



WHAT IF? WHAT NEXT?

SPECULATIONS ON HISTORY'S FUTURES

SESSION 1B

MODES OF ARCHITECTURAL HISTORY

Architectural History Through Technology and Material Culture

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SMALL IN SIZE, BIG ON AMBITION: THE RESPONSE OF THE ARCHITECTURAL PROFESSION TO THE POST-WAR HOUSING CRISIS IN QUEENSLAND (1945-55) AND ITS IMPACT ON DOMESTIC DESIGN

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The aftermath of World War II left Australia with the burden of a housing deficit. The influx of immigration and increased birth rates coupled with widespread material shortages and lack of labour exacerbated the situation acutely. The Commonwealth and consequently the Queensland Government's imposed regulations on material supply and permissible floor sizes presented architects with the challenging task of providing progressive home designs fit for both the regulations and the climate. The aim of this research is to analyse how the housing crisis was responded to in Queensland by the members of the architectural profession between 1945-1955.

The paper examines the crisis in an Australia-wide context and discusses the role of Robin Boyd's Small Homes Service and its influence on Queensland's small homes. The research explores the relationship between the media and the architectural profession as an outlet to communication with the wider public. This is evident from The Courier Mail Competition of 1945, which could be considered as a starting point of a transition from a traditional "Queenslander" dwelling to a compact, climate responsive home adherent to modern design principles. The paper investigates this transition and further explores the design for climate through Karl Langer's subtropical housing principles. Subsequently, the schemes by the pioneers of small home design in Queensland including Vitally Gzell, Gordon Banfield and Hayes & Scott are interrogated in terms of floor size, affordability, and response to the climate. The pertinence of these principles demonstrates its continued relevance as Australia emerges from the global pandemic in 2020. The architectural profession is yet again faced with the challenge of delivering flexible home designs fit for modest footprints, budgets, and Queensland's climate. Considering the need for affordable housing, can thoughtfully crafted small homes instigate the direction to more resilient and adaptable dwelling models?

Introduction

Despite public enthusiasm brought on by the end of World War II, Australia was faced with considerable economic issues, with a severe shortage of residential dwellings being amongst the most pressing. The period of an economic downturn after World War I, followed by the Great Depression (1929-33) brought on restrictions in domestic construction, effectively causing a backlog. Following World War II, the housing shortage escalated to acute with an increase in birth rate and immigration.¹ Other influencing aspects included inadequate supply, distribution and production of materials such as timber and the difficulties in recruiting builders and tradespeople. The architectural profession adversely reacted to the Commonwealth Government's endeavours to resolve the crisis through the infliction of permissible floor area regulations, restriction on materials and the promotion of high quantities of housing.² Despite these challenges, the so-called period of austerity (1945-1955) ultimately became the proving ground for new dwelling models responsive to these considerations as well as strict post-war budgets and concerns with designing for tropical and subtropical climates.

This paper investigates the contributions of Queensland's progressive post-war architects faced with the challenge of producing well considered homes whilst dealing with the scarcity of resources. The selected case studies are restricted to the period of austerity (1945-1955) and the floor size restrictions abiding by government's post-war regulations (under 116 m²).³ Other criteria set to analyse the schemes include: climate responsiveness (orientation, shading, cross-ventilation), economic factors (strict material regulations, budgetary requirements), modern methods of construction (such as on ground slab and patios replacing verandas) and the feature of the schemes in print media publications (*Brisbane Telegraph*, *The Courier Mail*, *Architecture Australia* and so on).

Architects versus the State

In Queensland, architects were largely limited on the scope of work they could perform due to the Queensland Department of Public Works being responsible for the majority of construction in the state during the war. The construction of private dwellings was notably absent during this period, exacerbating an already entrenched housing shortage. The end of the war in 1945 necessitated the need for revised legislation. On the federal level, the Commonwealth Housing Act 1945 outlined the responsibility of states to administer housing projects, slum clearance and town planning. It also indicated the standards and minimum and maximum provisions for allotments, accommodation, construction, equipment and services.⁴

The accompanying State Housing Act, Building Operations Act and Timber and Building Materials Control Act of 1945 placed strict regulations on post-war home building in Queensland. The legislation regulated the supply and application of sawn timber, bricks, nails, roofing tiles and asbestos cement sheeting whilst placing restrictions on residential building. Difficult to obtain building permits were required for dwellings above 1250 square feet (116.23 m²).⁵ The shortage and regulation of basic building materials yielded for more economic methods of construction.⁶ The concrete block used since the beginning of the 20th century gained popularity. Timber stud frame was also frequently used in the construction, often finished with a brick veneer or fibro sheeting on the exterior and clad in particleboard or asbestos-cement sheeting on the interior.⁷

Whilst the economic impacts of the war were the most prominent influencing factor in the post-war housing crisis, there were also secondary concerns resulting in prevailing tension between the government's action to the crisis and the response of the architectural profession. The Queensland Government and the Queensland Housing Commission endeavoured to meet the demand for housing by building as much housing as economically viable, however this resulted in poorly designed, monotonous dwellings with little regard for comfort and the subtropical climate. The architects sought to resolve this through clever design and consequently promote the role of an architect. Robert Cummings lobbied for a stronger cooperation between the government and the architectural profession, emphasising that the post-war reconstruction

meant much more than simply erecting houses and other types of buildings without much consideration for climate and comfort.⁸

