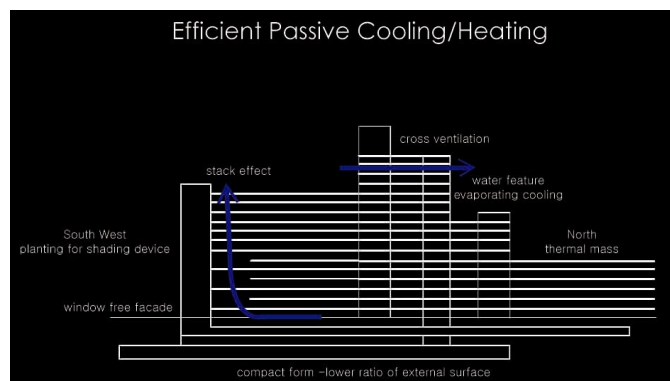
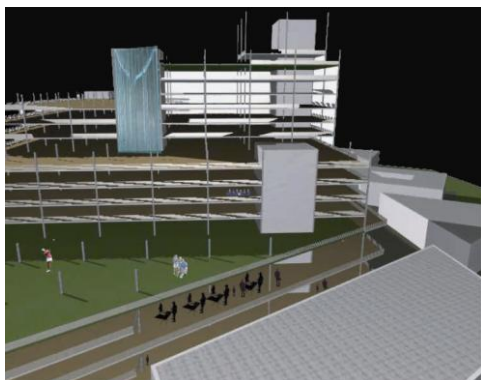




Sydney, leading the World as a Sustainable City with a High Technology Recycling Centre and Vertical Park



Proposal by Hazel Jeong, a sustainable recycling centre with a green architecture park in Barangaroo is going to make Sydney a world leader in sustainable cities.

The underground hidden high technology recycling centre facility will minimise visual and olfactory distraction from wastes and provides an efficient service to Sydney dwellers. According to the Commonwealth Department of Environment, Water, Heritage and Health, NSW generated 13,118,000 tonnes of waste in 2006 and only 46% of the waste was recycled. The proposed recycling centre will have the capacity for 10% of NSW household waste and aims to recycle 95% of the collected waste. The waste collection trucks will access the centre through an underground tunnel to keep the Barangaroo environment pleasant.

The site adopted a seventeen story high green architecture park on top of the recycling centre, and this contributes to lifestyle quality by providing space for recreation with minimum energy use. The total floor area of the vertical park is equivalent to Sydney's Hyde Park, 16 hectares. It can accommodate a huge population at any time. Also space separation by floor enables the vertical park to accommodate numbers of different events at a same time. As cross ventilation, stack effect, access to prevailing winds from the sea and shade are used for the passive cooling system, this vertical park can provide a comfortable space for the user population without wasting energy.

The recycling centre and the vertical park will incite people to reduce waste and recycle it. The proposal includes an educational purpose to the access path around the underground recycling centre that is open to the public to inform them of the quantity of waste generated by the Sydney residents each day. The ground level information centre will be open 7 days a week. Also there will be lots of activities to encourage people to reduce waste. These activities will be held at several

locations and at various times. For example, there is a compost and worm farm workshop to reduce food waste on level 6 every Thursday afternoon and a recycle art craft class for kids every weekend. Rainwater tank and grey water recycling will be active and simulations will be available in the vertical park.

This Centre will contribute to the reduction of greenhouse gases through the decreased reliance on car use at Barangaroo. The proposed recycling centre block with its vertical park can accommodate a huge population and various events, and it will become a landmark. As the vast recycling centre is located underground, Barangaroo has significantly more usable areas. The rest of Barangaroo will fill up with commercial, residential units and become a high density area. A good public transportation service system is planned to be incorporated in the design due to high demand. Also as this Barangaroo project will provide more jobs and houses together there will be a decrease in the demand for private vehicle use.

End

11234 Architectural Design by Peter G. Burgess

The Recycling Centre at Barangaroo was commenced by 3rd year UTS architecture students in the 2008 autumn semester. This project was designed to encourage student to explore and postulate a design solution without many of the normative limitations. It is also challenging as the 'edge-of-the-CBD' location required students to extend the Sydney metropolitan.