

# BIOPHILE

for the love of our Earth, and all who live on her

**USING LOVE, NOT FEAR**

transforming SA's prisons

**MAKING BACON**

the shocking truth

**GREEN CARS**

a guide to eco-friendly vehicles

**ORGANICS**

the wave is cresting

**HERBICIDE**

in your intestines?

**WHALE WARS &  
DANGEROUS VEGANS**

Hope for the Giant Panda • Saving the Dead Sea • Dr Emoto to visit SA  
THUMBS UP/THUMBS DOWN: who's on track and who's up to no good  
Beyond the school wall • The Ugly Fruit Movement • Worms at the Mount Nelson

BIOPHILE ISSUE 11 R20.00 incl. VAT



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## Biophile Magazine

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## 18 A Guide to Green Cars

What makes one car greener than another? Certainly, having high fuel economy is one factor. Meeting one of the cleanest exhaust emissions standards is another.

## 20 South African Restaurant Oil Abuse

## 22 Making Bacon: the Shocking Truth

Many people think of *Charlotte's Web* and *Babe* when they imagine how pigs are raised for meat. Unfortunately, these Hollywood tales do not depict reality.

## 24 The Hidden Lives of Pigs

## 26 Do Africans Dare Care About Animals?

Are animal rights the domain of the world's affluent nations? Dare we Africans care about the well-being of animals while so many are dying of hunger, disease and bloody civil conflict?

## 28 The Wave is Cresting — Are We Ready to Surf?

For those of us who are at the rock face of the developments within the organic industry, it is obvious that the rate of change and growth is increasing daily and exponentially.

## 31 Organic Gardening... and the Humble Weeds

I have been growing organic fruit and vegetables around my house for five years now, and the most interesting things have become apparent.

## 32 Herbicides in Your Intestines?

Genetically engineered crops may produce herbicide inside our intestines, killing gut bacteria which are essential for our health.

## 35 Sugar Addiction

Scientists never really thought that a person could become hooked on sweets like they were a drug. Now a batch of findings is making researchers reexamine the concept.

## 36 The Right to Food

It is unlikely that you will know personally any of the ten children under five years old who die every hour in South Africa, and so are spared that suffering.

## 37 Worms at the Mount Nelson

Cape Town's most famous hotel has embarked on a novel way of disposing of its waste – an on-site worm farm to process leftover food and other organic matter.

## 38 Using Love, Not fear, in Prisons

Whatever is being done about crime, isn't working.

## 42 Whale Wars and Dangerous Vegans

When the president of the Japan Whaling Association accused a radical environmental group of being "dangerous vegans", not many people knew quite how literally he meant it.

## 44 Beyond the School Wall

Could this be the catalyst for the change that we are all seeking in our ailing education system?

## 47 Zero Waste Communities

Communities around the world have begun to adopt Zero Waste goals.

## 48 Should We Open Up Schools for Parents?

## 50 Beliefs and Reality

Where do we come from? The fact is, Homo Sapiens is the only new kid on the block.

## 55 Creating Our Reality

### Regulars

02 Inbox: Our Readers Write

07 Editorial

08 The Biofiles: News And Views

16 Thumbs Up / Thumbs Down

52 Soil For Life

56 Cosmic Directions

57 Ask Anrita

58 Connect Up — Get Active!

62 The Green Directory

64 Subscription Offer

Send us your thoughts, questions, ideas, constructive criticism and suggestions. We'd love to hear from you!

## Positive Saving

In the Editorial of Issue 9, you put forward the view that our world would be a better place if people shed the need to save their money. Although living without cash in the bank is an inspiring possibility, it is a lifestyle change unlikely to be snapped up by many, even those who believe themselves to be community or environmentally minded.

The average person will usually save for something which is important to them, be it a home, a child's education or a new pair of shoes. The money put away becomes a tool towards realizing a dream. I believe that to make money work positively for us it may not be necessary to give up saving, but instead to become acutely aware of where our savings go. In Europe opportunities for ethical investment have been multiplying as more people demand transparency from their banks. With growing social and environmental consciousness, savers are deciding not to entrust their finances to banks linked to the arms trade, oppressive regimes or corporations known to harm the environment. Instead, people are choosing to invest their money in worthwhile causes.

Banks like the UK's Co-operative Bank, with its slogan: "customer led, ethically guided" and the European based Triodos Bank assist people to invest ethically by spelling out clear policies on exactly who they will and will not lend to. In contrast to most banks that swallow up savings into ambiguously named funds, these organizations keep their customers well-informed.

Besides outlining their ethical policies in detail, the Co-operative Bank's website provides a platform for customer action campaigns and feedback. The Triodos Bank annual report lists all the organisations they lend to. Its pages full of colorful photographs and inspiring project profiles are a far cry from the grey financial documents peppered with graphs that are published by most other

banks. Triodos also produces a regular newsletter which combines articles on green lifestyles with details of the recycling networks, organic farms, small ethical businesses and cultural and community organisations it funds. Last year it even offered customers a chance to buy shares in a renewable energy fund that bought the UK's largest wind turbine.

In this way, saving becomes a way of channeling money into a network of exciting projects, while customers learn from fascinating stories just how their money is helping to make a difference. With so many exciting grassroots projects springing up in our own country in need of funding, isn't it time that South African banks jumped on the ethical bandwagon?

Not only will they attract more of the increasingly socially conscious young generation, but they will fulfill their corporate social objectives at the same time.

*EVE CUNARD, TSITSIKAMMA*

Thanks for taking the time to write and for making an excellent suggestion! I have heard through the grapevine that there is a group of investment bankers getting together to offer the SA public the option of investing in ethical ventures!

However I am still of belief that "saving for the future" is motivated mainly by feelings of lack and fear, and ultimately results in our 'doing it all for ourselves', which I believe is to a large extent responsible for the mess our world is in today. If we embraced the consciousness of abundance and sharing with complete faith, there would be no need to save. A good example of such living would be the few pockets of tribal people that still exist untouched by the western ways, where all is shared and people don't go without. Our western culture is based on materialism and driven by fear, so a massive shift in consciousness would be needed, to move into such a way of living. It seems that the wheel is turning however, with community living and 'eco villages' becoming more popular.

Anthea

## Green hair

I must start out by saying that I love your magazine. I read it from cover to cover as it is so packed with both useful and interesting articles.

I have been a hairstylist for 25 years and for the last 15 I have run a small intimate salon from the tranquillity of my home (away from the unnatural noises and air of shopping centres!)

Over the years I have strived to use and sell only the best products in my business. Lately I have become aware of all the nasties one finds in skincare products and strived to find organic products and in so doing stumbled across Esse and Enchantrix. I then was invited through my Esse representative to meet Dr Trevor Steyn, whom I found most interesting, due to his vast knowledge in organic products and his revelation to me about all the terrible things that one finds in all the hair care products that I have believed in for years.

It took me a few days to recover from the shock and then I decided to put some of this knowledge into action. I have decided that I will now endeavour to turn my business into an organic one, not an easy feat as there are not many products out there to choose from. I only managed to find 1 professional hair care product on the net, but at a frightful price (I want all my clients to be able to afford good products!) I now stock our wonderful local products (Esse and Enchantrix) and hoping that somewhere out there someone will fill the 'professional gap'! In the meantime I try and impart all my newly found knowledge to all my clients (and anyone else who will listen) because I feel that we should all know what we are putting on our skin and hair and know that there are products out there that are safe.

Keep up the wonderful work that you are doing.

*SHARON WADE, PRETORIA*

## Strip mining in Limpopo?

Thank you for your commitment to our Earth and for a very inspiring and informative journal. I am a passionate and active Earth lover. I coordinate a small NGO called Eco Hope which promotes organic gardening and the use of organic herbs in healing, in informal settlements, rural areas and communities which have newly settled on farms transferred in the context of land reform.

In Issue 10, you mentioned strip mining on page 35. When driving to Limpopo via Rosenkral, I see a range of mountains stripped of their trees. Do any of your "rainbow warrior" readers know if this mine has a rehabilitation policy in place, and whether or not it is being put into practise?

*AM LAUB, ECO HOPE, ECOHOPE@AMWEB.CO.ZA*

# Denying reality?

I am a journalist who has a respectable amount of experience covering science, the environment and, particularly, HIV/Aids. I am also a Buddhist, so not exactly a hard-core sceptical empiricist. I believe that the life of each and every human being (as with other beings) is an incredibly precious thing. I also think it is unlikely we will ever succeed in assuming a proper stewardship of this planet's environment if we do not take care of other as human beings.

The poor (though not as destructive as the rich), for whom the most basic issue is survival, often cannot care for their environment. I suspect many poor people are sceptical about environmentalists, because they sense that many environmentalists do not love people. Antiretroviral drugs are far from perfect. They are sold by corporations which undoubtedly have very little interest in human life and a whole lot of interest in making money.

But, if you spoke to every South African doctor and nurse who uses these drugs to treat people, you would hear that they can be almost miraculously effective. So much so that the term 'Lazarus effect' sometimes even finds its way into supposedly objective scientific discussions. Of those doctors and nurses working every day with HIV-positive patients, you would find but the tiniest minority prepared to endorse HIV denialism or a knee-jerk dislike of antiretrovirals. The introduction of antiretrovirals to our public health departments is beginning, where they are deployed, to slow the tide of death – which for professional healers has been a tide of despair. (Few if any people ever stop to consider the impact of this pandemic on medical professionals – an omission which betrays a staggering lack of imagination and compassion.)

The so-called science of HIV denialists is

corrupted by fear, fear of the immensity of the challenge HIV presents, fear of the darkness or simple ignorance in all of us which can encourage its transmission. Fear is natural, but yielding to it can kill us, especially when it has become irrational. The science of HIV treatment has advanced so far that the virus is no longer driving the pandemic – we are, we with our obstinacy, ignorance or fear.

Without science, we would know practically nothing of the damage we are doing to the environment. Yet, when science tells us things we do not like to hear about ourselves, such as the nature of those behaviours and fears that encourage the spreading of HIV, we reject their messages. In fact, rather than face the truth about certain aspects of ourselves, it seems we will often deny reality itself, deny the existence and nature of a virus which is all too real and thrives on such denial.

It is mostly scientists, those who manage the system of knowledge and common sense we call science, who are leading us away from environmental destruction. Perhaps we should wholeheartedly support their efforts to lead us away from human self-destruction.

Very few denialists are working public health doctors, or even doctors at all (though often scientists from other disciplines). The evidence for the nature and existence of HIV Culshaw believes to be so scarce is to be found in 10 000 clinics about this country. If hundreds of doctors were standing up, and saying, hey we're getting this HIV thing all wrong, now that would be worth listening to.

**DAVID LE PAGE**

Swimming against the current is always difficult in the beginning, using the (scientifically proven!) premise that we are what we think, the use of ARVs has its place,

respectful lives, whose own lives have been saved by courses of ARVs.

There must be even more people who are in early stages of awareness of the dangers inherent in their lifestyles in terms of what they eat, drink, breathe, watch, etc and who would appreciate taking on a new path in small steps - and live to take those steps, thanks to ARVs.

I for one, would appreciate a more compassionate and open-minded approach from one of my favourite magazines.

**ANNEMARIE HENDRIKZ**

## One of the greatest medical frauds ever

Your last *Biophile* was really excellent, as usual. And I'm also glad to see you're giving a voice to the 'Aids dissidents.' The 'HI Virus-causes-Aids theory' will yet be exposed as one of the greatest medical frauds ever perpetrated. Not only is there the contradiction in terms namely that a virus can cause a syndrome, but this virus has never been isolated in the way that other viruses such a polio have been.

By account of US Nobel-Prize-winning biochemist Dr. Kary Mullis, "its discovery owed more to politics and economics than to science." Certainly, it is a money spinner.

The myriad of vaccines to which children are subjected these days are more likely to be one of the major causes of the Auto Immune Disease Syndrome. Not to mention an accumulation of pollution, radiation, GM foods, chemicals in food and drinking water, etc.

**BEATRICE WILTSHIRE, SNOUT**

when people are given no option but to believe that this will prolong their life. We are wondering if you have any statistics regarding people who have survived (after being condemned to death by their diagnosis) bravely going against the current and using the ways given by nature to heal their bodies? I think you will find that there are many. There are more and more clinics being opened to address the issues from a holistic (physical, mental, emotional and spiritual) standpoint. From all accounts the results are very encouraging. We wholeheartedly agree with you when you say that the pandemic is driven by obstinacy, ignorance and fear...is now perhaps not the time to embrace a new way of dealing with the problem? Anthea

## One-sided view?

I love reading *Biophile* but am increasingly disappointed in your one-sided view on the HIV and AIDS challenge to our society.

*Biophile* is on issue number 10 and has devoted more than 15 columns during its lifetime to denial of the link between HIV and AIDS, and to the dangers of anti-retroviral drugs.

Don't you think it's time you gave some space to a more helpful view?

There must be many people living with HIV and/or AIDS who share a desire for healthy, sustainable, environmentally

While I understand where you are coming from, our intention is to awaken people to the many avenues in life that have — in the main — been deliberately put in place to dis-empower us and keep us in the bondage of limited thinking and being.

We focus, to the best of our ability, on educating and on sharing holistic and empowering alternatives to mainstream thought. There is more and more evidence coming to light in support of our stance.

Anthea

## Zero Waste

The article on waste (“Zero Waste: an introduction” *Biophile Issue 9*) was interesting and the objectives of the Institute are laudable. On reading the five basic tenets of Zero Waste, my first reaction was, ‘these all make sense’. My second reaction was, ‘the rub lies in the implementation’.

General acceptance of these principles will only come if the average level of education is fairly high, and where governments realise the importance of minimising human impact on the environment. Currently nearly all governments try their best to circumvent environmental legislation if the financial incentive is sufficiently high.

Of particular difficulty will be to persuade people not to over-consume. This goes against the very grain of living today. The business community is also sure to resist all limitations placed on their activities.

In most countries around the world today

meeting these objectives would require a phased approach at the very least.

In South Africa a starting point may be to put in place the required legislation which would force manufacturers to take responsibility for what they produce. This would in turn facilitate the process of getting municipalities to construct a number of collection points within easy reach of those who do not have private transport. People could then deposit sorted waste there and be paid for it. This money could be recouped from either the original manufacturers or those who will re-use the waste. A follow-on step would be to get the public to sort their waste and make it available to those who are willing to take it to a collection point.

To my knowledge not one of the issues listed in the article has been tackled in South Africa. If I am wrong, please let the general public know what has been achieved and let the educational process begin. This is vital to the future of the planet and the quality of life our children will enjoy.

Those who label ‘zero waste’ an unachievable target may very well be right in a society where the general attitude is one of ‘devil take the hindmost’. This should nonetheless not stop us from trying and giving our support to organisations such as Zero Waste.

**CASSIE PUREN, MULDRSDRIFT**

The only legislation which exists is the Polokwane Declaration — and you are mostly right in saying that Extended Producer Responsibility will be key; however, the idea that by simply recycling, we will solve the problem is a tad simplistic, as we need to re-design products and processes first, otherwise we are just fiddling at the edges.

While the concept of producer responsibility is in some of the legislation, it still speaks to eventual disposal, not keeping material in the economy.

So, with 100% post-consumer recycling, we would only tackle 2% of the waste stream... bit pointless, still worth doing, but limited in scope and impact.

Muna Lakhani, IZWA

## Frankenfood

In the recent article on “Frankenfood” (*Biophile Issue 10*) I was very pleased to see that the University of the Free State was finally using their GM testing equipment to the benefit of the consumer. The article paraphrases the report, but

leaves a couple of untied knots. The one that concerns me most (as a vegetarian who eats soya products) is the almost complete absence of un-modified soya products! What is misleading is the fact that no effort was

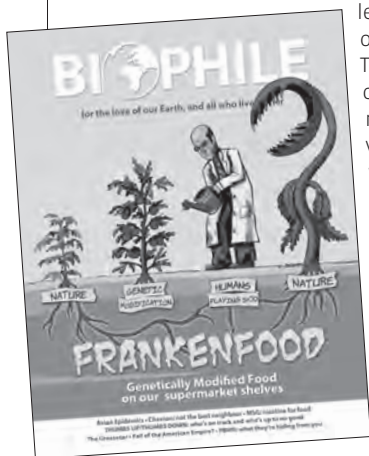
made to tie up the manufac-

turers to the tests and their claims.

Of noticeable mention is the Fry Group who boldly advertise their products as GMO free. Of the two of their products tested, they both tested positive for GM! In the article, a table is published saying that they use the EU certification of less than 0.9% GM content which is the worlds most stringent test. I sent them an email before this test was done asking for their certification body. Of course — no reply.

When is this level of LYING going to end. It is a completely unethical state of affairs and should be taken up with the advertising bodies if legislation cannot put an end to this scourge.

Ian Guest



## When I see a cattle truck...

Although we apparently don't all seem to agree that animals possess minds, notwithstanding that we so often punish them for not understanding or for not listening [implication: mental processes] we can surely all agree that animals do in fact have bodies.

So how can there be such neglect and cruelty to animals as is apparent in almost any area you look hard enough at (try it!), and how is it that it remains so very marginalized and pseudo-luxurious an issue. I always wanted to write about what happens to me when I see a cattle truck.

What I would have written would have been something along the lines of that when I see a cattle truck, I begin to feel panicky and hideously, tragically helpless because I know how they are a) currently suffering and b) going to continue to suffer. You do have to — having accepted the animals-have-bodies theory — acknowledge that they are going to suffer in the hot sun on the truck for several hours having been separated from herd and home thirsty and hungry and terrified then shunted into a building and murdered then eaten and well, you know the rest. It upsets me. It upsets my entire day but not as much as it upsets theirs, I believe.

I was going to write that I wondered if I felt anything like anti-Hitler German-folk must have felt watching those cattle trucks go by packed with bodies. I would go on to explain how I had many times wondered if I could begin a secret underground Operation to rescue these incredibly sensitive and

intelligent mammals who have the same responses physiologically - at least!

Even science has to say so - to stress and torture and murder of selves and family that we do, but where would I have the space to really accommodate them all? Even one would be difficult manage. But how can we just still be letting these things happen I would then have asked. What prevented me from ever formulating the above words was a comment that I came across in an otherwise unremarkable novel (apart from one or two good Jewish jokes) in which the narrator mentioned something along the lines of being outraged at someone daring to make a similar comparison.

That is, the transporting of bodies in cattle trucks under inhumane conditions to be killed for the maximum benefit of the minority is different to the transporting of live bodies on cattle trucks under inhumane conditions to be killed for the maximum benefit of the minority.

So I didn't write it because I don't want to ever cast doubt on the fact that those people suffered. Because, um...t hat's actually the point that I'm trying to make is that they suffer. Must it be proved to be “as much”, “mentally” before we will bother with anything radical like change?

Oh, and are my shoes made of leather? Have I killed an ant in my life? Let's you and I just agree that we have different agendas and not waste each other's time any further.

**HENRIETTE VAN ZYL, RHODES UNIVERSITY**

# Revenge of Gaia?

I have just finished reading one of the most timely and thought-provoking books on the state of our environment, its causes and most importantly what humanity should do.

This book, I believe, is especially relevant for those with children or planning children – you arguably carry the biggest burden to mitigate, educate and ensure the wheels don't come off our ecological support systems.

James Lovelock, the co-developer of the Gaia theory and one of the world's eminent scientists, has created a very readable book (*The Revenge of Gaia: Why the Earth Is Fighting Back - and How We Can Still Save Humanity*) – it almost reads like fiction (if only it was fiction) – and provides one of the most pragmatic set of arguments about what needs to be done.

Amongst other things, he has helped swing me from very anti, to semi pro-nuclear – it really seems to be the only immediate and viable large-scale energy technology we have at our disposal that has limited dangers. Emitting more CO<sub>2</sub> is vastly more dangerous to us and all other species.

**ROB ZIPPLIES, SUSTAINABILITY CONSULTANT  
(INCITE.CO.ZA)**

I tend to shy away from exegesis on this topic, having preferred to lead by example by simply getting on with the technologies that I have developed faith in from my education and background. I guess I have made the naive assumption that the merits speak for themselves to everyone as clearly as they have to me - neglecting the fact that information is not freely and unbiasedly available.

If you don't mind, I would rather not put myself into a lobbyist's role and get my fingers into arguing it either way, but perhaps just quickly I will explain some of my motivation for not supporting nuclear. I am at some risk here as, although I have heard about it, I have not read Lovelock's book.

In this quick response I will also not be taking the time to provide references for some of the statements made below, so please let me know if you intend to publish any of this discussion.

On the statement that “renewable

technologies will take a few decades to mature”, I must point out that, although it may be true that wave and tidal are in their infancy and large-scale sustainable base-load solar thermal and solar PV are still at the tipping point in some respects, it cannot be said that wind power has not matured - it only appears so in the South African vacuum.

The wind power industry has long since been the fastest growing energy sector in the world and the international development is staggering.

Recent discussions of a European “Supergrid” even suggest the ability to provide continuous baseload, given the varied weather patterns across Europe, allowing one area to provide to the grid while another is quiet. It has been clearly established that increased wind penetration in Europe is not a question of technical barriers but rather mind-set barriers.

