Zig-zags, maples, and "[t]he pitfalls of façade first design": inside University House on Bowen Street, Wellington

Christine McCarthy

ABSTRACT: This paper examines the design origins and interior of the now demolished University House (Prouse and Wilson, 1940-41), also known as the University Senate Building and the University Grants Committee Building.

Introduction

Information about University House,[1] designed by Wellington architectural firm Prouse and Wilson, is a mere caption in New Zealand's architectural history. Prouse and Wilson is a descendent of the firm Hoggard and Prouse. The senior partner, William John Dewitt Prouse (1877-1956) was a talented musician and a well-connected Wellingtonian, who has largely been neglected as an architect.[2] The design of University House has been credited to the firm's other partner, Norman Frank Wilson (1901-73), by his daughter,[3] a claim supported by signatures on contract drawings.[4]

I first came across University House in a striking photograph published in Hodgson's *Looking at New Zealand Architecture* (Figure 1). The sophisticated geometry of the building is amplified by its reflection in a construction site puddle. Hodgson described the building as "an essay in monolithic concrete construction and conglomerate composition with much visual rhythm both in itself and when producing patterns of light and shade in the sun."[5] He noted that the building's bold form made ornament unnecessary, and that "this gem of an administrative building" was demolished in 1987.[6] Hodgson's caption is the most sustained commentary on the building, though Wilson's daughter (Joan Helliwell) adds that the building - designed the year that Prouse's wife, Ava,[7] died - was known as Ava's building by her family because her younger sister Ava - named after Prouse's wife - was born then.[8]

The design of the building likely originated from early 1940.[9] The University Senate had resolved to purchase the Mowbray Street site (6,092 sq ft) for a three-storey administrative building in reinforced concrete in 1940,[10] and the building permit application is dated 18 October 1940.[11] The building was projected to cost £23,000,[12] and tenders for a three-storey,

[1] Prouse's obituary calls the building University House. It was also known as the University of New Zealand Senate Building and later the University Grants Committee Building. This paper uses the more succinct "University House." "Obituary" p 8.
[2] See Appendix A for a more detailed biography.
[3] Helliwell *The Plan Desk* p 41.
[4] UGC. Architects Plans R18286542; R18286548; R18286549.
[5] Hodgson *Looking at New Zealand Architecture* p 62 [caption].
[6] Hodgson *Looking at New Zealand Architecture* p 62 [caption].
[7] Octavia Florence "Ava" Prouse (neé Symons) was a nationally - if not internationally - acclaimed violinist.
[8] Helliwell *The Plan Desk* p 41.
[9] The published records of the University Senate post date earlier decisions making more specific dating difficult. For example, the appointment of Prouse and Wilson as architects is recorded in the published Senate minutes of December 1940 (University of New Zealand *Minutes of the Senate 1941* p 71), when it is clear (given the drawings, specifications and building permit application al predate this) that they were appointed before then.
[10] University of New Zealand *Minutes of the Senate 1941* p 64.
[11] Building Application Form: Administrative Building p [2].
[12] Building Application Form: Administrative Building p [2].

17,000ft reinforced-concrete, office building (presumably University House) were called for on 10 October 1940.[13] The same month a Works Committee was established comprising the Vice-Chancellor, Dr. Evans, Sir Frances Frazer, Professor von Zedlitz and the convener Colonel GJ Smith.[14]

Architectural lineage

The architectural lineage of the building is clearly in the intersection between art deco and modernism. The modernist privileging of form over applied ornamentation co-incided with the development of the high-rise and the emergence of city planning. Hugh Ferriss' 1929 *The Metropolis of Tomorrow*, for example, examined the potential of building form geometries and visual elements consequent of pioneering New York zoning laws[15] which - to increase light and air to a building's neighbours - introduced the idea of the stepped-back façade.[16]

Ferriss' book included his famous "Evolution of

Figure 1: University House, Bowen Street, reflected in the pool of water in the foundations of Broadcasting House, the building of which was stopped by the war. *Evening Post* (29 June 1945):6. Alexander Turnbull Library, Wellington, New Zealand. https://natlib.govt.nz/records/6499605

[13] "To Contractors [Office Building, Wellington]" p 12.

[14] University of New Zealand *Minutes of the Senate 1941* p 55.

[15] Ferriss noted that zoning laws had their "experimental beginnings" c1919. By 1929 over 300 American municipalities had zoning laws. Ferriss *The Metropolis of Tomorrow* p 72.

[16] Ferriss *The Metropolis of Tomorrow* pp. 20, 59. The zoning laws also intended to limit the number of building occupants and so associated traffic and egress/ingress volumes (Ferriss *The Metropolis of Tomorrow* p 72). Boyd wrote that the effect of the New York Zoning Resolution of 1916 was "to offer the architect a geometrical shell which is based almost solely on sanitary and financial considerations." Boyd "The New York Zoning Resolution and its Influence upon Design" pp 193, 206-210.

the step-back building" in four stages,[17] which reflected what he saw as the need "to modify and vary this rising mass ... to limit or distribute volumes."[18] He stated that the collateral effect of zoning laws was to make "the erecting of familiar forms impossible" causing "a new era in American Architecture."[19] In relation to his second step-back stage Ferriss observed that

> such decidedly sloping planes as these are alien to accepted notions of construction and demand revision. The architect, therefore ... [translates] them into the rectangular forms which will provide more conventional interior spaces and which can more economically be constructed in steel.[20]

These new exterior forms were thus shaped by the geometric viability of interior spaces.