Small Homes with Great Impact

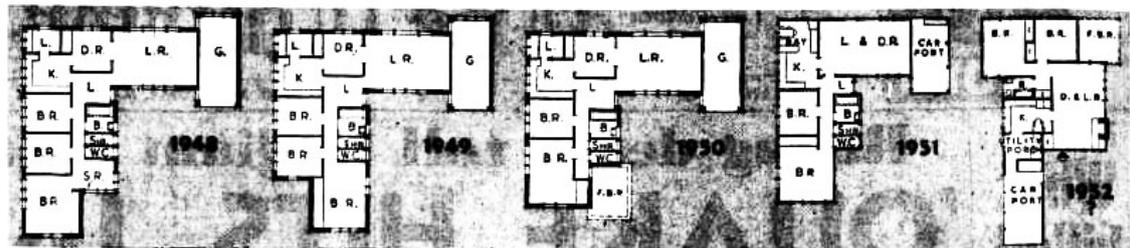
The concept providing affordable housing plans to public in Australia was first proposed by A.S Hook in 1925 through the Small Homes Service in Sydney. Although the service was not met with success, the value of the idea was significant. The scheme was later reintroduced by Peter Newell and Robin Boyd, who established the Small Homes Services (SHS) under the Royal Victorian Institute of Architects (RVIA) as a means to administer an affordable, innovative and progressive response to the housing crisis by the architectural profession.⁹ The Victorian newspaper *The Age* published the designs, including working drawings and building specifications, anonymously on a weekly basis. To avoid mass production, no more than fifty copies of each design were to be built (25 in the suburbs and 25 in the country), ensuring a degree of individuality and effectively addressing concerns surrounding diversity and richness of the suburban housing stock.¹⁰ While the ability to provide progressive design to the wider public was the main drive behind the service, affordability was imperative to its success. The drawing sets were available at £5, amounting to a little over the basic weekly wage at £4.7 per week.¹¹

The SHS homes featured a modern aesthetic, free of ornament and responded to the budgetary and spatial restrictions in innovative ways, moving away from traditional dwelling forms. The plans were responsive to the suburban sites and demonstrated efficient and functional planning fit for a growing family. In response to the post-war shortage, new materials were used for construction including fibro, timber and occasionally brick. Every step taken in the internal planning was rational and aimed to maximise the use of space. The kitchen, dining and living areas were often combined, with plumbing grouped to lower the cost and with bedrooms located in a separate wing. The climate was considered in the designs, minimising east and west glazing with living areas oriented towards the north.¹² Although the Victorian Small Homes Service did not resolve the Australian housing shortage, it provided a vital precedent on dealing with not just the crisis, but also with the impacts of rushed, mass-produced home building following World War II.

In Queensland, homes began to shrink in size following the State Housing Act of 1945 and associated regulations on material supply and floor size regulations, with small, budget friendly dwellings increasing in demand. In 1945, some homes were built only big enough for newlyweds and perhaps a small child, presuming that additions would be made later as the families grew.¹³ The situation only continued to worsen over the following years. In 1948, it was reported that the floor area of newly built homes was as low as mere 600 square feet (55.74m²), less than a half of the allowed limit, as most families simply could not afford to build a home big enough to suit their needs.¹⁴ In 1952, whilst the materials became more freely available, inflation significantly impacted the affordability of homes. A *Courier Mail* article from the same year provides an interesting insight on the post-war “shrinkage” of the family home, comparing the size being around 1250 square feet (116.13 m²) in 1948, transitioning to approximately 850 square feet (78.97 m²) in 1952 (Fig. 1).¹⁵

Considering the shrinking home sizes and the need for affordability, the establishment of a Queensland chapter of Small Homes Service Bureau would have seemed beneficial in relieving the local housing crisis. Parallel SHS bureaus operated around the country at the time, in Melbourne, Sydney and Perth.¹⁶ In Brisbane, the Small Homes Service Bureau was advertised in 1952 to open under the Queensland Chapter of Royal Institute of Australian Architects in 1954 and was set to offer a complete service including plans, working drawings and specifications for a variety of designs. The designs were to be made available at £10, (almost two weekly wages).¹⁷ In 1954, the establishment of the bureau was decided against, allegedly due to insurmountable difficulties. Apart from the general reasons, it was stated that the designs from the cities were not fit for the hilly Brisbane suburbs. Whilst some contended that certain designs could still be reconfigured for Queensland conditions, the bureau did not end up going ahead and further explanations were not provided.¹⁸

THE SHRINKING HOMES OF QUEENSLANDERS



● Queensland's houses are shrinking in size. The plans above show how.

Each of the houses in these plans cost about the same to build. The first was in brick. They changed to partially brick, and finished almost entirely timber on a brick foundation.

1948: This plan represents the accommodation possible within the permitted area of 1253 square feet for house and 200 square feet for garage. Construction is brick throughout. The cost would be approximately the same as for the three plans that follow.

1949: The impact of the 40-hour week means the sun-room is deleted to offset rising costs, and the house is reduced by one "square" of 100 square feet.

1950: The third bedroom has now become a luxury, perhaps to be added later, so provision is made in the plan accordingly. The house is now a combination of brick and timber.