The European Investment Bank has recently provided €225 million backing for the world's first commercial concentrated solar power plant and the technology is there to provide overnight continuity by means of liquid salt thermal storage.

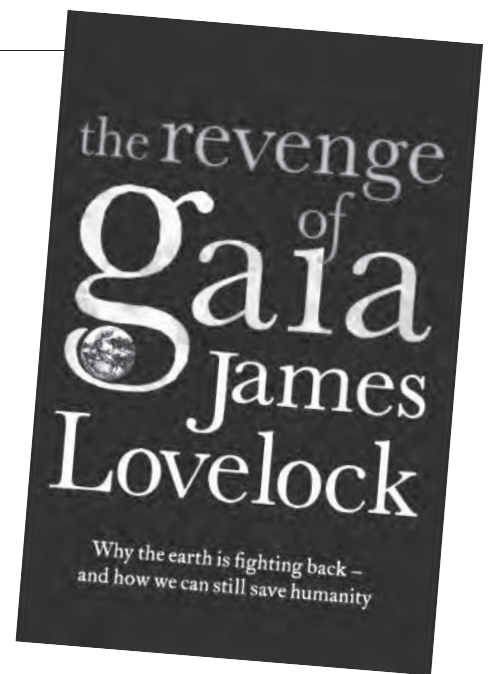
It can however be said that PBMR is far from matured - one need only look up the schedule and cost overruns on this still experimental system.

I do not propose that there is any single solution to baseload supply, and indeed quite on the contrary, the way forward is in diversification and decentralisation of supply options combined with demand management.

One of my prime motivations for opposing nuclear goes to the root of accident and reliability theory. A nuclear accident or problem with waste disposal, while it may be argued to have very low probability, has very high consequence. Insurers work in this field of maths - why do you think they would not insure nuclear endeavours?

Whether you are a student of High Reliability Theory or Normal Accident theory, having experience in the engineering world - or even just reading the papers about Koeberg lately - you will know that accidents do happen.

There is an underlying Catch 22 here



that will always irk me.

With enough effort one can introduce sufficient redundancy and develop sufficient procedures to bring the chance of accident down to an infinitesimal level, however there will always be the unexpected - either due to a singular combination of events overlooked or to the influence of people, by nature unpredictable creatures - a wing-nut dropping a loose bolt for instance, or putting their coffee mug in front of a pressure meter.

One can argue that for the latter, one should design an autonomous system in which the operators are merely observers, trained to the point of having absolutely no initiative outside of the system's procedures - almost like the army endeavours to do.

However for the former, it is exactly the incredibly unique creative and intuitive ability of a true expert with knowledge embedded in experience that could save the day in a case where the unexpected occurs - something for which there is no existing algorithm.

Bottom line is accidents will happen. Believe me, I have survived a few in the field. The question is simply: how severe will the consequences be, especially of those that we cannot foresee. The solution is complex, sorry - however that shouldn't stop us from getting into it.

**FRANCIS B. JACKSON, WIND TURBINE  
ENGINEER**

**WORDS TO LIVE BY**

## Give more. Take less.

## Hats off to Woolies — again!

*Biophile* has in past issues espoused the merits of drinking organic vegetable juice.

As a daily juicer I can attest firstly to the difficulties in sourcing organic vegetables on a year round basis, and secondly to the time and effort required in the juicing and cleaning up process.

No more, as Woolworths now has on offer organic beetroot, carrot and tomato juice. Beets contain an abundance of potassium, phosphorus, calcium, sulfur, iodine, iron and copper, as well as traces of rare minerals, rubidium and caesium. Along with carbohydrates, some protein and fat, one finds vitamins B1, B2, niacin, B6, B12 and C in beets.

Carrot juice contains a high content of beta-carotene, a precursor of vitamin A, which is converted to vitamin A in the body. It is considered essential for the visual cycle (focusing the conversion of light stimuli into electrical impulses), pigment formation in the skin (browning) and as an anti-oxidant in the cells. Good health and enjoy!

A M MACDONALD, KNYSNA

## A committed “animal rights” environmentalist



What a wonderful magazine! We own a wild life sanctuary, Suni-Ridge Wildlife Reserve, in North Eastern Zululand adjacent to the Greater St. Lucia Wetland World Natural Heritage Site. As a committed “animal rights” environmentalist I was really pleased to find my first copy of *BIOPHILE* in Richards Bay CNA.

There are many lodges in our area —over 200—and I believe most of them are in the eco tourism business because it’s a way to earn more money. For this reason they have guest lodges but also derive an income by “utilising their wildlife”. This is of course just another term which hides the truth about a huge amount of cruelty.

We are one, of only two, reserves in the area, that do not under any circumstances utilise our animals. We give them a chance to exist without the impact of hunting—game capture and resale (usually for hunting purposes) and other types of manipulation.

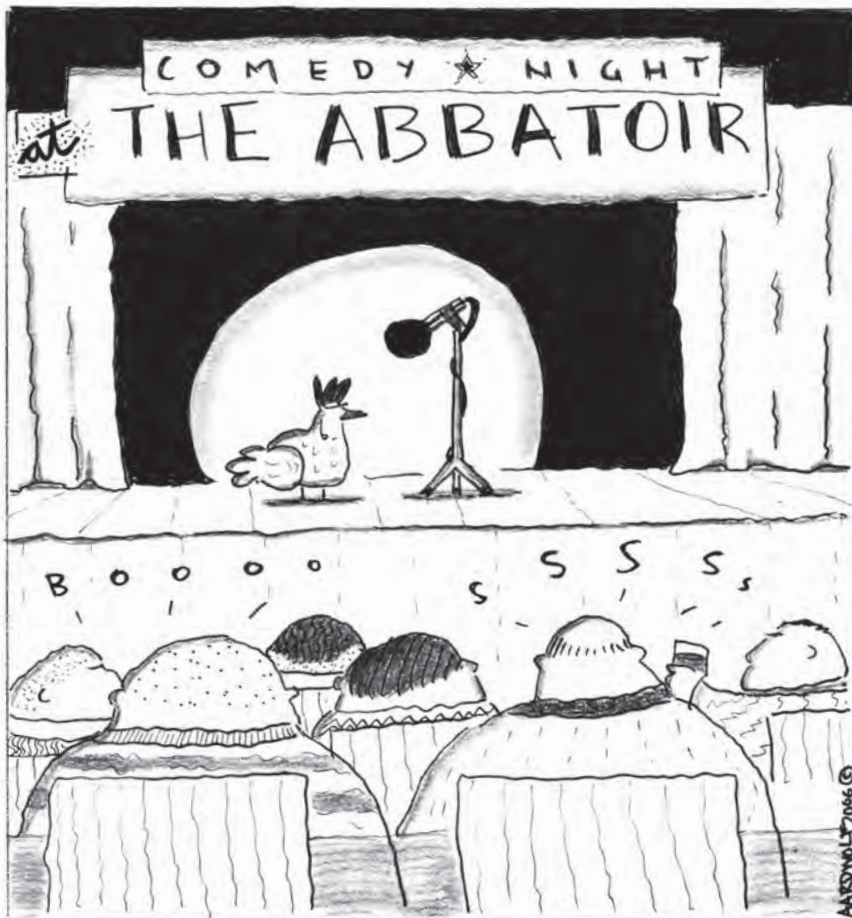
We set up our project 14 years ago and also established the Suni-Ridge Environmental Education and Rehabilitation Centre. It has been a “life task” to rehabilitate our land. It was previously degraded through inappropriate agricultural processes and it was a poachers paradise. Today we are proud to see the fruits of our effort and our reserve is now teaming with wildlife. It supports a huge biodiversity of mammals, birds and butterflies, reptiles and other life forms (many are red data species) in a well vegetated (and rare) sand forest habitat. Our animals are tame and our herds of zebra and wildebeest come right up to us and we can walk in amongst them! People are amazed to see this but we explain that animals

are not wild by nature. It is the human person that has made them that way. Take away the hunting and they naturally become tame again.

Some of our proposed important projects are:

1. Setting up environmental committees in each rural ward (under the auspices of the various chiefs) Through this committee we will run workshops and environmental projects to encourage each area to understand and practice the protection of biodiversity and home growing of organic food gardens. “Healthy land Healthy body” We are disturbed that there are organisations promoting primitive battery hens farming to these rural homes.
  2. We have been sustaining a very severe drought in our area and due to the fact that we refuse to hunt or cull our animals, we urgently need to find support to move numbers of our impala to a sister reserve where better grazing is to be found.
  3. We have recently established an accommodation facility which we are marketing to true nature lovers. The income from this project is to contribute to the sustainability of Suni-Ridge Wildlife Reserve and all our objectives.
- Thank you once again for the most inspiring and truthful magazine of the year!

**Janet Cuthbertson,**  
**Suni-Ridge Wildlife Reserve,**  
**suniridge@ballmail.co.za**



The slaughter continued until Animal Rights groups intervened...



**I**N THIS ISSUE we have two articles about school related topics. They came from different sources and yet they are both saying something similar, in different ways: namely that our current schooling system needs to be examined as clearly there is a need for new approaches and methods.

I am sure there are not many parents out there, with children at school, who have not at some time or other questioned the wisdom of our fear-based, competition-driven schooling system.

**My memories of school are filled with dread.** I was taken from the beautiful farm on which I was brought up, where my days were spent in nature blissfully exploring and discovering. We had no TVs and later in my childhood the electricity arrived via a generator!

I recall so vividly the freedom, peace and happiness I felt when left alone to spend my days riding horses and playing. (Just 'playing' is something children seem to do less and less nowadays). This all ended abruptly when the holidays were over and I was forced against my will to boarding school. We lived miles from the nearest town so there was no alternative. The only thing I really enjoyed about school was being with my friends and I don't think much has changed since then. When asked, the kids of today will generally say that school is 'boring', but they enjoy being with their friends, and if they enjoy sport that is also a reason to be there. The 'sporting types' are usually popular, as our culture places sporting heroes in the league of idols. If they are not good at sport, it appears that they mostly feel inadequate — although they may not like to admit it — and they are left out of the 'popular circle'.

**The tragedy is that most of their precious childhood is spent cooped up in some square room,** sitting in rows learning things that more often than not they don't

find very interesting and very useful. I certainly have not used much that I learned at school in my life to date, other than reading and writing. Children are expected to sit for the 45 minutes and are not allowed to move, which may be ok for the more sedentary types, but for a child who has a physiological need to move around, this is torture. Children are actually programmed to be very active, it makes their bodies and bones strong.

But these children are 'diagnosed' with Attention Deficit Disorder and usually forced to take some mind altering drug such as Ritalin so they fit into the system. They are all expected to fit into the 'on-size-fits-all' approach...behave the same, have the same interest in, look the same, sit the same and strive to be better than the person sitting next to them, and if they are not, their self esteem takes a knock and they often feel inferior and inadequate.

Parrot fashion learning kicks in for the tests and exams, and it is rarely that subjects are studied further unless it is required, simply because they are not interesting. If they laugh, which most of them are inclined to do as they get bored, they are punished (very sad as laughing is one of the most healing things we can do). Children like small animals like to play, and our system does not let them.

**The excessive competition is also questionable** — in the class room and on the sports field. The whole point of the games that are generally offered is to 'win'. I have seen parents almost frothing at the mouth with rage over their child's inability to 'pass the ball' or 'score the goal' in their quest for vicarious triumph, let alone the violence that often goes along with this type of competitiveness and the humiliation suffered by the children. Competition is part of our newly formed culture and the thrill of victory is addictive. The alternative is non-competitive games, and according to Alfie Kohn, in his



book *No Contest – The Case against Competition*, studies have been done which show that children actually prefer these games once they are exposed to them! The games still involve achieving a goal, despite the presence of an obstacle, but the obstacle is not another person or persons, this encourages positive cooperation and coordination.

**Drugs are becoming more common as children desperately seek to fill the holes in their confused minds and hearts.**

Resignation sets in as the genius present in virtually every child at birth is shut down and they learn to conform and fit in via the fear-based system that runs our schools. Don't forget that fear is the most disempowering emotion of all. Surely it's time to look at what and how we are teaching our children.

**Bland and boring teachings need to be replaced with real live experiences.** Trips into nature should surely be a regular activity, not just a treat? Guiding the children towards happy, loving, fulfilled relationships with themselves primarily, and then with others and nature, would surely be a great stride forward. Learning how to communicate with nature, grow plants and acknowledge and revere the elements and changing seasons with celebrations and gratitude should surely be part of every child's experience. Teaching them the importance of being responsible custodians of the earth and how to live a simple, fulfilled life, hurting nobody and nothing, is essential if we are to succeed on our path to enlightenment. Sadly we expose them to extreme stresses and pressures, fearfully filling them with irrelevant notions of amounting to nothing if they don't 'pass' or 'make the team', living out our own fear vicariously through our children.

ANTHEA



**MEET THE TEAM:** Coral McCallum, Shahied Ishmail, Debbie Gomersall, Steve Venter, Anthea Torr, Des Du Plooy (Missing from photo: Cindy Sanderson in Johannesburg. We'll catch her next time!)

# the biofiles

news and views from around our world

## Big Pharma blocks cheap blindness cure

A major drug company is blocking access to a medicine that is cheaply and effectively saving thousands of people from going blind because it wants to launch a more expensive product on the market.

Ophthalmologists around the world, on their own initiative, are injecting tiny quantities of a colon cancer drug called Avastin into the eyes of patients with wet macular degeneration, a common condition of older age that can lead to severely impaired eyesight and blindness. They report remarkable success at very low cost because one phial can be split and used for dozens of patients. But Genentech, the company that invented Avastin, does not want it used in this way. Instead it is applying to license a fragment of Avastin, called Lucentis, which is packaged in the tiny quantities suitable for eyes at a higher cost: R10 000.00 per dose instead of less than R100.00. [GUARDIAN]

## Cape Town pilots recycling e-waste initiative

Obsolete electrical and electronic equipment, which commonly ends up in landfills that pollute the environment, may now be taken to a site in Wynberg from which metal, glass and plastic components can be passed on to industrial recyclers and art projects. The City of Cape Town opened the new e-waste container at the Wynberg municipal drop-off site in Rosmead Avenue in June. The container, to which the public may deliver old computers, fax machines, printers, toasters or other equipment no longer useful to them, has been sponsored by Tarsus, a distributor of computer equipment. The project is also endorsed by the National e-Waste Association. The facility is open from 7.30am to 5.30pm on Mondays to Fridays and on public holidays. The initiative is designed to create jobs for the skilled unemployed and incentives for companies and individuals to recycle.

## Philippines Trains Eco-Warriors

Student teachers of twenty colleges and universities in the Philippines are being trained as eco-warriors. "Eco-warriors are ordinary men and women who stand up for the environment. They take action and do work to ensure a healthy environment for all," says Baboo Mondoñedo, executive director of the MTKISD.

The Maximo T. Kalaw Institute for Sustainable Development is providing the training, based on the work of Maximo T. Kalaw, an environmentalist who campaigned for the preservation of the rapidly disappearing Philippine wilderness. They plan to convert the National Service Training Program (NSTP), a civic welfare training course required to be taken by all students, into a course on environmental advocacy, expanding the concept of security beyond mere border protection.

"When teachers impart to students the concept of human and ecological security [HES] and arm them with the knowledge and skills to work for a better world, they are investing in the future," added Mondoñedo.

Aside from compost-making and recycling, the students will be taught the rudiments of "journaling" (keeping journals) and community organizing, Mondoñedo says.

## Rice and bamboo power

In some circles it's known as 'industrial ecology', where the 'waste' process of one industrial action is successfully employed by another. In Assam, India they are planning to build a 16 megawatt power plant that will be fuelled by rice husks from food production, and bamboo dust waste from paper fibre mills.

India is said to be the world's second largest producer of bamboo, after China, and these power plants are the first to utilise bamboo for fuel. The bamboo power stations are expected to be opera-



Mt Mayob, Philippines

Also important is the 'Our Earth, Our Body' module. "It shows that the earth is the extension of our life and body and when you heal the earth, you also heal yourself," she says. [IPANA]



## McDonalds teams up with China Petroleum

In June, a week after China's Ministry of Construction announced that it would be rebuilding bicycle lanes lost to the expansion of roads and the construction of huge numbers of new buildings, appears an unmistakable sign that the hunger for cars—and hamburgers—won't be stopped in China: McDonald's and the China Petroleum and Chemical Corporation, or Sinopec, announced plans to turn most of the 30,000 petrol service stations that Sinopec operates nationwide into drive-through McDonald's outlets.

The potential of fulfilling this particular American dream in China—the promise of a car in every garage and a milk shake in every cup holder—is of course a double-whammy for the country's green prospects. First, China's unprecedented demand for cars—car sales grew 30 percent last year, to 5.7 million vehicles—helps make the country the second highest producer of greenhouse gases after the United States, and makes it hard to breathe in cities like Beijing.

The McDonald's plan comes alongside Sinopec's other big deal this week: it bought a billion-barrel, \$20 billion Siberian oil field from a Russian-British venture, securing access to Russia's huge energy reserves for China's fuel-hungry economy.

Meanwhile, the rise of Big Macs in China (which is McDonald's fastest-growing market) will only contribute to more big waistlines in a country already suffering from deadly weight gains. A 2002 study conducted by the government revealed that the number of overweight people to have increased by 39 percent and the number of obese to have increased by 97 percent; incidence of hypertension had increased by 31 percent or 70 million cases since 1991 with 160 million people suffering from high blood pressure.

And then there's the problem of all those hamburger wrappers and the huge herds of soon-to-be-Big-Macs cattle, the overgrazing of which is held to be mainly responsible for the increasing desertification in the north of China. [TREEHUGGER]



## Hope for Giant Panda

Fears that the giant panda is on the brink of extinction may be unjustified, research suggests. Scientists believe populations have been underestimated in past surveys and there may be as many as 3,000 pandas left in the wild. Numbers in reserves could be restored if conservation efforts continue, they write in *Current Biology*.

The panda once inhabited much of China but is now found only in the forested mountain areas of the country. Its survival has become a cause célèbre of the conser-

vation movement, attracting worldwide attention. The giant panda has long suffered at the hands of poachers and loggers, and was hit by the large-scale die-off of bamboo in the 1980s. Numbers in the wild have been put at about 1,000 but the animal's elusive and wary nature has made it difficult to conduct accurate censuses. Previous surveys have used conventional techniques, but researchers in China and the UK tried out a new hi-tech method based on analysing DNA recovered from panda droppings. The

## China to assess its wind and solar energy potential

China has opened a new centre to assess its potential to generate wind and solar energy. The Centre for Wind and Solar Energy Assessment, part of the China Meteorology Administration, opened on 14 June.

It will assess how much energy can be generated through wind and solar power in key Chinese regions, generate estimates of the wind energy potential at specific locations to help plan for wind power plants, and evaluate the impact of natural disasters, such as sand storms, on the operation of the wind power plants.

It will also carry out nationwide surveys of China's solar energy potential.

In 2005, China generated 1.26 million kilowatts in wind energy. Scientists estimate that this number could be increased to 3.3 billion kilowatts for land-based wind energy alone. China's medium and long-term development plan for sustainable energy released in 2004 predicts that by 2020, wind power will supply 30 million kilowatts per year.

Zhang Qiang, a senior researcher of the Centre for Wind and Solar Energy Assessment, says that China's current wind forecasts are not precise enough to allow scientists to estimate how much wind energy could be generated in various regions.

The new centre will seek to refine the geographical aspect of wind forecasts. Currently, the smallest area that forecasts can resolve is 100 square kilometres.

Zhang says that when it comes to deciding where to place wind power plants, this resolution is not good enough. The new centre will try to develop and improve the resolution down to five square kilometres. [SCIDEV]

results suggest that about 66 pandas live in the Wanglang Nature Reserve in Sichuan Province, more than twice as many as were estimated in a survey conducted in 1998.

The study also provides evidence that pandas in the most important habitat of its kind have not suffered genetically over this period—there is no evidence of the sort of inbreeding or low genetic diversity that might threaten the species' long-term survival.

"It seems, therefore, that the giant panda population in Wanglang has the potential to be restored if habitat protection, local socio-economic measures and population monitoring issues are resolved," the researchers say in *Current Biology*. On the basis of the Wanglang findings, they estimate that there may be as many as 2,500 to 3,000 giant pandas left in the wild in the whole of China.

