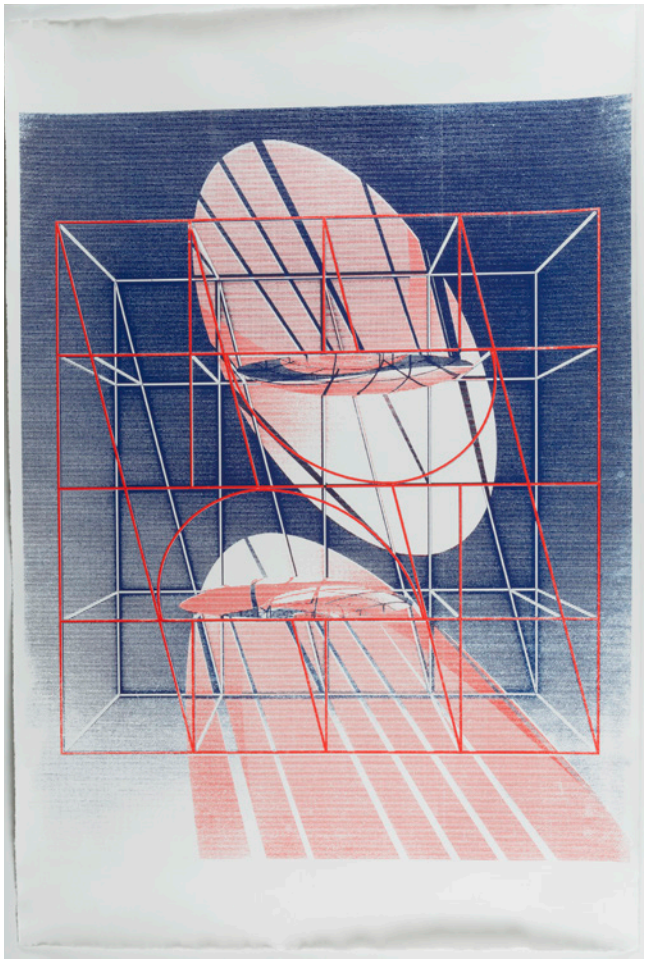


Fig. 2 Screenprint made as part of the design process. [Screenprint by PAC Studio]

Penumbral Reflections
Sarosh Mulla and Aaron Paterson
Objectspace, Auckland
May 12–June 23, 2018

Figs. 3-6 The Claude glass, the frame that supports it, and the various projections. [Photographs by David St George]

if staring into a giant eyeball. The gallerist senses my timidity and invites me to climb on in, so I do. I get very close to the Claude glass, but I don't touch it. I promise. It looks like polished metal, but the reflections make it hard to focus on the surface itself. It is more like peering into a strange phantasmagorical scene with my own eyeballs in the foreground. When I turn around though, I see my colleagues and a more prosaic reality takes over my mind. I start to think, if I had time, this might be quite a nice spot to pull up a few chairs and kick back with a drink. A sort of belvedere in a digital landscape.

I can imagine looking out at this digital landscape and pondering one of the fundamentals of our trade: light, in its various forms and with its range of implications. The way light and dark produces apparent depth, even if the surface is in fact flat. The way a complete lack of tonal variation produces a totally different kind of depth, the kind of infinite depth James Turrell has so often produced, and that the Claude glass is capable of here. It is a relatively

dark room to ponder light, but maybe that in itself is something to ponder. Even though light and shadow are a phenomenological couple, light has been the dominant partner under modernist regimes. In this sense, it is refreshing to wallow in the dark thinking about light.

This contraption is also a good vantage point to ponder the tension between realities and digital simulation, given that screens, projected images, and pixels are very much part of our contemporary reality. On one hand, I ponder the exhibit as a string of simulations: projected images that simulate aspects of a contraption, and a contraption that simulates certain architectural qualities. On the other hand, I am conscious that all these simulations form the reality of the gallery space I am standing in. So I think of it all as both simulation and reality; I am both part of PAC's architecture, and part of their thinking about it. All this serves to reflect on the creative processes PAC explore, and their relishing of the movement between different modes of architectural production.

Along this line of thought, it is hard not to consider PAC's built work and the frequent use of dark timbers, shadowy interiors, enclosed courtyards, and expressed framing. This room feels like an elaboration on those qualities but it pushes them to new extremes. It will be interesting to see if the built work also becomes more extreme as a result of this exercise. Pieces of this exhibit will be relocated to the Waikereru Ecosanctuary near Gisborne, and this might give us a clue to how this thinking will play out in larger buildings later.

