



Principles of Ecological and Sustainable Living

Kimbriki Eco House & Garden

'Deepening our connection' to nature and all living things

Our aim for this workshop today is to:

- Give you an experience of the primary issues we are teaching and exploring with our local community.
- To invite you to have a dialogue with us about how all of us can work together to develop a stronger, more powerful and united 'voice', to inspire faster ecological change and action throughout all the communities we live and work in.

In all our workshops we begin by defining ECOLOGY.

What is ECOLOGY?

From the Greek language:

- ECOS** Where I go. Our place of 'being'. (No matter where you go, there you are!).
- LOGOS** **The meaning we make and the care we take of wherever we 'be'.**
- ECO LOGOS** **I will take care of EVERYWHERE I go = ECOLOGY.**

This explanation is at the core of everything we do and teach at the Kimbriki Eco House & Garden.

Activity: Using our Imagination to Create Our World

Sit for a few minutes in a sunny spot in your garden or lovely place in nature. Be aware of your breathing, close your eyes, and then **IMAGINE** a world of 'Eco Logos - **where everyone is taking care of everywhere they go.**' Imagine what would be 'different' in this world of complete 'Eco Logos', compared to the world we are creating right now.

What is SUSTAINABILITY?

SUSTAIN (from Collins English Dictionary)

From Latin '*sustinere*' – to hold up
 To maintain or prolong
 To provide for or give support to
 To keep up the vitality or courage of
 To establish the truth of



ABILITY

This is the quality of being able
 The power or capacity to do or act
 The means or skill to do something

= SUSTAINABILITY

In ecological terms, **SUSTAINABILITY** is then a process to make deeper meaning of the world we live in and as we do that, to have or find or create within ourselves and our communities, the vitality and courage to hold up and stand up for what we come to see as the truth, about the path we need to walk, to live in love and respect for all things.

"Be the change you want to see", Mahatma Gandhi.

A.D.A.M. Principles

We communicate our **key soil based principles** through what we call the **ADAM Principles**.
(Adamah = Earth / Red Clay)

Aliveness "Respect for ALL living things"

- Creating more microbial life in our garden soils. This living soil is **where the vitality, insect and disease resistance of our plants is created**.
- The process of decomposition, which is nature's natural fertility system, depends on the billions of living microbes present in every handful of healthy soil. **It's all about our soil!**
- Stop using any synthetic pesticides and herbicides. These toxic poisons harm the life in the soil and us!
- Carbon in the soil is the energy source for microscopic organisms – the 'drivers' of the entire soil system. The soil needs more carbon! E.g. dry leaves, woody mulch, and sawdust.

Diversity "Variety is the spice of life"

- Do whatever we can to increase biodiversity **both above and below the soil surface**.
- Recent research indicates that microbial diversity in the soil is a key to **strengthening plant immunity** to insect and disease attack.
- Mulches and composts made at large garden organics collections sites, such as Kimbriki, are higher in **microbial diversity** because of the **huge variety of plant matter** used to create them.
- Increasing diversity in our human diet is also a key to strengthening our own immune system. E.g. "Eat Yourself a Rainbow Everyday": The Dr Sandra Cabot Collection of Recipes.
- Increasing variety in our everyday lives – stimulation, challenge, inspiration, motivation, connection.

Aeration "Soil is alive – it breathes!"

- Above the ground, plants photosynthesise and take in carbon dioxide (CO₂), and then release water (H₂O) and oxygen (O₂), but in the soil, plant roots breathe in O₂ and release CO₂, like humans do – Air is important in your soil.
- Keep gardens, composts and worm farms, as **aerobic** (with oxygen) as possible. The natural system of aeration by living organisms, especially worms must be continually encouraged and we must aerate our soils using mulches and regularly turning our composts.
- Carbon in the soil in the mature form of '**HUMUS**' (long chain carbon molecules) is the key to soil aeration which **ensures optimum plant growth and optimum plant health** – keep adding diverse organic matter to your gardens.

Moisture "Water is the 'blood' of every living organism"

- All life requires moisture to live and flourish.
- Do whatever we can to **achieve more efficient use of whatever moisture is available** by: reducing moisture loss by evaporation (add surface mulch); ensuring maximum infiltration (improve soil structure/biological activity), and maximising water holding capacity (increase organic matter and humus/carbon).
- We need to raise the level of **deep 'respect' for water**.
- Strongly and enthusiastically encourage the saving of water (tanks, ponds, recycling of water etc).
- Water quality is directly related to our 'HEALTH'.
- Explore Masaru Emoto's book - "The Hidden Messages in Water".