Clearly University House's stepping occurs in plan, not section or elevation, however, the more assertive explorations of built form was a conceptual leap impacting both vertical and horizontal manipulation. The 1925 Exposition des Arts Decoratifs et Industriels Modernes Paris, is also significant in this regard because here visitors allegedly experienced "a bizarre mix of terraced structures" and "ill-proportioned rectangles and triangles."[21] Simultaneously, the step-back (or "skyscraper motif"), became an enduring Art Deco motif in architecture, interior decoration and furniture design, along with the chevron and the zigzag, as part of "the new grammar of decorative ornament before and during World War I" that explored angular compositions in defiance of the earlier Art Nouveau curvilinearity.[22]

Before Ferriss' book was published, Ernst May (1886-1970)[23] and Carl-Hermann Rudolf (1890-1949) designed the conjoined Zickzackhausen (Zig-zag houses) at the Siedlung Bruchfeldstrausse in Frankfurt in 1926.[24] The site is rectilinear, and each house is slightly angled (30 degrees) to increase their southern exposure to the sun and increase access to air flow and ventilation.[25] The scale of the complex's zig-zag occurs at the house scale, meaning that its zig-zag geometry has no impact on the interior planning of the scheme. Just as Ferriss' articulated the alien quality of sloping planes that needed to be rectified as rectangular forms, May's zig-zag plan, avoids the diagonal wall. Photographs of the Zickzackhausen were published in *Architecture* (New York) in January 1929.[26]

Shell Haus (Berlin, 1930-31), designed by Emil

[17] Ferriss *The Metropolis of Tomorrow* pp 72, 73-82.
[18] Ferriss *The Metropolis of Tomorrow* p 59.
[19] Ferriss *The Metropolis of Tomorrow* p 72.
[20] Ferriss *The Metropolis of Tomorrow* p 76.
[21] *An Encyclopedia of Art Deco* pp 8, 9.
[22] *An Encyclopedia of Art Deco* pp 49, 65.
[23] May was co-designer of the Frankfurt kitchen with Margarete Schüffe-Lihotzsky. These were installed in the Zickzackhausen. Quiring "Catalogue Raisonné" p 266.
[24] The Siedling Bruchfeldstrasse was one of the first of 24 planned settlements comprising May's Neue Frankfurt/New Frankfurt built in response to Frankfurt's post-WWI housing scarcity, funded by the 1924 Hauszinssteuer Act. Muller states that May's association with the Deutsche Werkbund and Der Ring influenced his pragmatic architectural aesthetic. The Siedlung's plans also used prefabrication and standardized designs. The Zickzackhausen's "flat roof, zig-zag site layout, reflecting pool, sun loggia, and wide bands of colors" were "a startling statement that an age of new designs had arrived" (Mullin "City Planning in Frankfurt, Germany, 1925-1932" pp 4, 5, 7, 8, 10). May's Zig-Zag houses predate the 1927 Deutscher Werkbund exhibition, Stuttgart, Germany organised by Mies van der Rohe.
[25] "To optimise the incidence of light, the buildings were offset in a zigzag pattern. This striking facade pattern gave the housing development its name." "Frankfurt/Main: Siedlung Bruchfeldstrasse" np.; Mullin "City Planning in Frankfurt, Germany, 1925-1932" p 7; "Ernst May: Bruchfeldstrasse Settlement" np.
[26] Robertson "A Pictorial Review of Modern Architecture in Europe" pp 51-52.

Fahrenkamp (following a 1929 competition), is another likely precedent for University House.[27] It is particularly relevant because, in contrast to May's residential work, it is a commercial office building. Like May and Rudolf's Zickzackhausen, the concertina façade faces the south to maximise the northern hemisphere sun. However, unlike the Zickzackhausen, Fahrenkamp's building additionally responds to its site geometry, by aligning with the Landwehrkanal, avoiding a simple chamfer that would exacerbate awkward internal geometries. Its undulated river-front façade has a ratio of 1:2 making it track along 60 degrees, creating the plan as a thickened isosceles triangle.[28] However, despite the rectilinear step-backs, the internal atrium is formed by a diagonal that dictates the interior planning, creating awkward and conflicting internal geometries. This geometric conflict would be better resolved in the University House plan.

There were at least three articles on Shell Haus in 1932-33 in the *Architects' Journal*, *Architectural Review*, and the *Architect and Building News*.[29] These articles included a plan and black and white exterior photographs, and the availability of these periodicals in New Zealand suggest it is likely that many New Zealand architects knew of the building. Further proof of this resides in Gummer and Ford's State Fire & Accident Insurance Office (Wellington, 1940), which is a transparent - but superficial - mimicking of Fahrenkamp's Shall Haus. Its undulating façades were heralded as innovative for Wellington at the time[30] and responsive to its corner site. Contemporary commentary also identified functional advantages in terms of both lighting and earthquake design.[31] However, the scale of its undulation diminishes that of Shell Haus', shifting the geometry's functional relevance for the building's interior.[32]

University House's geometry

The University House was a bold urban form. Both its interior and exterior were shaped by its urban landscape context. Like both the Zickzackhausen and Shell Haus, its zig-zagged façade faced the sun, as Halliwell put it, "catching all the daylight possible."[33] Like Shell Haus, University House made its site geometry advantageous, but this maximising of the site also enforced building asymmetry.

This shape naturally created consequences for the interior. The stepped elevations were potentially inefficient hazards for internal circulation, but the zig-zag in plan was scaled to rooms which significantly ameliorated the potential for geometric tragedy. On the northern side of the plan are generic offices and

[27] Shell Haus has been described as "A sophisticated work of expressionist modernism. The steel-frame building has been called the most elegant office building in Berlin. The facade consists of a series of swelling curved surfaces with an interesting doubly staggered configuration that gives the impression of a woven surface." "Shell Haus, Emil Fahrenkamp" p 62.

