Multi award winning builders Builders of over 30+ straw & earth homes



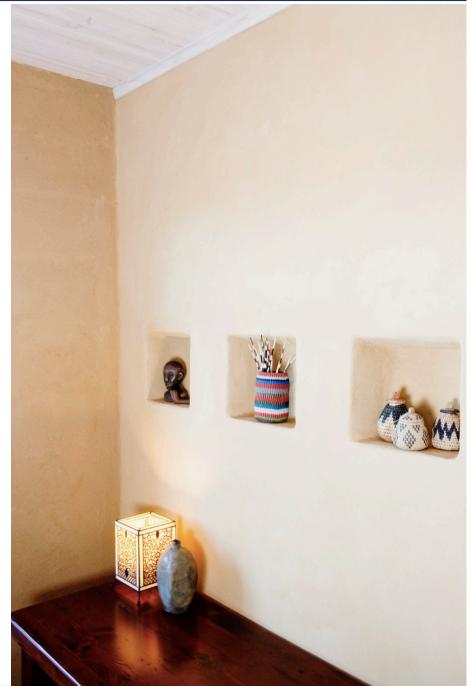


Everything we do is for this one purpose...

To inspire 10,000 natural buildings in the world

Experience

- Licensed Master Builder
- Supervisor, Qualified Carpenter
- Australian Building Sustainability Association accredited for Energy Assessment Star Ratings
- Built one of Australia's first straw bale buildings, been building for over 15 years, built over 30 natural homes.
- Trainer to builders, owner builders, engineers, architects & councils – over 300 people so far
- Australian Straw Bale Building Assoc. Committee
- Guest Speaker at the HIA Sydney Home Show, Australian Bushfire Expo
- A natural builder who has designed and built to a set cost and time frame on over 30 homes



What Makes THE best natural & sustainable home?



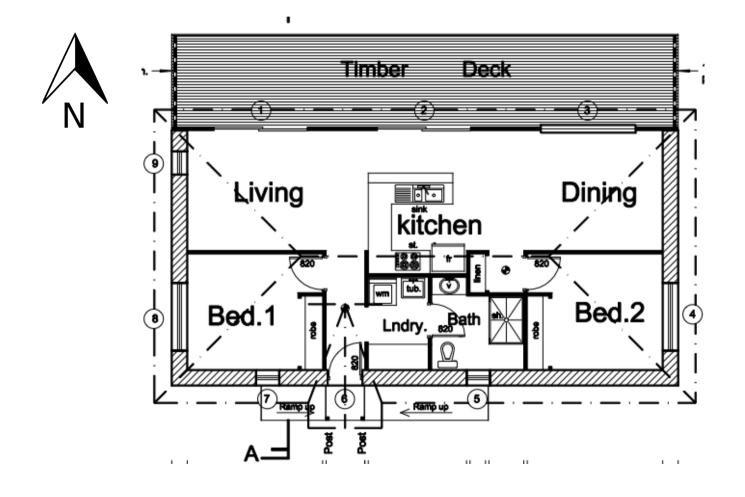
Secret #1 Design

- Conventional homes are generally designed around the street entrance and cost
- Or use a lot of prefab or man-made materials that off-gas, come from overseas and have a high carbon footprint

Sustainable homes that we design use:

- The sun with windows & eaves (heating & cooling loads)
- Optimum insulation and thermal mass
- Natural materials eg straw bales and earth
- Minimal man-made materials
- Local site conditions & materials eg views, clay, labour
- Council and other building requirements
- Smart designs to be cost effective

