The water's lovely

Natural pools do away with chlorine, using just plants and pebbles to create a freshwater lakeside retreat in your back garden. Come on in, says **Andy Kenworthy**

PHOTOGRAPHS NATURAL POOLS NZ. POOLS PICTURED ARE IN EUROPE. NEW ZEALAND SWIMMING POOLS MUST OBSERVE FENCING REGULATIONS

Fancy a dip in organic, living, natural water, purified by plants in the comfort and safety of your own garden? Enter the natural pool.

Developed in Europe, natural pools work like this. Pools are divided into two zones: the swimming area and a shallower area filled with plants, which filter the water and keep it clean.

Natural pools can be any depth, shape or size, and an old pond or existing conventional pool can be converted. Ideally, part of the swimming area should be about 2.5 metres deep to keep the water nice and cool, and prevent the stirring up of any sediment left between thrice-yearly bottom-cleans.

Partitioned from the main pool by a wall below the surface is another pond-like area of a similar size. At the bottom is a layer of stones, which is planted with specially selected species.

Plants are generally kept out of the swimming pool chamber itself, but sensitive design, combined with creative planting, can really make these pools part of the landscape. Waterfall features can also be used to aerate the water.

Most pools are designed to directly capture the sun's heat in the shallower planted areas, although solar water heating can be used. Careful siting can also help reflect light and heat into a nearby home.

Natural pools are new to New Zealand, with different pool systems offered by two companies, Sustainable Habitats (www.koanga.co.nz/pages/des_intro.htm) and Natural Pools NZ (naturalpoolsnz.com). Both described the pools as relatively simple to build, but not something to try to install without a bit of expert know-how.

Daniel Tohill from Sustainable Habitats has built one pool in Mahurangi, north of Auckland, and is currently working on two more in Christchurch, one a 25-metre lap pool. He is also designing a home in Raglan, where a natural pool will stretch inside the house.

Daniel's background as a permaculture teacher informs his very natural, simple approach. "I work from an ecological aesthetic," he said. "So with me it has got to be part of the bigger picture and the landscape. It's about siting and shaping to suit that."

He estimates a cost of about $25,000 to $30,000 for a ten-metre by four-metre version of one of his pools, which would take about two months to install.

Natural pools tend to be slightly murkier than conventional ones; more emerald green than crystal clear. Although you can pretty much jump in straight away, a Sustainable Habitats pool will become clearer over the

first six months. Algal growth can occur, but this can be managed by adding small amounts of gypsum to the water, which binds onto the excess nutrients, starving the algae.

Goldfish or grass carp can even be included, so you can 'swim wid da fishes'. The fish help keep any unwanted insects at bay, although the reduced nutrients will restrict their growth and breeding potential.

"You don't really want ducks in there though," he says. "The occasional visitor is fine but you don't want them living there adding too much 'nutrient' to the system."

Natural Pools NZ, on the other hand, takes a more technical approach. Director Alex Trout has brought over the Biotop pools system from Vienna, which has been developed over 25 years and more than 3,000 installations.

To offer a clearer natural pool experience Biotop pools are fitted with an additional device called a carbonator. This draws in air through pipes in the ground next to the pool, then through granulated rock and into the water. It brings extra nutrients and oxygen, counteracting pH rises during the day, discouraging algal growth, as well as encouraging the health of the plants in the cleaning pond area.

Alex says the swimming water in Biotop pools should be clear within six weeks, without the need for further additives—but he recommends leaving the fish in the river. Their pools cost $60,000 to $80,000 to install, depending on size.

"I just love them," says Alex. "You are pretty much swimming in fresh water, like a lake or a river. There's no smell coming off it, your eyes aren't sore. It gets you away from all those chemicals."

Andy Kenworthy

KEEP IT CLEAN

It seems that anyone with experience maintaining conventional pools wouldn't be out of their depth looking after a natural one.

Water from the pool is filtered as it passes through the plants' root systems and percolates through the stones. An outlet at the bottom of the stones connects to a pump, which can be solar powered. This cycles the now clean, hygienic water back into the swimming pool.

As with a conventional pool, larger objects like leaves are removed with a skimmer, which is also connected to the pump. The water itself is recycled through the system, and needs topping up only to replace any lost through evaporation.