1951: The separate dining room has gone. The kitchen is now combined with laundry, and a "utility" bay for meals, homework and ironing. The entrance lobby has almost disappeared. The garage has been placed under the house or become merely a raised "carport." Construction is now timber on a brick or concrete base. Area is now between 900-1000 square feet.

1952: A typical recent West Coast of U.S.A. single family house plan. Separate dining room and entrance lobby have disappeared. Convenient "compartmented" sanitary section has gone. Provision for a future bedroom is made. There are practically no passages. The area is approximately 850 square feet.

Will the 1952's house dwindle to this?

These plans have been based on the experience of the Brisbane architect who drew them. Messrs. Ford, Hutton, and Nowell.

Figure 1. Graphical demonstration of the home "shrinkage" between 1948- 1952. Source: "The Shrinking Homes of Queenslanders ", *The Courier Mail* (Brisbane), March 5, 1952.

Affordability and Comfort for Queensland's Housewives

It could be argued that apart from the vague reasons given, Queenslanders were perhaps more conservative when it came to home building in comparison to the residents of other states. Prior to the war, the traditional home in Queensland, the "Queenslander", was elevated above the ground plane on stumps, with its most recognisable features being timber walls, wrap around veranda and steeply pitched corrugated roofs. The "timber and tin" homes were relatively cheap to build, with materials being easy to source and transport. While the elevation of the "Queenslander" on stumps protected from flooding and verandas were often screened to shield the interior from harsh sunlight, the homes were poorly insulated and prone to termite attacks.¹⁹ These concerns were investigated in "Report on Tropical Housing" in 1943 by Frank Arthur Cooper & Sir Raphael Cilento. The importance of the prevention of fatigue, particularly to the housewife, was one of the main objectives alongside a greater focus on a more efficient kitchen layout to minimise unnecessary labour.²⁰

Austrian architect Karl Langer, who emigrated to Australia from Vienna in 1939, further elaborated such principles in his publication "Subtropical Housing" of 1944, in which he introduced the concepts of fatigue prevention and glare elimination through modern design principles.²¹ Critically comparing the "Queenslander" to a cave, Langer promoted on-ground slab construction, extensive use of glass, insulation, elimination of stairs and a simplified home layout.²² Points listed in "Subtropical Housing" included an emphasis on overhanging eaves to prevent direct sunlight, ventilation of the rooms and the aspect of the dwelling taking an advantage of the summer breezes. The connection of the indoors and the outdoors was also promoted. It was argued that the traditional stumps were inefficient in protecting dwellings from termites and were thought to disconnect the residents from their land.²³

Whilst the design aspects were central to Langer's research, the question of affordability was just as prominent in the publication. "Subtropical Housing" indicated some areas for savings in construction, including the use of on-ground slab, and suggested an erection of "the basic house" at first, which could later be extended to suit the needs of a growing family. The floor plate 1 featured in "Subtropical Housing", presented an application of those principles to practice. The plate demonstrated the open plan arrangement, northerly aspect and the connection between inside and outside. The design was modest in size and emphasised open plan kitchen, dining and living. Two bedrooms were located in a separate wing, with an opportunity to extend the dwelling with another bedroom at later date.²⁴ This was a feature which became widely adopted by RVIA's SHS in the subsequent years (Fig. 2).