PAC's buildings matter to this exhibition because for all the play with simulation, it remains committed to architectural experience. While the Claude glass does introduce certain narrative layers, the exhibition is not a representation of an idea that belongs outside of architecture. It relies less on some external narrative than on the attention I pay to my experience in the room, and the histories and potentials that surround that. Yes, the Claude glass is a historical device for looking at the landscape, and that's not what is happening here, but the mechanics of the device have been co-opted at an architectural scale to look at architectural surroundings. The Claude glass is not a metaphor here; it remains an instrument.

In fact, the whole exhibition is an instrument, a kind of multi-tool running on the fuel of light and shadow. I think it has less representational value than operational value. It is a contraption to produce depth, illusion, and distortion. It flips between reality and simulation, and it exposes creative fascinations with light and shadow. It is never quite what I think it is, and simple interpretations of it never quite resolve. But however much I slip off one idea and into another, I always feel immersed in architectural thinking: in drawing, digital modelling, experimenting with light, framing, looking, and fashioning some future situation.

At this stage in the reflections, sitting in my real-imaginary belvedere, I have been utterly drawn into PAC's web. The various modes that architecture must exist within cannot easily be pulled apart on a clear day, and this contraption tangles them up even more. It is full of rich ambiguities, and insights into their multi-modal practice. This weird thing in the middle of the room is a real thing, for sure, but it also operates between the realms of simulation, representation, and imagination. I have been invigorated by the exchange between them.

photographic essay / PATRICK REYNOLDS
words / JULIA GATLEY

KRTA's Conference Centre Building, 22 Symonds Street, Auckland

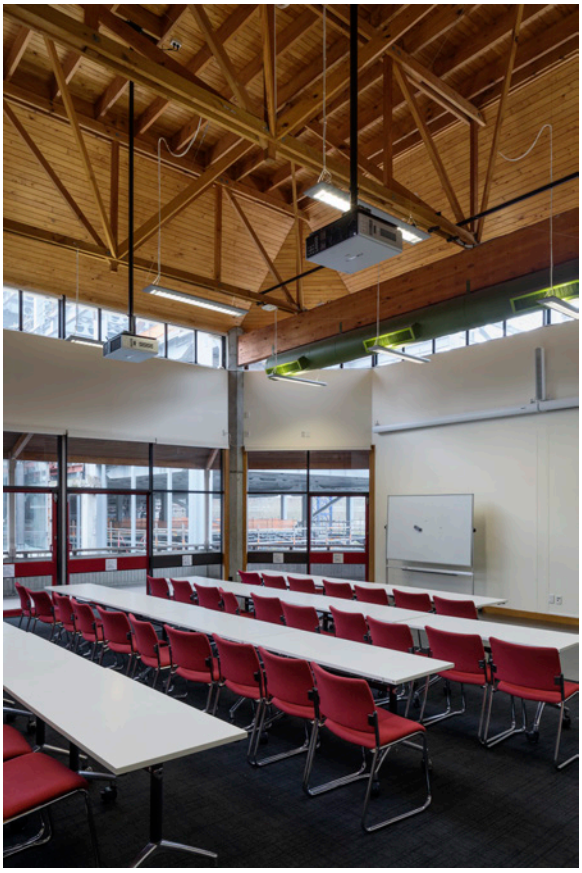
Fig. 1 The complex roof forms, with the Architecture and Planning Library in the foreground. It sits back-to-back with the Design Theatre (under the turret), with the Dean's Office to its left (south), and the Conference Centre Lecture Theatre and so-called Flat Floor Space to the right (north). Construction of a new building for the Faculty of Engineering is underway.

