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Tropical Panoramas: Competitions for Model Houses in Northern and Western Queensland 1923-1930

Technical controversies about the tropical house in the 1920s and early 1930s in Australia reveal the state of crisis that put the design of the house in Northern and Western Queensland on trial. Medical institutions, community organisations and a reluctant architectural profession all sought to develop a new ideal dwelling that would maintain the health and well-being of white settlers in the tropics. This paper explores the role played by the Public Health Organisation, the Queensland Town Planning Association and the Architectural & Building Journal of Queensland in organising a set of competitions for the tropical house in 1923 and 1930. It looks at how these bodies engaged architects in medical discourse on the tropical house and examines the reasons why the organisers deemed such competitions to have ended ultimately in failure. By considering architecture at the intersection of socio-technical discourses of settlement and climate, the politics of environmental design and material selection emerge.

These competitions may be treated as 'panoramas' that sought to gain a wide overview of the architectural profession's thinking on the tropical house. Although panoramas claim to see everything, their fixed points of view mean that they can see nothing outside themselves. The organisers expected the competitions would produce innovative designs but were blind to the limited understanding Brisbane architects had of building in Queensland's tropics. By examining competitions for tropical housing in Queensland, the paper fills in gaps in the prehistory of tropical architecture and reassembles the contested beliefs by those involved, about what a building's thermal performance could do.

In the 1920s, the design of the tropical house in Queensland was particularly controversial, as state-promoted 'tropical colonisation' by white settlers was thought to rest on the welfare of the servant-less housewife. During the early twentieth century, whiteness was explicitly monitored and regulated by tropical medicine.¹ Doctors argued that the tropics could be made safe for white residents through disease control and immigration restriction. In 1920, the Australian Medical Congress had declared the climate of tropical Australia safe for White settlement.² The earlier nineteenth century position, that white bodies were out of place in the tropics, was largely dismissed, but climatic concerns lingered on. Since 1905, some local doctors in tropical Queensland had resisted the metropolitan claims that most tropical illness could be explained by disease.³ Instead they focused their attention on the fatigue of white women, blaming the construction of houses and lack of domestic help. Where descriptions of colonial houses throughout the rest of the tropical world assumed a ready supply of native or indentured labour to keep the house cool and serve their white overseers,⁴ the residents of tropical Queensland were increasingly distinguished by the requirement of white men to perform menial labour in the field and women to do so at home. Based on laboratory studies and field trials, the medical profession was largely certain by 1920 that white men could work in the tropics. However, doctors, politicians and women's groups began to argue that the welfare of women could not be ignored in debates about the settlement of Northern Australia. In the hot and humid climate, confined indoors and without any domestic help, white women in tropical Queensland were thought to be at risk of a nervous breakdown (neurasthenia), infertility and fatigue. Though other parts of Australia were equally hot in summer and domestic help was also in short supply, living in the tropics was as much a set of expectations about European lifestyle and status as it was a question of health.⁵

The medical profession, country women's association and government all believed that housing reform was necessary and that the health of European families depended on the climatic suitability of their housing. Separately, between 1921 and 1922, the Governor, Sir Matthew Nathan, and the Country Women's Association,⁶ called on the Public Health Association to let the public know what was the ideal house for tropical Queensland, in a bid to rid the state of what Nathan described as the "wretched little wooden and corrugated iron shanties".⁷ However, it would take another eight years, and a number of false starts, for any design to be produced. The story of how these initial calls for a model house eventuated in a design competition in 1930, may at first glance appear parochial, but is significant as it helps answer the question of how the debate about tropical housing during the inter-war period migrated from the field of public health to the field of architecture. In the process, it documents the slight deviations in the purpose of the competition and the contingencies these rested on. Far from a heroic story, it highlights the mundane and often awkward struggle for professionals to appear publically relevant.