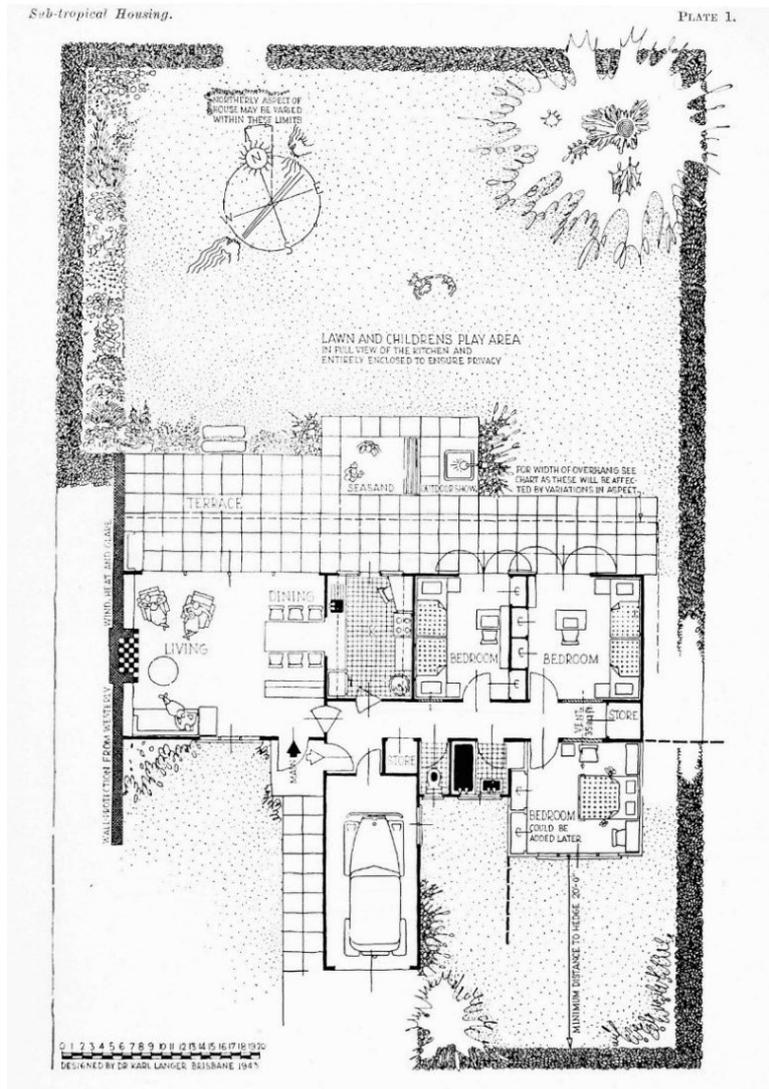


Figure 2. Floor Plate 1 in Karl Langer's "Subtropical Housing". Source: Karl Langer, "Sub-Tropical Housing," (St. Lucia, Qld: University of Queensland Papers), May 29, 1944.

The simplicity, affordability and compactness of Langer's schemes alongside his architectural lecturing at the University of Queensland, significantly influenced the new wave of home design in the post-war Queensland. By 1952, it was declared by the local writers that the "Old, hot house has gone by the architect's drawing board" and designs that addressed Queensland's climatic concerns and modern principles were becoming the norm.²⁵ The new modern look in Queensland homes was characterised by a northerly aspect to take advantage of the summer north-easterly winds and to protect from cold western winds in winter. The long and narrow plans with large window openings were favoured to provide for the best possible cross-ventilation and commonly featured open planned kitchen, dining and living, allowing for versatility. As the demand for cost effective solutions persisted, construction was simplified and the traditional elements such as the veranda and stumps were largely replaced with patios and on ground slabs.

Promoting the Desirability of Small Homes

Due to differing viewpoints, it was difficult for the Queensland RAI Chapter to initiate a change with the support of the Queensland Government. Print media became an indispensable outlet in the promotion of the role of an architect to the wider public, proving that progressive homes could be well designed whilst abiding to the government regulations. One of the most significant post-

war media involvements in Queensland was *The Courier Mail* design competition for affordable, forward thinking housing. The competition was announced on February 16th, 1945, with winners published early in June of the same year in the “*Courier Mail Presents Your Post-War Home*” booklet.²⁶ The categories focused on three different home scales (two, three and four bedrooms) to fit the requirements of families of diverse sizes and two material categories, one being timber frame and the second one brick and concrete. From 288 entries, fourteen of the most successful designs by architects including Kevin Pethebridge, Robin Boyd, Ronald James Corbett and Collin Jessup and architectural students such as Campbell Scott, Colin Tesch and Dean Prangley were featured in the booklet.

The below table presents an overview of the designs that responded to the government size regulations under 1250 square feet (116.23 m²). All of the published submissions presented clever responses to the size regulations through careful internal planning and deliberate use of materials.²⁷ (Fig. 3) Whilst many of the entrants were largely unknown at the time, in the latter years their recognition was built upon their success in small home designs. Boyd’s joint entry with architects Pethebridge and Jessup in *Courier Mail*’s “Post-war Home” won the second prize for the two-bedroom brick and concrete category. The judges praised the new note in plan arrangement, featuring interconnected kitchen, servery and open living and dining. The home shared some similar attributes to the RVIA’s linear configuration of Small Homes Service designs of the following years. This included the separate living and bedrooms wings, outdoor patio, future provisions for garage and low-pitched gable roof.

Category	Number of bedrooms	Material	Entrant	Size	Cost Estimate 1945 (2020 Equivalent)
Class A Winner	2 Bedroom	Timber Frame	R.J. Corbett	97.55m ² Excluding terrace & garage	£1090 (\$77,073.00)
Class A Second Place	2 Bedroom	Timber Frame	Campbell Scott	97.55m ² Total Floor Area	£1040 (\$75,538.00)
Class B Winner	2 Bedroom	Brick & Concrete	D.S Prangley	104.5m ²	£1290 (\$91,216.00)
Class B Second Place	2 Bedroom	Brick & Concrete	Robin Boyd with Pethebridge & Jessup	104.05m ²	£1370 (\$96,873.00)
Class C Winner	3 Bedroom	Timber Frame	Collin Tesch	116.23 m ²	£1225 (\$86,619.00)
Class C Second Place	3 Bedroom	Timber	R.J. Corbett	115.67 m ²	£1230 (\$86,973.00)

Figure 3. Comparison of the construction types, floor sizes and prices. Based on “*The Courier Mail Presents: Your Post-War Home*”, *The Courier Mail* (Brisbane), 1945.

Another entrant whose small homes designs are further discussed in this paper was Campbell Scott, a then architectural student at the University of Queensland. Scott’s entry won a second prize in the timber construction category. The L-shaped plan featured combined living, dining, and kitchen in one wing and bedrooms and bathrooms in the second wing. The judges applauded the originality of the design in terms of raising the two bedrooms above a garage. The home’s low-pitched skillion roof, open plan and compact internal planning displayed similarities with Scott’s later work in partnership with Eddie Hayes.²⁸ (Fig. 4) *The Courier Mail*’s “Post-war Home” competition can be considered as a starting point of progressive small homes design not just in Queensland, but Australia wide. While the entries remained unbuilt, they triggered a much-needed discussion on post-war housing, proving that government regulations and clever solutions

can go hand in hand. The design entries of both Boyd and Scott show a clear link to their future involvement in small homes design and their early interest in the resolution of the housing crisis through progressive schemes and careful planning.