It is good news for the future, they add, as long as the Chinese government continues with bans on poaching and deforestation in

## UK to outlaw standby buttons

The British government is to outlaw standby switches on TVs and DVD players to cut the amount of electricity wasted in the home. Refrigerators, washing machines and dishwashers will have to become energy-efficient, and lightbulbs that burn too much energy will be phased out. The government's Energy Review, released in July, reports that standby facilities use 8 per cent of all domestic electricity in the UK. Energy efficiency is one of the main planks of the Government's Energy Review, which is intended to lay out how Britain receives and uses its power for the next 20 years. [GREENER]

## World's First Solar-Powered Scooter

Unveiled in July, the Solarin Turtle is "the world's first solar-powered scooter," according to the company that developed it, Solarin Holdings. Though it will be built in Malaysia, interest in the scooter around the world has been strong; China has already placed an order for 100,000 units. The scooter is reported to have a top speed of almost 90 km/h and will also be rechargeable by thermal heat or electrical charge. The price has also yet to be determined, but, according to the company president, will be around R6000. [GIZMODO]

## Ugly Fruit Movement could help organic farmers

The hidden story behind the perfect fruit in your local supermarket is the large volume of second grade fruits and vegetables diverted directly to juice makers, with little profit to the farmers. Starting in June 2006, the upmarket UK supermarket chain Waitrose will start exposing customers to "ugly" fruits and vegetables: produce which is perfectly healthy and tasty, but which has blemishes which would formerly have doomed it to diversion into low-value uses. The produce will be advertised for use in cooking and preserves, but the chain expects that some customers will enjoy these fruits and vegetables simply for eating as well. By breaking the prejudice for "beautiful" fruit, this will help the organic industry convince consumers that the produce of nature is naturally good. Ask your local grocer today: when will we get ugly fruit? [RAS]



**Researchers at German's Fraunhofer Institute** are working on a solar powered cell phone by using device-integrated, high-efficiency solar cells which offer a module efficiency rate of 20%. This allows the cell phone to remain continuously powered up as long as it receives sufficient sunlight

(about 2 hours per day), otherwise it can be charged using conventional means. The Fraunhofer Institute is an alliance of more than 50 research institutions, mostly in Germany, that pool their research and collaborate on innovative technology.

[FRAUNHOFER INSTITUTE]

## Shell says "no food for fuel"

Royal Dutch Shell considers using food crops to make biofuels "morally inappropriate" as long as there are people in the world who are starving.

Eric Holthusen, a fuels technology manager, said the company's research unit, Shell Global Solutions, has developed alternative fuels from renewable resources that use wood chips and plant waste rather than food crops — such as sugarcane and sugarbeet — that are typically used to make the fuels".

**A reasonable stand, you might think, until you question whether cane sugar even deserves to be defined as a food.**

In earth's northern temperate zone, where oil per-capita consumption is highest, there are plenty of marginal croplands and rock strewn hillsides suitable for productive aspen stands or similar species of trees or woody shrubs, making the moral and the practical delineation of this idea imminently practical for large scale fuel production. Non-cropland is much cheaper to control and manage.

Targeting non-food biomass as a feedstock, then, is just what we'd expect from Shell if they'd done their scenario thinking around business parameters. The morality statement above would be consistent with that, but not the only driver.

We should also consider other possible motivations for the Shell representative's statement.

Perhaps a bit more time would help to make a proprietary biomass-to-ethanol process work out?

Perhaps an argument is needed to spread government incentives for ethanol production around more fairly, benefiting more than just the agricultural sector? Put all these ideas together and we see the makings of a sustainable fuel system in early design stage. [TreeHugger]

## Courtesy opens all doors

There is no investment you'll ever make that will pay you so well as the effort to scatter sunshine and good cheer wherever you are.

The deepest principle in human nature is the craving to be appreciated.

If you treat an individual as if they were what they ought to be and could be, they will become what they ought to be and could be.

Everyone thrives on being appreciated, loved and needed.

There is no stimulus like that which comes from the consciousness of knowing that others believe in you.

Applaud others when they run.

Console them when they fail.

And cheer them when they recover.

As water is to a flower,  
so is praise to the heart of another.



## Saving the Dead Sea

The Dead Sea is a mystical and magical place and one that has real-life benefits—like its greasy, black mineral mud that visitors like to smother all over their bodies. Researchers say the first hominids crossed by way of the Dead Sea corridor from Africa as they migrated around the world;

some say it was Cleopatra's best beauty secret. Even though the Dead Sea sustains no or little life (there are some bacteria who are thriving there apparently) the ecosystem around it is anything but dead.

The skies are teeming with migratory birds on their way to Africa from Europe and vice versa; special animals such as bats, wild cats and hyrax find refuge in its surrounding mountains.

Over the last 40 years, exploitation of the Dead Sea has happened at an unprecedented rate, due to (ahem) human exploitation.

Israelis and Jordanians have been tapping into the Kinneret (“Sea of Galilee”) and the Yarmuk River, meaning less water makes it to the Dead Sea; the lack of freshwater, combined with mineral extraction on its south shores has led to the Sea’s water level dropping by around a meter every year.

Through the Minerva Institute for Dead Sea Research, scientists are searching for sustainable solutions to reviving the dead parts of the Dead Sea. Some groups are suggesting a controversial \$5 billion canal leading to the Red Sea. The Dead Sea’s unique make-up would be changed forever by introducing sea water into a body that has only ever been fed by fresh water. “The cost of the damage that would be caused to the environment may be greater than any possible benefits,” said local geologist Eli Raz. “The best plan for the Dead Sea is to let the Jordan river flow again, this is its natural state.” But the chances of that happening are next to nothing given the reliance of the region’s countries on the Jordan’s water, the article points out.

Environmentalists are pushing for the Dead Sea to be declared a World Heritage Site

by the UN Educational, Scientific and Cultural Organization, hoping this will force surrounding countries to come up with a plan. 🌍

### Saving silkworms

Kusuma Rajaiah, an Indian man, has developed a new technique for producing silk that does not require killing silk worms in the process. Right now, producing a silk sari involves killing of at least 50 thousand silkworms. Rajaiah has won the patent for producing the “Ahimsa” silk. Ahimsa is a religious concept which advocates non-violence and a respect for all life. However, the production of the silk is more expensive. For example, a sari which costs 2400 rupees to produce using regular silk, will cost 4000 rupees when made with Ahimsa silk. Rajaiah says: “My inspiration is Mahatma. He gave a message to the Indian silk industry that if silk can be produced without killing silkworms, it would be better. He dreamt but that did not happen in his lifetime. I am the happiest person that at least I could do this little thing.” Yarn for a silk sari is usually produced by throwing live cocoons of silkworm into boiling water. A single sari needs upto 50,000 cocoons. Rajaiah allows the moth to escape from the cocoon by waiting for 7-10 days and then uses the shells to produce yarn. [EcoFriend]

## London Oasis

As the 12-metre interactive eco-sculpture, dubbed the London Oasis, slowly opened up its petals, the question on everyone’s lips was: what is it?

The London Oasis is the capital’s answer to a desert refuge, a functional sculpture that will serve Londoners as a getaway from noise and pollution and surrounds visitors with cool, clean air, relaxing sounds and images all channelled into six “pods”

But it is also an eye-catching demonstration of sustainable technologies, with its photovoltaic ‘petals,’ vertical-axis wind turbine and hydrogen fuel cell powering the air-filtering and cooling mechanisms as well as an evening light show.

The clockwork flower even collects rainwater, used to irrigate a garden at its base. Transparent casing and information posters provide an insight into the plant’s inner workings.

London architect Laurie Chetwood, the



mastermind behind the project, said: “The Oasis allows Londoners to get away from the noise, pollution and bustle of city life. It provides a tranquil oasis in an urban area where people can enjoy a more comfortable environment, meet friends, watch the oasis

interact and enjoy entertainment.”

“This is all in the knowledge that their enjoyment is not costing the planet as the Oasis is self-sustaining; harnessing and recycling natural resources.”

“The idea came from an eco-house that was planned to be built in the South American Andes. But as far as I know this is a first, nothing like it has ever been built,” he told edie.

The Oasis was conceived and built in less than five months by a team of around twenty engineers, architects and designers.

Although perhaps not the height of practicality, the Oasis—which was launched as part of London’s Architectural Biennale 2006—demonstrates that architecture need not always stay in the narrow confines of functionality.

And when it comes to promoting renewables and sustainability, an impractical but eye-catching 12-metre spiky flower that glows blue and purple at night may be more effective than leaflets full of references to “sustainability principles”. [EDIE NEWS]

## Kiwis lick renewable energy

New Zealand Post has released a series of stamps celebrating the fact that over 60% of the country's electricity is generated as renewable energy via their hydro schemes (90c).

The stamps not only reflect the influence of this source of fossil fuel free energy, but myriad other forms too. The largest wind farm in the southern hemisphere is at Tararua, Palmerston, supplying juice to 30,000 homes (45c).

The biogas technology used at Waikato is said to be able to service a similar number of houses near to such facilities throughout the country (\$1.35).

Long before Lord of the Rings fever hit, the Land of the Long White Cloud was attracting tourists to its geothermal wonders, which have also been harnessed to provide 18% of primary energy needs (\$1.50).



And finally our old favourite Solar, shown here on the \$2 stamp, powering a remote lighthouse. [NZ Post]

## Mice have capacity for empathy

A new study by McGill University professor of psychology Dr. Jeffrey Mogil shows that the capacity for empathy, previously suspected but unproven even among higher primates, is also evident in lower mammals. In research published in the journal *Science*, Professor Mogil discovered that mice familiar to each other and able to see one another in pain were more sensitive to pain than those tested alone. The results, which for the first time show a form of "emotional contagion" between animals, shed light on how known social factors play a role in pain management.

The findings are not only unprecedented in what they tell us about animals, they may ultimately be relevant to understanding pain in humans. [Science]

## Long-haul birds returning early

Birds that migrate long distances have adapted to the world's changing climate in unexpected ways. As the planet warms, and spring arrives earlier in Europe, birds are being forced to change their migration patterns. It had been thought that birds travelling long distances from Africa to Europe would be unable to adapt. But a study in *Science* suggests they have evolved in response to climate change and are returning earlier.

The need for migratory birds to time their arrival at breeding grounds with plentiful food supplies is a known evolutionary pressure. Scientists had assumed

that birds travelling short distances would be better able to adapt—and arrive earlier for spring—because of similar climate conditions in their nearby winter grounds. But researchers in Europe decided to test this theory, using long-term banding and observational data from Scandinavia and Italy dating back to 1980.

The study revealed that long-distance fliers have adjusted their migration habits to arrive earlier in northern Europe in time for the start of spring.

This suggests a more permanent change in migratory behaviour due to climate change than previously thought.



## What about mercury from compact fluorescents?

Many people, when they learn that compact fluorescent bulbs contain mercury vapor, get sceptical about the much talked-about benefits of these and assume that traditional incandescent light bulbs are less damaging to the environment despite requiring more power and having shorter lives.

After all, mercury is really bad stuff, right?

"A toxic metal known to cause brain, spinal cord, kidney and liver damage in humans—does not break down easily and, once airborne, often finds its way into groundwater, rivers and the sea, where it can cause a host of contamination issues for wildlife and people alike."

But as often is the case, the truth can be a bit counter-intuitive.

Ironically, compact fluorescent bulbs are responsible for less mercury contamination than the incandescent bulbs they replaced, even though incandescents don't contain any mercury.

The highest source of mercury in our air and water results from the burning of fossil fuels, such as coal, in the power stations which supply our electricity.

Since a compact fluorescent bulb uses 75 percent less energy than an incandescent bulb, and lasts at least six times longer, it is responsible for far less mercury pollution in the long run.

A coal-burning power plant will emit four times more mercury to produce the electricity for an incandescent bulb than for a compact fluorescent.

Not to mention that it will save you money with a lower electricity bill. [E Magazine]



**A WALK IN THE PARK** David Gallagher, a student at the Dalhousie School of Architecture in Halifax, Nova Scotia, has created a grass-lined wheel to simulate an eternal lawn environment and to draw attention to what he considers a North American obsession with manicured lawns. People who were curious enough to ask one of the students what it was all about got slips of paper explaining the students' ideals. "They're just really curious about it," said James. "And we get a lot of hamster jokes."

# Dr Masaru Emoto to visit South Africa

Dr. Masaru Emoto will be visiting South Africa from 19-25th of September 2006 to highlight the message that “water is alive”.

The visit is also intended to relay the message that it is time to explore ways of finding the common language between science and traditional wisdom, which is being eroded in the process of modernization and globalization. Dr Emoto will be meeting with local scientists to explore options for expanding his science around water in South Africa.

## ZERISA Host Organisation

Dr Emoto visit is being organised by ZERI-SA assisted by ZERI international. ZERI believes that Dr Emoto's work is an important contribution in the field of developing innovative and sustainable technologies. Dr Emoto's visit will contribute profoundly to raise public awareness around water issues in this country.

Dr Emoto has never been to Africa. At the request of ZERI and Prof. Gunter Pauli, Emoto has made water crystals responding to traditional African music. This really inspired Dr Emoto to visit South Africa. Dr Emoto hopes to present this water crystal image to Nelson Mandela during his visit to South Africa.

## The relevance of Dr Emoto's message to South Africa

South Africa is going to face an enormous water shortage and water related problems in the near future.

- Old fashioned farming methods, polluting industries guzzling water and unsustainable water use-life styles need to be challenged if South Africa has to actively involve in regenerating water source for all.

- Water is simply a basic necessity as well as basic right that cannot be left only in the hands of government, politicians or industry alone.

- In townships across the country people are facing acute water problem. The rivers and waterways are polluted. The poor in particular women and children are facing the brunt of water problem

- Current water –use and related practices across the world and South Africa is no exception to this- is based on very narrow understanding of water and water technologies.

This narrow understanding has led to the current scenario where by clean water has become an affordable commodity only for the rich. Increase in the unsustainable bottled water industries will aggravate water



related problems.

On the other hand there is a gradual stripping away of the traditional wisdom around water. South African traditional culture like any other traditional pre-industrial cultures deeply respects water, water rituals are part of any ceremonies. Water is an integral part of nature with an innate intelligence of its own.

While the current industrial context has to be taken into account, it is imperative that all water development and water use designs become aware of the live consciousness of water, uphold the sacredness of water at the same time see how obsolete science and technologies that abuse water be reconsidered.

## Education building critical awareness around Water use

An active public awareness can thus challenge industries based on any unsustainable abuse of water causing more depletion of water source as well as polluting waters. Public participation on the basis of informed knowledge is the best way to move forward especially when it is something as basic and critical to life as water. Exposure such as that of Dr Emoto's messages from water will inevitably open up new ways of developing water technologies while making a conscious move towards a more sustainable water use in this country.

Smart approaches will emerge embark-

ing on greater water related campaigns and education bringing in the wisdom of the old ways blending it with the possible new solutions embedded in science and technology.

- How do we create public awareness around such an important natural resource, as water?

- How do we make sure that the awareness around water will assist general public to understand how industries and narrow science is polluting our land, our waters?

- How can we expose narrow and short-sighted business that uses old science as a crutch to uphold the greed and profit motives of few interest groups?

ZERI-SA believes that it is only through such public awareness and education that we are able to unlock the new scientific knowledge and blend this with ageless tradition and practices -which has incredible respect to water bodies and water use. We will thus be able to unlock an incredible way forward in terms of changing the behaviours of water guzzling industries such as mining, metals, chemicals as well as water intensive farming operations in this country while enabling challenging breakthroughs in the creation of new affordable and inclusive water use technologies that is sustainable.

**For more information email  
info@zerisa.org or visit  
www.zerisa.org**

## World's first magnetic levitation wind turbines unveiled

Chinese developers have unveiled the world's first permanent magnetic levitation wind power generator at the Wind Power Asia Exhibition 2006 in Beijing. The MagLev generator is regarded as a key breakthrough in wind power technology, expected to boost wind energy generating capacity by as much as 20 percent over traditional wind turbines. The MagLev is able to utilize winds with starting speeds as low as 1.5 meters per second (m/s) and will be able to provide roadside lighting along highways by utilizing the airflow generated from vehicles passing by. [Xinhua]

## Japan's ambitious plan to fight warming

Japan hopes to slash greenhouse gas emissions and fight global warming with a plan to pump carbon dioxide into underground storage reservoirs instead of releasing it into the atmosphere. The proposal aims to bury 200 million tons of carbon dioxide a year by 2020, cutting the country's emissions by one-sixth. Underground storage of carbon dioxide underlines the new urgency felt by industrialized countries trying to rein in the effects of global warming. But capturing carbon dioxide from factory emissions and pressurizing it into liquid form, scientists can inject it into underground aquifers, gas fields or gaps between rock strata, safely keeping it out of the air. [IPSICA]

## US demand for organic food outstrips supply

America's appetite for organic food is so strong that supply just can't keep up with demand. Organic products have only a tiny slice, about 2.5 percent, of the nation's food market. But the slice is expanding at a feverish pace. Growth in sales of organic food has been 15 percent to 21 percent each year, compared with 2 percent to 4 percent for total food sales. Mainstream supermarkets have rushed to meet demand. The number of organic farms in the US — an estimated 10,000 — is also increasing, but not fast enough. As a result, organic manufacturers are looking for ingredients outside the United States in places like Europe, Bolivia, Venezuela and South Africa. [Organic Source]

# Study shows global warming may not lead to greater crop yields

Scientists had thought that there was one potential upside to global warming: more food to feed the world.

Years of laboratory tests led them to believe that more carbon dioxide in the atmosphere could fertilize food crops such as corn, soybeans, wheat and rice, offsetting the plant-damaging effects of higher global temperatures and less rainfall.

But a new study with field tests in Illinois and other spots around the globe is challenging that assumption, suggesting that any increase in crop yields due to the buildup of greenhouse gases would be modest or nonexistent.

Lower-than-expected yields could have dire consequences for the world's food supply, the study's authors concluded. They called for more research into plant varieties that could withstand the atmospheric assault.

The prevailing scientific wisdom has been repeatedly cited in government projections on food supplies and by Bush administration officials who oppose mandatory limits on emissions of heat-trapping gases.

Authors of the new University of Illinois study, published in the journal *Science*, said their findings are more accurate because they mimic predicted atmospheric changes in farm fields. Instead of

growing plants in a greenhouse, the researchers set up plots surrounded by rings of tubes that spray carbon dioxide and ozone over the crops.

They found that corn yields didn't increase at all when the air over the plots contained the amount of carbon dioxide projected to be lingering in the atmosphere by 2050. Increases in wheat and soybean yields were about half of what was previously thought.

"These results are very important," said Bert Drake, a plant pathologist at the Smithsonian Environmental Research Center who was not involved in the study. "There hasn't been much of an effort to develop plants that will respond to projected conditions."

By the middle of the century, cars, power plants, factories and other sources are expected to boost the amount of carbon dioxide in the atmosphere by about 50 percent from current levels. Although that is expected to lead to higher global temperatures, it also could increase the photosynthesis of plants.

Tests conducted at University of Illinois plots in Illinois, Arizona, New Zealand, Japan and Switzerland found that those potential benefits are limited by the ability of many crop varieties to absorb more carbon. [KRT WIRE]

# The Canary Project: documenting climate change in photos

The Canary Project ([canary-project.org](http://canary-project.org)) photographs landscapes around the world that are exhibiting dramatic transformation due to global warming to persuade as many people as possible that global warming is already underway and of immediate concern. *Clockwise from top right:* This statue stands next to the Waal river (a distributary of the Rhine) and depicts how high the river can rise before the nearby Dutch town of Zaltbommel will flood; Rocks where there used to be snow at the Pitztal ski area. The machine in the foreground is a snow maker. Dead Sea Fan and Elkhorn Corals in Belize's Barrier Reef.







## Bill, please... what do we owe nature?

Never mind how polluted it might be, at least the air we breathe is still free. But what if you had to pay for it — and all the other essential freebies that nature provides?

Columbia University Ecology Prof. Shahid Naheem imagines: Our most vital utilities and services — such as the provisioning of breathable air, potable water, fertile soils, productive fisheries, equitable climate, environmental security, and much more — are all provided for us by millions of species that work around the clock.

And the plants, animals, and microorganisms that provide these services have never sent us a bill.

Nine years ago, I took part in a study that estimated

nature's services as worth in the neighborhood of 33 trillion dollars a year. Translate that into modern currency, divide by the 6.5 billion people estimated to currently inhabit the Earth, and every man, woman, and child would get a bill for about R3500 each month.

If we adjust payments so that the biggest users, say the wealthiest nations, pay the most, then the typical bill for a family of 4 in the United States would be more like R12000 per month.

Such back-of-the-envelope calculations are wacky, to be sure, but they do drive home the message — biodiversity does a lot for us and asks for nothing in return.

## Huge marine wetland starts life

After 400 years, Wallasea's sea wall comes tumbling down to create giant wetland site

A 300m section of a sea wall has been breached to begin the creation of the UK's largest man-made marine wetland. Almost 115 hectares has been flooded at Wallasea Island, Essex, to create wetland, mudflats, saline lagoons and seven artificial islands. The £7.5m UK government-funded project aims to replace bird habitats lost to development, improve flood defences, and create leisure opportunities. Excavators were used to breach the sea wall on 4 July to allow the sea in.

Mark Dixon, who is managing the Wallasea Wetlands Creation project, said the tide spread across land that was once wheat fields and it began the slow process of creating new salt marsh and mud-

flats. "It's eventually going to be a new sea defence, so you're going to have brand new mudflats, brand new salt marshes and they'll absorb the tide's energy. You've got a big new sea wall at the back, protecting land and property, and then in front of it a series of lagoons and islands and creeks, which birds and people can enjoy."

Biodiversity Minister Barry Gardiner said: "Salt marsh is more rare than rainforest, and is important to people, particularly as a flood and storm defence, and to wildlife. Hundreds of thousands of wetland birds rely entirely on the Essex salt marsh for their food each winter."