[28] Mortimer "Shell-Mex House [Berlin]" p 18. Also "The Shell-Mex Building, Berlin" p 18.

[29] "The Shell-Mex building, Berlin" pp 18-19; Mortimer "Shell-Mex House [Berlin]" pp 17-29; "Shell House, Berlin" p 155.

[30] "Modern Design" p 10.

[31] "Modern Design" p 10. The reference to the undulation's seismic qualities is of interest both because of Reginald Ford's publication *Earthquakes and building construction* in 1926 (heralded as the first book on earthquake engineering in English, Skinner "Understanding the Risk" p 136[31]), and Prouse's recognised expertise in seismic design,[31] given Gummer and Ford was one the architectural firms that developed from the earlier Hoggard and Prouse. "Building Immunity" p 5; "Ready for a 'quake" p 6; Own Correspondent "Earthquake Proof" p 7.

[32] Bryant House for City Mutual Life Assurance (Sydney; Emil Sodersten in association with TW Hodgson & Sons, 1939) is another example where a zig-zag façade operated at a scale between ornament and spatial planning.

[33] Helliwell *The Plan Desk* p 41.

accommodation for typists, records, the public reception and an accountant. This was consistent with contemporary office design thinking that the spaces where people work should have the most light and air; the colder, darker south side being the location of the unrentable spaces of vertical circulation and sanitation - the conventional building core of lift, stair and toilets.[34] Natural light was considered to be vital. The *Architectural Record* of 1893, for example, had stated that:

> The light must be let into the offices through windows, no matter where it comes from, and these must be made ample. ... The light in a room is also made much more effective is there is a certain amount of clear wall space on each side of the window, broken ... only by the furniture. ... the aim should be to have all of the rooms rectangular.[35]

In 1945, this sentiment was largely unchanged, Reinhard and Hofmeister writing that "daylight is still the measure of value within a certain space, and the success of an office plan depends largely on the proper allocation of the areas near the windows and on the development of the darker space nearer the corridor."[36]

This spatial approach resulted in the southern-side ground floor housing the building's entrance and foyer, vertical circulation (stairs and lift) toilets and cloakrooms, a kitchen and tearoom (exam room), and at the south-western corner the committee room. A strong room formed the building's geometric core, and a file room provided a buffer between the offices on the western-side and the committee room. However, because of the building's shape, the depth of the building doubles along its length to about 60 ft wide, creating significant distance between the centre and exterior fenestration, but this was ameliorated to some extent by a diagonal corridor and its extension creating a circulation spine that perimetered the strong room at the building's core, as well as designating significantly-affected spaces with low occupancy functions, such the library in areas of low natural light.[37] Lifting the Senate Chamber roof (on the second floor) to accommodate clerestory windows, also increased its access to natural light.

But, this isn't the whole story of how the building was designed to facilitate natural light within the interior. The specifications are clear that many of the inter-office partitions were glazed screens.[38] This means, for example, that six of the ground floor rooms are visually connected, demonstrating a visual precursor to the fully open plan while retaining status hierarchy and segregation. These screens are not devices to provide "borrowed light," simply bringing light into the depth of the building - but instead operate as planes with light sources from both its sides.

While the building was built by the University Senate, it was not its only occupant. From the beginning leasing space to government departments was anticipated.[39] This meant the

[34] Boyd "The New York Zoning Resolution and its Influence upon Design" p 205.
[35] Hill "Some Practical Limiting Conditions in the Design of the Modern Office Building" p 448.
[36] Reinhard & Hofmeister "New Trends in Office Design" p 100.
[37] Prouse & Wilson, letter to City Engineer, Wellington (28 November 1940) p [84].
[38] Specification of work to be done and the materials to be used in the erection of an Administrative Building. pp 28-29.
[39] On 22 October 1940 it was agreed that the Patents Office would lease 7220 sq ft of space on the first and second floors for five years (renewable). University of New Zealand *Minutes of the Senate 1941* p 55. Prouse and Wilson outlined the occupancy in 1940 as follows: "The whole of the balance of the building has been let to the Patents Office, by far the majority of the top floor being devoted to the Patents Office library. ... The first floor is, as can be seen, devoted to the Administrative Offices of the Patents Office" Prouse & Wilson, letter to City Engineer p [84].

design of multiple reception areas, and the figuring of circulation spaces as public and external to individual tenancies. This hierarchy of thresholds, access and restriction is reflected in the varying degrees of openness and division in the building's plan, but it is also present in decisions regarding décor and material selection.

Queensland maple

This is particularly the case regarding timber choice and the detailing of doors and windows. While the exterior windows were fabricated of steel, internal glazed screens and doors were variously built of Queensland Maple (*Flindersia brayleyana*), Heart Rimu (*Dacrydium cupressinum*), Heart Tōtara (*Podocarpus totara*) and Redwood (*Sequoia sempervirens*). Not only are these timbers distinct in terms of colour and grain, but they contrast Australasian, American and New Zealand origins. In the building, Queensland maple mapped the most public and stereotypically higher-status spaces, specifically the main entrance, vestibule, foyers, public reception areas, and the Senate Room.[40] Glazed screens and doors built of Queensland maple thus delineated the public spaces from worker areas where the timber used was rimu.[41]

Queensland Maple first appears in Paperspast in 1908, as a timber used for furnishings in *Bronzewing*, an early twentieth-century super yacht.[42] By 1911 it was used in bedroom suites.[43] In 1912, it was used for fittings in the Newton branch of the Bank of New Zealand (where it was described as "a wood which clearly resembles cedar").[44] This appears to have been an early - if not the first - time Queensland maple was used in a New Zealand interior. A 1915 article on Timaru's reopening of the Choral Hall as a billiard saloon, noted that the billiard tables were made of Queensland maple[45] - and stated that with "the use of such wood the days of oak veneer are over."[46] At this time it appears that Queensland maple was primarily used for furniture in New Zealand.[47]

In the early 1920s Queensland maple panelled the entrance and stairs of a Courtenay Place picture theatre (Llewellyn E Williams, 1923),[48] and the new memorial hall at Christ's College, Christchurch (1924).[49] But it was c1925-26 that

[40] In 1938 the new three-storey administration building at Victoria University College (archts: Francis H Swan and W Gray Young), the administration and council rooms had interior finishes in Queensland maple. "Building Completed" p 15.