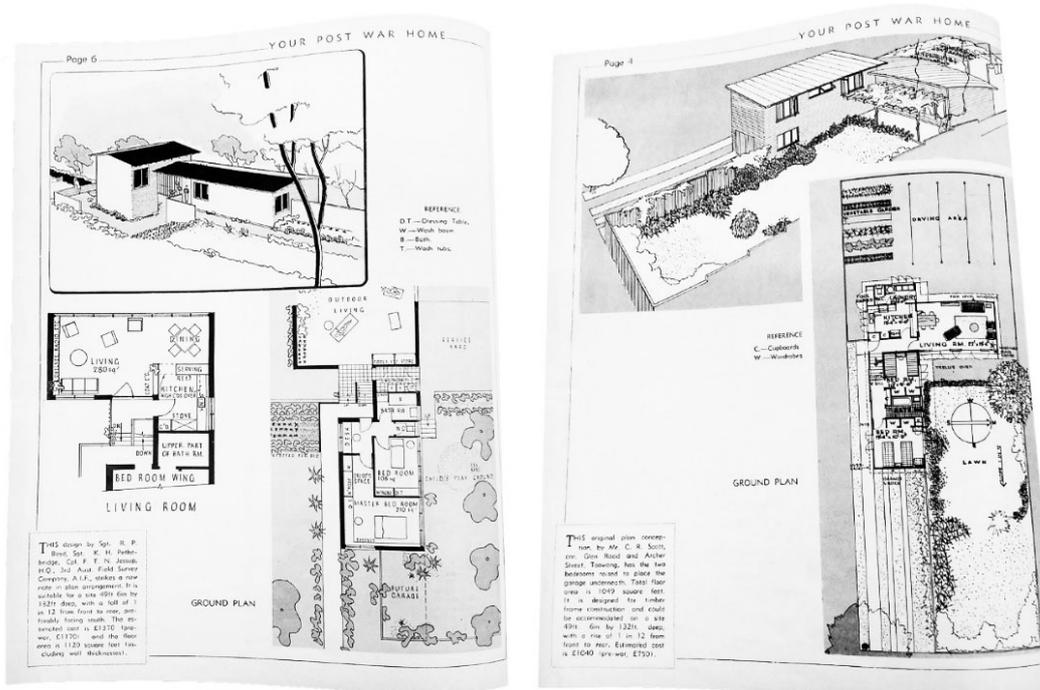


Figure 4. The entries of Robin Boyd on the left and Campbell Scott on the right. Source: "The Courier-Mail Presents: Your Post War Home," *The Courier-Mail* (Brisbane), 1945, 6 & 4.

Queensland's Small Homes Pioneers

Considering the demand for affordable housing in post-war Queensland, several architectural practices adopted the constrictive conditions as an opportunity to supply quality, climate responsive designs at modest cost. The architectural education also played an important role in advocating for contemporary dwelling typologies in Queensland. This included the lecturing of Langer at University of Queensland (UQ) and his focus on modern and affordable home design suited to the tropical and subtropical climates. Professor Robert Cummings, who was appointed as a chair of architecture at UQ in 1949 shared a similar point of view to Langer. Cummings actively lobbied for an improvement in Queensland homes, more openness in planning, provisions for cross-ventilation and better use of room space to maximise occupants' comfort and convenience.²⁹

As outlined, the role of media was crucial in communicating the progressive small home designs to the public. Boyd and Newell acknowledged the work of young Queensland architects in the "St. Lucia - A housing revolution is taking place in Brisbane" article in *Architecture Australia* in 1950. The feature described the transition from the traditional "Queenslander" to post-war homes specific to the local conditions and freed from stylistic precedents. It defined the Brisbane's suburb of St. Lucia as going through an architectural revolution at the time, with the highest concentration of progressive buildings in the state.³⁰ Architects were experimenting with forms and colours, often applying the new design principles to their own family homes. St. Lucia with adjoining Indooroopilly, Taringa and Toowong soon became renowned for their inventive architecture.³¹ The article promoted several homes from those suburbs designed by architects who became the pioneers in progressive and climate responsive small home design in post-war Queensland including Hayes & Scott, Karl Langer, Gordon Banfield and Vitally Gzell.

