*Photograph by Tim Nolan*The clients for this house were a couple with three young children, a set of twins and a younger child. Their main concern was to maximise outdoor space. It was therefore essential that there would be sufficient space for the children to play outdoors as well as indoors. The priority of creating an open living space with a direct relationship to a large outdoor space became a driving force in the scheme.

The overall concept, derived from the clients' requirements, was to create a living space open to the outdoors in a clean contemporary aesthetic. The building would need to allow fluid movement between each space within and perform as a sustainable mechanism.

In order to maximize space, the idea of pushing the mass of the building into the corner of the plot was developed. The concept of defining the bedroom areas and activity spaces as separate elements allowed for the final scheme to be reached. From the exterior, each element appears as a separate entity, however internally these have a strong connection to each other.

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Photograph by Tim Nolan

An inviting entrance

The residence is separated into three main elements. The top element of the house, representing a more private area, is cantilevered over the driveway. The cantilever gives the entrance to the house an enclosed, protected feel. The material used here was an alloy of titanium and zinc which gives this rectangular volume a dark matt finish. The external materials, chosen in subtle tones, define and reflect the more intimate space of the house.

Photograph by Derek Swalwell

Photograph by Derek Swalwell

The arrangement of spaces on the second floor is a functional response to the needs of the inhabitants. In response to this, the spaces created were introspective and focused on privacy. In order to create pleasant sleeping areas the height of the ceilings was set lower compared to the ceilings in the social areas. Leading from the quiet family room upstairs is a green roof which provides additional outdoor space. It is equipped with a BBQ pit that overlooks the pool beneath. This space represents an ideal entertaining area or a contemplation garden.

Photograph by Derek Swalwell

Photograph by Derek Swalwell

Fluid Continuity

All social activity areas of the house are accommodated on the first floor. There is clear connectivity between all main social areas of the house. The sliding, flexible doors open directly onto the lower garden. When slid back into the walls, the garden space is made one with the social space. The continuity of the house is fluid and works well with the externally used material of travertine. The large glazed plane, exposing the space, emphasizes the clear contrast between the private and social area of the house.

Photograph by Derek Swalwell

Photograph by Derek Swalwell

Composition of materials suggest diversity of space

Photograph by Derek Swalwell

An unexpected ambient recreational space

The terrain of the site has worked advantageously for the scheme. A slight gradient toward the rear gives space for a void. This void allows light to penetrate the basement space.

The basement space represents the third element of the house. However, unlike the other elements it is unable to use an external architectural language to reflect the activities taking place within. The preconception of a basement is that it is generally not used as social space

but rather as or only as storage. As for this house, a move away from this preconception was achieved. This well lit, diverse recreational space is another key feature of the house.

The basement is naturally lit from both sides. One of the light sources is the void garden, the other a window which looks into the swimming pool. This window is the same width of the pool and creates a perfect ambiance in this lounge space which is equipped with a bar and a pool table. Furthermore, a naturally lit study and cinema room are accommodated in the basement. The basement space is vertically connected to the social spaces of the house. It is just an extension to the social space and is intended to be used daily.

Environmental measures taken early on in the design promote a sustainable scheme.

From beginning on the house was designed as a sustainable scheme. The orientation of the house was strategically positioned to allow the prevailing wind to cross ventilate the social spaces. The large opening throughout the house encourages natural ventilation within the house. Certain key materials were chosen to help manage the environment of the house. The high thermal mass qualities of in-situ concrete and Terrazzo help to cool the house.

Also the natural teak used, has very small environmental implications. The teak is bought from a local source, minimising transport cost. Additionally, the wood was treated with a water-based preservative harmless to the environment. Skylights are strategically placed to encourage natural ventilation. Three other skylights light the internal stairway to the basement and ensure all parts of the house are well lit. The windows of the upper private area were recessed in. This provides solar shading, reducing the solar gain received by the windows. By employing this method of solar shading the solar gain can be reduced by up to 40%. Each sustainable measure reduces the need of non-renewable energy resources to cool or to light the house.

Photograph by Derek Swalwell

Photograph by Tim Nolan

Plans - Sections - Elevations

{gallery}Gal/110106{/gallery} ***Project details:***

Architects*: Ong & Ong Pte Ltd*
Location*: 45 Faber Park, Singapore.*
Design Team: *Diego Molina and Maria Arango. Camilo Pelaez.*
Project Team: *Diego Molina and Maria Arango. Camilo Pelaez. Ryan Manuel. Linda Qing*
Site Area: *840 m2*
House Area: *592 m2*

Project Year: *2009*
Photographs: a. Derek Swalwell b. Tim Nolan