While international attention on competitions in Australia focuses on the Sydney Opera House and the design for Canberra,⁸ small competitions tell their own stories and are ways to understand some of the local controversies at play in producing architecture. Competitions

since the 1970s have been used by historians as means to understand how buildings were brought into being, the relationship between patrons, architects and institutes as well as how architects were influenced by social and political ‘forces’.⁹ Although critical historians such as Hélène Lipstadt view competitions as one the few examples where architecture exists as an artistic field rather than a profession,¹⁰ a more pragmatist position views competitions as an example where the initial aim of a project is altered by ‘a composite collective action’¹¹ of a diverse range of actors that include both people and objects. This paper takes such a pragmatic stance. Drawing on the methods of Actor-Network Theory, it is less concerned with the artistic intentions of the participants, or the actual entries themselves, but rather the contingent factors involved in competitions for tropical housing in the inter-war period.¹² Such contingencies clarify how despite the best intentions of professional bodies, competitions can fail to produce the desired results and far from offering a panorama of design innovation, can highlight the conservatism of most participants.

First competition

On the 14th September 1922, one month following a session on ‘The Housing Question’ at the inaugural Country Women’s Conference at the Brisbane Women’s Club, M. H. Brydon, a committed Taylorist and a Departmental Inspector for Women’s Work, returned to the Women’s Club with a proposal. Brydon was concerned that the efficiency of women’s “national service as homemakers” had decreased since the war.¹³ She framed the problem of housing design as one of national significance and that women had a duty to help. She asked her privileged audience to fund a design competition to “decide the type of house most suitable for tropical or arid districts”.¹⁴ The competition would be open to all and require the submission of a sketch plan. Although she noted that conditions for the competition could be decided on in the future, the Women’s Club would maintain “the right to publish in the daily Press, the winning or any other sketch”.¹⁵ Brydon was a firm believer in competitions, both to generate interest and to educate women about house design. Yet while Brydon sought to create publicity for her club and educate women, the Governor, Sir Matthew Nathan, had greater ambitions.

Nathan, a former military engineer and governor of Sierra Leone, as well as the Gold Coast, Hong Kong and Natal,¹⁶ not only supported the competition, but attempted to elevate its standing, enlist overseas expertise and transfer responsibility for its organisation away from the Brisbane Women’s Club. As a governor with a strong interest in promoting British immigration, he was also a patron of the Country Women’s Association, the Town Planning Association and the Public Health Association.¹⁷ Such connections would see Nathan act as a mediator, shifting the idea of using a competition to improve the standard of tropical housing from a women’s concern, to one of public health and ultimately one of town planning and architecture.

At the beginning of October 1922, at the start of ‘Health Week’, a public health ‘campaign against ignorance’, the Governor endorsed the competition, and pledged ten guineas¹⁸ if a 100 guineas prize was raised.¹⁹ Nathan’s proposal for a competition was driven by questions

of expertise and innovation. Not only did he assume that large prizes would attract competent architects but ‘foreign experience’ was also required to brief the competitors. Nathan, drawing on his own colonial expertise, believed entrants needed to know what was happening in tropical housing elsewhere in the British, American and Dutch colonies which he thought was “more scientifically studied” than in Britain’s “White Dominions”.²⁰ In addition, he set out his selection criteria for a jury, which ought to comprise of “an architect and two doctors of recognised pre-eminence: one of the latter should be a woman and all three should have knowledge of life in the tropics”.²¹ His call for a female representative on the jury was novel at this time, as neither a large international competition like the design of Canberra in 1916,²² nor a national one such as the design of the Anzac Memorial in Brisbane in 1928,²³ had any female jury member. Yet while Nathan echoed Brydon’s earlier call for female representation on the jury, his specification that the female jury member had to be a doctor, effectively ruled her out. He also stacked the assessment of the competition in favour of the medical profession, in effect forming a medical jury to assess what was seen to be a physiological design problem.

Through Nathan’s endorsement of the competition at Health Week, he shifted the responsibility for organising the competition away from the Brisbane Women’s Club to the Queensland branch of the Public Health Association. That Nathan sought to shift responsibility is not surprising, as he had already urged the Public Health Association of Queensland to come up with a design for a tropical house at their inaugural meeting in August 1921.²⁴ Although nothing had been done in the intervening period, Nathan’s Health Week speech in October 1922 brought renewed momentum to the Public Health Association. That month, a sub-committee was formed for the competition, with Brydon included and some progress was made with funding with a further pledge of five guineas from the Australian Sugar Producers Association.²⁵ It was clear from the press reports, that the organisers hoped that the pledges from the Governor and the Sugar Producers Association would spur other organisations and members of the public to fund the competition.