Gzell's own family home in Toowong was featured in the publication. Gzell who immigrated to Australia from China in 1923 and completed his architectural studies at UQ advocated for timber and brick construction, an abundance of glazing and strong connection to the outdoors. Applying those principles into his house, the design utilised clever internal planning demonstrated in the flexible and open plan and private outdoor areas for the children to play at, while remaining compact in size. It was designed to minimise housework with strategic components such as hose-out living room floors and minimal overhead kitchen cupboards to prevent stretching. The interior featured open living and dining and a sleeping wing with three bedrooms and centrally located bathroom.³² Ingenious details such as breakfast bar desks that pulled out from below the servery saved space, cost and doubled in use as study desks for Gzell's two children.³³ The dwelling was a fine example of a small post-war house designed with climate, budget and modern principles in mind. (Fig.5)

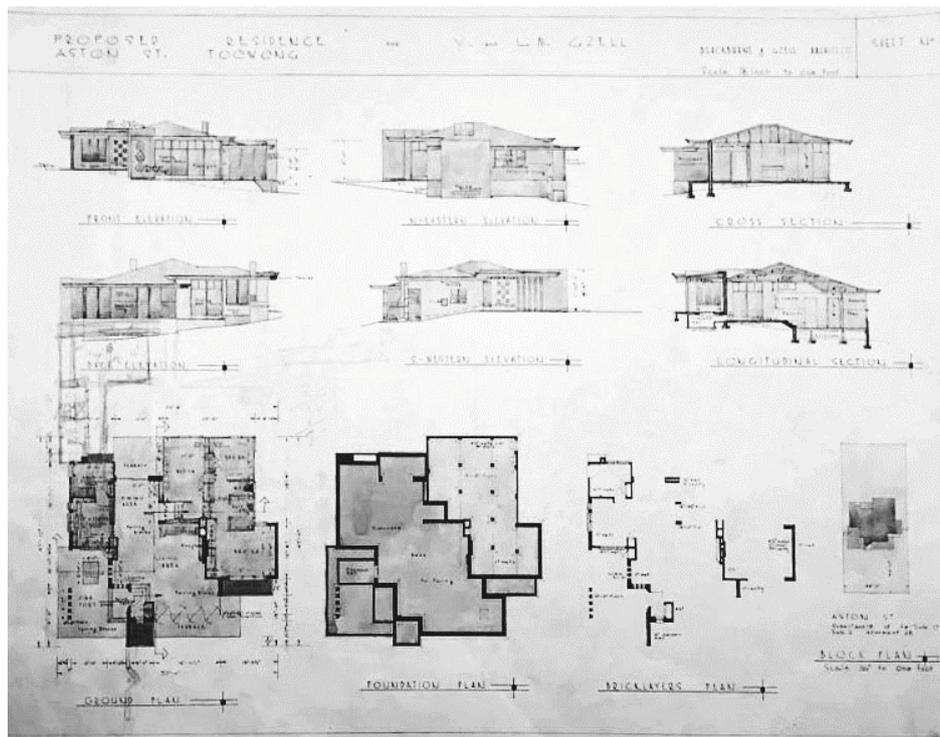


Figure 5. Plans, elevations & sections of Vitally Gzell's residence in Toowong, early 1950s. Source: Digital Archive of Australian Architecture, "25 Aston Street, Toowong," Accessed August 11, 2020, <https://qldarch.net/project/summary?structureId=2192>.

Another small home pioneer, Gordon Banfield's home was also featured in numerous publications, including *Architecture Australia* and the *Courier Mail*. The latter's 1953 article titled "This Brisbane home brings outdoors indoors" highlighted the connection between in and out through the use of glass sliding doors. The use of glazing also functioned to provide for natural ventilation throughout the house. The T-shaped home constructed of brick was laid on a thick on-ground slab, covered with polished cork, effectively acting as an easy to clean insulation, providing coolness in summer and warmth in winter. Although the Banfield's had three children, the home was modest in size. Banfield encountered a dispute with the local council over building on a public easement, with the council ordering a partial demolition of the house on a public laneway. This altercation was possibly the cause of Banfield's relocation to Melbourne shortly after the completion of his St. Lucia home, effectively preventing him from delivering more notable small home contributions in Queensland.³⁴

Perhaps the best-known names in design of small, budget and climate conscious home design in post-war Queensland were Edwin (Eddie) J. Hayes & Campbell R. Scott. The partnership of Hayes & Scott commenced in 1946, concentrating mainly on detached dwellings.³⁵ The lessons learnt

from lightweight prefabricated structures used during the war, enabled them to explore new forms of climate responsive designs throughout Brisbane and Surfers Paradise.³⁶ In 1946, upon Scott's studies completion, Hayes left his position at J. P. Donoghue's office and their partnership, which lasted until 1984, was formed. The design for the sub-tropical climate was characteristic to their work and had its roots in the teaching of Karl Langer, Scott's influential lecturer at the time of his studies at UQ.³⁷ Whilst incomparable to the success of Robin Boyd's cooperation with *The Age* newspaper in Melbourne, Hayes and Scott's designs were promoted to the public through media with popular features in *The Courier Mail* and *Brisbane Telegraph*.

The 1947 Hayes House in St. Lucia was one of their early schemes earning widespread praise. The dwelling adopted wide eaves to protect from the harsh sunlight and presented a modest L-shaped floor plan organised to maximise the views of the Brisbane River.³⁸ The floor plan presented more traditional planning with the separation of the kitchen, dining and living. The bedroom, nursery and bathroom were in a separate wing of the house. The more progressive elements of the design included the connection between the inside and outside through glass doors, also contributing to cross-ventilation of the dwelling. This was furthered by top hung windows along the perimeter for improved climate control.³⁹ Whilst the home still displayed some elements characteristic to the pre-war period, it marked the transition to climate responsive post-war homes. The compactness of the plan carefully considered internal planning and deliberate use of the materials manifest the qualities of affordable post-war building. (Fig. 6)