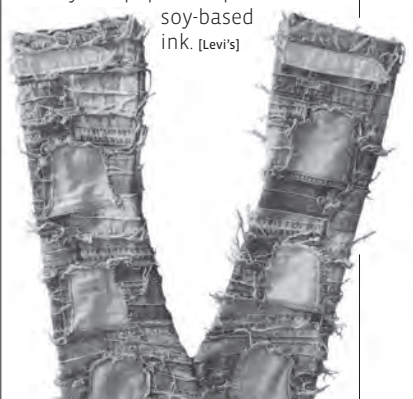
Photo: The sea-wall was breached on 4 July to restore 115 hectares of wetland.



## Levi's goes organic

Levi's will be adding 100% organic cotton jeans to their product line. Jeans made with all, or a significant percentage of, organic cotton will be signified as "Levi's Eco" and feature an embroidered lowercase "e" inside the front pocket, or at the bottom of the right leg of each jean. A natural colored canvas "Levi's" tab and "Two Horse Patch" will also indicate the jeans are made from organic cotton.

Other eco-friendly elements include the use of recycled buttons, rivets and zippers, and natural indigo was used to dye some styles of jeans. All external packaging will be made from organic fabric or recycled paper and printed with



soy-based ink. [Levi's]

**HERO OF THE HOUR:** Nicole Barlow, a medical representative now being called 'The Erin Brockovich of Boksburg' after she put her life on hold and went all the way to the Witwatersrand High Court to stop developers of a petrol station from ruining a wetland listed as an 'irreplaceable site' by the Gauteng government. She was quoted in the Mail & Guardian newspaper as saying "My whole life now is dedicated to saving wetlands, which are being destroyed at the rate of about 20% a year. On the East Rand we have at least 4 200 of the country's almost 7 000 wetlands.

The **Southern African Sustainable Seafood Initiative** (SASSI), which has made waves among restaurants and consumers of seafood for its campaign to educate people about which linefish are endangered and which are sustainable. SASSI is a partnership between WWF, Endangered Wildlife Trust and the Department of Environmental Affairs and Tourism. It's most effective device is a list of what you can eat and what you should avoid, available from [www.panda.org.za/sassi](http://www.panda.org.za/sassi).

The Green List (sustainable) shows you can, with good conscience, choose from yellowfin tuna, calamari, sardines, snoek,



## THUMBS UP

yellowtail and West Coast rock lobster.

The Orange List names fish that should be eaten sparingly, if at all. These linefish are in trouble. They include popular fish like kingklip, kabeljou (kob), red stumpnose, rockcods, skates and rays, and sole.

The Red List contains fish you should not eat in a restaurant at all, as they are hovering on the brink of extinction: galjoen (South Africa's national fish), rock salmon (river snapper), white musselcracker, white steenbras, potato bass, brindle bass, spotted grunter and East Coast rock lobster.

A wonderful new wave of giving by the mega-wealthy, which some say is the first sign of a new golden age of giving. Uber investor-capitalist **Warren Buffett**, second richest man in the world, recently committed to giving away 85% of his \$44 billion fortune to charities.

Also **Bill and Melinda Gates**, for working hard on giving away the vast bulk of their enormous fortune. The Gates foundation, the recipient of most of Buffett's money, is the largest charitable foundation in the US, with assets of \$29 billion. Sanford Weill, chairman of Citigroup, has also decided to give away his \$1.4 billion fortune in a "deal with God".

**Anita Roddick** seems to have kicked something off by saying



Warren Buffett

**VILLAIN OF THE PIECE:** Andre de Wet, recently fired Eastern Cape tourism and economic affairs minister, for stonewalling Wilderness Safaris' planned lodge in Mkambati provincial reserve on the Wild Coast. As a result, Wilderness, a top tourism company in Southern Africa, specialising in community partnerships and low environmental impact lodges, has reluctantly pulled out. Members of the Mkambati Land Trust, representing 40 000 villagers who were to benefit, are furious, according to a *Mail & Guardian* report.

They had pledged an extra 14 000 hectares of their own old agricultural land to add to the 7 200 hectare Mkambati reserve. The collapse of the deal cost surrounding communities a R50 million investment in their land, a 46% share of net profits from the planned lodges, a new clinic and a children's educational camp, as well as hundreds of jobs, a vegetable growing project and other enterprises. This in an area so poor that 3% of children are mentally retarded by the time they are 10 because of malnutrition.

De Wet sank the deal, approved by his (also fired) predecessor, Enoch Godongwana, saying it was "fatally flawed", but never explained why. The deal descended into a morass



## THUMBS DOWN

of red tape, delays, bungling and legal problems. Some skeptics are wondering whether tourism is being deliberately sabotaged on the Wild Coast to leave the field open for dune mining.

### Wagon Wheels Motel in Beaufort West

for penning up a handful of miserable springbok in small dusty enclosure as a roadside attraction. The 'boktronk' award also goes to the **SA Mint in Midrand**, which regularly gives motorists traveling between Pretoria and Johannesburg whiplash as they see blesbok, springbok and ostriches in the Mint's tightly fenced area.

**Japan, Iceland and Norway** for having killed tens of thousands of whales in the past two decades. Japan purports to be doing it for scientific purposes, although it is then sold in supermarkets. Norway doesn't even bother with an excuse, and openly flouts the rules of the International Whaling Commission. This year, Japan alarmed conservationists at the IWC by achieving a 33 to 32 majority in a vote on the repeal of the whaling moratorium. A 75% majority is needed to overturn the ban, but for many, the vote was an ominous reminder of the lengths Japan is prepared to go to. It has given more than \$100 million in aid to island nations that it has then persuaded to back its pro-whaling position.

Last year Japan announced plans to double its 'scientific' whaling in the Southern Ocean Sanctuary around Antarctica and add endangered humpback and fin whales to its target list.

**China**, for the railway from Beijing to Tibet's capital, Lhasa, opposed by most Tibetans. Beijing has announced plans to relocate 20 million Chinese in Tibet over the next decade, further eroding

she would rather give her multi-million fortune away than bequeath it to her children. Even Angelina Jolie gives away one third of her annual income to deserving causes.

**Nedbank**, for sponsoring a solar panel ‘billboard’ at the MC Weiler Primary School in Alexandra, Johannesburg. This will power the school’s kitchen, allowing the school to be self-sufficient with clean energy. It enables at least 1 000 pupils a day to be given a hot meal – for many, the only substantial meal they receive. The billboard is the first of several planned for various sites around the country. It is a 4,5 x 18 metre double sided board with 10 solar panels, each generating 135 watts of power, charging twenty deep cell batteries – these produce enough power to boil 18 domestic kettles continuously.

**Wal-Mart**, that enormous American low-price supermarket chain, for making some interesting environmental advances. It has vowed to expand into the stocking of pesticide-free food, and recently opened two stores partially powered by wind turbines and solar panels.

**Spain**, which passed a resolution in Parliament in June this year that will give a set of rights to chimpanzees, bonobos, gorillas and orang-utans. These great apes will then have the status of legal persons within Spanish law. The step began in 1993, when philosophers Peter Singer and Paola Cavalieri urged the Spanish government to protect great apes from maltreatment, slavery, torture, death and extinction.

This was on the grounds that not only do they and humans have the vast majority of their DNA in common, but also because they are clearly intelligent beings with strong emotions that often mirror those of humans. It is a rejection of the notion that these animals can be considered property, with no more legal status than a piece of furniture.

**Vergelegen wine estate** near Stellenbosch, for being the only winery where the cellar, vineyards and hospitality divisions are environmentally certified. It is also the champion of the Biodiversity and Wine Initiative, which seeks to make vineyards eco-friendly. Vergelegen, owned by Anglo American and 3 170 hectares in extent, has 140 hectares dedicated to vines and 80 hectares set aside for fruit orchards. The rest, containing invasive alien vegetation, is to be rehabilitated over 10 years.

As alien plants have been removed, so streams that had not run for decades started to flow, and fynbos returned. Water run-off into their dams has increased by two million litres, and indigenous animals, including sunbirds, buck and fish eagles are increasing in number.

**Group 3**, for planning a new housing project on the edge of Clanwilliam Dam that will effectively be South Africa’s first purpose-built solar-powered housing project. Not only will buyers be able to generate free electricity and hot water for their own needs, but will also be able to sell surplus power to neighbours or even Eskom.

The solar system of each of the 84 homes will act as an individual power plant, collecting and storing energy for the household’s needs. All systems will also work in unison to generate power for the whole development. The locally developed technology, which allows unused power to be fed safely back into the power grid, is so efficient that it has been exported to many countries around the world. 🌍

the vanishing Tibetan culture, and increasing the marginalisation of Tibetans in the economy. His Holiness the Dalai Lama has said that China was committing a kind of “cultural genocide” was taking place inside Tibet. This follows an actual genocide in which over a million Tibetans are thought to have been killed since Chinese forces invaded the country in 1959.

The railway line has been estimated to cost three times the amount the Chinese government has spent on health care and education in the country in the past fifty years. Of the 38 000 people employed to build the railway, only 6 000 were Tibetans, none of them in supervisory positions.

Many Tibetans feel this is the final blow to their fragile ecology. Already the country has been used as a dumping ground for China’s nuclear waste, and musk deer and chiru antelope have been hunted to the brink of extinction. It’s thought Beijing’s plans to form 25 new townships along the highway will overburden the ecology and increase illegal poaching.

**Rooipoort**, part of Mogale City, which used to be a place of beauty, with extraordinary ridges, for allowing them to be developed in the most inappropriate way. More specifically, for a decision taken by them and endorsed by the Gauteng government to build a reservoir on top of the same ridge that is pair to the only breeding pair of black eagles in the world.

The development is planned to be just a few hundred metres from the black eagle nesting site above the Walter Sisulu National Botanical Garden. Environmental groups fear that the eagles, which have been nesting there for 40 years, could permanently vacate the area during the envisaged 330 day construction period.

The ridge, home to Bankenveld grassland that evolved millions of years ago, cannot be re-established, say experts. The reservoir is to be built to supply burgeoning cluster and townhouse developments and a casino. Environmental groups are appealing the decision.



**Bat-eared Fox**

the feeding frenzy, while the plants enjoyed an even pruning,” she said.

“Sadly many Karoo farmers still believe this problem can be solved with poison. So once again tons of chemicals have been sprayed throughout many districts in the Karoo.

We have had reports of flocks of birds like lesser kestrels eating the sprayed dead hoppers. Chemical companies tout synthetic pyrethroids as perfectly safe, yet are highly toxic to bees, all aquatic life and 90% of the creatures living in our precious Karoo soil.”

The National Disaster Relief fund spent R48-million on the previous locust campaign - more than the cost of compensating farmers for veld damage.

- Courtesy Rose’s Roundup. 🌍

**Karoo farmers**, for yet again spraying the veld against locusts. According to Marina Beal of the Nama Karoo Foundation, these periodic locust swarms are not the threat many think them to be.

“Millions of birds accompanied by bat-eared foxes and even sheep enjoyed

# A Guide to Green Cars

What makes one car greener than another? Certainly, having high fuel economy is one factor. Meeting one of the cleanest exhaust emissions standards is another.

Being manufactured in a clean factory with safe, non-toxic substances, or using a larger portion of recycled materials, are further aspects of environmental friendliness.

The key to progress on all of these fronts is design with the environment in mind.

**A** GENUINELY GREEN CAR IS, OF COURSE, impossible. Moving a tonne of steel and plastic around could never use no energy at all and even the zero emissions hydrogen fuel cell cars will require prodigious amounts of energy to produce the hydrogen in the first place.

## Buying Green – The “No-Compromise” Options

### PZEVs & Hybrids

PZEVs, or partial zero-emission vehicles, include the now familiar Toyota Prius and more than a dozen other vehicles.

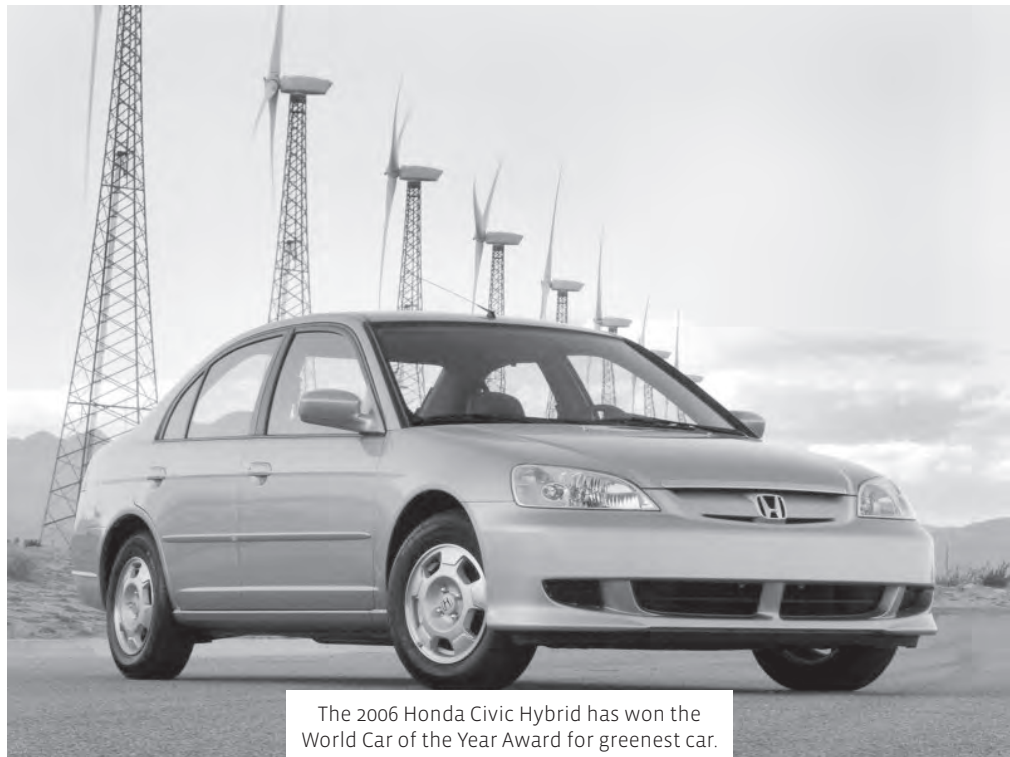
Car companies are promoting these cars as having better performance—and sales prove that as performance has soared so has popularity.

The Honda Civic Hybrid, for example, out-accelerates its petrol-only version and it also requires fewer stops at the service station. Public demand for the new Toyota Prius, which gets over 21.25km per liter, has outpaced production since it was introduced in 2001.

Hybrids and PZEVs look like regular cars, but under the hood they have sophisticated technology that reduces health-threatening tailpipe emissions by 90%, and evaporative emissions (the vapours that escape from the fuel tank) to nearly zero. PZEVs typically cost significantly more than their conventional counterparts.

PZEVs burn petrol so efficiently that their exhaust is cleaner than the air in some smoggy areas. PZEVs can help reduce urban smog which so badly affects the health of city dwellers, especially children and the elderly.

## Cars for People Who Want to Get off Oil or Reduce Climate Change Even More



The 2006 Honda Civic Hybrid has won the World Car of the Year Award for greenest car.

Climate change is no longer a theory, it is a scientifically proven fact. Thirty percent of the carbon dioxide (CO<sub>2</sub>) emissions, the major source of global climate change, are from transportation. Fortunately, there are several ways of reducing CO<sub>2</sub> emissions from your car.

The easiest option is to look for the most fuel efficient hybrid or PZEV vehicle. CO<sub>2</sub> emissions are directly proportional to the amount of petrol you use, so a 20km per liter car emits just half of the CO<sub>2</sub> of a 10km per liter car.

You could reduce your CO<sub>2</sub> emissions even more if you powered your vehicle with an ‘alternative fuel’ such as compressed natural gas (CNG), liquid propane (LPG), biodiesel, or ethanol. These fuels have the added advantage of reducing, often to

almost zero, the use of oil, most of which is imported. Let’s look at each alternative fuel option:

### Biodiesel

Biodiesel, a favorite fuel in the US bus and trucking industry, is beginning to make inroads in our local bus industry. Biodiesel is made from an oil-rich plant, such as soybeans, and can be run in a conventional diesel engine. Because it gets thick when cold, and ignites at a lower temperature than diesel, it is normally blended with diesel in cold climates. B20, the usual mix, is 20% biodiesel and 80% diesel, though 100% biodiesel (B100) can be purchased. Additionally, waste cooking oil can be run in a diesel vehicle if you have an additional tank and other simple modifications.

There are several conversion kits on the market. (See [www.greasecar.co.za](http://www.greasecar.co.za), for example). Bio will reduce greenhouse gas emissions by 77% (because the plants, when growing take CO<sub>2</sub> out of the atmosphere) and reduce dependence on foreign oil by 68% (unless the plants are grown with no chemical fertilizers, and tractors run on biodiesel, in which case 100% reductions could theoretically be achieved.) B2o reduces CO<sub>2</sub> by 28% and fossil fuel use by 13%. While biodiesel offers a great opportunity to use waste cooking oil and surplus soybeans,

## Greener Transport Also Means Reducing Driving

A vehicle's greenness depends not only on its design, but also on how it is used. A car is greener when it's carrying two people rather than one and it's greener still with three. And it's greenest of all if left at home when there's a cleaner way to go: by foot or by bicycle, by bus or by train, and even by wire (telecommuting or videoconferencing).

Consider your opportunities to reduce car use when practical, by walking or biking for short trips, ridesharing, and combining several errands into one trip.

Our options for getting to work or school, shopping or recreation, conducting business, and visiting family or friends depend very much on where we live. Choosing where you live for its walkability and convenience to work, school, or transit—what planners call location efficiency—is a key way to reduce your need for driving. In some areas, people find it surprisingly easy to do without a car at all.



15% petrol.

Ethanol is usually used in “flex-fuel” vehicles—vehicles that can be run on either petrol or ethanol. An estimated 2.5 million ethanol flex-fuel vehicles are in use in the US today, but only a small percentage actually are using ethanol. E85 reduces CO<sub>2</sub> emissions by 22%, and reduces fossil fuel use by 34%.

### Propane

Propane, a by-product of natural gas production and oil refining, is used by fleet vehicles. It is estimated that there are approximately 275,000 propane-powered vehicles in the US today. Propane reduces CO<sub>2</sub> emissions by 15%, but does not reduce fossil fuel use.

### Hydrogen

Hydrogen-powered vehicles have been much in the news, and have many attractive characteristics. They have the potential of making fuel choice a non-issue, since hydrogen can be produced from just about any fuel.

All car companies have hydrogen-powered prototype vehicles—but don't expect them in the showroom anytime soon, because there are still many technical challenges in making, storing, and transporting hydrogen, as well as using it in conventional internal combustion engines or in fuel cell vehicles.

Hydrogen's environmental advantages and its ability to compete in the market place will be determined by how it is made. Hydrogen can be made by electrolysis, using electricity to split water into hydrogen and oxygen. If the electricity to make the hydrogen were produced by wind, solar, or other zero emitting fuels, we could produce environmentally friendly zero emission hydrogen—but many feel this is not economically feasible.

If, however, it were made using electricity from today's power plants, CO<sub>2</sub> costly emissions would increase—and we would need to build new power plants to produce enough

## Facts and Figures

- **70 million** motor vehicles were on the world's roads in 1950
- **630 million** motor vehicles were on the world's roads in 1994
- **1 billion** motor vehicles are expected to be on the world's roads by 2025, if the current growth rate continues
- **12,000 pounds** of carbon dioxide are emitted by the average car each year
- **5 percent** of a car's fuel can be wasted by underinflated tires
- **2 billion gallons** of gasoline could be saved annually if 65 million car owners kept their tires properly inflated
- **85 percent** of auto fuel is consumed just to overcome inertia and start the wheels turning
- **2.5 times** more emissions are generated by SUVs and light trucks than by standard cars
- **50 million** new cars roll off the assembly line each year
- **11 million** cars are junked annually in the U.S.

many are concerned that if crops were grown specifically for fuel production that food producing land would be displaced and degraded.

### Compressed natural gas

Compressed natural gas vehicles have been used extensively in Canada and Australia. In the US they have been used most extensively by companies that have a fleet of ten or more vehicles. These companies usually install a CNG fueling station at their facility so they can refuel easily.

CNG is a naturally occurring, clean-burning fossil fuel. It emits 13% less CO<sub>2</sub> than a similarly fuel-efficient vehicle.

### Ethanol

Ethanol has been extensively used in Brazil for decades. Ethanol is an alcohol made from plant material that has a high sugar content. In Brazil, the waste from making sugar is the main feedstock. Research is being done on the potential of other waste plant materials to produce ethanol less expensively. A favorite of US Midwest farmers, ethanol is usually blended with petrol. E85 is 85% ethanol and

electricity to meet the demand for hydrogen.

Hydrogen can also be extracted from other materials that have a high hydrogen content, such as natural gas—many people feel this would be the best approach—but it does not get us away from using nonrenewable fossil fuels, or take CO<sub>2</sub> emissions to zero.

