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The Courtyard House

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At the beginning of 2004 he was appointed as Western Australian Government Architect, a position he shares with his role at The University of Western Australia. In August 2008 he became the Victorian Government Architect.

He is a past President of the Western Australian Chapter of the Royal Australian Institute of Architects, and a Life Fellow of the RAIA. He has served on and acted as Chair of numerous architectural design award juries and a large number of competition juries.
The courtyard house, with a history dating from antiquity, has appeared in various forms in different cultures. Earlier twentieth century architects such as Mies van der Rohe, Ludwig Hilberseimer, José Sert, Adalberto Libera, Jorn Utzon and Alvar Aalto explored the potential of this housing type. Through different means they developed the characteristics of the type: its introversion, privacy and security; its intimate connection between the inside and the outside and the resulting spatial continuity; and its capacity for higher density than the free-standing house.

In Australia, with considerable emphasis on the pursuit of an individual house on its own block of land, the courtyard house has not been developed as a major housing option. There have been, however, numerous one-off experiments by local architects who chose to investigate its potential in a suburban setting.

The resulting houses shaped a new private world containing a version of a constructed nature, turning away from the external suburban landscape. Because they were one-off, these houses did not achieve a higher density but they are nevertheless suggestive of a more dense urban form.

More recently, a number of Australian architects have recognised that the courtyard house has the potential to create higher density while retaining many of the benefits of the individual house.

This proposal develops from the earlier Australian work. It recognises that the appeal of the courtyard house in the broader Australian market could lie in the fact that it retains many of the characteristics of the detached house type but, with zero lot line configurations, has the potential to offer significantly better land use economies.

The courtyard house also offers good opportunities for acoustic and visual privacy, together with the full integration of internal and outdoor spaces—the courtyard becoming an outdoor room. Within well-designed subdivisions, correct orientation for solar gain and good passive environmental performance is possible, resulting in less energy use. During colder periods of the year the courtyard can provide sun and light into the heart of the house while, at hotter times, the courtyards can provide deep shade and the opportunity for cross-ventilation.

Courtyards can encourage less water consumption by limiting the size of private gardens to manageable green areas, and removing any residual or waste space from the perimeter of the house.

Courtyards provide safe contained spaces for children, spaces that are easily secured and observed from within the house.
The courtyard house type also offers a format for responding to the changes occurring in Australia’s household structures and demographics by enabling diversity of individual house design through varying house sizes and allowing flexibility of internal arrangement within a consistent overall structure.

THE DESIGN
The design demonstrates small groups of courtyard houses within existing suburban subdivisions that are in the process of change through infill and/or rebuilding of the housing. Two settings have been used, one with traditional street frontages and the other with rear lane access.

The design suggests a direct doubling of the existing suburban density while retaining the existing subdivisional structure and allowing for incremental change. It rationalises and reduces house areas through efficient design while retaining the expectations of room functions and relationships being met by the project housing market. Additionally, it provides diversity of size and plan configuration to suit a range of different household types. It demonstrates how, within a base ground floor design, a number of different options may be pursued for different household sizes.

CAVEATS
It is not proposed that the courtyard house type eventually take over the suburban subdivisions like a devouring pac-man, but increase diversity by offering another house type, one that is capable of flexibility, climate-responsiveness, doubling the surrounding suburban density, and of meeting the current expectations of room function to be found in the project house market.

The designs remain diagrammatic to allow a testing of the courtyard house as a type, with loose-fit characteristics that can be made to adjust to a variety of circumstance of lot size and lot orientation. The proposition to double suburban density is tested through plans only. To respond appropriately to courtyards and the climatic conditions, shade structures will need to be incorporated, and there are numerous and rich spatial and formal opportunities within the courtyard housing format.

The most efficient courtyard house type has the rooms distributed around the site boundary. As a result building regulations that limit the extent of parapet walls to boundaries will need to be challenged, as will set-back regulations to all boundaries. Decreased set-back requirements, especially to front boundaries, will assist in reducing unsustainable and often non-useful garden areas to the fronts of houses, while enabling more consolidated, more private, and more useful internal courtyard spaces to be created.
Wembley site
Wembley Courtyard House B

GROUND FLOOR PLAN

FIRST FLOOR PLAN

LEGEND
1 Courtyard
2 Kitchen
3 Dining
4 Living
5 Play area
6 Entertaining room
7 Library
8 Main bedrooms
9 Ensuite
10 Bedroom/Study
11 Bathroom
12 WC
13 Laundry
14 Robe
15 Store
16 Granny flat/
Home office
17 Garage
18 Yard
19 Balcony