The question of funding the competition would haunt the first attempt at a design competition. In December, when further details emerged in the press about the competition, the organisers proposed a total prize fund of £350, doubling the first prize from 100 guineas to £200. This was a huge prize, and only slightly less than the 250 guinea first prize provided by the Commonwealth government for the Port Said Anzac Memorial competition being held at that time.²⁶ To put this in perspective, the Port Said Anzac Memorial was to cost £11,000,²⁷ whereas a small worker’s cottage averaged £442 at the end of 1922 in Queensland.²⁸ Even in 1927, when the Queensland Institute of Architects drew up guidelines for running competitions, they recommended a total prize fund of “roughly about a ½ and 1 per cent. of the value of the work”.²⁹ In contrast, the Public Health Association were offering a prize fund worth approximate 80% of the cost of a small worker’s cottage. They were also woefully short of funding the prize, with pledges only totalling £15.75. Despite widespread press coverage throughout Queensland over the Christmas holiday period and further calls for funding by the Governor in May 1923, by October 1923 the competition was dead in the

water. The Public Health Association's honorary secretary, E. R. B. Pike, noted that "the effort so far has been a dud", claiming that the lack of interest shown was "proof that the average individual has little realisation of essentials".³⁰

Pike may have been licking his wounds, but this did not stop Matthew Nathan from trying other strategies to develop a model tropical house. Following a visit to Townsville where he stopped by the Australian Institute of Tropical Medicine,³¹ he wrote to the Public Works Department (PWD) regarding investigations into tropical housing in Queensland.³² The department drew up a set of nine plans and at the end of 1923 sent them to Townsville for advice on their climatic suitability.³³ Yet though the Institute's report formed a chapter on tropical housing in the Division of Tropical Hygiene's service publication "The White Man in the Tropics"³⁴ it seems unlikely that the outcomes were highly innovative as in June 1925 Matthew Nathan lobbied the Town Planning Association to look further into the design of a suitable tropical house.³⁵

Nathan pushed the Town Planning Association to consider tropical housing just as controversy raged in the press and parliament over the conditions of worker's houses in Northern Australia. In May 1925, Sir George Buchanan, a British civil engineer commissioned by the Federal government to survey North-West coast of Australia, had described the houses he came across as nothing more than 'tin boxes'.³⁶ Nathan requested that the association look into "the standardisation of dwellings suitable for tropical and sub-tropical parts of Queensland". Nathan, drawing on English experience, saw potential in prefabricated steel and new materials like celotex to reduce costs. He also suggested building a model house for the Royal National Exhibition and training people in constructing houses of a "standardised pattern".³⁷ J. V. D. Coutts, the busy-body editor of the *Architectural & Building Journal of Queensland*, offered Nathan his support, but not everyone on the executive of the Town Planning Association agreed with the Governor. Alderman Thomas Prentice noted that the problem had already been considered at length at the Town Planning Conference in 1918, and that anyway the executive would have no problem "designing a plan suitable for Queensland conditions".³⁸ Prentice may well have wished not to open old wounds. The discussion at the 1918 conference centred on A. B. Wilson's impractical plan for a subtropical house which was roundly criticised and did little to assuade the public that architects had mastered the art of climatic design.³⁹ However the executive agreed to look into the matter and sought the help of the architect members of the association.

In effect, Nathan was asking the Town Planning Association to reopen the black box of the tropical house while at the same time translating responsibility for the problem away from medical bodies such as the Public Health Association or the Australian Institute of Tropical Medicine to the Town Planning Association and from there to architects. He had attempted to get the Association to revisit an issue that they thought had been settled at their conference in 1918, as once more tropical housing and their construction was a political issue.