In 2018, the University of Auckland's School of Architecture and Planning commissioned Patrick Reynolds to photograph the University's Conference Centre Building, ahead of its likely demolition in 2019 or 2020. The University also announced, in mid-2018, that it would be closing the three branch libraries of the Faculty of Creative Arts and Industries and consolidating their collections into the General Library Building on Alfred Street. The three are Architecture and Planning; Music and Dance; and Fine Arts. As the Conference Centre Building is home to the Architecture and Planning Library, this photographic essay records the library ahead of the relocation of its collections, as well as the building ahead of its demolition. Bill McKay has discussed the design and construction of the building in the School's centennial history publication (2017: 79–81, 93–97). Here it suffices to say that both the high-rise Architecture and Planning Building at 26 Symonds Street, and its low-rise wing, the Conference Centre Building at 22 Symonds Street, were designed by Kingston Reynolds Thom & Allardice

(KRTA) from the early 1970s (Patrick Reynolds' father Ian Reynolds was a partner in KRTA and contributed to the project from the outset). The Architecture and Planning Building was built as Stage I from 1975 to 1978, with Blair White serving as project architect. The Conference Centre Building followed as Stage II, with Derek King as project architect, and was opened in 1982. Building users have long appreciated the complexity of the Conference Centre Building's roof forms, the generosity of its foyers and stairs, the material palette of off-form concrete and exposed timbers, the informality of the Design Theatre, and the volume and luminosity of the library.

Fig. 2 The building's courtyard façade, originally designed around oak trees. The trees were felled 2013, following a particularly hot, dry summer and the partial collapse of one of the trees in a storm.

Fig. 3 The entry identifies the building by its current name. To its right is the exterior wall that originally displayed Pat Hanly and Claudia Pond Eyley's large mural, now moved inside to help ensure its longevity.



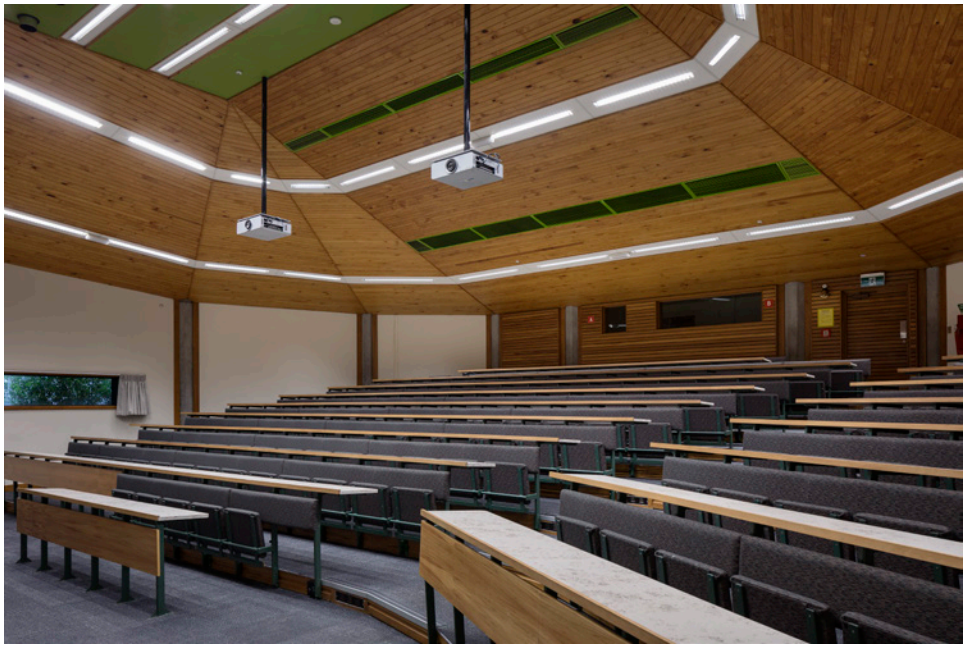


Fig. 4 The Flat Floor Space benefits from a high ceiling with exposed timber trusses and rafters, and timber sarking.

Fig. 5 The Design Theatre, notable for its comparatively small scale, high ceiling, top lighting and Harold Marshall-designed acoustic panels. The chairs and writing tablets were a later addition.

Fig. 6 The Conference Centre Lecture Theatre, now with replacement seats and writing ledges. The timber ceiling and detailing add interest.

Fig. 7 The off-form concrete wall of the Design Theatre, now adorned with Pat Hanly and Claudia Pond Eyley's mural, signed too by Professor Allan Wild, Dean of the Faculty from 1969 to 1993.

Fig. 8 The generous stair from the entry level down to the Architecture and Planning Library. The concrete block wall shows the ghostly traces of Architecture + Women New Zealand's timeline, posted for the School centenary in September 2017 and removed in August 2018 after an 11 month showing.

Fig. 9 Entrance to the Architecture and Planning Library, where the walls have presented an ever-changing array of exhibitions of books, journals, posters, and drawings.