[41] The exterior entrance door was an exception to this and reflects the superior weathering qualities of Heart Tōtara and Redwood. This Redwood door and fanlight was a framed TG&V door with a Tōtara frame. Tōtara was elsewhere used for its extraordinary physical properties for the more pragmatic and industrial doors subject to weather to the roof, and the heating chamber. All other doors, to offices, and to the first and second floor foyers and for cupboards were Heart Rimu, the cupboards being distinguished from the single panel doors for offices by being flush.

[42] "Mr. Hordern's New Yacht" p 7. Queensland Maple was also used for the interior of *Morna*, a yacht launched in 1913 and built for Sir Alexander MacCormick, commodore of the Royal Sydney Yacht Squadron. Our Own Correspondent "Sydney's Largest Yacht" p 10.

[43] "Louis Lewis, Mount Roskill [advertisement]" p 12.

[44] "New Bank for Newton" p 9.

[45] Queensland maple was also used to make an additional billiard table for the members' lounge at Parliament in Wellington (with Tasmanian fiddle-back blackwood), "in keeping with the two which were installed at the opening of the new Parliament Buildings." "[Untitled]" (28 June 1924) p 6.

[46] "Timaru Progresses" p 2.

[47] For example, Queensland maple was listed as a cabinetmaker's timber in a 1921 Jarrah Timber Company advertisement in "Jarrah Timber Company, Christchurch [advertisement]" p 14. It was also noted for shop fittings where it was called "Queensland Silver Maple." Carson "Wanted Sell [advertisement]" p 1; "Local and General" p 4.

[48] "New Picture Theatre" p 4; "New "Movie" Theatre" p 9.

[49] Own Correspondent "Christ's College" p 10.

the use of Queensland maple as a material for building interiors took off in New Zealand, when Queensland maple was used for panelling,[50] fixtures and fittings,[51] furniture (including office furniture, public desks, and counters, and waiting room furniture),[52] elevator walls,[53] showcases, windows and shopfronts,[54] and doors.[55] Vague descriptions, such as "finish,"[56] "woodwork,"[57] and "decorative scheme,"[58] also described its use. Queensland maple was predominantly used in the interiors of offices[59] (especially assurance and insurance offices),[60] banks,[61] and showrooms and shops.[62] The published descriptions suggest that Queensland maple was a prestige timber. It was stated to be "twice as expensive as kauri,"[63] and described as a "fancy timber ... used only for certain purposes, for which the consumer might be expected to pay."[64] But it was also proactively marketed because Queensland was, as the *Manawatu Standard* noted in 1934, "a State that loses no opportunity to make known the beauty of its maple timber."[65]

The extent of Queensland maple panelling also varied. In the Napier Bank of New Zealand (Crichton, Mckay and Haughton, 1933) the timber panels were "artistically arranged above a dado of marble."[66] In the National Insurance Company Building (Christchurch, Collins and West, 1929) the walls were panelled half-way up.[67] In the Australian Mutual Provident (AMP) Society building (Palmerston North, Clere and Clere, 1935) the timber panels were "below the plasterwork,"[68] while in the Mutual Life and Citizens (MLC) Assurance Company

[50] "Structures in the City" p 12; "C.M. Ross Coy's New Tea Rooms Opened" p 11; "New Building: Almost Finished" p 1; "Extensions to City Premises" p 9; "New Quarters" p 10; "Hotel Waterloo Opens" p 11; "To Cover Half-acre" p 3; "New Bank of N.S.W." p 6.

[51] "Commercial Advance" p 10; ""Dominion's" New Home" p 13 (supplement); "New Buildings for Lower Hutt" p 17; "New New Zealand Tourist Offices in Melbourne" p 2; "City Improvements" p 4; "New Bank of N.S.W." p 6; "Woolworths" p 8.

[52] ""Dominion's" New Home" p 13 (supplement); "Office Furniture" p 18; "Additions in Hamilton" p 6; "New New Zealand Tourist Offices in Melbourne" p 2; "Pleasing Appearance" p 19; "New Bank of N.S.W." p 6.

[53] ""Dominion's" New Home" p 13 (supplement).

[54] "Shavings" p 2; "Building Progress in the Borough" p 4; "Pleasing Appearance" p 19; Commercial Trading Co (NZ) Ltd "All the Chairs [advertisement]" p 33 (supplement).

[55] "City Improvements" p 4; "Shavings" p 2; "Pleasing Appearance" p 19.

[56] "New Premises in Newton" p 12; "New Queen St. Block" p. 10; "Imposing Building" p 2.

[57] "Fine Office Structure" p 2; "Office Furniture" p 18; "New Shipping Offices" p 13.

[58] "Bank of N.S.W." p 8.