From town planning to architecture

However Nathan finished his term as Governor in September 1925 and there was little

discussion of tropical housing by the Town Planning Association until their annual meeting in August 1928, when Coutts lamented that his sub-committee had done nothing to advance housing standards in Western and North-Western Queensland but thought that the incoming committee should look into it.⁴⁰ With Nathan gone, there were no longer any formal connections between the Country Women's Association, the Public Health Association and the Town Planning Association. It was not that the issue went away as at the annual Country Women's Association conference in October 1927, delegates called for improvements in housing conditions and water supply in Western Queensland to prevent "the drift to the cities, where by contrast conditions appear almost as Fairyland".⁴¹ The focus for country women shifted from Queensland's humid tropical coast to its sparsely populated arid interior. Coutts' renewed interest in Western housing conditions came shortly after he completed the Hotel Richards in Mitchell, Western Queensland, which he published in February 1928, emphasising its widespread use of celotex and fibrocement sheeting.⁴² After a three year lull, Coutts went on to spearhead the Town Planning Association's campaign to improve housing in Western Queensland, giving lectures and in due course organising a housing competition.

When the Town Planning Association started to look at housing for Western Queensland they adopted a paternalistic approach. They claimed that their work was to offer guidance to "settlers in the 'way back' country" and believed that housewives suffered poor health and discomfort due to lack of available information.⁴³ It was here that the Association believed they could play a role as they could offer "the advantage of experience that it is capable of securing in the direction of defining what is essential towards the well-being of the settler so far as domesticity is concerned"⁴⁴ and could do this without increasing the cost of construction. Confident of their expertise and experience, the Brisbane members of the Town Planning Association were sure that the problems of settlers were due to ignorance rather than poverty and claimed the right to direct them in how to live.

Similarly architects in their campaign for registration claimed the privilege of expertise to protect the nation's interest. The institute claimed that the expertise of architects would protect the public from 'jerry-builders'. In 1928, Queensland architects finally gained registration.⁴⁵ With registration also came the expectation that architects had a duty to the state to "evolve designs for every part of Queensland".⁴⁶ At the same time an economic depression had taken hold and the Institute was keen to generate some publicity for the architectural profession.

Coutts pressed forward with his research on Western Housing conditions, presenting a paper to the Association in June 1929 where he invoked both Matthew Nathan and the poet George Essex Evans, whose poem 'The Women of the West' eulogised the harsh lifestyles of the pioneers.⁴⁷ He reduced the problem of the house to one of ventilation and cost, paying particular attention to material supply and transportation costs. Coutts had little to say about aesthetic criteria but advocated new materials like asbestos sheeting as a cheap replacement to galvanised iron, which he thought "should be taboo".⁴⁸ No longer was

galvanised iron seen to be the threat to ‘suitable housing’ that it was in 1922, as asbestos could now play a role in offering a cheap, easily transportable material.

Coutts’ paper paved the way for a new competition and gave momentum to the Association’s interest in Western Housing which was increasingly seen as an architectural issue. In October 1929 the Association decided to ask the Queensland Institute of Architects to organise a design competition for “dwelling [sic] and material that are suitable for western conditions”.⁴⁹ Over six years after M. H. Brydon first mooted the idea, a competition was on the cards.

The competition for Western Homes

This time the Queensland Institute of Architects proposed two separate competitions: an essay competition which closed at the end of January 1930 and a design competition the following June. As Brydon first proposed to the Women’s Club, the competitions were open to all entrants and did not seek detailed technical proposals, but “briefly practical and economic suggestions”.⁵⁰ The prize fund was also significantly reduced, with a total of just under £20 for the two competitions. Rather than provide competitors with information from foreign experts, as Nathan had originally wanted, the Queensland Institute of Architects sought to translate local experience of western conditions into useful essays for the design competition.

The essays ranged from the fanciful to the pragmatic with a general emphasis on convenience. All but one of the 15 entrants were from outside the architectural profession, with more than half of them from outside Brisbane, many of them from Western Queensland with an even split of male and female entrants. Coutts was the only architect to enter, dubiously winning second place, for a competition he helped organise and perhaps judge.

Far from reinforcing the views of the medical and architectural profession, they highlighted what had been most overlooked. One entrant foresaw telephones in every room, a mosaic tiled roman bath and a fire-proof garage.⁵¹ Although kitchen design, shading and ventilation were addressed by all of the published essays, the winning piece by a Miss Lumsden of Toowoomba also considered questions of air quality, water quality and landscape design. Lumsden explored a range of ways for vegetation and site planning to keep dust at bay from the house. Trees and trellises could cut the heat from the sun as well as capture dust, while chicken runs and animals were best placed on the leeward side of a dwelling to prevent any dust being blown into the house interior. Both Lumsden and R. R. Williams, the third placed entrant, sought to improve the way roof water was stored and used with Lumsden giving a range of advice on how to treat water to drinking standard and how best to store and use the water of lower quality. Significantly, Lumsden’s essay dealt not with problems of ventilation and economy as Coutts had done, but with the issues of dust, flies, ants and impure water. Coutts himself was awarded second place, a conflict of interest given his role in organising the competition.