## Electric Vehicles

Like hydrogen, electricity can be produced from any fuel, and like hydrogen, electricity is only as clean as the fuels used to create it. For example, if a car ran on electricity produced from today's coal-fired plants, CO<sub>2</sub> emissions would be greater than those from petrol car. But if the electricity were pro-

duced from wind and solar, CO<sub>2</sub> emissions would approach zero.

Most car companies have tried to produce full-size electric vehicles that meet consumer demands for a car that can be refueled quickly and have at least a 160 kilometer driving range. Nevertheless, electric vehicles are becoming popular in niche markets such as airports, mines, and warehouses, and smaller electric vehicles are entering the consumer market.

Some people believe that battery technology will advance soon to a point where full-size electric vehicles could play an important role in the consumer market and deliver better value than hydrogen vehicles. Only time will tell. 🌐

## South African Restaurant Oil Abuse

**B**IODIESEL ONE aids in combating rampant abuse of waste restaurant cooking oil in South Africa.

It is generally accepted that when restaurant oils (i.e. used cooking oils and fats) are fit for human consumption, it is also fit to be included into animal feed. However, due to extensive abusive practices in South Africa causing restaurant oils to become toxic, it is of extreme importance that the safety and traceability of these oils are assured to avoid abuse.

Malpractices at South African frying establishments are responsible for extensive degradation of frying oils and fats (also referred to as restaurant oils) to levels unheard of in other countries. This is mainly caused by the repeated use of oil in order to save money. In many cases restaurant oils are also sold to the poor communities where it is further broken down through repeated usage to levels that poses a health threat.

These breakdown products have been shown to be hazardous to human and animal health and should therefore not be incorporated into animal feed or re-used for human consumption. It has been reported that these breakdown compounds can cause serious diseases such as cancer and diarrhoea in humans and animals. Consequently, strict legislation has been proclaimed in South Africa prohibiting the use of these oils.

As a result of these malpractices and poor quality management programs used by some restaurant oil collectors, many animal feed manufacturing companies are reluctant to

by **TERRY BOOYSEN, BIODIESEL ONE**

incorporate these oils into their animal feed stocks. Consequently, many restaurant oils are today recycled illegally into the human food chain or are channeled legally to the oleochemical industry.

It must be noted however that large amounts of waste restaurant oil is finding its way into “legally” to animal feedstocks such as the chicken industry and pet feeds to name a few.

The former, illegal route is preferred in South Africa since it affords much higher prices compared to the oleochemical route. Since we have estimated that more than 50 000 tons p.a. of restaurant oils are available in South Africa, the illegal distribution of large quantities of toxic over-used restaurant oils for human consumption can have disastrous effects.

We are convinced that the establishment of a traceability programme that would route all of this oil into the biofuels business will result in the channeling of large amounts of potentially dangerous restaurant oils away from the human food chain and animal feed since biofuel companies can afford more competitive prices than oleochemicals. Our experience is that many frying establishments will not use the illegal route if viable alternatives are to their disposal. Also, if strict quality management systems are applied by oil collectors at frying establishments, mainly restaurant oils within regulatory limits will be used in food preparation.

It is important to note that From the 31st October 2004 waste cooking oil from catering premises can no longer be used as an ingredient in animal feed. This change has been introduced as a measure to safeguard animal health and the subsequent food chain

## Practical Tips for Greener Driving

How you drive and take care of your vehicle affects its fuel economy and emissions levels. Follow these simple driving tips to reduce the environmental impact of your car today.

\* Drive less. Driving as little as possible is the best way to reduce the environmental impact of your transportation needs. Link errands, carpool, use mass transit, bike, or walk whenever possible. Choose a place to live that reduces your need to drive. If your family already has one car, consider trying to meet your travel needs without buying a second one.

\* Drive moderately. High-speed driving and jack-rabbit starts increase both fuel use and emissions.

\* Keep your vehicle well tuned. Simple maintenance -- such as regular oil changes, air-filter changes, and spark plug replacements -- will lengthen the life of your car as well as improve fuel economy and minimize emissions.

\* Inflate your tires. Keeping your tires properly inflated saves fuel by reducing the amount of drag your engine must overcome.

\* Keep track of your fuel economy. A drop in your car's fuel economy can be a sign of engine trouble. Keeping track of your fuel economy on a regular basis can let you know when something is malfunctioning. You can check your gas mileage by noting the odometer reading and number of liters you purchase each time you fill up. Divide the number of kms traveled between fill-ups by the number of liters purchased.

\* Don't let your car idle for more than a minute. During start-up, your engine burns extra gasoline. However, letting your engine idle for more than a minute burns more fuel than turning off the engine and restarting it.

\* Park in the shade. Minimize evaporation of fuel and keep your car cooler in the summer by parking in the shade.

under the Animal By-Products Regulation EC 1774/2002 (ABPR) and applies across Europe, including the UK.

In most Member States the ban has applied since May 2002. This IS NOT the case in South Africa. We are hoping that the South African Government will follow suit. As consumers we are not aware that waste products are finding their way into our food chain. In some remote areas farmers are purchasing oil directly from restaurants and including it into the feed for their sheep.

We have encountered several cases where unsuspecting restaurants have been sold retreated waste cooking oil as new oil. This is happening today! 🌐

## Make the right choice for a cleaner tomorrow

### Is Biodiesel Good for the Earth?



Yes. Biodiesel has fewer harmful emissions compared to petroleum diesel. That means it keeps our air cleaner and helps stop global warming.

### Is Biodiesel Better for our Health?



Yes. Breathing in biodiesel is better for our lungs and hearts. When it comes out the exhaust pipe, it even smells better than diesel smoke.

### What is Biodiesel?



Biodiesel is a fuel for trucks, buses and tractors. It is usually made from soybeans, a crop grown by farmers.

### Who Uses Biodiesel?



There are a number of fleets that use biodiesel. Some buses use it, some nature reserves use it for their trucks and buses, and some government fleets use it. Many small to medium companies run their vehicles on biodiesel—does your business run on biodiesel?



Biodiesel One is a manufacturer of Biodiesel, an alternative fuel source and renewable diesel fuel substitute.

Let the journey begin . . . . .  
<http://www.biodieselone.co.za>  
email: [info@biodieselone.co.za](mailto:info@biodieselone.co.za)  
cell : 0738748615

Pigs are intelligent, friendly animals whose complexity of social interaction is as advanced as that of dolphins and elephants. When in their natural surroundings rather than on factory farms, they are social, playful, protective animals who bond with each other, make beds, relax in the sun, and cool off in the mud. Please don't support the industry which abuses these fascinating animals.

# MAKING BACON: the shocking truth

compiled by COMPASSION IN WORLD FARMING (SA)

**M**ANY PEOPLE THINK OF *Charlotte's Web* and *Babe* when they imagine how pigs are raised for meat. Unfortunately, these Hollywood tales do not depict reality.

Almost all of the 100 million pigs killed for food in the United States every year endure horrific conditions in controlled animal feeding operations (CAFOs), the meat industry's euphemism for factory farms.

Smarter than dogs, these social, sensitive animals spend their lives in overcrowded, filthy warehouses, often seeing direct sunlight for the first time as they are crammed onto a truck bound for the slaughterhouse.

Many people who know pigs compare them to dogs because they are friendly, loyal, and intelligent. Pigs are naturally very clean and avoid, if at all possible, soiling their living areas. When given the chance to live away from factory farms, pigs will spend hours playing, lying in the sun, and exploring their surroundings with their powerful sense of smell.

Considered smarter than 3-year-old hu-

man children, pigs are very clever animals.

Most people rarely have the opportunity to interact with these outgoing, sensitive animals because 97 percent of pigs in United States today are raised on factory farms. These pigs spend their entire lives in cramped, filthy warehouses, under constant stress from the intense confinement and denied everything that is natural to them.

As piglets, they are taken away from their mothers when they are less than 1 month old; their tails are cut off, some of their teeth are cut off, and the males have their testicles ripped out of their scrotums (castration), all without any pain relief.





They spend their entire lives in overcrowded pens on a tiny slab of filthy concrete.

## Many breeding sows spend their entire miserable lives in tiny metal crates where they can't even turn around.

Shortly after giving birth, they are once again forcibly impregnated. This cycle continues for years until their bodies finally give out and they are sent to be killed. When the time comes for slaughter, these smart and sensitive animals are forced onto transport trucks that travel for many miles through all weather extremes—many die of heat exhaustion in the summer and arrive frozen to the inside of the truck in the winter.

A mother pig, or sow, spends her adult life confined to a tiny metal crate. She will never feel the warmth of a nest or the affectionate nuzzle of her mate—she will spend her life surrounded by thick, cold metal bars, living



on wet, feces-caked concrete floors. When she is old enough to give birth, she will be artificially impregnated and then imprisoned again for the entire length of her pregnancy in a “gestation crate,” a cage only 60cm wide—too small for her even to turn around or lie down in comfortably.

The piglets are taken away from their mother after less than a month—in nature, they would stay with their mother for several months.

She is impregnated again, and the cycle of forced breeding and imprisonment continues. For such an intelligent animal, this intensive confinement causes debilitating stress and boredom. With nothing to do but stare at the bars in front of her, a mother pig may go insane. This is often exhibited by neurotic chewing on the cage bars or obsessive pressing on her water bottle. After three or four years, when her body is exhausted and her mind pushed to or even past the brink of insanity, she is shipped off to slaughter.

Meanwhile, the sow's piglets have their testicles cut out of their scrotums, their tails cut off, many of their teeth clipped in half, and their ears mutilated, all without any pain relief. Terrified and in extreme pain, the piglets are often put alone into tiny metal wire cages (called “battery cages” by the farmers). These cages are stacked on top of each other, and urine and excrement constantly fall on the piglets in the lower cages.

Once the piglets have grown too big for the cages, they are placed into small, cramped pens crowded with many other piglets, where they are kept until they are large enough for slaughter. The animals are given almost no room to move because, as one pork-industry journal put it, “[O]vercrowding pigs pays.” Impeccably clean by nature, pigs on factory farms are forced to live in their own feces, vomit, and even amid the corpses of other pigs.

## Overcrowding, poor ventilation, and filth cause rampant disease.

Respiratory problems are common because of high levels of humidity and toxic gases from the manure pits—in fact, 70 percent of pigs on factory farms have pneumonia by the time they're sent to the slaughterhouse. Many pigs die from infections caused by the noxious fumes and filth of their enclosures. Pigs are fed massive doses of antibiotics to keep them alive in these conditions. Conditions are so filthy

Newborn piglets learn to run to their mothers' voices, and mother pigs sing to their young while nursing. Pigs are actually very clean animals: if given sufficient space, pigs will be careful not to excrete near where they sleep or eat. Pigs don't "sweat like pigs"; they are actually unable to sweat. Pigs like to bathe in water or mud to keep cool.

that at any given time, more than one-quarter of pigs suffer from mange.

Because of illness, lack of space to exercise, and genetic manipulation that forces them to grow too big too fast, pigs often develop arthritis and other joint problems. Many pigs on factory farms live on slatted floors above giant manure pits. Smaller pigs often suffer severe leg injuries when their legs get caught between the slats.

Always concerned with their bottom line, some farmers kill sick animals instead of giving them medicine or veterinary care. In nature, pigs live for 15 years, but pigs on fac-

tory farms are sent to slaughter after just six months of life. To get the terrified pigs onto the transport trucks bound for the slaughterhouse, workers may beat them on their sensitive noses and backs or stick electric prods in their rectums.

Crammed into 18-wheelers, pigs struggle to get air and are usually given no food or water for the entire journey (often hundreds of kilometres).

A former pig transporter told PETA that pigs are "packed in so tight, their guts actually pop out their butts—a little softball of guts actually comes out." 🌐

# The hidden lives of pigs

**U**S PRESIDENT HARRY TRUMAN stated, "No man should be allowed to be President who does not understand hogs."

Most people know very little about these fascinating animals. In fact, pigs are curious and insightful animals thought to have intelligence beyond that of an average 3-year-old human child. They are smarter than dogs and every bit as friendly, loyal, and affectionate. When in their natural surroundings, not on factory farms, they are social, playful, protective animals who bond with each other, make beds, relax in the sun, and cool off in the mud. Since most people are not that familiar with pigs, you may be surprised

to learn that they dream, recognize their names, play video games more effectively than some primates, and lead social lives of a complexity previously observed only in primates.

People who run animal sanctuaries often describe pigs with human characteristics, because they've learned that, like humans, pigs enjoy listening to music, playing with soccer balls, and getting massages.

## What the experts say

Professor Stanley Curtis of Penn State University found that pigs play and excel at joystick-controlled video games. He observed that they are "capable of abstract represen-





## Every year, more than two million pigs are slaughtered in South Africa.

tation” and “are able to hold an icon in the mind and remember it at a later date.” Professor Curtis says that “there is much more going on in terms of thinking and observing by these pigs than we would ever have guessed.” Pigs are much smarter than dogs, according to the research, and even did better at video games than some primates. Says Dr. Sarah Boysen, Curtis’ colleague, “[Pigs] are able to focus with an intensity I have never seen in a chimp.”

### **Pigs form complex social units and learn from one another in ways previously observed exclusively among primates.**

For example, pigs use clever ploys to try to outsmart each other. Pigs often learn how to follow others to food before snatching it away. Those who are tricked learn to change their behavior in order to reduce the number of times they are deceived.

And Dr. Mike Mendyl notes that pigs can signal their competitive strength and “use this information to minimize overt aggression during disputes about social ranks,” just like many primates (including humans). He explains that “pigs can develop quite sophisticated social competitive behavior, similar to that seen in some primate species.”

### **Pigs communicate constantly with one another.**

More than 20 of their oinks, grunts, and squeals have been identified for different situations, from wooing their mates to expressing, “I’m hungry!”

### **Pigs have a very long memory.**

Dr. Curtis put a ball, a Frisbee, and a dumbbell in front of several pigs and was

able to teach them to jump over, sit next to, or fetch any of the objects when asked to and they could distinguish between the objects three years later.

Scientists at the University of Illinois have learned that not only do pigs have temperature preferences, they also will learn through trial and error how to turn on the heat in a cold barn if given the chance and turn it off again when they are too warm.

Professor Donald Broom of Cambridge University Veterinary School says, “[Pigs] have the cognitive ability to be quite sophisticated. Even more so than dogs and certainly three-year-olds.”

Suzanne Held, who studies the cognitive abilities of farm animals at the University of Bristol’s Centre of Behavioural Biology, says that pigs are “really good at remembering where food is located, because in their natural environment food is patchily distributed and it pays to revisit profitable food patches.”

Newborn piglets learn to run to their mothers’ voices, and mother pigs sing to their young while nursing.

### **Pigs are actually very clean animals.**

If given sufficient space, pigs will be careful not to excrete near where they sleep or eat. Pigs don’t “sweat like pigs”; they are actually unable to sweat. Pigs like to bathe in water or mud to keep cool.

## **Pig prowess**

Like dogs, piglets learn their names by two to three weeks of age and respond when called. Pigs prefer water to mud. One woman developed a shower for her pigs, and these

astute animals learned to turn it on and off.

Pigs appear to have a good sense of direction and have found their way home over great distances. Adults can run at speeds of up to 20 km an hour.

### **Pigs have shown gentleness and forgiveness.**

Norwegian author Bergljot Borresen writes about a mountain farmer who mistreated his pig. The pig locked her jaws into his thigh but didn’t bite down. The farmer believed it was a warning not to treat her unkindly again. In her own way, she gave him another chance.

Author John Robbins notes that “unlike dogs, horses and humans, they will never dangerously overeat even when given access to unlimited food.” The pork industry, however, has wreaked havoc on this healthful habit with a drug called Hog-Crave, which causes pigs to overeat so that they will grow faster and will thus be more profitable to those who kill them.

### **Pigs have been known to save the lives of others, including their human friends.**

According to The Daily Telegraph, “a pet piglet called Pru was praised by her owner ... after dragging her free from a muddy bog.” The owner said, “I was panicking when I was stuck in the bog. I did not know what to do and I think Pru sensed that. ... I had a rope with me that I use as a dog lead and I put it around her. I was shouting ‘Go home, go home’ and she walked forward, slowly pulling me out of the mud.”

### **Like dogs, pigs have done many heroic deeds.**

Babe’s real-life counterparts have rescued human and nonhuman companions, stopped intruders in their tracks, and even saved themselves from slaughterhouses. In addition to the previously mentioned piglet Pru, who dragged her human companion from a muddy bog, there is also Priscilla, who saved a young boy from drowning; Spammy, who led firefighters to a burning shed to save her calf friend Spot; and Lulu, who found help for her human companion who had collapsed from a heart attack.

A pig named Tunia chased away an intruder, and another named Mona held a fleeing suspect’s leg until the police arrived.

A pig in New Jersey jumped off a truck en route to the slaughterhouse, while in England, a stone carving of a pig named Butch was placed upon a historic cathedral after Butch and his friend Sundance escaped from a slaughterhouse and roamed the country for several days before being captured. Fortunately, a national outcry against slaughter allowed Butch and Sundance to go to a sanctuary. 🌍

# Do Africans dare care about animals?

In learning the gentle art of caring about the well-being of animals, we learn to care more about each other

by LOUISE VAN DER MERWE, ANIMAL VOICE

**A**RE ANIMAL RIGHTS the privileged domain of the world's affluent nations? Dare we, in Africa, care about the well-being of animals while so many of our people are dying of hunger, Aids or in bloody civil conflict?

To care about the well-being of animals in Africa today would seem misplaced—callous and indifferent to the plight of our own kind. Anti-human, even. Perhaps not...

This article poses the question: For the sake of Africa and all its people, dare we not care about the well-being of animals? I approach the argument from two angles. The first considers the impact of neglect and disregard for the well-being of animals on society in general and young minds in particular. The second considers the hidden, yet devastating impact of institutionalised animal cruelty, on the Continent as a whole.

1. The government in South Africa decided recently on a temporary black-out of official statistics on rape, murder and child molestation in an effort, inter alia, it is believed, to keep up the country's morale. Staggering statistics had revealed rape occurred every 25 seconds, that the murder rate was amongst the highest in the world, that 1 in 3 girls and 1 in 4 boys would be sexually molested before adulthood. In some communities, drive-by shootings and gang warfare in the streets had become commonplace.

Against this backdrop, Mr Wikus Gresse, Chairman of the Parole Board at Pollsmoor Prison near Cape Town, recently made an impassioned plea. "Teach people how to care," he said.

As founder of one of the most successful criminal rehabilitation projects in the world today, known as **The Bird Project**, Gresse has seen first hand the healing power inherent in the gentle art of caring. The Bird Project enables prisoners to hand-rear Love Birds, Cockatiels and parrots for ultimate sale to avid bird-keepers. "If these people (the prisoners), as youngsters, had been given the chance of humane education, of learning how to care—some of them would most probably not be here today," says Gresse.

Dr Sean Kaliski, head of forensic psychiatry at Valkenberg mental hospital, Cape

Town, goes as far as to say that the entire nation's mental health is diminished by the ubiquitous evidence of animal neglect and cruelty—from starving dogs which land up as road kill, to lame cart horses with suppurating harness wounds—from the bundles of chickens tied together by wings or legs, feebly fluttering in the dust, to the pigs which lie immobilised in the baking sun, waiting to die horrendous deaths often by way of a blunt pocket knife.

He said South Africa, as a whole, would benefit from a national programme to create an awareness of the need to treat animals kindly and with respect. "The link is there," says Kaliski. **"Someone who is cruel and violent to animals will also be so to people. We need to sensitise a desensitised nation and the younger we start, the better."**

The link between animal cruelty and human violence is now well established in socio-psychological circles. At the invitation of the Cape Town based Humane Education Trust (HET), American, Phil Arkow, who is chairman of a national task force in the USA on the prevention of animal abuse, child abuse and domestic violence, visited South Africa on a lecture tour in early 2000. Says Arkow: "Human violence almost always has its roots in animal cruelty." Of particular interest is the fact that animal abuse is now recognized as a sign of mental disorder.

In the last quarter of 2000 The Humane Education Trust was given the opportunity to rekindle a spirit of care and respect for life in 11 of the Western Cape's most disadvantaged and violence-torn schools. The Western Cape Education Department agreed that humane education, as a pilot project, would get a three-month opportunity to establish its value and benefit to school children. A clinical psychologist with six years experience in the rehabilitation of criminals was employed to assess the impact of the project on a scientific basis.

Details of the what, where and how of this pilot project are clearly shown in the HET's 21-minute documentary video *Caring Classrooms* and the psychologist's final assessment, also available from HET, was

that humane education was an "overwhelmingly positive" influence in the lives of the children and should be incorporated in the national schools curriculum.

Most noteworthy to the educators involved in the project, however, was the obvious sense of self-worth which the project generated among the children.

**Ironically, in learning the gentle art of caring about the well-being of animals, they also learned to care more about each other, to show more respect for their teachers and most importantly, they developed a sense of their own value as human beings.**

Brendan, in Grade 10, put it thus: "Humane Education gave me a new pair of eyes. Everything I look at now I see differently. Nowadays I don't throw stones at stray dogs anymore and I give that thief-cat that always hangs at our door, our left-over food. I don't even swear so much anymore and I really feel proud about it."

Elton, also in Grade 10, said: "For me Humane Education was a great and joyful programme. It made me into a better person."