[59] "Commercial Advance" p 10; "City Improvements" p 4; ""Dominion's" New Home" p 13 (supplement); "New Quarters" p 10; "New Buildings for Lower Hutt" p 17; "New New Zealand Tourist Offices in Melbourne" p 2; "New Shipping Offices" p 13.

[60] "New Zealand Enterprise" p 7; Our Own Correspondent "New Zealand Company" p 9; "New Building: Almost Finished" p 1; "Fine Office Structure" p. 2; "Office Furniture" p 18; "Imposing Building" p 2; New Zealand "Support Local Industry" p 5; "Mutual Life and Citizens Assurance Company Ltd" p 4; "Harmony in Paint" p 5.

[61] "New Bank for Newton" p 9; "New Premises in Newton" p 12; "Bank of N.Z. to build" p 5; "Bank of N.S.W." p 8; "New Bank Premises" p 8; "New Bank of N.S.W." p 6.

[62] "Shavings" p 2; "New Queen St. Block" p 10; "Building Progress in the Borough" p 4; "Extensions to City Premises" p 9; "Additions in Hamilton" p 6; "New New Zealand Tourist Offices in Melbourne" p 2; "Woolworths" p 8; "To Cover Half-acre" p 3; Commercial Trading Co (NZ) Ltd "All the Chairs [advertisement]" p 33 (supplement). It was also used in a picture theatre (entrance) ("New Picture Theatre" p 4), a memorial hall (Own Correspondent "Christ's College" p 10), a real estate agent's rooms ("Structures in the City" p 12), a tearoom ("C.M. Ross Coy's New Tea Rooms Opened" p. 11), a transport building ("Pleasing Appearance" p 19), a hotel ("Hotel Waterloo Opens" p 11), and a broadcasting/radio station (S.R. "New Zealand Timber" p 11).

[63] "Woolworths" p 8.

[64] "Seasoning Timber" p 5.

[65] "Manawatu Evening Standard" p 8.

[66] "Bank of N.Z. to build" p 5.

[67] "New Building: Almost Finished" p 1.

[68] "Imposing Building" p 2.

Ltd building (Wellington, Mitchell and Mitchell, 1940) the timber was "panelled to a height of 7 feet."[69] In University House, the extent of Queensland maple panelling was specific to the room function. In the vestibule the panelling rose to 7 feet - like the MLC building.[70] However, in the Senate Chamber, where occupants would have spent more time seated than standing, the panelling was only 3 feet high.[71] But there were not only aesthetic and pragmatic considerations at play. The use of Queensland maple increasingly became politicised.

The 1930s saw criticism of Queensland maple because it was not a native New Zealand timber. This criticism can be contextualised by earlier sporadic calls for the use of native timber in public works, with the Timber Commission being the most vocal in its 1909 call for the government to "make more extensive use of native timber in public works."[72] But such views could be divided according to use. Public works (such as bridges) were not necessarily buildings - nor were they furniture. Contradictory positions crossed these functional categories. For example, in 1926, the same year that MP Fred Waite (Clutha 1925-31) challenged the government in Parliament about the specification of Queensland maple for the Dunedin Public Trust Office,[73] a *New Zealand Times* article noted:

> the demand for ... timbers *not* indigenous to New Zealand, the most popular at the present time being oak, followed by Queensland maple ... The use of these timbers is demanded by the critical tastes of New Zealanders who, by study of books, illustrated papers, films, and more travel, know the timber which is in keeping with the design chosen.[74]

However, by the late 1930s Queensland maple was being pitted against rimu as a timber of choice. In a 1939 letter to the editor of the *Nelson Evening Mail*, the use of Queensland maple for Nelson's Public Trust building was negatively contrasted to the Fire Office's use of rimu.[75] In a similar way, when questioned about the use of Australian timber in Auckland's new 1ZB building, in 1941, Minister Walter Nash (Minister in charge of broadcasting), acknowledged the use of Queensland maple and jarrah in the building, but (defensively) noted that "[t]he building was constructed to pre-war specifications. It was the Government's policy to use New Zealand materials to the fullest possible extent."[76]

The use of Queensland maple in University House was thus consistent with its use by other New Zealand architects, but this was increasingly counter to trends privileging New Zealand timber, a phenomenon which likely reflected an increased investment in New Zealand-ness coincident with the 1939/40 centenary, but also impacted by increased costs of importing goods characteristic of wartime.

The extension

The asymmetrical zig-zagged University House was not however the end of the University of New Zealand's developments on Mowbray Street. At a special meeting of the

[69] "Mutual Life and Citizens Assurance Company Ltd" p 4.
[70] "Mutual Life and Citizens Assurance Company Ltd" p 4.
[71] Specification of work to be done and the materials to be used in the erection of an Administrative Building. p 28.
[72] "Timber Commission Report" p 4.
[73] "Parliamentary Notes" p 3. The Minister for Public Works (Kenneth Stuart Williams) replied that the Public Works Department specification did provide that "New Zealand timbers shall be used wherever possible. The Government does not favor the use of imported timbers tor decorative work in public buildings.—Parliamentary correspondent." "[Untitled]" (11 September 1926) p 6.
[74] "Ancient and Modern" p 15 (emphasis added).
[75] New Zealand "Support Local Industry" p 5.
[76] S.R. "New Zealand Timber" p 11.

Senate in September 1941, it was agreed to proceed with an extension building.[77] Given the first building was largely used for non-university purposes, it appears that this extension may have been conceived for commercial, rather than university, purposes.

The extension (estimated cost £15,200)[78] added a southern strip to University House. Designed a year after the original building, the extension plan suggests a surprisingly radical shift from divided space to open planning where, columns and furniture surplant walls in their historical roles of structure and spatial division. But like the articulation of glazed screens, which physically divide but allow visual transgressions, the apparently open plan may be deceptive and instead simply reflect new business practices related to renting office space and tenancies.