The winning essays were published widely in the Queensland press and the *Architectural & Building Journal* in February 1930. And while the organisers considered them informative,

they had little influence on the subsequent architectural competitions. Participants were asked to design a house of under 1000 square feet costing less than £600, with a concurrent competition for a house of under 1800 square feet costing less than £900. R. K. Voller won the small house competition with a compact plan for a high-set dwelling (Figure 1). Harold V. M. Brown came second with an unoriginal reworking (Figure 2) of one of the *Architectural & Building Journal's* 'Monthly Home. In the other contest, C. K. Mann of Atkinson, Conrad and Powell placed first. Mann's design (Figure 3) seemed more at home with an English winter than Western Queensland's harsh summer. His Tudor Revival design, replete with a pair of playful, brick, chimneys and narrow, casement windows was reminiscent of the more fanciful work of Eric Trewern. Eric's younger brother Alexander I. Trewern got second prize and David V. Wales came third in both competitions.

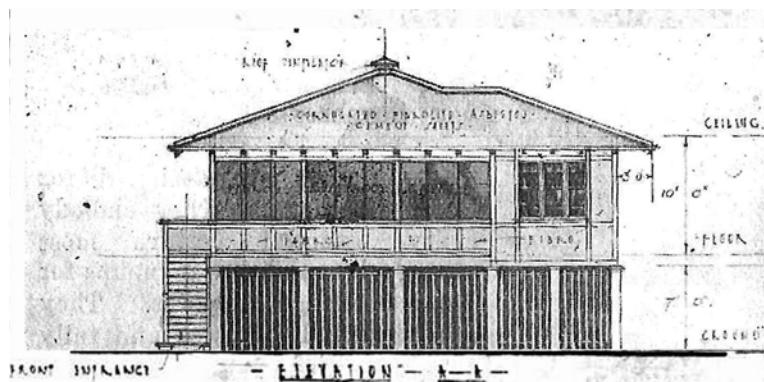


Fig. 1 R. W. Voller's design for a £600 Western Home (First Prize). Image from "The 'Courier' Budget of Pictorial News," *Brisbane Courier*, June 11, 1930, 16.

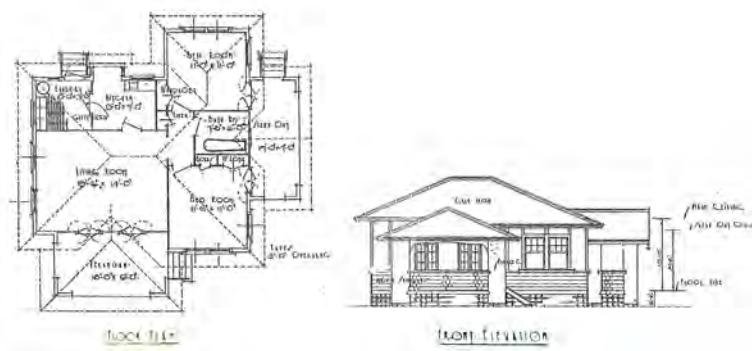


Fig. 2 Harold V. M. Brown's second place scheme for a £600 Western Home. J. V. D. Coutts, *Western Housing and Tropic Design* (1934), 29.