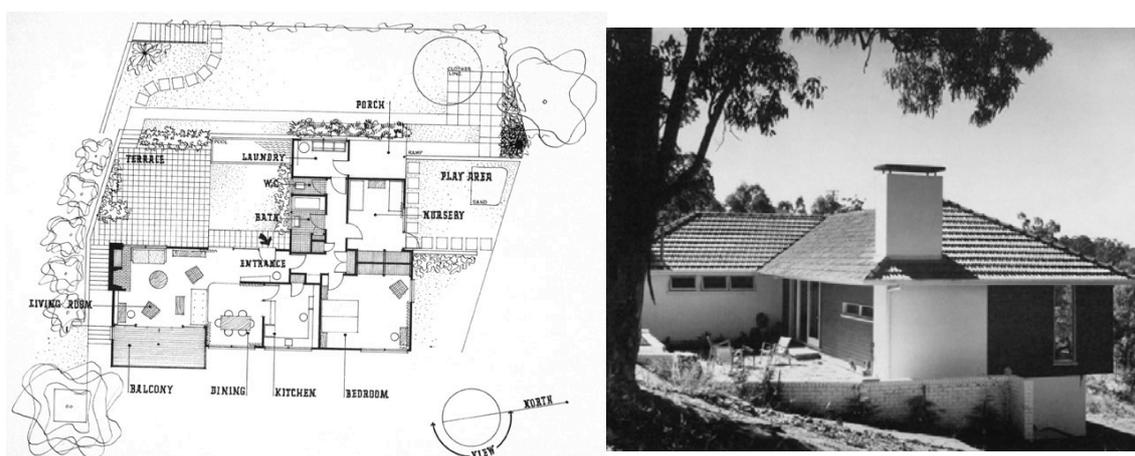


Figure 6: The floor plan and a photograph of Hayes house. Source: Australia. Digital Archive of Australian Architecture, "Hayes House St. Lucia," accessed August 10, 2020 <http://www.qldarch.net/beta/#/project/summary?structureId=aHR0cDovL3FsZGFyY2gubmVOL3NOcnVjdHVyZS84ODY%3D>.

Another example of Hayes & Scott's early small home design is the Palfreyman's House in Taringa. The 1949 home responded to the client journalist Marjorie Palfreyman's specific requirements that included budget constraints, minimizing of housework and general ease of living. Whilst set on a modest footprint of 860 square feet (80m²), the home utilized the floor area to its limit. The compact planning demonstrated separation of the two bedrooms and the living space. The living and dining exhibited modern planning principles with the openness and connection to the outside patio and garden with large glass doors. The design responded to the climate with eaves overhangs on a low-pitched hip roof. Windows placed on both sides of the dwelling provided for favourable cross-ventilation within the home. In contrast to the modern open planning, the kitchen was enclosed in an alcove, more characteristic to the pre-war homes. The dwelling was complete with built in furniture, effectively maximising the floor area and contributing to the open feeling of the home. The timber weatherboards were painted in modern grey-green, combined with chocolate coloured soffits, white and grey-blue trims and bright yellow front door.⁴⁰ Palfreyman's house was portrayed in *Courier Mail's* 1954 article "An Indooroopilly Woman Sits Back and Says..." in 1954 as an example of a streamlined comfort maximising the use of materials and the small footprint.⁴¹ (Fig. 7)

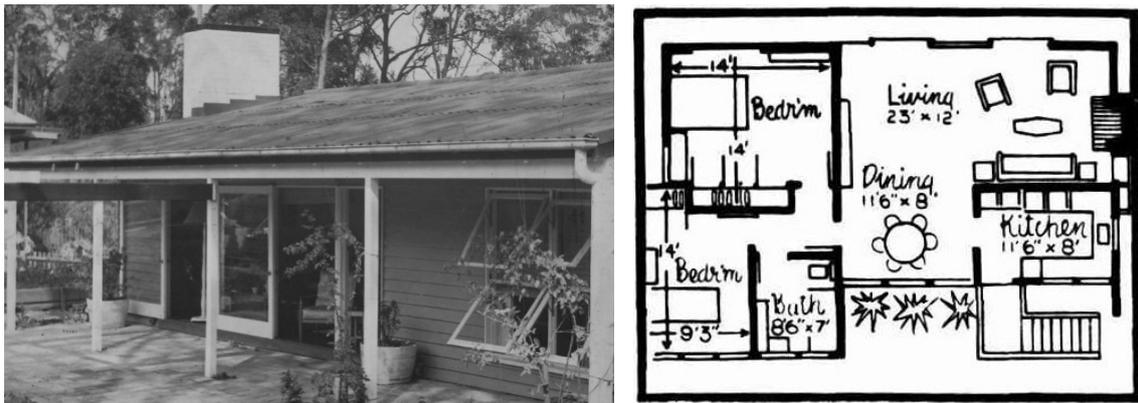


Figure 7: The photograph & the rectangular floor plan of the Palfreyman's House. Source: Photograph: Andrew C. Wilson, *Hayes & Scott: Post-War Houses*, (St. Lucia, QLD: University of Queensland Press, 2005), 20. Plan: "An Indooropilly Woman Sits Back and Says..", *The Courier Mail* (Brisbane), November 13, 1954.

