

# asian breezes

towards sustainable architectures



Japan Institute of Architects

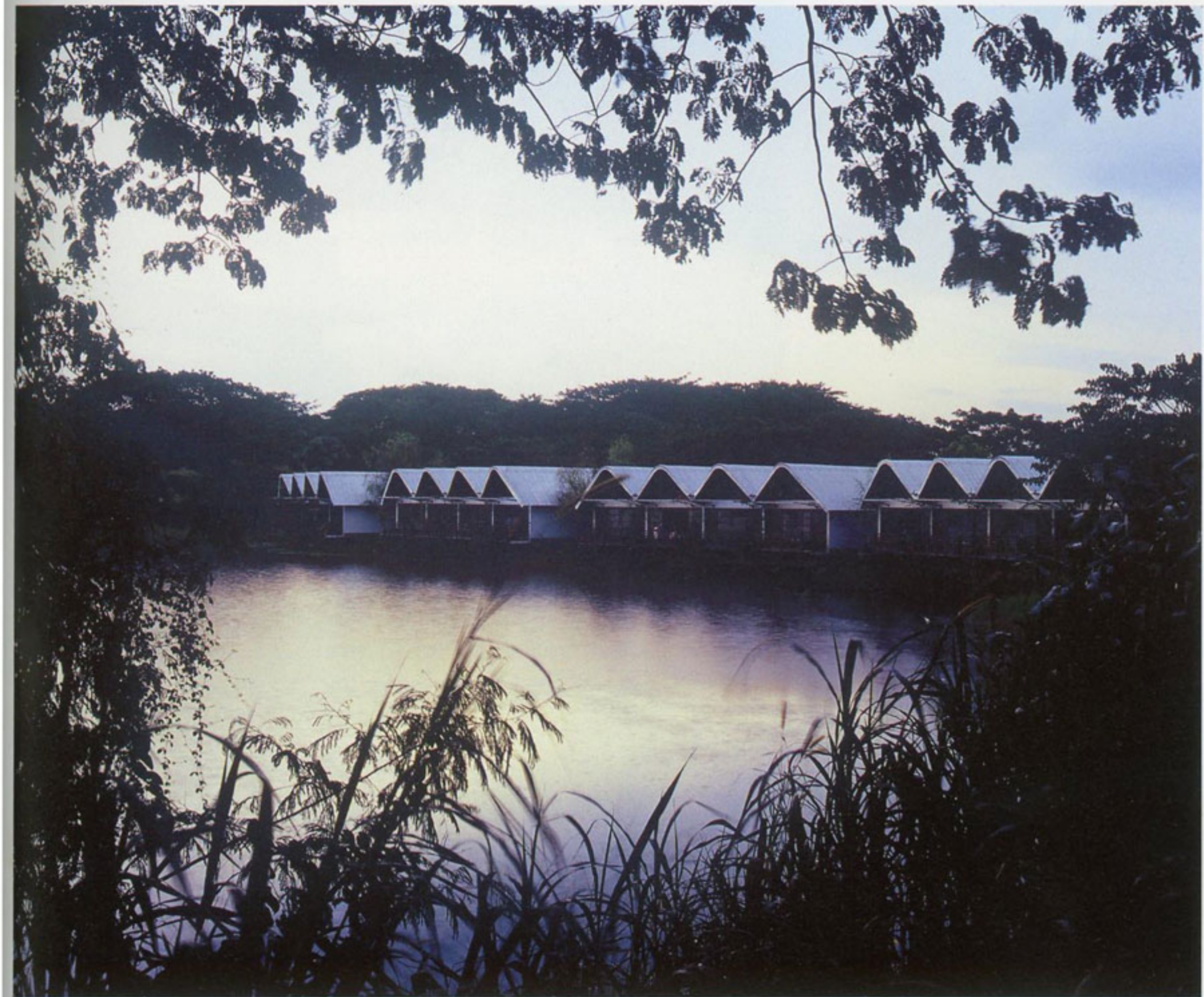


WP/Architecture for a Sustainable Future









## Sri Damai at Clearwater

Perak, Malaysia

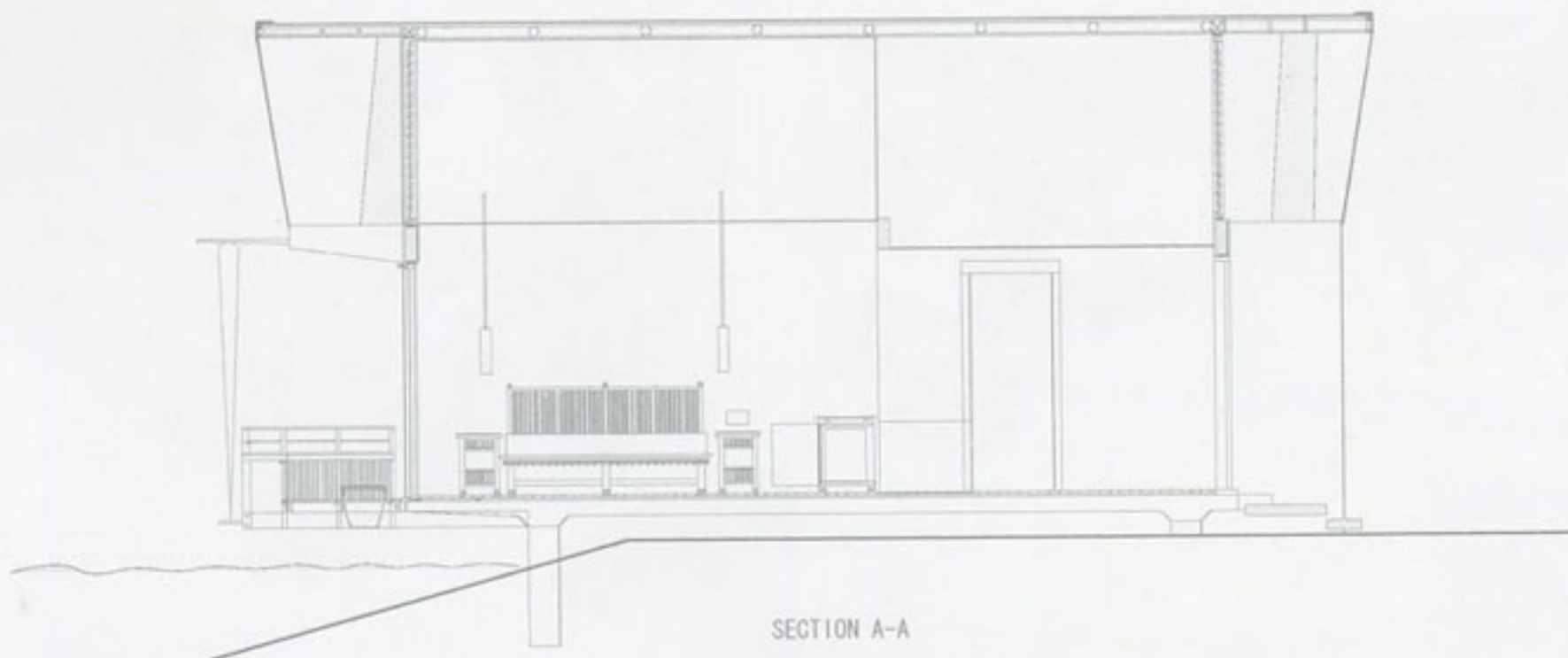
architect **C'arch Architecture & Design Sdn Bhd**

representative devices

- water evaporation cooling
- greenery screen
- natural ventilation / lighting

opposite: overhanging balcony with sunshade and plants  
above: lakeside view





typical hotel transverse section

The first sketches for the scheme sited on the reeds lined water edge is informed by the rustic tin mine landscapes of bygone years. Images of tin mining landscapes are powerful and succinct in the memory of the nation. The iconographic representation of the tin industry is the surreal dredging machine that is a conglomeration of sheds, booms, cables and buckets. Its accompaniment of buildings is other 'sheds' which are pump houses and the gracefully skeletal 'palong'. There is an inevitably efficient evolution in the forms and functions of these rudimentary but enticing structures and they are essentially simple and effective in their response to the climate and usage.

We were interested in the adaptable nature of these mining structures. They are able to mutate to the needs of the mining industry and we became curious about the possibility of applying this characteristic in our design. Addressing the climate is first and foremost on our agenda, and the high roofs, vernacular timber screens and tropical plants represented fragmented solutions to the tropical caricature. The building section was then setup to invite natural breeze and filtered light, hence the generous apertures at both ends of the chalet. When large apertures are created they inversely have to be 'closed up' to be protected from the ubiquitous tropical thunderstorms. The screens and planting behave as foils to retard the rainwater as it is blown.

Climatic ideas were transformed into spatial compositions that are manifested in the water edge balcony and garden courtyard and open-air bathrooms. The project thus became accessible as a three dimensional climatic idea; in this instance, the tropical room become synonymous with the tropical skin.

The chalets are also made of simple metal roofing sheets, brick and plaster, and sustainable local Malaysian hardwoods. These finishes are collated as a palate of materials that is sympathetic to the essence of the indigenous shelter.







left: land side elevation  
below: lakeside elevation







far above: view of reception pavilion with metal roof and acrylic skins  
above: rainwater gutter

The reception building was also designed with the simplest of intent. Relieved of the need to have a controlled environment (air-conditioning), the idea of the adaptable shed and physiognomy of the building is truer to the ethos of the tin mining hut. Minimal and expressed steel structures, metal roof and acrylic skins were adopted in the design that is manifestedly transient and flexible.