Solar Passive & Sustainable





Secret #2 Choose a great designer

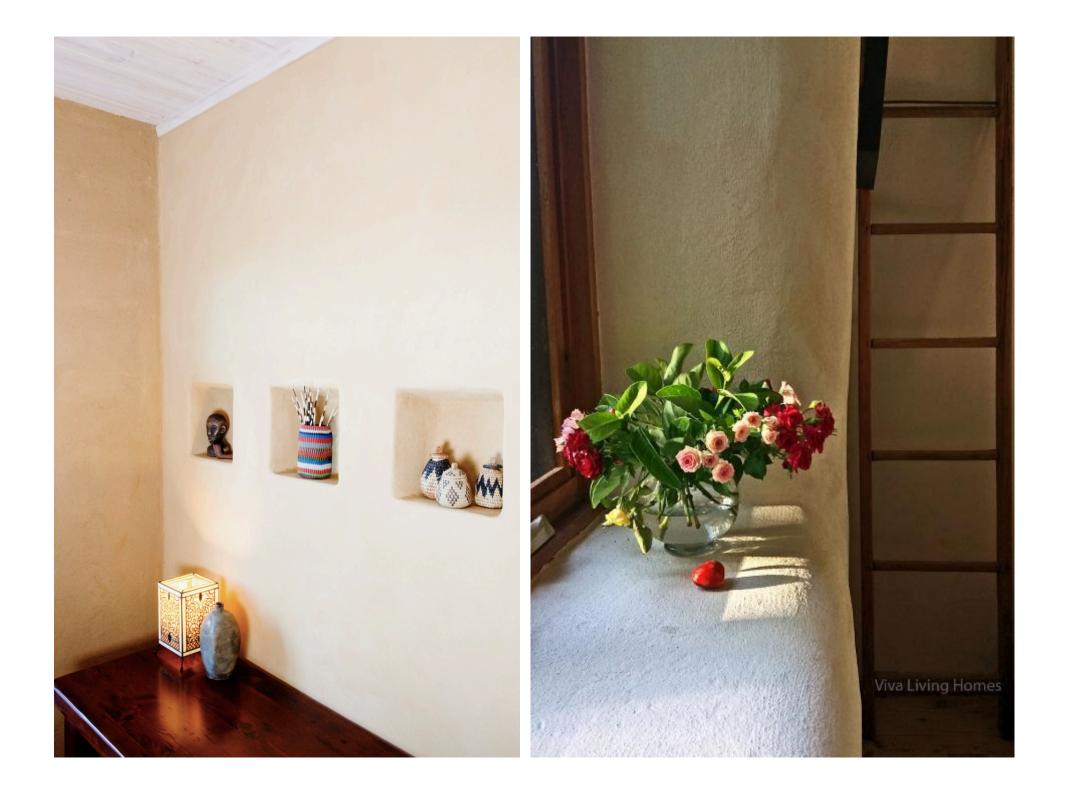
- The biggest problem we hear is... they go 2-3 times over budget
- In addition, they need heating and cooling, and it was tricky to build...

Choose a designer -

- Experienced in natural building
- Have built numerous homes and know the costs to build
- Works with a builder the whole way through to keep on track
- Uses thermal mass & insulation in the right place

Secret #3 Use Insulation

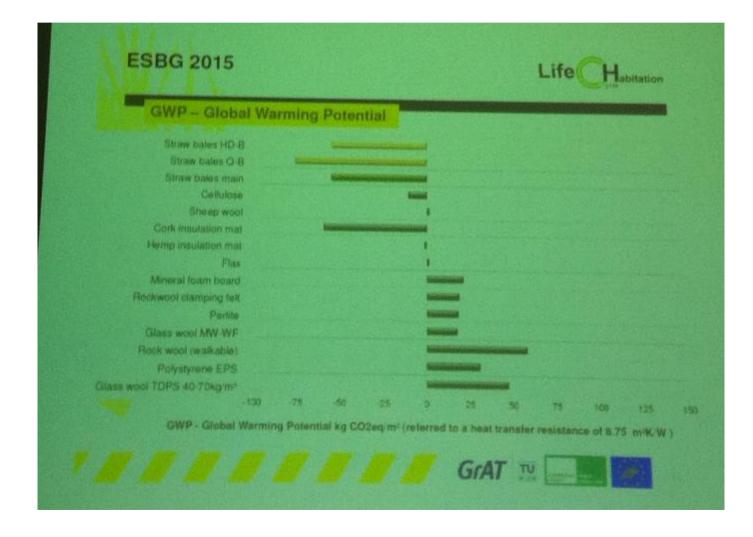
Man-Made	Semi	Natural
Exterior insulation finishing system (EIFS)	Wool batts	Straw bales
Insulation batts	Timbercrete	Light-earth-straw
Hebel panels		Hempcrete
Aircell with cladding		Timber, traditional & plantation
Colorbond		
Polystyrene		



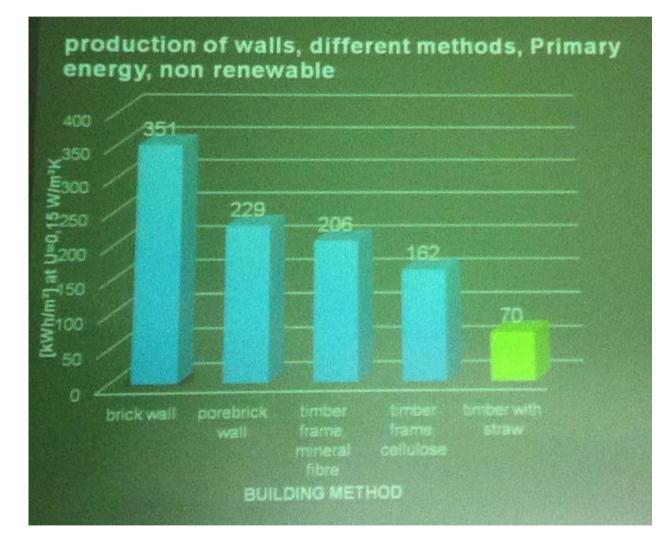
Secret #4 Use Thermal Mass

Man-Made	Semi	Natural
Concrete (slab, prefab walls, modular homes)	Rammed earth	Earth – cob, pressed bricks, mud bricks, earth bags, pise
Bricks	Recycled bricks	Earth floor
Masonry bricks		Green roof
		Stone, gabions
		Hempcrete (compacted)
		Wattle and daub