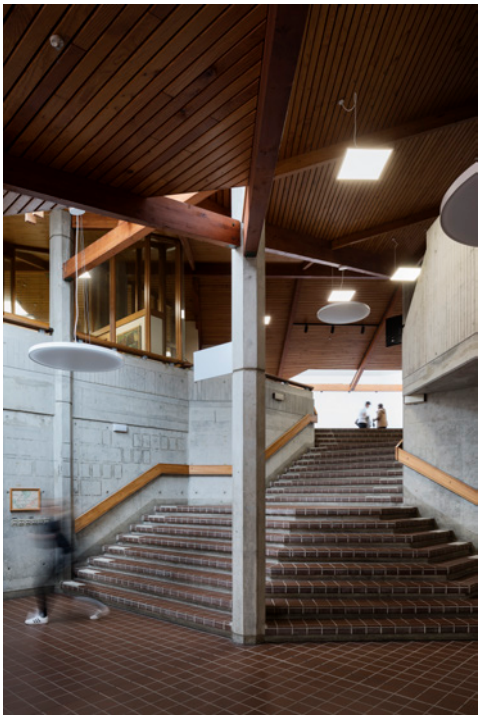


Fig. 10 Allan Wild described the building as "an Arabian tent beside a city wall" (in Robertson 1982: 29). The sense of the tent is apparent upon entry to the Architecture and Planning Library, where the high ceiling and top lighting combine to produce a sense of volume and luminosity.

Fig. 11 In addition to the collections of books and journals, the Architecture and Planning Library has long displayed student drawings and models, all of which contribute to its character and atmosphere.

Fig. 12 The Architecture Archive, combining drawing cabinet upon drawing cabinet of large format work, box upon box of files, and a compactus of old books and journals.

REFERENCES

McKay, B. (2017). The counter-culture and its containment: The loose years. In J. Gatley & L. Treep (Eds.), *The Auckland School: 100 years of architecture and planning* (pp. 74–101). Auckland: School of Architecture and Planning, University of Auckland.

Robertson, K. (1982). The man in his castle. *Home and Building*, 5, p. 29.

bios

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Dr Michael Davis is Director of Architecture Programmes at the University of Auckland School of Architecture and Planning, where he also teaches and researches in architectural design and architectural media. A registered architect, he has practised in New Zealand, Canada, and the Netherlands. His project experience spans from high-density housing to heritage retro-fits, and from government buildings to resorts in locations from Ethiopia to New Caledonia. He holds a PhD from RMIT (Melbourne) and a Master of Architecture in Architecture and Urbanism from the Architectural Association's Design Research Laboratory (London).

ROBERT FREESTONE

Dr Robert Freestone is a Professor of Planning in the Faculty of Built Environment at the University of New South Wales. His research interests are in planning history, metropolitan and airport planning, heritage, and education. His books include *Planning Metropolitan Australia* (2018), *Dialogues in Urban and Regional Planning 6* (2017), *Place and Placelessness Revisited* (2016), *Urban Nation: Australia's Planning Heritage* (2010), and *Urban Planning in a Changing World* (2000).

JULIA GATLEY

Associate Professor Julia Gatley is Head of the School of Architecture and Planning at the University of Auckland and an historian of twentieth-century New Zealand architecture. She has published four books with Auckland University Press: *Vertical Living: The Architectural Centre and the Remaking of Wellington* (2014, with Paul Walker); *Athfield Architects* (2012); *Group Architects: Towards a New Zealand Architecture* (2010); and *Long Live the Modern: New Zealand's New Architecture, 1904–1984* (2008). She also co-edited, with Lucy Treep, *The Auckland School: 100 Years of Architecture and Planning*, published in 2017 on the occasion of the Auckland School of Architecture and Planning's centenary.

SAM KEBBELL

Dr Sam Kebbell is a Senior Lecturer in the School of Architecture at Victoria University of Wellington (VUW) and a director of KebbellDaish Architects. He graduated with a BArch(Hons) from VUW and an MDes (History and Theory) (Dist) from Harvard in 1999 before working in Europe and North America. He has won numerous awards for his work and has presented to both academic and professional audiences in New Zealand and around the world. In 2015, Sam won an ADAPT-r Research Fellowship at the University of Westminster, London, and he completed his PhD at RMIT in 2016.