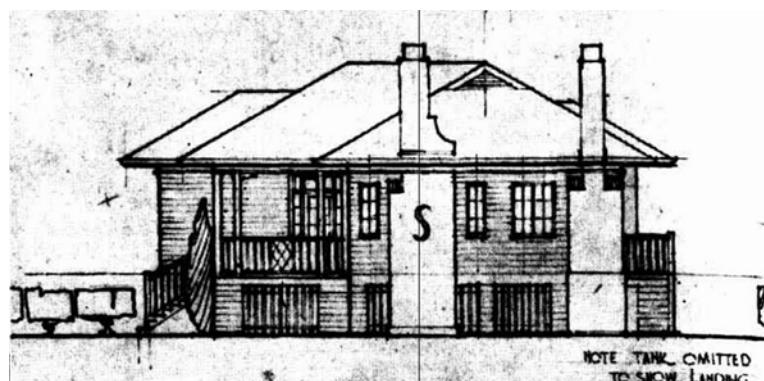


Fig. 3 C. K. Mann's design for a £900 Western Home (First Prize). Image from "The 'Courier' Budget of Pictorial News," *Brisbane Courier*, June 11, 1930, 16.

The pragmatics of rural life and yearning for convenience that framed the winning essays had minimal influence on the 36 architectural entries. Only half of the published plans showed a water tank, none of them considered landscape design or dust, with most content to concentrate on shading the living areas and providing sufficient sleep-out space. In fact, the judges J. C. Cavanagh, Coutts and R. M. Wilson expressed their disappointment in the quality of the schemes, most of which were deemed to be "more suitable for Suburbia than Western Queensland".⁵² Outside of the architectural press, only the *Brisbane Courier* published the winning schemes. Far from showing a distinctive design approach for Western Queensland, the entrants treated it as a metropolitan outpost.

In many ways the design competition was a complete failure. The *Brisbane Courier* noted that despite the large number of entries, the designs were unremarkable.⁵³ Coutts later took this to be due to the ignorance of the profession,⁵⁴ but perhaps it was also the youth of the participants. With the exception of David Wales, the winning schemes were all by architects under 26, many who were still articled. None were principals of their firm, suggesting that the low prize money greatly reduced interest from more established practitioners. The plans were supposed to lay the groundwork for a detailed report that would guide the residents of Western Queensland on suitable housing. This proved to be more hubris on the part of the organisers. With the competition no great innovative design was found, no new star was born and the Queensland Institute of Architects received little publicity about the scheme afterwards.