Reinhard and Hofmeister, in "New Trends in Office Design," write of the 1940s as "days of tenant changes and expansion and moving."[79] This new context of office mobility had significant consequences for interior design.[80] Rather than the expansive open plan depicted in the extension drawings, more complex considerations were required for a new age of interchangeable modularity. Likewise, Douglass, in 1947, wrote:

> Modular locations must be developed for all such things as lighting fixtures, air conditioning grilles or radiators, or other service items, so that partitions can be moved overnight without tearing out important pieces of equipment. Fenestration must be designed in such a way that office widths can be varied to suit changing needs. ... Columns outside the building proper seem a better solution, not because they "reveal the skeleton" (which they do), but because they give a smooth, uninterrupted interior surface to the exterior building wall, so that partition work can be standardized and simplified.[81]

This thinking is not simply in the silent drawing of the new extension, but can also be found in the working drawings of the original building. These document significant revisions to the interior which include an apparent shift from a comprehensively divided space as pencil lines attempt to irradicate much of the internal partitioning even as the 1940 building was being constructed. What this means is that when we see an "open plan" plan, we cannot assume open planning was the architectural intention without fully understanding the interior office design that was effected.

Demolition and "[t]he pitfalls of façade first design"

In 1947, Lathrop Douglas, when discussing new departures in office design, referred to "[t]he pitfalls of façade first design,"[82] the negative impact on the interior of thinking of a building as public object at the expense of understanding it as occupied and inhabited space. In this review of University House, and the inevitable comparative analysis of proximate buildings, this shunning of "façade first design" in University House - despite what appears to be unabashed exteriority -

[77] University of New Zealand *Minutes of the Senate 1942* p 37.
[78] Building Application Form: Senate Building, Mowbray St (12 November 1941) p [2].
[79] Reinhard & Hofmeister "New Trends in Office Design" p 99.
[80] Building this need for spatial flexibility into interior design was not a completely new phenomenon. As Hill wrote in 1893: "If the offices are laid out as advised much of this trouble [of re-arrangement] will be avoided and if the partitions are made with corrugated iron lath, plastered on both sides with rock plaster and stiffened by being secured to small I beams, they can be shifted around at will with a minimum of cost." Hill "Some Practical Limiting Conditions in the Design of the Modern Office Building" p 461.
[81] Douglass "New Departures in Office Building Design" pp 119-121.
[82] Douglass "New Departures in Office Building Design" p 119.

shines through.

University House was quite a fabulous building. It brought the sensibility of Berlin's Shell Haus exterior to Wellington and on the way improved the German building's internal planning. Its demolition in 1987[83] was a significant loss for New Zealand's built environment, but one which, I think, has yet to be properly acknowledged.

ACKNOWLEDGMENTS

Thanks are due to staff at the Wellington City Council Archives, Archives New Zealand and the JC Beaglehole Room, Victoria University.

[83] Pre-demolition meeting [hand written notes] (30 January 1987) p [17]; Hodgson *Looking at New Zealand Architecture* p 62 [caption]. The reasons for the demolition are not clear. This is despite several close calls. It was evaluated by the Divisional Engineer as having a "good standard of earthquake resistance" in 1983, at a time when Wellington lost a large number of inner-city buildings (Mulholland, Divisional Engineer (Buildings) for City Engineer, letter to Mr. Kendall, p [18]). It also slimly missed having to be demolished because of the building of the Wellington Urban Motorway because it was initially judged to be in the way of the southern onramp and the widening of Bowen Street. Langbein, for District Commissioner of Works p [21]; Design Engineer for City Engineer, Memorandum for the Town Clerk p [25]; Montacute, Mr., City Solicitor, Memorandum to Town Clerk, p [27]; Design Engineer, letter to Mr. H.L. Symmans, The Chairman, University Grants Committee p [43]; Peart, A. McG, District Commissioner of Works, memorandum to The City Engineer pp [52]-[53].

REFERENCES

"Additions in Hamilton: Many New Structures" *Waikato Times* (1 July 1936):6.

"Ancient and Modern: Carried to Excess: Encourage Dominion Designs and Crafts: Subject Worthy of Study" *New Zealand Times* (19 October 1926):15.

"Bank of N.S.W.: New Premises in Hastings: Building to Start Soon." *Hawke's Bay Tribune* (11 February 1935):8.

"Bank of N.Z. to build: New Premises in Napier: Cost to be about £14,000" *Hawke's Bay Tribune* (24 July 1933):5.

Boyd, John Taylor "The New York Zoning Resolution and its Influence upon Design" *Architectural Record* (September 1920):192-217.

Building Application Form: Senate Building, Mowbray St (12 November 1941), Wellington City Council Archives 00056-B22135 p [2].

Building Application Form: Administrative Building, 2 Mowbray & Bowen St (18 October 1940), Wellington City Council Archives 00056-B21196 p [2].

"Building Completed: New Administration Block At Victoria College: Relief for over-Taxed Accommodation" *Dominion* (7 December 1938):15.

"Building Immunity: Shock Resisting Structures" *Southland Times* (11 September 1923):5.

"Building Progress in the Borough: Veale's Fine Block" *Waikato Independent* (23 August 1928):4.

"C.M. Ross Coy's New Tea Rooms Opened" *Manawatu Times* (14 September 1928):11.

Carson "Wanted Sell [advertisement]" *Evening Post* (12 September 1921):1.

"City Improvements: New Moray Place Buildings: Valuable Site Transformed" *Otago Daily Times* (30 August 1927):4.