MILICA MAĐANOVIC

Milica Mađanovic is the first recipient of the Murray Wren Doctoral Scholarship in Architecture at the University of Auckland. In the School of Architecture and Planning, she is preparing her thesis on architectural historicism. She is employed as a teaching and marking assistant at the University of Auckland, and as a part-time lecturer at Unitec Institute of Technology, Auckland. Milica has written several papers published in peer-reviewed journals, and has presented papers at a number of conferences.

GILL MATTHEWSON

Dr Gill Matthewson has a background as a practising architect in Britain and New Zealand and continues to design. She has a longstanding interest in women in architecture, which has encompassed scholarly work, activism, and advocacy from the 1980s onwards. The latest manifestation of this concern is her PhD thesis, "Dimensions of Gender: Women's Careers in the Australian Architecture Profession", which was conferred by the University of Queensland in 2015 and earned a Dean's Award for outstanding thesis. Gill is

currently teaching at Monash University in Melbourne.

ANN MCEWAN

Dr Ann McEwan is an independent scholar and the principal of Heritage Consultancy Services (est. 2006), which provides heritage policy and assessment services throughout New Zealand. She has lectured in architectural history and heritage conservation at the University of Waikato and the University of Auckland and was a foundation member of the Auckland Council Heritage Advisory Panel. Ann is the Registers Coordinator for DOCOMOMO NZ and since 2011 has written a weekly heritage building column for the *Waikato Times*.

AARON PATERSON

Aaron Paterson is an architect and a director of PAC, a collaborative ideas-driven architecture studio, committed to intellectual and artistic rigour and to realising ideas in the world. Aaron's buildings range from houses and community facilities to commercial projects and even the Giraffe House at the Auckland Zoo. He has earned New Zealand Architecture Awards for the Lake Hawea courtyard house and the S-House (see www.p-a-c.nz). Aaron is also a part-time lecturer in the School of Architecture and Planning at the University of Auckland, and a regular contributor to architectural publications.

PATRICK REYNOLDS

Patrick Reynolds is a perpetual student of the urban world. He is deputy director of advocacy groups Greater Auckland and Urban Auckland, and serves on various public sector boards. He writes about urban futures, and has taught urban design papers at the University of Auckland's School of Architecture and Planning. He is also New Zealand's leading photographer of the built environment, with numerous books to his name, including *New New Zealand Houses* with John Walsh, *Architecture Uncooked* with Pip Cheshire, *Villa* with Jeremy Salmond and Jeremy Hansen, and *Bungalow* with Nicole Stock.

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Dr Christoph Schnoor is an Associate Professor of Architecture at Unitec Institute of Technology, Auckland, where he has worked since 2004. Lecturing in the history and theory of architecture, his main research fields are modernist architecture (with specific focus on Le Corbusier and Ernst Plischke) and colonial and post-colonial architecture in Samoa. At present, he is working on an intellectual biography on Ernst Plischke, to be published in both German and English editions.

LINDA TYLER

Associate Professor Linda Tyler has taught art and design history at Canterbury, Victoria, Waikato, and Auckland universities and at the Dunedin School of Art and Unitec. She is currently convenor of the Museums and Cultural Heritage programme at the University of Auckland. She has a particular interest in the legacy of Bauhaus pedagogies promoted in post-World War II Aotearoa by émigré architects and designers. She is an Associate Emerita of the Auckland War Memorial Museum, and a Research Associate of the Museum of New Zealand Te Papa Tongarewa.

LUCY VETE

Lucy Vete completed her Master of Architecture (Professional) at the University of Auckland School of Architecture and Planning in 2017. With her thesis project, "Shifting Grounds: Conceptions of the Homeland and the Journey to Emergence", she won the top prize in the annual NZIA Student Design Awards that year. This national competition is held across New Zealand's three schools of architecture. Upon completion of her thesis, Lucy spent the first half of 2018 travelling solo across the United States and Europe, and then took up a position with Architectus in Auckland.

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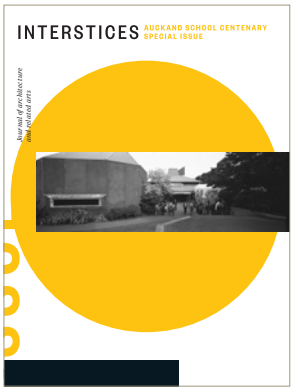

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Founders Grotesk, Tiempos Text
Klim Type Foundry

Production
Catherine Griffiths and Louise Belcher

Web programming
Steve Huynh

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