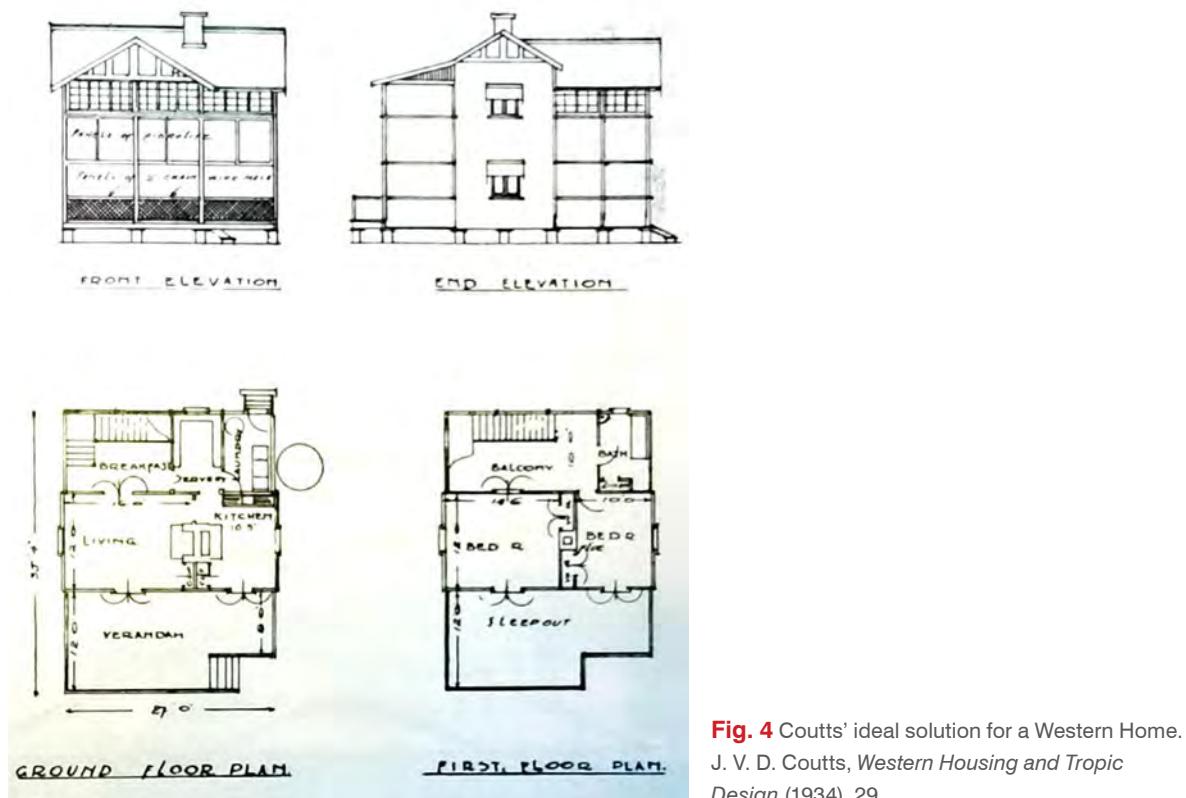


Fig. 4 Coutts' ideal solution for a Western Home.
J. V. D. Coutts, *Western Housing and Tropic Design* (1934), 29.

Rather than advising settlers in the ‘way back’, Coutts took it on himself to educate the architectural profession, publishing his own attempt at a suitable design in August 1930.⁵⁵ The two storey, tri-partite plan provided deep verandahs to the front and rear, which were either glazed in or gauzed to protect occupants from dust and flies. Coutts explained the advantage of his plan (Figure 4) in terms of its flexibility, compactness and potential for cross-ventilation, and claimed that further savings were possible by altering the ground floor construction.

Yet though Coutts claimed, in 1934, that no perfect house had yet been designed for the tropics, he still sought to proselytise the work done so far. That year, he collated his essays, preferred house plans and a number of the competition designs into a book he called *Western Housing and Tropic Design*.⁵⁶ The book was essentially a primer on tropical house design, which treated housing in the arid west and humid tropical coast as separate design problems. It borrowed heavily from the housing chapter from ‘The White Man in the Tropics’ and noted its debt to that book’s author, Raphael Cilento, the former director of the AIM in Townsville and then head of the Commonwealth Department of Health. In that sense it tried to introduce Cilento’s thinking to the architectural profession, as well as compiling the work done for the Western Housing competition. Yet though Coutts anticipated some of the themes connected with thermal design and the avoidance of fatigue found in Karl Langer’s 1944 ‘Subtropical Housing’,⁵⁷ it is questionable whether the book ever attracted much of an audience. After the book launched in July 1934, no newspaper article ever referred to it again and it received limited coverage in the *Architectural & Building Journal of Queensland*. Published at the height of the depression, with little work available for architects, it closed a chapter on the search for housing solutions for tropical Queensland, a theme that would lie dormant until the end of the Second World War.

Conclusion

While little appeared to have changed between 1923 and 1934 about what a suitable house for the tropics might be, the medical and architectural discourse on tropical housing had become further entangled. During this period, Brisbane architects began to discuss how to design beyond the sub-tropical hinterland to also consider the role of the profession in addressing the distinctive climatic and social conditions to the north and west of the state. Much of this was informed by the medical debates about tropical settlement, but it was also influenced by the expanding influence of the Country Women’s Association and the effort by the Governor, Matthew Nathan, to move the discussion of tropical housing from the public health arena to an architectural one. Competitions served a role to generate publicity about the issue within the community, but also in the process brought a range of organisations and materials together. It was in the act of organising a competition and the lack of traction that followed that brought a range of disparate bodies into each other’s sphere of influence. The expected panorama of design expertise both local and foreign, that the competition was supposed to bring, never happened. However it did leave a set of physical traces in the form of newspaper clippings, drawings and books which document the awkward attempts of both the medical and architectural professions to come to terms with the climatic design of housing in the arid tropics.

In many ways the Western Homes competition parallels contemporary stories of architectural competitions in the wake of environmental disasters, such as the fiasco of the make-it-right homes in New Orleans. In both cases the detailed understanding of the pragmatics of local construction methods and community needs were overlooked in the desire to generate quick solutions and publicity. Such competitions open up a range of questions about why people still place such faith in architectural competitions to solve humanitarian crises, who really sets the rules and how environmental design is selectively used as a measure of appropriateness in ‘remote’ locations.

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