

Living with her family in a valley, deep within the heart of Central Otago, New Zealand, Ali Law has built her rammed earth home to be around for at least 100 years.

An affinity with nature and the Earth drew Ali Law to the idea of building a rammed earth home. She wanted to create a living space that would be completely natural - a home without toxic fumes, glues or resins - a healthy home where she could one day raise a family.

The foresight Law showed was remarkable. Twelve years ago, Law was a single woman with an ambitious dream. She was on the building site daily, with her builder, Greg Brosnan, laying the deep, concrete foundation for the 400 mm thick walls. The earth for the walls, excavated from the property, consists of a calculated mix of soil, clay, and silt (with just a sprinkling of cement to satisfy the local council), that Law spent a year testing to get just right. She not only helped to prepare the mix, using »



Down to earth

Initially built on a budget, Ali Law's rammed earth home is a work in progress - a living, breathing space that improves with age and, for its owners, a constant inspiration to live a truly sustainable lifestyle.



The earth for the walls, excavated from the property, consists of a mix of soil, clay, and silt (with just a sprinkling of cement to satisfy the local council), that Law spent a year testing to get just right.

» a rotary hoe to blend the soil and clay, but also kept the building team positive and focussed.

"I wanted it to be a happy, positive experience with only positive energy going into the house," she explains. The home, "built on date scones and home-brewed beer," truly reflects this attitude and is now shared with Law's partner, Steve Henry and their two boys, Charlie and Toby. It was Law's ambition that the home be crafted well enough to stand for many generations to come.

All plumbing pipes and electrical cables were set into the foundation and walls during initial construction, while lighting cables were separately located within the ceiling cavity. Pull-cords operate energy-saving lights throughout the home.

An exciting element of the home is its central thermal core. "It's the solar heart of the home," enthuses Law, "and was designed by builder/designer Richard Wilden, who had previous experience working on rammed earth homes in America."

This enclosed space attracts and stores heat during the day and releases it during the night as temperatures drop. Its earth walls, which house the hot water tank, jut out into the main living areas, and there's a potbelly fire on one side and a freestanding wood fire on the other side. With the fires lit and a skylight strategically placed to allow

G-spot
 Rammed earth walls are virtually fireproof and their density and thickness means they effectively block out external noise.



the winter sun to reach the centre wall, the thermal mass has maximum opportunity to attract, absorb, store and release heat.

Wilden also believed in creating welcoming spaces within the home using recessed areas and lowered ceilings to create cosy corners and alcoves within the larger open-plan area. In essence, they are comfortable, intimate spaces for cooking, eating, reading, watching television and playing.

Recycled timber features add a rich, vibrant atmosphere - from the rustic window frames and old-fashioned doors, to the solid oregon beams and chunky rimu (a local timber) kitchen joinery.

While good insulation, warmth, and longevity go hand in hand with earth homes, they are best »

1. To create texture, add colour and protect the walls, Law applied clay slurry with a hearth brush.

2. The walls are 400 mm thick, providing insulation against temperature extremes.

3. The house uses bore water for all its amenities, including this copper toilet.

4. The tile-look flooring is oxide-coloured concrete, stamped for a natural effect, and finished with grout for an authentic look.

5. Rammed earth houses have a certain rustic charm and holistic appeal that entices people to fall in love with them.



» suited to dry climates and require protection from the elements. In this instance, deep eaves and Onduline corrugated roofing, made of cellulose saturated with bitumen, offer protection. Wool insulation batts also provide a layer of insulation within the roofing cavity.

An evacuated solar Thermocell heat panel sits flush with the roofline and provides most of the family's hot water needs, boosted only by the potbelly stove during the winter months.

For Law, Henry and the boys, the earthy home offers a warm retreat in the winter and a cool sanctuary during the summer. And most importantly for its creator, it is a sturdy home that will stand for years to come. 

FIONA MADDISON is a freelance writer based in Christchurch, New Zealand. Having built two homes with her husband, Max, she dreams of building a third home using natural and recycled materials.



2



1



3

1. The kitchen features a series of windows for natural light and chunky rimu timber benchtops and cupboard doors. 2. Detail of a kitchen cupboard with inset shell handles. 3. This lengthwise internal view reveals the open-plan design. Also visible, behind the sofa, is the thermal core, an enclosed space that attracts and stores heat.