As one of the educators involved in the project noted: "A sense of self-worth and pride in being human is diametrically in opposition to acts of crime and violence."

This article contends, therefore that we, as a society which yearns for peace and the burgeoning of the African Renaissance, raise our children to be callous and indifferent to the suffering of other living beings at our peril.

2. On the macro-scale, dare we allow an oligopoly of First World Agri-Industrialists to set up in Africa with their massive factory farms, hoping that Africans will still be naive enough to buy into the tired old idea that the cruelty involved in factory farming is a necessary evil in order to feed the poor?

Beset by outbreaks of disease on an unprecedented scale, the tide in Europe has turned away from factory farming, the iniquitous system of keeping huge numbers of animals in close confinement and deprivation, often mutilated to prevent cannibalism. As the tide recedes in Europe however, it is advancing steadily in developing countries

## SUPPORT ANIMAL VOICE

as Dutch, Belgian and other agri-farmers colonise huge markets in Africa, Asia and South America with the promise of cheap food.

The truth is, though, the actual cost of 'cheap food' is astronomical. The huge hidden costs of intensive farming are estimated to be 2.3 billion pounds sterling annually in the UK alone.

In a hard-hitting report just released by Compassion in World Farming (CIWF) in the UK entitled "The Livestock Revolution: Development or Destruction", the actual cost of 'cheap food' is revealed:

Small-scale farmers cannot compete with the factory farms and go out of business. They are forced to leave rural areas for urban centres where they join the long queue of unemployed. This leads to rural depopulation and increased urban problems such as split families and lowered quality of life.

Factory farms substitute labour with mechanisation causing further loss of livelihoods and a dependence on technological know-how.

Crops are now grown to feed the animals caught up in intensive systems, unable to forage or graze for food on their own. In South Africa 35% of cultivated land is used for animal feed.

Ninety per cent of South Africa is classified by the UN as arid, yet the biggest user of water is irrigation and one-third of this consumption irrigates crops to feed animals in factory farms. It is estimated that irrigation costs included, 100 000 litres of water are used to produce 1kg of beef—i.e. 100 times more water produces 1kg of beef compared to 1kg of wheat.

The intensive live-stock industry is dependent on toxic chemicals leading to pollution of soil, plants and waterways..

Human health suffers as overuse of antibiotics on the factory farm leads to disease-causing bugs becoming resistant to the drugs which combat them. It is for this reason that the Food and Drug Administration in the USA is now seeking to ban the use of certain antibiotics in intensive farming.

Indigenous stock, resistant to disease, heat and able to survive on marginal grazing, are replaced by more productive imported breeds which grow more quickly but cannot withstand the harsh environment.

18 million people around the world die from malnutrition or starvation annually while a staggering 95% of world soybean production, for example, is used to feed animals on intensive farms to produce meat mainly to satisfy meat dependent First World countries.

As Janice Cox, co-author of the CIWF report says: "It is time to call a halt to the global growth of factory farming... to take time out to review the hard-learned lessons of the USA and Europe and assess how this deadly development can be halted, and energies redirected to growing food that is gentle to the animals and the environment, as well as being healthy and safe to eat, affordable and accessible to the poorest of the poor."

I ask you: DARE WE, as Africans, allow the third millennium to be blighted by the colonisation of Africa by Agri-Industrialists? I don't think so. 🌱

*Animal Voice* is the official mouthpiece of Compassion In World Farming (South Africa).

CIWA (South Africa) headed by Louise van der Merwe, is also busy bringing out a *Kind Food Guide*:



campaigning  
for farm animals

"... It has taken us 17 years to get to the point where a *Kind Food Guide* is possible and we request you

please to consider telling your colleagues, friends and contacts about it. Believe it or not, when we started off as Humanity for Hens way back in 1989 there wasn't a single free range egg available in any supermarket anywhere in South Africa. These days we take free range eggs for granted. Besides the eggs, we have made progress for other farm animals too..."

Please support the work of CIWF (SA):

Compassion in World Farming (South Africa)  
P O Box 825, Somerset West, 7129, South Africa  
Tel/fax: 021 852 8160

Email: [avoice@yebo.co.za](mailto:avoice@yebo.co.za) Website: [www.animal-voice.org](http://www.animal-voice.org)

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## SUPPORT THE SNOOT

Official Newsletter of South Africans for the Abolition of Vivisection.

"Although Snout mainly addresses the issue of vivisection, there are also other matters that need a closer look at the story behind the façade, especially where vested interests are concerned. Currently at the forefront of debate are 'canned' lions and culling of elephants, as well as the slaughter of South African seals. All these issues involve major cruelties and massive disinformation campaigns by those who profit from them. They concern our heritage, our wild life, which have a massive price placed upon their heads and, as a consequence, in many cases face extinction."

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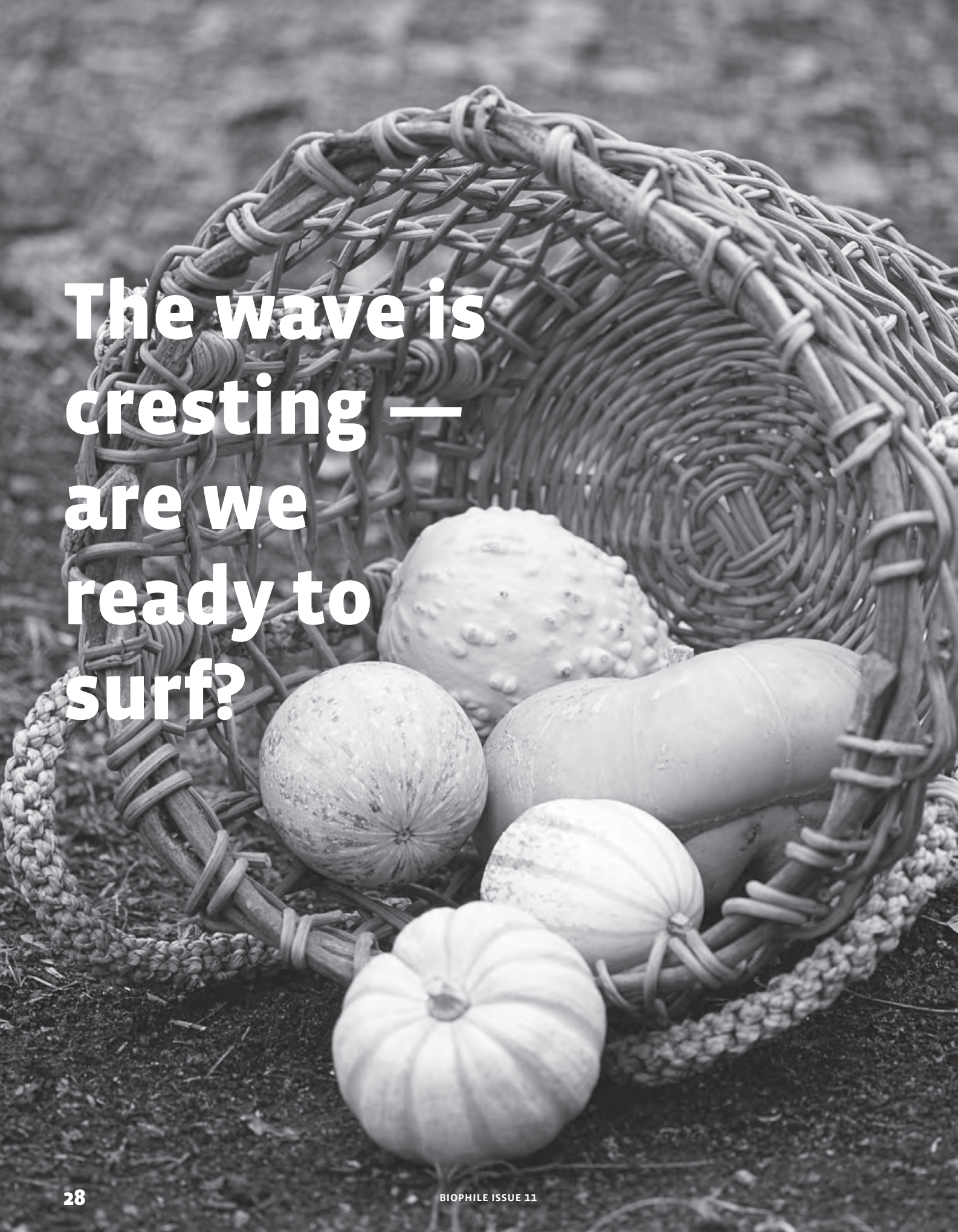
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**The wave is  
cresting —  
are we  
ready to  
surf?**

# A look at recent developments in the organic industry

by ALETTA VENTER, SACODAS

**F**OR THOSE OF US who are at the rock face of the developments within the organic industry, it is obvious that the rate of change and growth is increasing daily and exponentially. It is as though we have been waiting for the tide to turn, for the wave to pick up momentum and now we are the point that we need to know that we are ready to take advantage of the swell that will soon start breaking as a massive wave across the country.

Across all walks of life people are increasingly aware that we are running out of time and ideas to effect a real change in how human beings relate and interact with the natural environment that is our only real recourse for survival. As much as the technologists would like us to believe that we can live out of a laboratory and that money is all it takes, the average human being knows instinctively that is not the case.

And what is more, more and more people are recognizing that this is not what we really want. We all hanker after the beautiful sight of wild animals, clean rivers, flowers in bloom and all that feeds our souls and spirits, as well as our bodies. Our connection to mother earth may be tenuous at best, but it is still there and all it needs is an enabling environment.

## **This is where our government plays a critical role.**

Without conscious and concerted support from our government, our best efforts at civil society level will have only limited and local effect. This is not to say that we must stop working at this level, not at all. It is simply that our effort can have so much more impact if it is backed up and supported by government.

The creation of such an enabling environment is what SACODAS is about. The South African Council for Organic Development and Sustainability (SACODAS) was formed to act as the governing and custodian body for a national initiative called the National Organic Produce Initiative (The NOPI for short). All Public-Private Partnerships require such broad based stake holders' forum that can channel and express the needs and wishes of civil society in an ordered fashion to government role players. Through

the lengthy process of establishing such a partnership with government, we have achieved what has never happened before – for the very 1st time some government officials have recognized that anything other than a western, commercial and industrial approach to development has merit.

The NOPI is now an official national program in which sound sustainable agriculture (organic and biodynamic of course) forms the foundation for all sustainable development programs.

Because of work that was done through the NOPI and SACODAS, the national department of Agriculture was alerted to the fact that legislation was about to be passed on Biofuels that effectively excluded the small-scale private production of biofuels. SACODAS managed to persuade the officials that this was not fair and contrary to our constitution. Work is now underway to ensure that the legislation allows room for such production.

## **Accurate information on organic produce**

In order to implement the NOPI it was recognized that we need accurate information on organic produce in SA. As a result of the brief, checked and beleaguered history of organics in SA, there is virtually no reliable market information available.

The initiators of the NOPI approached the Dept. of Trade and Industry and persuaded them that the “organic agricultural industry” as part of the broader agro-ecological sector, could be viewed as a new economic sector in SA. This means that it qualifies for government support to research and evaluate how this sector can best be developed.

Such studies are conducted using the FRIDGE. The FRIDGE (Fund for Research into Industrial Growth, Development and Equity) is a project of the National Economic, Development and Labour Council's (NEDLAC) Trade and Industry Chamber. It is funded by the department of trade and industry and administered by the Industrial Development Corporation of South Africa Limited (IDC).

A stakeholder meeting was held in Dec 2005 to draft the terms of reference for such a study. The study was approved at the start of the year and the call for tenders has just

been published (in June). The study will be completed within 3 to 6 months after the consultants have been appointed, i.e. by early 2007. The outcome of this study will be document outlining a strategy for the development of the agro-ecology sector. For the 1st time the government will have an official reference document that will guide decisions affecting this newly defined economic sector. This is a major breakthrough and thanks need to be given to the tireless efforts of the individuals and organizations who took it upon themselves to make sure that this happens.

## **Focus in Africa**

Alongside this, another very exciting opportunity has presented itself. SIDA, The Swedish International Development Agency, annually conducts an international training program called Organic Agriculture Development (OAD). This year they decided to focus on Africa and opened the course to participants from Africa only.

Three applicants from South Africa were selected. The good news is that these 3 participants have agreed to work as a team to develop a joint national sustainable development plan for the Agro-Ecology sector agriculture in SA – and of course organic/biodynamic agriculture is again the foundation of this sector! The team consists of 3 women, one from SACODAS, one from the National Department of Agriculture and one from a private NGO (ASNAPP). SACODAS is calling on all its members to make inputs for the development of this very important development plan. See their contact details at the end of this article.

The good news has still not ended. We now have a new minister of Agriculture, Lulama Xingwana, who is set to blow some fresh air into her department. We understand that she visited organic farms on her recent trip to the UK and was very impressed and excited by what she saw. She has also indicated that if the stakeholders in the industry can present her department with the necessary documents, she would be willing to sign off the legislation regarding norms and standards in the organic industry.

The lack of such legislation has been a major constraint for all those that are

involved in the marketing and export of organic produce. Here Organics SA has taken steps to lead an investigating into the current status quo around certification. This will form part of the greater work that is to be done through the SIDA program about redefining quality standards for local and export production. All consumers are entitled to quality produce that they can rely on and that they can be sure has been produced in an eco-friendly and sustainable manner. Quality is about more than just a list of check boxes!

### Promoting exports of organic produce

In a recent call from the Department of Agriculture for candidates for a program promoting exports of organic produce; it was shocking to realize that there were virtually no emerging farmers who qualified for this program!

This highlights the huge potential that exists to convert farmers to organic and biodynamic farming. Effective training in sustainable and integrated agricultural methods such as organic and biodynamic farming remains the starting point for this conversion.

Here again Organics SA has recognized that what training is taking place in SA is not necessarily having the desired effect. In order to address these issues, OSA has obtained funds from Old Mutual to conduct a survey of training and to monitor the outcome of such training. This program is now underway. The results of this program should improve the quality and effectiveness of training in organic agriculture that is being offered in SA.

All of what is happening now is the result of the work and inputs of dedicated individuals and organizations who have never given up on their belief that there is a better way. However, the struggle continues and more and more it is clear that we need to present a united front to our opposition – both in government and in civil society.

### Huge concerns

There are still huge concerns around the wide-spread acceptance of GMO's, the lack of quality control, traceability and labeling.

These issues can only be addressed if we have a much higher level of public and private awareness. It is shocking to know that fewer than 5% of our population know what the acronym GMO stands for, yet they are quite happy to consume foods containing it!

In order to address some of these issues of awareness, Organics SA decided to open its annual conference to a much wider audience than in the past. The theme of this year's conference is "Sustainable Agriculture" and

they are inviting people and organizations from across the whole spectrum of our society, including key departments from government.

This conference is once again taking place in tandem with the Natural and Organic Products Exhibition that is being held in Gauteng at Gallagher Estate from the 20th to the 22nd of September 2006. This exhibition is being held annually and has contributed in a major way to the huge upswing in interest in organic products and produce. The OSA conference is taking place from the 19th to the 21st of Sept at the same venue. Check the OSA website ([www.organicsouth-africa.co.za](http://www.organicsouth-africa.co.za)) for details on the program and speakers.

### So what can you as a private individual do?

Become active – Be an activist. If you, or any organization that you are part of, is any way involved or interested in supporting organic development and sustainability (which includes more than just organic agriculture), please join SACODAS. SACODAS already has more than 50 members.

The more members there are, the more credible the organization becomes as a truly representative body of stakeholders and the more impact their work will have.

There are no fees attached and the only criteria is that the member agrees with the objectives of the company and that when called upon members are willing and able to participate and contribute to strategies and programs that will support the NOPI and other such related programs that will lead to a truly organic and sustainable development of our beautiful country.

The philosophy behind SACODAS and the NOPI are well illustrated in this passage quoted in Lovemore Mbigi's book *The Spirit of African Leadership* on page 13.

*"Spiritual capital challenges capitalism's assumptions that we are primarily economic creatures and argues instead that human beings are essentially creatures of meaning and purpose. The spiritual qualities of a business or a life show the need for dialogue with meaning vision, fundamental/values and deep purpose.*

*"Spiritual capital takes these as crucial commodities of exchange. A company or a person who acts in accordance with meaning, vision, purpose and fundamental values – while making a profit – is invested with spiritual capital. Its primary assumption is that companies can make more profit by doing more good. We act on this assumption by using our spiritual intelligence. (Danah Zohar)"* 🌱

## The objectives of SACODAS:

- SACODAS will set a leading example of Best Practice in excellent governance of PPP's such as the National Organic Produce Initiative (NOPI).
- Act as custodian of organic management principles as enshrined in the African concept of Ubuntu
- SACODAS will at all times function within the guidelines of and meeting requirements as set out in all national and international agendas, protocols and agreements that promote and enhance organic development and sustainability. e.g.
  - > The African Renaissance and NEPAD
  - > Skills Development, BEE, food safety and security, HIV-Aids, SMME stimulation, job creation
  - > Indigenous Peoples' Rights Charter
  - > Johannesburg Plan of Implementation 2002; Kyoto, Montreal, Stockholm and Carthaginian protocols
- Promote the inclusion and participation of all South Africans in the Sustainable and Integrated Villages for Agro-Ecology of the NOPI, providing that they are willing to commit to the principles of organic development and sustainability as set out in the cooperative constitutions of the village
- Organize the supply of organic quality produce on a non-exclusive contractual basis to local, national and international markets according to ethics and principles such as Fair Trade.
- SACODAS will seek to improve the prosperity of all its members through constantly working to improve quality at all levels of the organic value chain
- SACODAS will actively endeavour to empower small-scale PDI farmers to participate in the NOPI in order for them to join the 1st economy in agriculture
- To foster a culture of respect for each other and the earth as basis for all sustainable development

**If you wish to become a member, please contact either the coastal or inland offices and request a membership application form. The offices are:**

Coastal: Aletta Venter — 0734407805.  
Inland: Kim Hutton-Brown — 0826834397



# Organic gardening... and the humble weeds

by BRETT MULLER, EARTHMOTHER ORGANIC

I HAVE BEEN GROWING organic fruit and vegetables around my house for five years now, and the most interesting things have become apparent. As the soil is getting richer, due to the natural farming, more and more indigenous flora is emerging.

The interesting thing is that a vegetable polyculture is a forest pioneer culture as the conditions in which most food crops thrive are very similar to the forest floor. The soil already contains a seed bank from the vegetation which has grown previously and it is the soil conditions which determine which seeds will germinate.

A problem is sometimes in the eye of the observer, take weeds for example: in a naturally-balanced ecosystem you will not find bare soil very often because direct sunlight destroys microbial activity and makes living conditions very harsh for most soil improvers (such as earthworms).

The sun also causes the drying out of the soil often causing compaction that could lead to poor absorption and faster moving water on slopes which can lead to loss of topsoil via erosion. Is it not a wonder of nature that if the soil is laid bare, as in the case of building earthworks, the poor nutrient deficient subsoil leads to massive weed growth.

The best example of these willing plants is the humble Blackjack. He loves poor soil and will germinate best in these conditions. At this point we the “landscapers” usually move in and sort out the problem, or do we? The natural process of the weed is to grow as vigorously as possible to cover the soil from the sun so some sort of microbial activity can begin to re-establish.

The roots of a lot of weeds go deep into the subsoil and bring up valuable elements from the parent rock below, the leaves transform sunlight into nitrogen and

other vital building blocks and the poorer the soil the more vigorous the growth. The weeds if left to their own devices will grow so fast that they will outgrow themselves and as they fall they mulch the earth and enrich the soil. This enrichment leads to the next step of seed germination which will lead over time to further enrichment and eventually the area will reach a state of balance without our involvement.

One can determine the state of the soil by observing the plant life contained therein. Weeds are poor soil indicators so before you pull them out, be prepared to do the work that they had already undertaken, or else those unsatisfied niches will be filled at the first opportunity by the same weed or something similar (or worse!)

Have mulch handy – I use veld hay but any dried organic matter works – look around in your garden for sustainable resources as a first option. The mulch will perform the task of sun protection, water conservation and nutrient accumulation. Plant beneficial soil improvers like lettuce, spinach and beans and throw a few marigolds in too.

A little Lucerne will bring up those valuable bedrock minerals and as well as flowering beautifully, it can be used as power mulch later on. If the soil is hard plant some sweet potatoes or beetroot whose powerful roots will do the job much more effectively and with less effort than a fork. Don't pull all the weeds, a lot of them are beneficial;

educate yourself as they are eager helpers.

After a few months you will have performed the task the weeds set out to do and as a bonus to your newly enriched, weed managed soil you will have a few things to harvest for the table.

