

***sustainable cements build
sustainable cities***



***earth
air
water
fire***



cement



9 million tonnes cement production



15 million tonnes raw materials consumed



4 million tonnes coal eq consumed



1500 million litres water consumed



6.5 million tonnes carbon dioxide emitted



CO2 emissions



48 million tonnes carbon dioxide



6.5 million tonnes carbon dioxide



80 million tonnes carbon dioxide



$$A_{x_B} = C$$



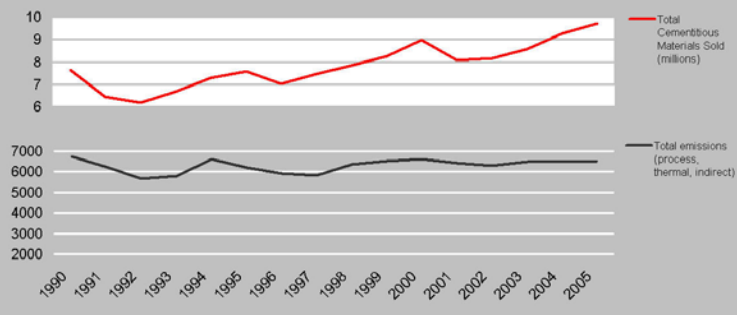
cement

Fuel and power efficiency gains

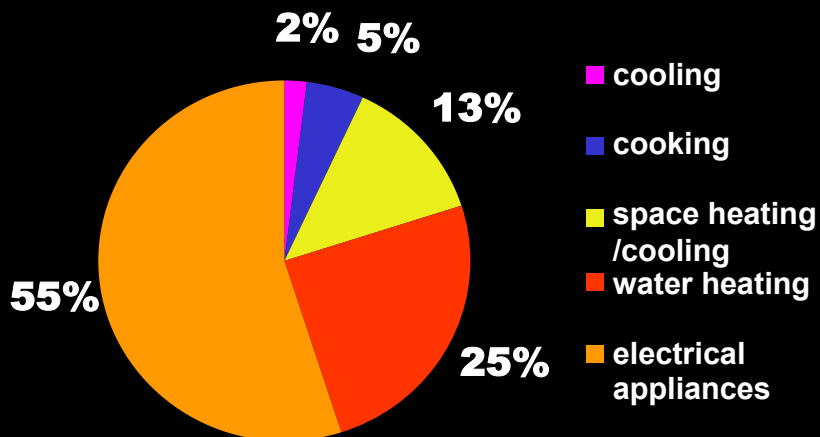


cement

Cementitious materials sales and CO2 emissions



CO2 emissions from residential buildings



Source: AGO - Australian Residential Building Sector Greenhouse Gas Emissions 1990-2010

sustainable design

industrial ecology

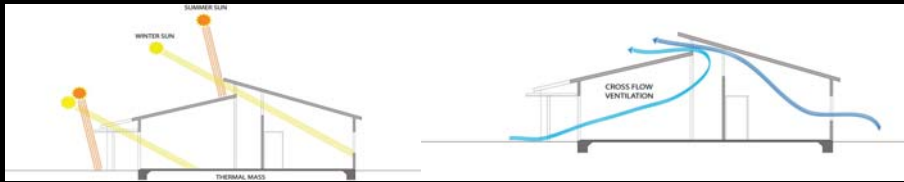


sustainable design

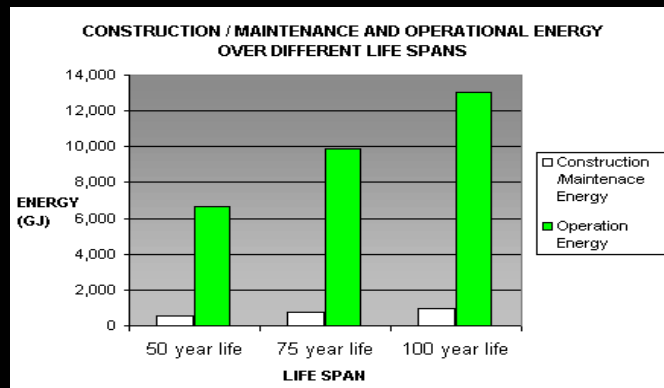
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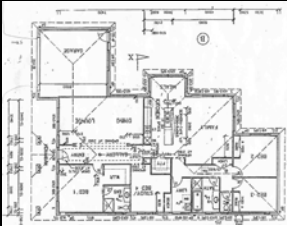
sustainable design



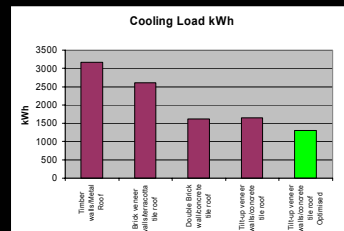
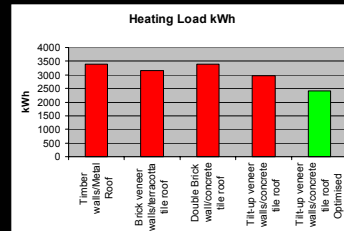
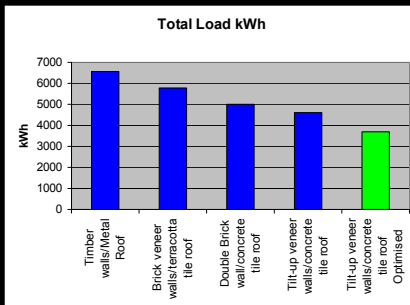
sustainable design



sustainable design



sustainable design



industrial ecology



wood waste



biosolids



spent solvents and resins



artificial gypsum



tallow residue



spent cell liners from aluminium production



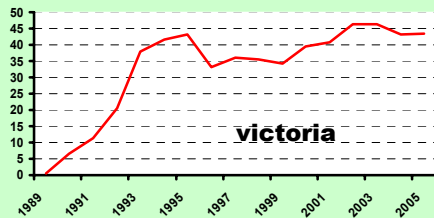
industrial ecology



industrial ecology



Alternative fuel use as a percentage of total thermal energy use



Alternative fuel use as a percentage of total thermal energy use



***sustainability
through
design
innovation
collective & individual action***