Remove food scraps from our general waste bin

A primary focus of our work at Kimbriki is to inform our communities about the **consequences of throwing out food scraps with our general waste**.

The key reason that all food and garden organics **MUST BE KEPT OUT** of garbage tips or landfills (as we now call them), is this:

- When this organic material is buried and compacted in the landfill, it becomes **anaerobic** (no oxygen) which causes large amounts of **natural acids to be released**.

- These acids dissolve the other waste we dispose of (batteries, plastics, poisons, etc.) and create a toxic liquid called **leachate**. This has been the cause of **massive pollution in the ground water** of many communities.
- **Methane gas** (23 times greater greenhouse effect than CO₂) is also produced, and **released into the atmosphere**, from food waste in an anaerobic landfill situation.
- It's a 'double-whammy', the methane goes up and the leachate goes down.
- Now that we know these facts about the effect of **OUR** waste we have a clear choice – **ACT NOW**

"From little things, big things grow" Paul Kelly

Human Health - Acid / Alkaline Balance

Much of the information in this section comes from TIETZE, Harald W (2000) - pH Youthing. Harald W. Tietze Publishing. Bermagui. Australia.

- The build-up of organic acid waste is our main problem. **Ageing is organic waste build up**. The most common acid waste products in our body are **acetic acid, ammonia, carbonic acid, carbon dioxide, fatty acid, lactic acid and uric acid**.
- When we are born we are in the most alkaline state of our lives. Reversing the slow but steady build-up of acid waste in the body slows the ageing process.
- The most significant factor to mention here is that when we eat **organically** grown plants, this usually **increases the alkaline forming response in our blood**. The same plant grown **non-organically**, using **highly acidic synthetic fertilisers** will usually have a more **'acid forming' response** in our blood.

Think Globally - Act Locally → RETHINK – REDUCE – RE-USE – RECYCLE

Rethink

Let's all rethink...**rethink how we can live or lives more ecologically** and how we can all find more ways to reduce, re-use and recycle.

Reduce

This simply means – **USE LESS!**

We need to **SLOW DOWN** and use less of everything, from electricity to plastic shopping bags.

In our throw-out society, we need to stop and think about **HOW** we can reduce our total use of resources. Think about **REDUCING** when you are shopping, working, holidaying, everywhere.

Re-use

USE IT AGAIN! It's that simple. Be creative!

Every time we **RE-USE** something, we are slowing down the extraction of new materials from the earth. Using second hand, or pre-loved as some people call it, is an ecological principle to be proud of.

Our Eco House is made of 80-90% re-used materials. Sometimes things just need a bit of **REPAIR** before **RE-USE**.

There are many other examples of **RE-USE** mechanisms in our society, e.g. St. Vincent de Paul Society, Salvation Army, Lifeline, garage sales, school fetes, antique shops, second-hand shops, etc.

Recycle

Recycling is a useful thing to do but it uses a lot of energy and money.

You can make a difference by sorting all your waste at home and recycling everything you can.

Each year at Kimbriki we recycle:

- Approximately 90,000 tonnes of waste garden materials back into mulches and soil.
- Approximately 120,000 tonnes of construction and demolition materials back into different size gravels for use in road building and landscaping.

We also want you to try and **RECYCLE ALL YOUR FOOD SCRAPS AT HOME BY COMPOSTING OR WORM FARMING**. Food waste causes serious pollution if it is thrown out with other rubbish.

Conclusion...

We would love you all to try and live your lives **through the window of the 4 R's**:

Rethink – everything we do.

Reduce – use less of everything.

Re-use – use it again! If you can't re-use it, give it to someone who can re-use it.

Recycle – please recycle everything that can't be re-used.

Let's aim for ZERO WASTE to landfill!

Permaculture Ethics and Design Principles - David Holmgren

Permaculture offers **positive solutions** to create healthy environments by working with nature. It brings our focus back to **building healthier sustainable communities**. www.permaculturenorthernbeaches.org.au

Ethics



Earth Care



People Care



Fair Share

Principles



1. Observe and interact



2. Catch and store energy



3. Obtain a yield



4. Apply self-regulation and accept feedback



5. Use and value renewable resources and services



6. Produce no waste



7. Design from patterns to details



8. Integrate rather than segregate



9. Use small and slow solutions



10. Use and value diversity



11. Use edges and value the marginal



12. Creatively use and respond to change

For more information
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