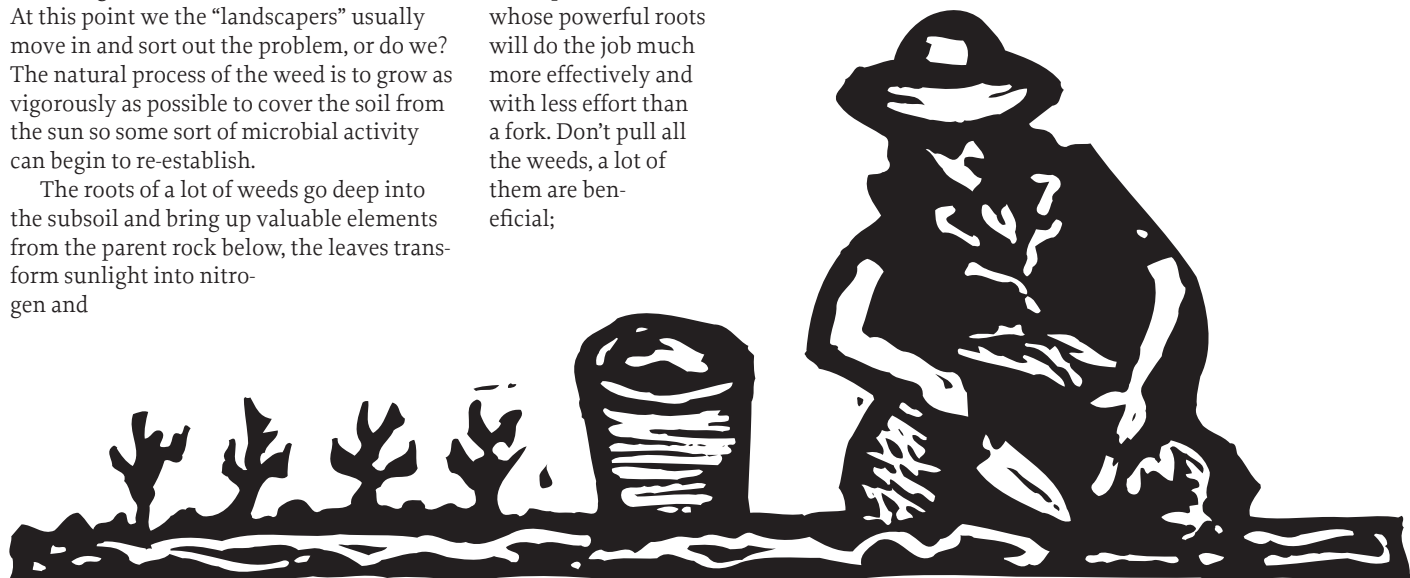
We have a wonderful small grove of trees where our sweet potato patch was and numerous other trees around the garden. Not to mention plenty of other plants of interest which have become part of the landscaping. What gifts nature provides when you take steps towards her.

Be patient with plants you don't recognize that come up on their own, it may be a flower just desperate to open for you. 🌱

EARTHMOTHER ORGANIC

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Jeffrey Smith is the author of the international bestseller, *Seeds of Deception*. The information in this article presents some of the numerous health risks of GM foods that will be presented in his forthcoming book, *Genetic Roulette: The Documented Health Risks Of Genetically Engineered Foods*, due out later this year.

# Herbicide in your intestines?

Genetically engineered crops may produce herbicide inside our intestines, killing gut bacteria which are essential for our health.

by JEFFREY SMITH

**P**IONEER HI-BRED'S WEBSITE boasts that their genetically modified (GM) Liberty Link[1] corn survives doses of Liberty herbicide, which would normally kill corn. The reason, they say, is that the herbicide becomes "inactive in the corn plant." [2]

They fail to reveal, however, that after you eat the GM corn, some inactive herbicide may become reactivated inside your gut and cause a toxic reaction. In addition, a gene that was inserted into the corn might transfer into the DNA of your gut bacteria, producing long-term effects. These are just a couple of the many potential side-effects of GM crops that critics say put the public at risk.

Herbicide tolerance (HT) is one of two basic traits common to nearly all GM crops. About 71% of the crops are engineered to resist herbicide, including Liberty (glufosinate ammonium) and Roundup[3] (glyphosate). About 18% produce their own pesticide. And 11% do both. The four major GM crops are soy, corn, cotton and canola, all of which have approved Liberty- and Roundup-tolerant varieties.

**Herbicide tolerant (HT) crops are a particularly big money-maker for biotech companies, because when farmers buy HT seeds, they are required to purchase the companies' brand of herbicide as well.**

In addition, HT crops dramatically increase the use of herbicide,[4] which further contributes to the companies' bottom line.

There are no required safety tests for HT crops in the US—if the biotech companies declare them fit for human consumption, the FDA has no further questions. But many scientists and consumers remain concerned, and the Liberty Link varieties pose unique risks.

Liberty herbicide (also marketed as Basta, Ignite, Rely, Finale and Challenge) can kill a wide variety of plants. It can also kill bacteria,[5] fungi[6] and insects,[7] and has toxic effects on humans and animals.[8] The herbicide is derived from a natural antibiotic, which is produced by two strains of a soil bacterium. In order that the bacteria are not killed by the antibiotic that they themselves create, the strains also produce specialized enzymes which transform the antibiotic to a non-toxic form called NAG (N-acetyl-L-glufosinate).

The specialized enzymes are called the pat protein and the bar protein, which are produced by the pat gene and the bar gene, respectively. The two genes are inserted into the DNA of GM crops, where they produce the enzymes in every cell. When the plant is sprayed, Liberty's solvents and surfactants transport glufosinate ammonium throughout the plant, where the enzymes convert it primarily into NAG. Thus, the GM plant detoxifies the herbicide and lives, while the surrounding weeds die.

The problem is that the NAG, which is not naturally present in plants, remains there and accumulates with every subsequent spray. Thus, when we eat these GM crops, we consume NAG. Once the NAG is inside our digestive system, some of it may be re-transformed back into the toxic herbicide.

In rats fed NAG, for example, 10% of it



was converted back to glufosinate by the time it was excreted in the feces.[9] Another rat study found a 1% conversion.[10] And with goats, more than one-third of what was excreted had turned into glufosinate.[11]

It is believed that gut bacteria, primarily found in the colon or rectum, are responsible for this re-toxification.[12] Although these parts of the gut do not absorb as many nutrients as other sections, rats fed NAG did show toxic effects. This indicates that the herbicide had been regenerated, was biologically active, and had been assimilated by the rats.[13] A goat study also confirmed that some of the herbicide regenerated from NAG ended up in the kidneys, liver, muscle, fat and milk.[14]

More information about the impact of this conversion is presumably found in “Toxicology and Metabolism Studies” on NAG, submitted to European regulators by AgrEvo (now Bayer CropScience). These unpublished studies were part of the application seeking approval of herbicide-tolerant canola. When the UK government’s Pesticide Safety Directorate attempted to provide some of this information to an independent researcher, they were blocked by the company’s threats of legal action.[15] The studies remained private.

## Toxicity of the herbicide

Glufosinate ammonium is structurally similar to a natural amino acid called glutamic acid, which can stimulate the central nervous system and, in excess levels, cause the death of nerve cells in the brain.[16] The common reactions to glufosinate poisoning in humans include unconsciousness, respiratory distress and convulsions. One study also linked the herbicide with a kidney disorder.[17] These reactions typically involve large amounts of the herbicide. It is unclear if the amount converted from GM crops would accumulate to promote such responses or if there are low dose chronic effects.

Perhaps a more critical question may be whether infants or fetuses are impacted with smaller doses. A January 2006 report issued by the Environmental Protection Agency’s (EPA) Office of Inspector General said that studies demonstrate that certain pesticides easily enter the brain of young children and fetuses, and can destroy cells. That same report, however, stated that the EPA lacks standard evaluation protocols for measuring the toxicity of pesticides on developing nervous systems.[18] Scientists at the agency also charged that “risk assessments cannot state with confidence the degree to which any exposure of a fetus, infant or child to a pesticide will or will not adversely affect their

neurological development.” [19] Furthermore, three trade unions representing 9,000 EPA workers claimed that the evaluation techniques used at the agency were highly politicized. According to a May 24, 2006 letter to the EPA’s administrator, the unions cited “political pressure exerted by Agency officials perceived to be too closely aligned with the pesticide industry and former EPA officials now representing the pesticide and agricultural community.”[20]

Although the EPA may be hampered in its evaluations, research has nonetheless accumulated which suggests that glufosinate carries significant risks for the next generation. According to Yoichiro Kuroda, the principal investigator in the Japanese project entitled “Effects of Endocrine Disruptors on the Developing Brain,” glufosinate is like a “mock neurotransmitter.” Exposure of a baby or embryo can affect behavior, because the chemical disturbs gene functions that regulate brain development.[21]

When mouse embryos were exposed to glufosinate, it resulted in growth retardation, increased death rates, incomplete development of the forebrain and cleft lips,[22] as well as cell death in part of the brain.[23] After pregnant rats were injected with glufosinate, the number of glutamate receptors in the brains of the offspring appeared to be reduced.[24] When infant rats were exposed to low doses of glufosinate, some of their brain receptors appeared to change as well.[25]

Glufosinate herbicide might also influence behavior. According to Kuroda, “female rats born from mothers that were given high doses of glufosinate became aggressive and started to bite each other—in some cases until one died.” He added, “That report sent a chill through me.”[26]

## Disturbing gut bacteria

If the herbicide is regenerated inside our gut, since it is an antibiotic, it will likely kill gut bacteria. Gut microorganisms are crucial for health. They not only provide essential metabolites like certain vitamins and short fatty acids, but also help the break down and absorption of food and protect against pathogens. Disrupting the balance of gut bacteria can cause a wide range of problems. According to molecular geneticist Ricarda Steinbrecher, “the data obtained strongly suggest that the balance of gut bacteria will be affected”[27] by the conversion of NAG to glufosinate.

When eating Liberty Link corn, we not only consume NAG, but also the pat and bar genes with their pat and bar proteins. It is possible that when NAG is converted to herbicide in our gut, the pat protein,

for example, might reconvert some of the herbicide back to NAG. This might lower concentrations of glufosinate inside of our gut. On the other hand, some microorganisms may be able to convert in both directions, from glufosinate to NAG and also back again. If the pat protein can do this, that is, if it can transform NAG to herbicide, than the presence of the pat protein inside our gut might regenerate more herbicide from the ingested NAG. Since there are no public studies on this, we do not know if consuming the pat gene or bar genes will make the situation better or worse.

But one study on the pat gene raises all sorts of red flags. German scientist Hans-Heinrich Kaatz demonstrated that the pat gene can transfer into the DNA of gut bacteria. He found his evidence in young bees that had been fed pollen from glufosinate-tolerant canola plants. The pat gene transferred into the bacteria and yeast inside the bees’ intestines. Kaatz said, “This happened rarely, but it did happen.”[28] Although no studies have looked at whether pat genes end up in human gut bacteria, the only human GM-feeding study ever conducted did show that genetic material can transfer to our gut bacteria. This study, published in 2004, confirmed that portions of the Roundup-tolerant gene in soybeans transferred to microorganisms within the human digestive tract.[29]

**Since the pat gene can transfer to gut bacteria in bees, and since genetic material from another GM crop can transfer to human gut bacteria, it is likely that the pat gene can also transfer from Liberty Link corn or soybeans to our intestinal flora.**

If so, a key question is whether the presence of the pat gene confers some sort of survival advantage to the bacteria. If so, “selection pressure” would favor its long term proliferation in the gut.

Because the pat protein can protect bacteria from being killed by glufosinate, gut bacteria that take up the gene appears to have a significant survival advantage. Thus, the gene may spread from bacteria to bacteria, and might stick around inside us for the long-term. With more pat genes, more and more pat protein is created. The effects of long-term exposure to this protein have not been evaluated.

Now suppose that the pat protein can also re-toxify NAG back into active herbicide, as discussed above. A dangerous feedback loop may be created: We eat Liberty Link corn or soy. Our gut bacteria, plus the pat protein,

turns NAG into herbicide. With more herbicide, more bacteria are killed. This increases the survival advantage for bacteria that contain the pat gene. As a consequence, more bacteria end up with the gene. Then, more pat protein is produced, which converts more NAG into herbicide, which threatens more bacteria, which creates more selection pressure, and so on. Since studies have not been done to see if such a cycle is occurring, we can only speculate.

## Endocrine disruption at extremely low doses

Another potential danger from the glufosinate-tolerant crops is the potential for endocrine disruption. Recent studies reveal that endocrine-disrupting chemicals (EDCs) can have significant hormonal effects at doses far below those previously thought to be significant. The disruptive effects are often found only at minute levels, which are measured in parts per trillion or in the low parts per billion. This is seen, for example, in the way estrogen works in women. When the brain encounters a mere 3 parts per trillion, it shuts down production of key hormones. When estrogen concentration reaches 10 parts per trillion, however, there is a hormone surge, followed by ovulation.

Unfortunately, the regulation and testing of agricultural chemicals, including herbicides, has lagged behind these findings of extremely low dose effects. The determination of legally acceptable levels of herbicide residues on food was based on a linear model, where the effect of toxic chemicals was thought to be consistent and proportional with its dosage. But as the paper *Large Effects from Small Exposures* shows, this model underestimates biological effects of EDCs by as much as 10,000 fold.<sup>[30]</sup>

In anticipation of their (not-yet-commercialized) Liberty Link rice, Bayer Crop-Science successfully petitioned the EPA in 2003 to approve maximum threshold levels of glufosinate ammonium on rice. During the comment period preceding approval, a Sierra Club submittal stated the following.

“We find EPA’s statements on the potential of glufosinate to function as an endocrine-disrupting substance in humans and animals as not founded on logical information or peer-reviewed studies. In fact EPA states that no special studies have been conducted to investigate the potential of glufosinate ammonium to induce estrogenic or other endocrine effects. . . . We feel it’s totally premature for EPA at this time to dismiss all concerns about glufosinate as an endocrine-disrupting substance. . . . Due to the millions of Americans and their children exposed to glufosinate and its metabolites, EPA needs to

conclusively determine if this herbicide has endocrine-disrupting potential.”

The EPA’s response was that “glufosinate ammonium may be subjected to additional screening and/or testing to better characterize effects related to endocrine disruption” but this will only take place after these protocols are developed. In the mean time, the agency approved glufosinate ammonium residues on rice at 1 part per million.

Since glufosinate ammonium might have endocrine disrupting properties, even small conversions of NAG to herbicide may carry significant health risks for ourselves and our children.

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Since glufosinate ammonium might have endocrine disrupting properties, even small conversions of NAG to herbicide may carry significant health risks for ourselves and our children.

## Inadequate animal feeding studies

If we look to animal feeding studies to find out if Liberty Link corn creates health effects, we encounter what independent observers have expressed for years—frustration. Industry-sponsored safety studies, which are rarely published and often kept secret, are often described as designed to avoid finding problems.

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In a 42-day feeding study on chickens, for example, 10 chickens (7%) fed Liberty Link corn died compared to 5 chickens eating natural corn. Even with a the death rate doubled, “because the experimental design was so flawed,” said bio-physicist Mae-Wan Ho, “statistical analysis failed to detect a significant difference between the two groups.” Similarly, although the GM-fed group gained less weight, the study failed to recognize that as significant. According to testimony by two experts in chicken feeding studies, the Liberty Link corn study wouldn’t identify something as significant unless there had been “huge” changes. The experts said, “It may be worth noting, in passing, that if one

were seeking to show no effect, one of the best methods to do this is would be to use insufficient replication, a small n,” which is exactly the case in the chicken study.

Without adequate tests and with a rubber stamp approval process, GM crops like Liberty Link corn may already be creating significant hard-to-detect health problems. In Europe, Japan, Korea, Russia, China, India, Brazil and elsewhere, shoppers have the benefit of laws that require foods with GM ingredients to be labeled. In the US, however, consumers wishing to avoid them are forced to eliminate all products containing soy and corn, as well as canola and cottonseed oils. Or they can buy products that are organic or say “non-GMO” on the package. Changing one’s diet is a hassle, but with the hidden surprises inside GM foods, it may be a prudent option for health-conscious people, especially young children and pregnant women. 🌍

### Footnotes:

- 1, Liberty Link is a registered trademark of Bayer Crop-Science
- 2, Pioneer Brand hybrids with the LibertyLink1 gene
- 3, Roundup is a registered trademark of Monsanto
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- 5, Colandoumi JA and Villafranca JJ (1986). Inhibition of *Escherichia coli* glutamine-synthetase by phosphinothricin. *Bioorganic Chemistry* 14(2): 163-169, and Pline W A-Lacy GH- Stromberg V ~ Hatzios KK (2001). Antibacterial activity of the herbicide glufosinate on *Pseudomonas syringae* pathovar *glycinea*. *Pesticide Biochemistry And Physiology* 71(1): 48-55.
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35, Testimony of Steve Kestin and Toby Knowles, Department of Clinical Veterinary Science, University of Bristol on behalf of Friends of the Earth, before the Chardon LL Hearings of the Advisory Committee on Releases to the Environment, November 2000.

# Sugar addiction

Scientists never really thought that a person could become hooked on sweets like they were a drug. Now a batch of findings is making researchers reexamine the concept.

by THE SOCIETY FOR NEUROSCIENCE

**S**UGAR ADDICTION has long been joked about. Most researchers, however, believed you could not get hooked on sweets and lose control over consuming them, as if they were drugs. Studies are now making some scientists revisit the idea. The results do not indicate that donuts are in the same category as addictive drugs like heroin, alcohol or nicotine, but they do suggest that some brain actions and characteristics associated with the intake of sweets and drug addiction may overlap. The findings are leading to:

- A better understanding of how the brain controls food intake and how this system may go awry.

- New ideas on how to treat people with extreme compulsions to overeat sweets.

Studies that focused on brain chemicals, known as opioids, provided some of the first clues that an overlap may exist between sweets and drugs. Some addictive drugs like heroin or morphine activate the opioid system to produce a pleasurable response that many believe helps fuel a longing for more drugs and is key to the addiction process.

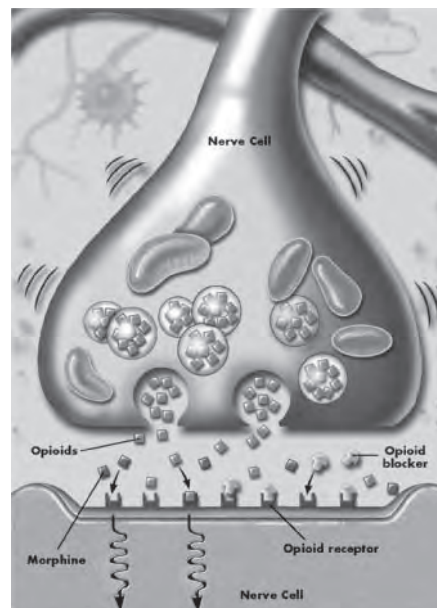
In one study, compounds that blocked the activity of opioids made animals less interested in eating meals, particularly sweetened versions. Researchers found similar results in tests of humans with eating disorders like bulimia, marked by a habit of bingeing on foods that are typically sweet. The blockers cut in half the consumption of sweets packed with sugar and fat including candy bars and cookies. The intake of low sugar, low fat snacks such as popcorn, saltines, breadsticks and pretzels did not decrease. Some believe that the studies hint that sweets, like some drugs, have a pronounced affect on the brain's opioid system (see image), although direct proof is still lacking.

Whether through opioids or some other brain chemical, the scientists suspect that sweets like drugs can activate an "incentive system" in the brain that helps reinforce behaviors. Activation by food is generally beneficial. It makes us want more and keeps us alive. Sweets, however, packed with calories, may create extra activity that helped us in primitive times when food was scarce, but

is not needed today.

Recent behavioral tests in rats further back the idea of an overlap between sweets and drugs. Drug addiction often includes three steps. A person will increase his intake of the drug, experience withdrawal symptoms when access to the drug is cut off and then face an urge to relapse back into drug use. Rats on sugar have similar experiences. Researchers withheld food for 12 hours and then gave rats food plus sugar water. This created a cycle of bingeing where the animals increased their daily sugar intake until it doubled. When researchers either stopped the diet or administered an opioid blocker the rats showed signs common to drug withdrawal, such as teeth-chattering and the shakes. Early findings also indicate signs of relapse. Rats weaned off sugar repeatedly pressed a lever that previously dispensed the sweet solution.

Plans are under way to study binge eaters and further determine whether molecular and behavioral signs common to drug addiction exist. If confirmed, the research could lead to new ideas for treating eating disorders. It also may give you more incentive to steer clear of that tub of chocolate fudge icecream. Well maybe. 🌐



# The Right to Food

It is unlikely that you will know personally any of the ten children under five years old who die every hour in South Africa, and so are spared that suffering.

by MARGARET LEGUM, SANE

**I**F YOU CAN BUY AND READ THIS MAGAZINE you probably do not live among very poor people. They suffer, and then they die, from poverty: they could have survived their diseases with good food and medication; but they have access to neither. It is hard to imagine suffering on such a scale, in your own community and in peace-time.

Many of the hundreds of people who attended the Conference in June on the Right

it reflected the 'laws of God and man', nor because other nations thought it should be done, but 'fundamentally because it is the right thing to do'.

In those days it was hard to imagine South Africa recognizing the equality of all human beings. Forty years later we have done so in principle – except that some of our people still die from lack of nourishment.

under the World Trade Organisation, higher than the economic principle that the market shall determine all prices and therefore who can pay them, higher than the ideology that food must be produced, like all other goods and services, as cheaply and profitably as possible everywhere; higher than the opinions of wealthy potential investors.