Realising the importance of the media in communicating their designs to the public, Hayes & Scott presented an exclusive £3000.00 design in the *Brisbane Telegraph* in 1954. This home was to be built on an average Brisbane block on a sloping site and to be fit for the average family. The scheme aimed to use the building cost by designing a smaller, easy to maintain home. The design consisted of concrete slab combined with partial elevation on concrete stumps to accommodate potential slope. Walls were to be clad in weatherboards with roof of corrugated asbestos sheeting. The internal planning of the home was similar to Palfreyman's house with bedrooms located in a separate wing to the living areas. This design was slightly larger with floor area of 916 square feet (85.12 m²). Whilst only slightly bigger, the home featured three bedrooms and a more resolved kitchen area. Although still enclosed, the kitchen also included a breakfast bar table and adjoining laundry. Correspondingly, to the built designs of Hayes and Palfreyman's houses, the unbuilt design featured window openings on both sides to provide for cross ventilation. Large eave overhangs and the North facing orientation of the living areas of the home furthered the climate control. The low pitch of the hip roof shows an elegant transition to more modern roofs characteristic of Hayes and Scott's designs in following years.⁴² (Fig. 8)

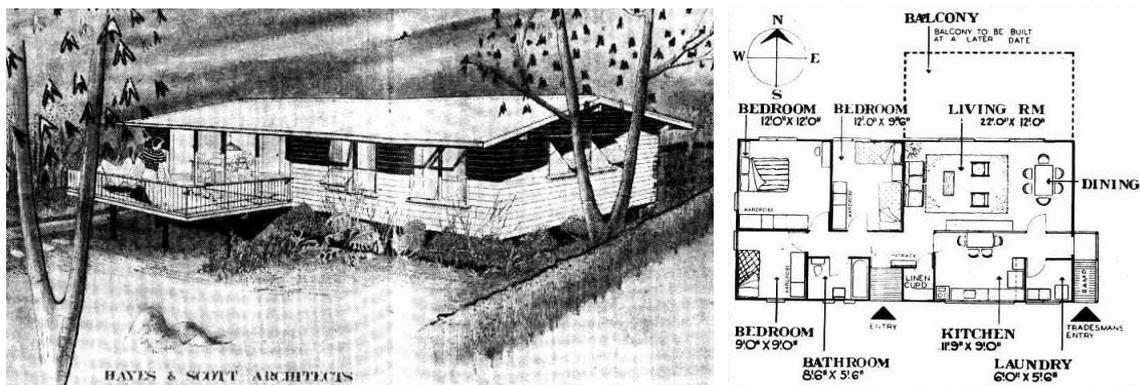


Figure 8: The perspective and the compact floor plan of the £ 3000.00 design. Source: "Presenting Our Exclusive £3,000 Home Design," *Brisbane Telegraph*, August 9, 1954.

Whilst the above discussed homes vary in size, material and internal planning, they all share the common traits of attentive internal planning and responsiveness to the climate. The architects of those homes responded to the budgetary, size, materials, climatic and labour constraints, resulting in comfortable small homes fit to the climate. Those pioneers of small homes set a precedent and inspiration to the architects in the following decade such as Peter Heathwood, John Dalton, Graham Bligh, Robin Gibson, Geoffrey Pie and others.

The Legacy of Queensland's Small Homes

The severity of the post-war housing crisis brought on the need for swift action. As the government initiatives proved unsatisfactory in terms of design and comfort, Queensland architects seized the opportunity to demonstrate that with careful planning, homes can be comfortably organised on a small footprint and designed with climate, materials, and budget in mind. The relationship between the architectural profession and the media was critical in educating the public that ambition was disproportionate to size and that small homes did not need to compromise on functionality and comfort. Besides the enduring success of those schemes borne out of the necessity and scarcity of resources their values remain pertinent to the present day as Australia endures climate change and global pandemic in 2020.

Consequently, Australians are faced with balancing family life and work commitments from their homes, prompting an inquiry into housing arrangements. Akin to their post-war counterparts, architectural professionals are confronted with the urgency to reconsider current dwelling models to provide for housing that is flexible and sustainable. There may no longer be strict regulations imposed on floor sizes and materials, however modest homes are more sustainable in regard to costs and material quantities, presenting a more affordable alternative to larger dwellings.⁴³ The involvement of the architectural profession will continue to take on a pivotal part in proving that thoughtfully crafted small homes instigate the direction to more resilient and adaptable dwelling models of Australia's post-pandemic future.

Endnotes

¹ Phillip Goad and Julie Willis, *The Encyclopedia of Australian Architecture* (Melbourne VIC: Cambridge University Press, 2012), xxxi.

² "Commonwealth and State Housing Act," Commonwealth Government, 1945.

³ Ibid.

⁴ "Commonwealth and State Housing Act," Commonwealth Government, 1945.

⁵ "State Housing Act," "Building Operations Act," and "Timber and Building Materials Control Act," Commonwealth Government, 1945.

⁶ Queensland Department of Housing and Public works, "Our History: 1945", last updated 2014, <http://www.hpw.qld.gov.au/aboutus/History/Pages/1945.aspx>.

⁷ Peter Bell, "A History of the Queensland House", Historical Research Pty Ltd, 2002, 35-37.

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⁹ Goad and Willis, *The Encyclopedia of Australian Architecture*, 633.

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