

SUBTROPICAL TOWNHOUSE DESIGNS

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Original creative works in the public domain: typological research, unbuilt architectural designs.

A. Research Background

Planning strategies for urban growth in South-East Queensland require higher residential densities, but there are very few housing examples in the subtropical context beyond the detached house or the strata apartment. Increasing densities threaten a decrease in permeable urban land surface and vegetation and consequently rising heat island effects. Poor housing design has led to rapidly increasing installation and expectation of air-conditioning with significant energy consumption, greenhouse gas effects.

B. Research Contribution:

These design models demonstrate an argument for taller, smaller-footprint attached housing models, maximizing permeable landscape surface while ensuring optimal orientation and permeability for passive bioclimatic design. Derived from the St. Lucia house research, a split-level sectional strategy allows strong spatial differentiation without the need for internal walls and doors that would impede cross-ventilation. The sky to garden servicing strategy allows an autonomy of water collection and recycling, and energy harvest and utilization for each house.

C. Research Significance:

The research has been presented as an invited journal article, developed as a projected but unbuilt application as generous 6.7 m wide (Rainbow) houses, and as subsequent more economical 5m wide (RoHo) row housing. These widths have been chosen to facilitate flexibility for urban infill situations. The designs have been published and exhibited, but are as yet unbuilt.

REFERENCES: JOURNAL ARTICLE, REFEREED, PUBLISHED AND EXHIBITED DESIGN.

1. Peter Skinner (2004). When a Little is a Lot: an architect's view. *Queensland Planner*, 44 1: 14-16.
2. Skinner, P.R. 'Subtropical Townhouses.' Centre for Subtropical Design, QUT, 2004. / <http://www.bee.qut.edu.au/subtropical/otherReferences.html>.
3. Skinner, P.R., 'Rainbow Houses', re Housing UAL International Housing Conference, Oct 5-8, 2006. UAL, RMIT, Melbourne, Australia. 130-135; 201-202. <http://www.rehousing.rmit.edu.au/proceedings>.
4. Skinner, Peter, (2008). 'Rainbow Houses project', in Murray, S., Ramirez-Lovering, D. Whibley, S., re Housing: 24 housing projects, RMIT, Melbourne. 84-85.
5. Watson-Brown, E, Skinner, P.R., Wright A., 'ROHO: Subtropical Row-house Design.' Design exhibited, Centre for Subtropical Design, Subtropical Cities Conference, QUT, 20-22 August, 2008.

Note : these topics were also addressed in an Invited Address: 'Being tight to be generous' Planning Institute of Australia Delfin Debate, 'Planning in Tight Spaces' Symposium, Conrad Treasury Hotel, Brisbane, 13 September, 2005.