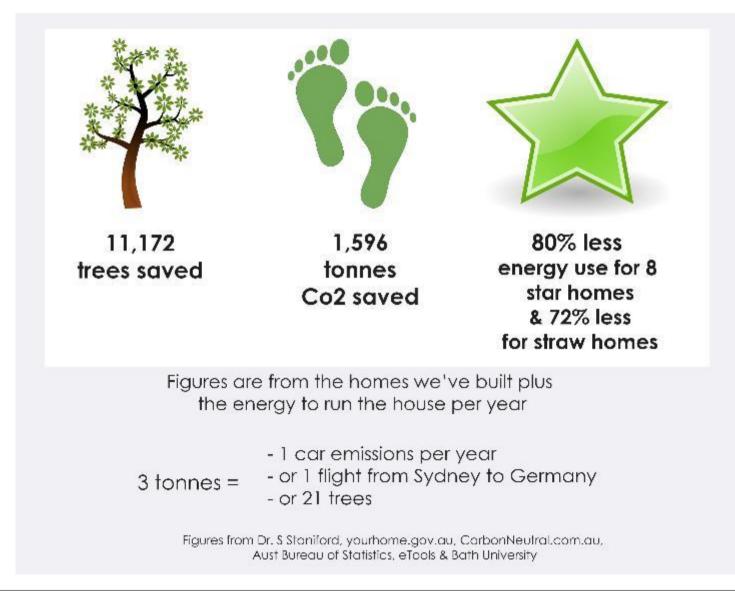
Global Warming Potential



Building Material & Energy Use



The Impact of Viva as @2015



Natural vs Man-Made



Off-grid, Bushfire FZ, Natural

Secret #5 – Choice of Materials Man-Made Materials Pros and Cons

Pros	Cons
User-friendly, easy, most tradies know what to do	Chemicals, off gassing
Quick to install	High embodied energy and carbon footprint (eTools claim it's hard to get Gold Ratings)
Perceived as being a cheap material (mass produced)	Limited resources used (Aust. and overseas)
They're in the Australian Standards & considered conventional	No regulations over quality of labour used to source and process materials
	Breathability of materials is a problem (sick house syndrome)



Pros & Cons of natural materials

Pros	Cons
Local to Australia and the region	Specialist tradies needed and currently no standards or regulations (poor workmanship in costings is currently a big issue)
Low carbon footprint and embodied energy	Need expert documents to comply to Australian Standards and National Construction Code
Healthy	Inconsistent (colour, texture, use)
User friendly (unskilled labour)	Need fundamental knowledge and skills to get it right (walls can fall down!)
Cheap to buy raw materials	
Lag time between indoor/outdoor temperatures (if designed right)	

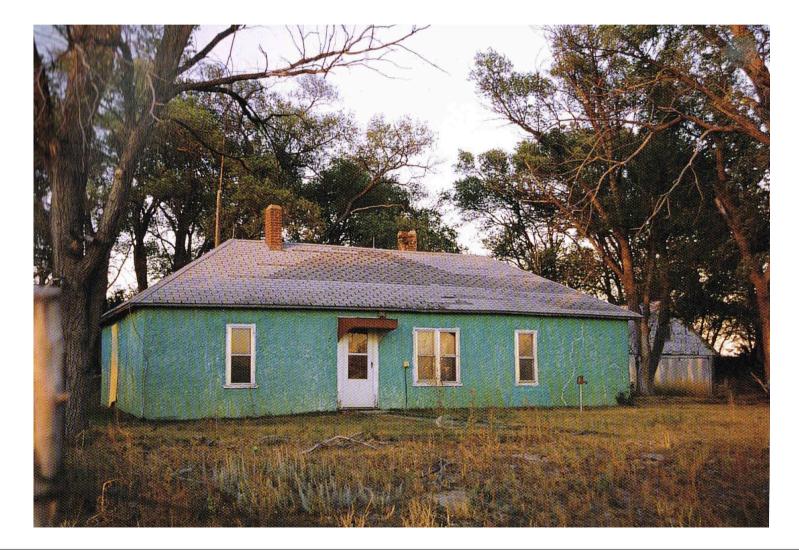




Doing It Yourself

- Choose your team carefully
- Do courses & workshops beforehand. Learn the trade of project managing. It is a job, learn the mistakes of others and be open
- Take time off to do your project or it will take you 7 years+ and you'll have the nightmares like "Grand Designs"
- Get written quotes which include the whole complete work (not estimated hours)
- See at least 3 completed jobs they've done (especially from your drawer and wall installer)
- Speak with the owners and ask for the pros and cons of working with them
- Search the internet for reviews
- Know that it's like having a baby... it will happen but it won't happen the way you want

Do they stand the test of time?





What We Do -

Off-the-plan designs Design and build custom, natural homes Courses, workshops & teach others