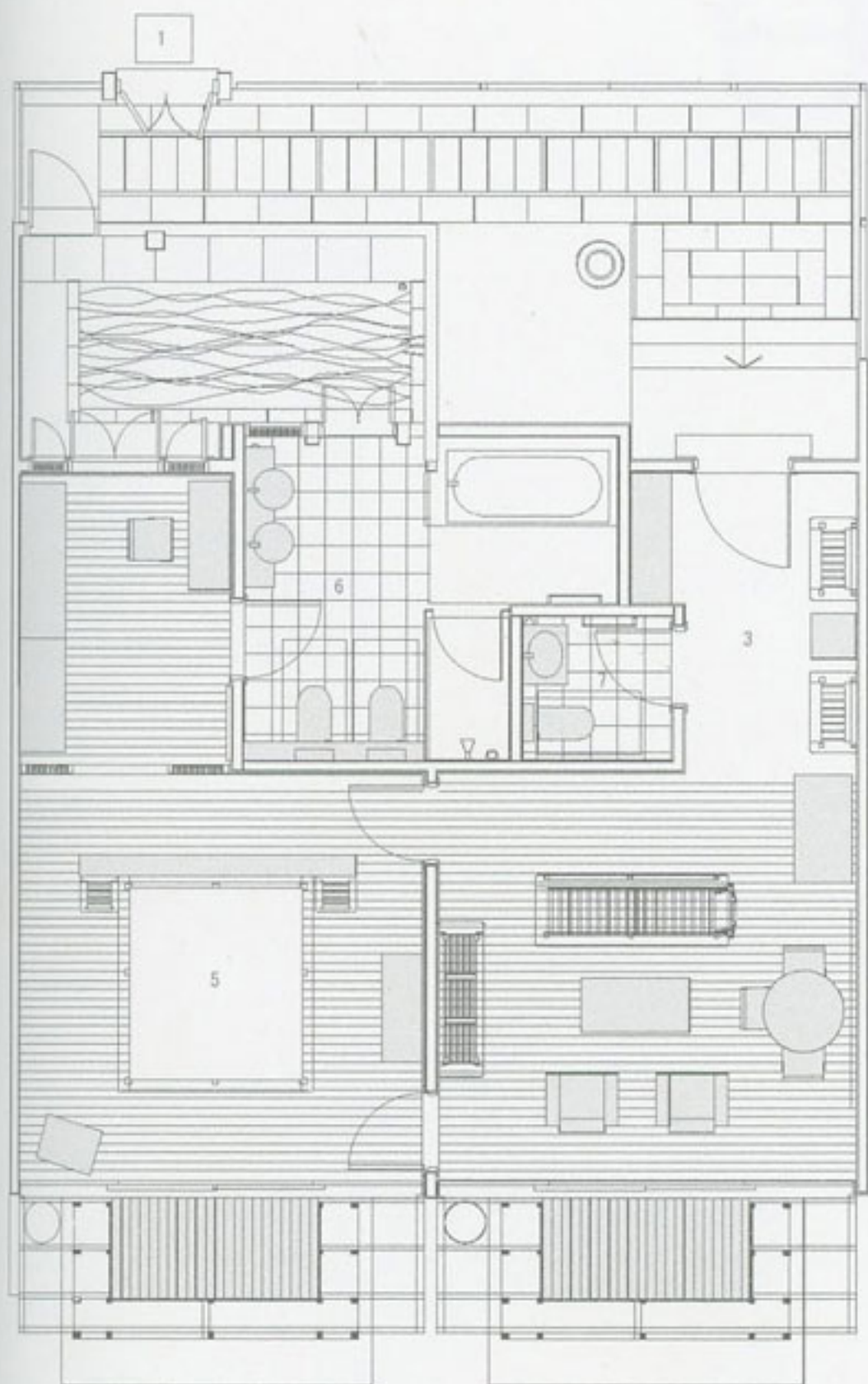
The sun and the rain are distinct tropical elements and the manner of the assembly of parts to enjoy these elements in the building is describing nature in an architecture. We composed the details to celebrate moments of changes in the weather through a day. Water connects sky and lake via the collection and disposition of rain that is channeled through the building. In this journey the rain also instigates a collage of reflections in the rain soaked timber floor. The rain is ultimately admired for its graphic touches on the surface of the lake; hence the symphony of the senses of space through **structure sound and texture**. Tall and wild reeds and majestic rain trees become the other finishes and details to the idea.

The fundamental ideas invested in this group of buildings are being revisited and renewed in other forms and experiences in the next phase of 'sheds' that is being contemplated. Our intent is to remain true to the attitude of the shed but to move the senses to other experiences with the help of the sun, wind and rain.





left: lake view from bedroom  
below: open-air bathroom



boutique hotel floor plan

**Project Data**

Project Name: Sri Damai at Clearwater  
 Architect: C' arch Architecture & Design Sdn Bhd  
 Project Team: Chris Wong Chee Seng, Wilson Sng, I-Wen Foo  
 Structural Engineer: S L Chan Consultants  
 Mechanical & Electrical Engineer: Zath Perunding Sdn Bhd  
 Contractor & Project Manager: Pembinaan Teknikhas Sdn Bhd  
 Location: Batu Gajah, Perak, Malaysia  
 Main Building Use: Resort  
 Total Plot Area: 1,840.32m<sup>2</sup>  
 Total Construction Area: 2,078.86m<sup>2</sup>  
 Total Floor Area: 1,276.00m<sup>2</sup>  
 Structural System: RC frame and steel roof  
 Stories: 1 story  
 Completed in 1999