"Commercial Advance: Sign of the Times: New City Business Block: Levin and Co's building" *Wanganui Chronicle* (9 July 1926):10.

Commercial Trading Co (NZ) Ltd "All the Chairs [advertisement]" *Press* (17 February 1939):33 (supplement).

Design Engineer for City Engineer, Memorandum for the Town Clerk, 3 August 1981 2pp. City Engineer's File. University Grants Committee Building: Mowbray Street, Bowen Street, Wellington City Council (WCC) Archives 00009-6/783.

Design Engineer, letter to Mr. H.L. Symmans, The Chairman, University Grants Committee, 16 July 1981, 1p., WCC Archives 00009-6/783 p [43].

""Dominion's" New Home: Choice of Architects Details of Construction" *Dominion* (8 May 1928):13 (supplement).

Douglass, Lathrop "New Departures in Office Building Design" *Architectural Record* (October 1947):119-123.

An Encyclopedia of Art Deco: A Visual Guide to the Influential Design Movement ed Alastair Duncan, Kent, UK: Grange Books, 2005.

Ernest May 1886-1970 ed Claudia Quiring, Wolfgang Voigt, Peter Cachola Schmal, Eckhard Herrell, Munich; London; New York: Prestel, 2011.

"Ernst May: Bruchfeldstrasse Settlement" *Deutsches Architekturmuseum* http://archiv.dam-online.de/handle/11153/416-009-001

"Extensions to City Premises of Gas Company: contract let for work costing £7750" *Star* (Christchurch) (8 April 1929):9.

Ferriss, Hugh *The Metropolis of Tomorrow* New York: Ives Washburn, 1929.

"Fine Office Structure: Alliance Assurance Company's Building: Unique Appointments and Finish" *Evening Star* (9 May 1933):2.

"Frankfurt/Main: Siedlung Bruchfeldstrasse" *Vielfalt der Moderne* https://vielfaltdermoderne.de/en/siedlung-bruchfeldstrasse-2/

"Harmony in Paint: Shading to Match Wood" *Dominion* (15 February 1940):5.

Helliwell, Joan Ruth *The Plan Desk: 50 years in an Architectural Private Practice in New Zealand 1923-1973: Norman Frank Wilson F.I.A.A. M.Inst R.A. F.R.S.A.: A study by his daughter Joan Rut Helliwell* Leigh: Joan Helliwell, 2002.

Hill, George "Some Practical Limiting Conditions in the Design of the Modern Office Building" *Architectural Record* (April 1893):444-468.

Hodgson, Terence *Looking at New Zealand Architecture* Wellington: Grantham House, 1990.

"Hotel Waterloo Opens: Elaborate Equipment and Decorations: Many Unusual Features Incorporated" *Dominion* (12 October 1937):11.

"Imposing Building: A.M.P. Society's Premises: Construction to Begin" *Manawatu Standard* (2 June 1936):2.

"Jarrah Timber Company, Christchurch [advertisement]" *Press* (16 July 1921):14.

Langbein, J.A., for District Commissioner of Works, Memorandum to The Town Clerk, City of Wellington, 3 August 1983, 2pp. City Engineer's File. University Grants Committee Building: Mowbray Street, Bowen Street, Wellington City Council (WCC) Archives 00009-6/783.

"Local and General" *Gisborne Times* (2 August 1916):4.

"Louis Lewis, Mount Roskill [advertisement]" *Auckland Star* (1 February 1911):12.

"Manawatu Evening Standard: Thursday, Aug. 2, 1934: Empire Society" *Manawatu Standard* (2 August 1934):8.

"Mr. Hordern's New Yacht: Finest Motor Boat in the Southern Hemisphere" *Auckland Star* (23 May 1908):7.

"Modern Design: State Fire Office: New Wellington Building" *Wanganui Chronicle* (10 January 1939):10.

Montacute, Mr., City Solicitor, Memorandum to Town Clerk, 31 July 1978, 4pp. City Engineer's File. University Grants Committee Building: Mowbray Street, Bowen Street, Wellington City Council (WCC) Archives 00009-6/783.

Mortimer, Raymond "Shell-Mex House [Berlin]" *Architectural Review* (January 1933) 73:17-29 https://archive.org/details/sim_architectural-review_1933-01_73_434/page/n25/mode/2up.

Mulholland, Divisional Engineer (Buildings) for City Engineer, letter to Mr. Kendall, Property Manager, B.C.N.Z., 1 September 1983. City Engineer's File. University Grants Committee Building: Mowbray Street, Bowen Street, Wellington City Council (WCC) Archives 00009-6/783.

Mullin, John Robert "City Planning in Frankfurt, Germany, 1925-1932: A Study in Practical Utopianism" *Journal of Urban History* (November 1977) 4(1):3-28.

"Mutual Life and Citizens Assurance Company Ltd" *Dominion* (15 February 1940):4

"New Bank for Newton: Branch of Bank of New Zealand" *New Zealand Herald* (21 May 1912):9.

"New Bank of N.S.W.: Now Nearly Completed: Many Handsome Features" *Hawke's Bay Tribune* (8 June 1936):6.

"New Bank Premises: "Wales" Building Nears Completion: Interesting Features" *Hawke's Bay Tribune* (26 March 1936):8.

"New Building: Almost Finished: National Insurance Company's New Office is handsome structure" *Star* (Christchurch) (12 January 1929):1.

"New Buildings for Lower Hutt: Unique Features of Ford Factory: Part of New Zealand Worker" *Dominion* (18 November 1936):17.

"New "Movie" Theatre: A Wellington Project" *Star* (14 April 1923):9.

