



AWAAROA ECO-VILLAGE

Eion Scott

Awaaroa, meaning Long Valley, is located at the end of a 3km dirt road on the south coast of Waiheke Island, still a remote area despite the rapid urbanisation of this jewel in the crown of Auckland City's Hauraki Gulf islands.

A group of eco-enthusiasts bought a 169ha block of mixed farmland, wetland and native bush in the valley in 1994 with the aim of building a sustainable semi-rural community while returning the valley as much as possible to its natural state. They set up a company structure that enabled them to give shareholders an exclusive lease on 1ha, on which to build a house and other structures (sheds, workshops etc) while retaining the land and improvements in shared ownership.

They set the maximum number of shares to 15, priced initially at \$46,000, and the final share was sold in 2001 for \$68,000. Members can sell their shares (and with them their houses) by having them valued, but they won't realise a capital gain on the land. This has led to a stable community, with only two houses changing hands since. The community manages the sale process and vets any new member, who also

has a period of grace to decide whether they fit into the community in return.

Founder members Rob Morton and Hanne Sorensen have spent the 4-5 years building their adobe house, at the northwestern side of the valley in a natural, north-facing terrace. They began by pouring the concrete and steel foundations, raising the roof on hardwood poles barged from Maraetai, locally-sourced macrocarpa beams and topped with a ferro-cement roof in a concave wave pattern. Putting the roof on at this stage provided shelter for the building site and the ability to build the earth walls in-situ regardless of the weather.

Rather than laying readymade bricks, they used a simple four-sided tin mould for the adobe walls, filled with on-site quarried earth, sand and cement mix (16:1 ratio), moving the mould each time. The beauty of this approach was that no mortar is needed between bricks. The wall was plastered with a clay-tinted sand and cement mix. This style allowed for the semicircular façade, giving maximum solar access through the day, and uneven wall heights as they meet the wavy roofline. Untreated heart macrocarpa is used



for detailing underneath the building's eaves and Waiheke eucalyptus was milled for the flooring. Another innovative feature is the fibreglass reinforcing rods that replace normal steel reinforcing in the walls, which Rob and Hanne preferred in order to reduce possible health effects from electro-magnetic fields.

High clerestory windows allow as much sun as possible in the back of the living area and bedrooms. While not double glazed, they find the walls and exposed concrete floors absorb enough of the winter sun's heat during the day to maintain temperatures through the night.

A woodburner tops up the heat during the evening and first thing in the morning, while in summer the wide eaves keep the sun out and the interior cool.

Eion Scott is eco design advisor at Auckland City Council. For information on this free service, visit www.ecodesignadvisor.org.nz. For information on Sustainable Living courses, go to www.sustainableliving.org.nz.

Rob finds time to operate a plant nursery called Gulf Trees from his holding. Other community members operate boutique businesses from the village, or are engaged in building homes in the valley for newer members.

Don Stodart, for instance, has built several homes, including his own. He has a reputation for designing efficient composting toilets, one of which he showed to a group of visitors on a Sustainable Living Course field trip in September.

The mudbrick outhouse has two chambers underneath, with transparent hatches. One chamber composts while the other is in use. The composting mix is dry, with only untreated sawdust and straw added.

The compost is ready after 6 months and can be shovelled out for use as mulch on fruit trees.

Opposite page: Rob Morton and Hanne Sorensen's in-situ adobe brick house. This page: Earthbrick under construction.