"New New Zealand Tourist Offices in Melbourne" *Evening Star* (29 June 1937):2.

"New Picture Theatre: Contract Accepted: Opening Early Next Year" *New Zealand Times* (14 April 1923):4.

"New Premises in Newton: Union Bank of Australia: Karangahape Road Building" *New Zealand Herald* (10 April 1926):12.

"New Quarters: business office of "The Press": better accommodation for staff" *Press* (18 July 1934):10.

"New Queen St. Block: widening Vulcan Lane: fine corner structure: pressed red brick and plaster" *Auckland Star* (15 November 1927):10.

"New Shipping Offices: Shaw, Savill and Albion Company, Ltd." *Dominion* (19 March 1938):13.

"New Zealand Enterprise: Big Offices in Sydney" *New Zealand Herald* (8 August 1911):7.

New Zealand "Support Local Industry" (21 February 1939) *Nelson Evening Mail* (22 February 1939):5.

"Obituary: Mr. W.J. Prouse" *Evening Post* (12 April 1956):8.

"Office Furniture: High-Grade Materials" *Dominion* (26 February 1935):18.

Our Own Correspondent "New Zealand Company: New Building in Sydney" *New Zealand Herald* (31 January 1913):9.

Our Own Correspondent "Sydney's Largest Yacht" *New Zealand Herald* (6 September 1913):10.

Own Correspondent "Christ's College: New Memorial Hall: A handsome structure" *New Zealand Herald* (28 November 1924):10.

Own Correspondent "Earthquake Proof: Steel Frame Buildings: Some New Zealand Examples" *Auckland Star* (11 September 1923):7.

"Parliamentary Notes: Put New Zealand First" *Evening Star* (30 July 1926):3.

Peart, A. McG, District Commissioner of Works, memorandum to The City Engineer, 29 April 1981, City Engineer's File. University Grants Committee

Building: Mowbray Street, Bowen Street, Wellington City Council (WCC) Archives 00009-6/783.
"Pleasing Appearance: Modern Administrative Building: Maximum of Light and Air" *New Zealand Herald* (10 September 1937):19.
Pre-demolition meeting [hand written notes] (30 January 1987) p [17], City Engineer's File. University Grants Committee Building: Mowbray Street, Bowen Street, Wellington City Council (WCC) Archives 00009-6/783.
Prouse & Wilson, letter to City Engineer, Wellington (28 November 1940) p [84], City Engineer's File. University Grants Committee Building: Mowbray Street, Bowen Street, Wellington City Council (WCC) Archives 00009-6/783.
Quiring, Claudia "Catalogue Raisonné" *Ernest May 1886-1970* ed Claudia Quiring, Wolfgang Voigt, Peter Cachola Schmal, Eckhard Herrell (Munich; London; New York: Prestel, 2011):242-313.
"Ready for a 'quake: Earthquake-proof buildings: The New Zealand Type" *Ashburton Guardian* (13 September 1923):6.
Reinhard, L. Andrew and Henry Hofmeister "New Trends in Office Design" *Architectural Record* (March 1945):99-116.
Robertson, Howard "A Pictorial Review of Modern Architecture in Europe" Architecture (NY) (January 1929):51-58.
S.R. "New Zealand Timber: The Government's Policy" *New Zealand Herald* (21 August 1941):11.
"Seasoning Timber: Chch. Builder's Advice" *Greymouth Evening Star* (12 February 1927):5.
"Shavings" *Evening Star* (11 October 1927):2.
"Shavings: Veneer Plant" *Evening Star* (3 October 1933):2.
"Shell Haus, Emil Fahrenkamp" *Architecture and Urbanism* (2016) 8(551):62.
"Shell House, Berlin" *Architect and building news* (August 5, 1932) 131:155.
"The Shell-Mex building, Berlin" *Architects' Journal* (4 January 1933) 77:18-19. https://archive.org/details/sim_architects-journal_january-4-june-29-1933_77/page/18/mode/2up.
Skinner, Robin "Understanding the Risk: Seismicity and Architectural Development in Nineteenth-Century New Zealand" *Fabrications* (2009) 19:122-139.
Specification of work to be done and the materials to be used in the erection of an Administrative Building, Wellington, in reinforced concrete construction for the University of New Zealand. Wellington City Council (WCC) Archives ref: 00056:258: B21196.
"Structures in the City" *Auckland Star* (4 September 1925):12.
"Timaru Progresses: Up-to-date Billiard Saloon: Splendid Appointments." *Timaru Herald* (29 June 1915):2.
"Timber Commission Report" *Manawatu Times* (9 October 1909):5.
"To Contractors [Office Building, Wellington]" *Dominion* (10 October 1940):12.
"To Cover Half-acre: New Motor Showrooms" *Evening Star* (2 August 1938):3.
University Grants Committee (UGC). Architects Plans (1940), Archives New Zealand Wellington, Ref: R18286542
University Grants Committee (UGC). Architects Plans (1940), Archives New Zealand Wellington, Ref: R18286548
University Grants Committee (UCG). Architects Plans (1940), Archives New Zealand Wellington, Ref: R18286549
University of New Zealand *Minutes of the Senate 1941* (Wellington: University of New Zealand 1941), Archives New Zealand R12485393
University of New Zealand *Minutes of the Senate 1942* (Wellington: University of New Zealand 1942) p. 37, Archives New Zealand R12485393
"[Untitled]" *Auckland Star* (28 June 1924):6.
"[Untitled]" *Evening Star* (11 September 1926):6.
"Woolworths: Open in Nelson To-morrow: Most Up-to-date in Chain of Twenty Stores." *Nelson Evening Mail* (9 December 1937):8.