It would take a decision to recognise food as not just another product, like cars and shoes and fridges, but as a daily necessity, like water or air. We need to eat food regularly or else we sicken and die. But we can postpone or deny our purchases of other consumer goods. Food should be treated in that light.

**Second, we would need to recognize that food must be subsidized.** As an industry agriculture has a range of unpredictable challenges from the weather and pests and changes in climate. It can give a sustainable livelihoods only if the price at least is predictable. Farmers cannot change the cycles of nature is response to volatile market conditions, including the value of the rand.

Food subsidy has often been taken for granted since the industrial revolution: its current rejection is the exception. And many nations, notably France, will always subsidize agriculture, not only because of the strength of the farming lobby, but because it is the reason for the flourishing rural economy, the prosperous small farmers and the sheer quality of the French countryside, for which it is globally celebrated. The French are prepared to pay a price for this, and they will not end it, whatever they promise in the way of reform

**Third, we would shift the problem focus from the bottom end of the income hierarchy** – poor people and their presumed 'culture of entitlement and dependence' – to the top of the income pyramid.

There the rich feel entitled to a regular stream of passive income from their investments – for which they have lifted not one finger. That entitlement, and its regular enhancement with free perks, parties and holidays, funnily enough, does not apparently encourage a new culture of dependence, as it is presumed to do for poor people. 🌍



to Work will personally know some of the children who have died of poverty. Many are very angry. The right to work in South Africa is closely associated with the right to survive – to buy the basic food, clothing, shelter and energy needed to carry on living. Since few have access to land for subsistence, the only way to survive is to go out and get a job. Only there are not enough jobs to go around: everyone knows that. But we persist in advising job-seeking as the gateway to life.

Surprisingly, many people seem to think that situation is OK. Not perfect, of course; it would be better if there were enough jobs to go around. But probably inevitable – in other words we can live with it.

It reminds me of the words of Robert Kennedy, visiting South Africa in 1966. He spoke of the imperative to recognize the equality of all human beings, not because it was economically advantageous, nor because

**Suppose we said everyone has a right to eat enough food every day** – not because that would make them more efficient workers, or to create a proper demand for local food or to stave off their anger, but because 'fundamentally it is the right thing to do'.

In war time all nations do that. Food security for the nation and for individuals is given the highest priority; and the economy can be turned round very quickly to do so. That is because people cannot fight on an empty stomach, and civilians' loyalty is more reliable if they are looked after.

But should the right to food be limited to war time? Is a strong fighting force the only reason for a healthy population? What would it take to make the right to food an automatic right – because it is the right thing to do?

**First, it would take a decision to give it top priority** – higher than our obligations

# Worms at the Mount Nelson

Cape Town's most famous hotel has embarked on a novel way of disposing of its waste: an on-site worm farm

by MARY MURPHY

**C**APE TOWN'S MOST FAMOUS HOTEL, the Mount Nelson, has embarked on a novel way of disposing of its waste – it has established an on-site worm farm, or vermiculture, to process leftover food and other organic matter. The end-product – vermicast—is rich in nutrients and can be

used as a fertiliser and soil conditioner. The Waste- man Group, with the idea, and helped set up the farm on the hotel grounds. “Waste is a huge problem. It winds up in landfills and ends up polluting our groundwater and generating greenhouse gases responsible for climate change”.

Each day's organic waste is separated

and are completely free of parasites. They eat harmful organisms and excrete masses of beneficial organisms in their droppings, known as worm casts. They modify their environment by processing and aerating the waste, thereby preventing the decay process from turning ‘bad’ – anaerobic decomposition. This helps prevent the formation of carbon dioxide and methane, and keeps carbon and nitrogen bound in the soil in forms that are available to plants”.

Earthworms are able to convert in a matter of days what would otherwise be a putrid, foul-smelling mass of food waste into earthworm compost. Another product produced by this process is ‘worm tea’, the liquid that drains from the worm casts and makes an exceptional liquid fertiliser.

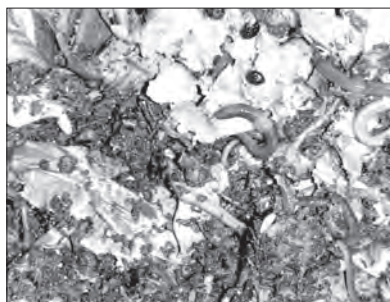
The earthworm farm is made up of a custom designed system built out of recycled crates, and is modified according to the availability of space and the amount of organic waste that is available. The waste is first audited and the system is then designed. The system includes electronic data management via sms, known as Emon.

Emon (Environmental Monitoring via SMS) is a shortcode data management system with defined parameters that allow for daily worm feeding and stocking information to be easily managed and analysed. Information is sent and acknowledged via SMS. Alerts are automatically triggered to facilitate quick response time to potential problems. Emon supports off-site farm management, reducing inefficiencies and costs.

Some home farms are already available, and Murphy and Jaques now plan to approach other hotels and schools to convince them to set up their own worm farms.

By way of a close working relationship with the Wasteman Group, Full-cycle is able to integrate their innovative environment-friendly system with other waste management solutions. In this way waste is being diverted from landfill in compliance with the Polokawne Declaration.

The Mount Nelson Hotel is making a real difference to the environment with their waste reduction systems of recycling and now worm farming. 🌱



Mary and friends at the Mount Nelson worm farm

used as a fertiliser and soil conditioner.

The worms are currently munching on 200 kilograms of scraps of breakfast buffet and high tea – 20% of the hotel's usable organic waste. Hopefully by next year, all of the hotel's organic waste will be processed this way. Already, the worms – thousands of them—have started to produce liquid fertiliser for the Pink Lady's pot plants.

The project was the idea of Mary Murphy, an environmental activist, and Roger Jaques, a botanist, environmental scientist, Landscape Architect and vermiculturist; who call their company, FullCycle.

Murphy approached the Mount Nelson via their waste service provider, the Waste-

man Group, with the idea, and helped set up the farm on the hotel grounds. The trainee worm farmer, Shaun Gibbons, then feeds the waste to the earthworms, under the guidance of Jaques.

Murphy-Roger says that, “in nature, there is no such thing as waste—the waste products from one organism provide the matter and energy for other organisms. We have ignored this basic principle in the design of our urban spaces.

“Earthworms are amazing creatures.

They are able to process their own weight in food waste every day, turning it into the finest soil conditioner. They do not harbour any bacteria or viruses harmful to humans,

# Using love, not fear, in prisons

by NMP/DR GEORGE-GABRIEL BERKOVITS

**W**E ALL KNOW about the crime statistics we have in our country. While the authorities are addressing the problem to the best of their abilities, for thousands of years or more, the emphasis has been on enforcing changes of “behaviour patterns” of criminals.

Behaviour is a symptom. The cause is belief system. We need to look at the cause, the belief system.

## How?

The first power we received at the time of Creation was Total Freedom of Spirit. The Spirit cannot be suppressed or oppressed. Together with the second power we received, Total Freedom of Choice, it means, that the individual needs to believe in something he chooses, and choose it with the freedom of his own spiritual understanding and agreement.

Not by force from an outside entity, law, rule or authority. A difference between Love Choice and Fear Choice.

So, we decided to show the prisoners another angle to look at life, including their own situation and circumstances. Without rights or wrongs. Just creating an observation what works and what does not. No judgement. Just Truth. Using Love, not Fear. IT WORKS.

There are three of us healers at this time presenting different courses for inmates: myself, Gabby and Bella. We work independently on different days, but with cooperation with each other. Each Wednesday I spend half a day giving a six-week-long “Soulhealing Seminar” to the inmates.

**The experience gained through doing this work, is simply overwhelming.**

To describe it in a nutshell, it is life’s irony, that one regains faith in humanity... in a prison. Through personal experiences, one sees another undeniable proof what those “love” teachings from all those Masters are all about and how they work to a practical, physical effect. We work with all those murderers, rapists and hi-jackers, popularly called “the dregs of humanity”.

## The coin has many sides

It is understandable, that many of the inmates initially volunteer to take part in the seminar for the simple reason of killing time. Inactivity and boredom are destructive features for a human being in prison. You encounter the cynical first glances.

This is where the “love” and open-heartedness, the being who you are comes in. If you try to put on some sort of “image”, the prisoners see right through you, their sixth sense is uncanny.

The first connection, the first session is crucial. But after the beginning 20 minutes of talking from heart, the eyes start to shine, the heads begin to nod, and more and more polite hands are raised to ask questions.

**This is the time, when we the facilitators with great humbleness really understand the meaning in the words: “We Are One”.**

The inmates’ lifelong fear based

philosophy visibly changes to that innocent childlike wonder, when a new world opens up in their Soul, even more, when they realise, that this is really the same world, but now they themselves are looking at it from a different angle.

**After being together with the men for six weeks, they recreate their outlook on life to such a degree, that it is astounding.**

At the closing ceremony, where they also receive their certificates, you are given so much Unconditional Love from all the men, that it leaves you weak at the knees and you will find, that it is very difficult to talk. There are a lot of long embraces and choked back tears. This is between men, with previous philosophy of “never show weakness”. This is the moment, when you know, that you are privileged to be able to do what you do.

There are several wardens at Leeuwkop Prison who take their part very seriously and really make a difference with their smiles, kindness and human-ness. I have not seen any negative behaviour by the wardens towards the prisoners at any time. (Of course we do not see everything just by spending a day per week at the prison) There is a relatively easy-going but respectful relationship in existence. Naturally, there is an “us-and-them” situation, a not entirely trust-







The SANCTUARY OF SOUL is a not-for-profit organisation which depends on donations to do its good work.  
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Website: [www.soulhealer.co.za](http://www.soulhealer.co.za)

ing status, but that is due to many factors. The wardens work long hours and are very short staffed.

Prison is a Dark Space by nature. To work there every day to put the bread on the table for the family, is soul destroying to describe it correctly. This fact is not only not addressed in any way, but the Correctional Services are simply not aware of its existence. I realized this within myself. Teaching the inmates fills you with elation and after each session you walk out with that warm feeling in the heart. Then I drive home, and it is then when the wheels come off.

Every single time, without exception, I am finished for the day. It is a semi-negative floating dimension where you feel detached from the rest of the world. I feel so exhausted in body-mind-spirit (especially in spirit), that I just lie down and I go to sleep for 3-4 hours at least. I never ever sleep during the day normally.

We have discussed plans, to also include the wardens in the Soulhealing Seminar and other programs. That would be the ideal and very desirable solution.

To give you another angle of “our” inmates’ advancement of caring and understanding, they themselves made suggestions to me, to include the wardens in the seminars, so they do not feel “left out” from learning all these wonderful new things what they enjoy so much. And they (the inmates) were never aware that we (the facilitators) were thinking to do just that from the beginning! Isn’t that “Love stuff” just magic?!

The prison work we do, is fully funded by ourselves.

There is a lot of work, time, money and energy we put into this project. Dealing with 20 men intensively at the time needs preparation, creation and printing of special workbooks, papers, and a lot of night work. While Correctional Services acknowledges the success and uniqueness of our efforts, they are unable to fund our work. So presently our passion alone carries the project. We would greatly appreciate sponsorship or donations from any source.

By all indication, we envisage that our project is going to expand and grow, where more healers/lightworkers will soon be needed as more prisons countrywide will want to take advantage of the success of this work. I think, we probably did more for genuine rehabilitation so far, than any official entity in history. We will also need to organise ourselves in a more practical manner, however I believe, that each individual healer needs to operate freely according to their own system, method or modality. After all, the passion and the intention to create is the driving force, not rules and regulations.

**We all know the destructive effect our country suffers from crime. We believe that we have an effective answer to solve the problem. 🌍**

# Letters of hope and thanks

A selection of unedited letters sent to George-Gabriel Berkovits by prisoners

**First of all** I would like to make use of this opportunity to thank you for your time. Thank you for coming here to Prison to teach me, and to broaden my knowledge. I would like to say that I appreciate it very much..This course really meant a lot to me. I also learnt a lot about myself. I also learn a lot about life. I learnt about other people's feelings.

To respect other people.This course equipped me how to live outside in society. How to give something back into society. Without a doubt this course definitely was, is, and will be beneficial to me. From now on my life will be lived positively.Thank you for your time and your skills and may god bless you richly.

*K.M.*

**Soulhealing is more of a life skill tool to me.** Through this programme I learnt that life is a continuous strive towards perfection and accepting challenges that it (life) presents.The seminar which was held on the 4th June 2006 was an eye opener for me, as Mr George allowed me to express my intake about religious issues. I since realised that some people embraced religion for wrong reasons, e.g. "they get into it just for being seen to be pious" even though their souls aren't yet ready for spiritual stability. Which means they happen to be destabilised spiritually but are in it, to be accepted by others.For me, I think community moves differs from one community to the other. So, the world would have been better if we all had common vision about life, which is Universal love. Over-

all, I believe Soulhealer helps me to introspect and be bold enough to say no or yes to issues that surrounds my world.

I have since embraced my immediate community (inmates) as part of my present life, as they're closer to me than outside guys. I would like the initiators of this programme to expand it and reach out to other troubled souls out there.

*S.P.*

**I am writing this letter** due to the ending of the course Soul Healing Seminar.I think that I also deserve your certificate of this course. I did attend the course to the best of my ability. Due to other obligations I had to leave the course almost at the end.My humble request to you is to please supply me with the Soul Healing Seminar Certificate which will help me a lot in prison and in my sentence.I thank you in advance.Yours sincerely Andre J.

Soul Healing Seminar means lot of things to me from where I came from. First of all I would like to thank Mr G Gabriel for his great mercy because the course changed my life completely. Though I was dubious to do this course, but now the materials of this course let my life spiritually clean as I was a person without direction all the time.

I was a sin servitude, but now my behaviour and manners are good. In addition I'm able to tell other people about the fruit of

this course. Particularly to those whose lives are out of order.The Soulhealing Seminar change my life. May God bles us all.

*T.V.*

**I've learned that each one of us is a unique individual**, with our own perceptions, feelings, attitudes and beliefs. Very interesting I've learned that God has given us the three magnificent powers which are 'Freedom of Spirit', 'Freedom of Choice' and 'Power of Creation'. We are the masters/creators of our own circumstances. Everything that we do/create we have total power to undo it.

God lives within us and we don't have to believe everything we hear or see. But have to learn to ask questions.I learned to respect others opinion – religious beliefs and that there is a big difference between religion and spirituality. You choose what to believe and what works for oneself. Our religion teaches us fear instead of love. God is love so how can we be God fearing if God is love?

Makes one think!!

As a little child I was taught many things which I can tell now , with certainty, that it was a lot of Bull. Simply because as a child you are little as a blank slate and believe everything that comes your way. Society and media works upside down and therefore teaches us fear and not love.

Today I am a different person and therefore

I choose to believe differently 'coz through my experience in life I've grown to the extent to make my own decisions based on my own This is a very good course and I recommend it to be compulsory, a must do, for all inmates and members at Larcoe, in the Correctional Institute. Together we can learn to respect other cultures, different belief systems etc. Most importantly it teaches us to see things from/ as the bigger frame/picture 'coz there is much more to it.Change is possible but it starts within.

*G.G.*

**Since attending the Soul Healing Seminar** I have come to terms that I have to take responsibility of my thinking and my well being. I now know that my belief is the most powerful energy. I can now change my mind and believe.

I never knew before that the are three total powers in life which are very important to know. The Total Freedom of Spirit, Freedom of choice and Power of creation. I can now see people from a distance and listen to them and sense that they are coming from love or fear. I am now familiar with the definition of love. I know and practice to show love by example to people not by words. I have learned that I don't have to dominate or manipulate people as this is



**“I regret committing crime, but I don’t regret being in prison cause this serves me good in so many ways. My special request is to see this kind of seminar being funded to that it can be an on-going process since lots of Inmates want to do it not for the fun part of it, but for the healing and teaching it does to us.”**

an illusion and that the Soul claims its freedom. I know the solutions for life misperceptions, ignorance and how to eliminate fear. I now have the power to change my mind and thinking thanks to the Soul Healing Seminars. I have been attending for the past weeks. My life and way of thinking have changed for the better.

*M.B.*

**I’ll like to take this opportunity** to thank all the organisers of Soulhealing Seminar and George in acknowledging me that there is nothing in the world that is superior than a mind of man. Soulhealing turns fear into freedom, denial into acceptance and anger into love. Soulhealing generates positive energy, happiness and peace. Cicero, an ancient Roman philosopher and politician, once said “gratitude is not only the greatest of virtues, but the parent of all others. Living life with gratitude leads

happiness and Spiritual development. Thanksgiving, grace and purify our heart, Sharpen our Soul and attract abundance into our life.

Given the pain and misery in the world around us, we should be deeply grateful for the suffering we have been spared. We should be thankful for little things in life because those who do not thank for little things will not thank for big things.

Ungratefulness generates negative energy, contraction and suffering. It fuels greed, jealousy and Mistrust. It creates an impoverished Mind.

Exercise and attitude of empowering yourself and say thank you for life to the universe everyday – and you will not need any other prayer. Awaken your potential, knowing that the power of Soulhealing is within you. Thanks for everything that this Course has learned me and foremost for making me a better person and allowing me a Chance to grow as a person. Thanks.

*A. D.*

#### **The Soulhealing Seminar mean a lot to me**

because it has change my life and before this course I used to think too much but now I can leave the past, and I can understand the environment that I am in now. The seminar have changed me to understand the things more clearly and I’ve learnt how thoughts emotions manifest themselves and how thoughts affects my attitudes and how my thoughts affect my belief trans-

ferred from conscious mind to subconscious mind.

How can I change my mind and belief from negative to positive creation. And how through my thoughts I can control anger and learn to forgive and be responsible for all my actions. I’ve learnt about my origin from the creation by God and accept that I am the entity of God.

What I learnt from my past experience and how I can change my life from my past experience, and how we blame other people, society and outer circumstances for our failures in life and that develops anger, anxiety, depression which to various sickness and disorders and financial pressures.

I really appreciated what the course have done for me in changing my life. Thank You to you George-Gabriel Berkovits.

*P. M.*

My life has improved a lot from what it was before. I have been treating my fellow Inmates well, and with respect as well with Warders and the reward is respect and better treatment from them. I know now my inner self and can control myself according to anger, self esteem and peer pressure.

I have also learned a lot about dignity and admiration. I look at myself as a very positive person and thank the Soulhealing course has change my life around and taught me to be honest and 100% truthful to myself. I am a person now with integrity after realizing that life becomes smoother when one applies these precepts. Now do able to handle the difficult or hard situation and how face a difficult situation.

*P. T.*

**I believe there is no man born evil** and every human being is unique in his or her own way.

Since I started to do the Soulhealing seminar I have found my true self and what I am capable of doing without any fear of being laughed at. I am able to express myself freely, be in control of my life.

From the beginning of time it was destined that at some stage I will be incarcerated and that will serve as an eye-opener in so many opportunities that life can throw at me. I never realize how special I am until I met Mr George-Gabriel who showed me all that I can be in this planet earth. Really being in prison is a blessing in disguise.

I regret committing crime but I don’t regret being in prison cause this serves me good in so many ways. My special request is to see this kind of seminar being funded to that it can be an on-going process since lots of Inmates want to do it not for the fun part of it but for the healing and teaching it does to us.

*R. N.*

I am highly being motivated by your words, they are a real inspiration. At first I thought problems are part and parcel of human nature.

The result that it is up to an individual to change his/her mind to the better decision making, thinking pure thoughts and practice every good you preach..

About ignorance: “true” there are things that must be ignored like our past failed life’s plans or whatever it may be that you failed from. But everything that brings fear to your life you have to change that situation and take away fear from yourself because we’ve never being given the spirit of power and victory.

The seminar of Soulhealing, it injected my mind with a quality mindset of solving problems of any kind.

*K. T.*

# Whale Wars and Dangerous Vegans

“Sometimes, when people do not see the path through enlightenment, you must scare the hell out of them first”.

*The Dalai Lama, speaking to the crew of the Farley Mowat.*



by RAFFAELLA DELLE DONNE

**W**HEN THE PRESIDENT of the Japan Whaling Association accused the radical environmental group, Sea Shepherd of being “dangerous vegans”, not many people knew quite how literally he meant it.

Brandished as militant activists, the crew of the *Farley Mowat* take on whale hunters armed with the infamous ‘goo gun’ that shoots rotten tofu and even, on some occasions, spoiled pie-filling courtesy of the U.S. marines. But for the volunteer crew of the Sea Shepherd’s flagship, it’s not all about fun and games trying to single-handedly sabotage the relentless slaughter of the world’s largest mammals. For almost three decades, dedicated members of the Sea Shepherd Conservation Society have risked their lives on the front-lines of environmental activism in their determination to shut down illegal whaling and sealing operations.

In January this year, the *Farley Mowat* entered South African waters to dock at Table Bay harbour and, instead of receiving a hero’s welcome, was detained by the South African Maritime Safety Authority (Samsa) after it was alleged that it did not comply with the correct safety regulations. Although the *Farley Mowat* has been registered as a yacht in Canada for the last 10 years both the South African and Canadian authorities now claim that it should be registered as a commercial boat and therefore

requires certified crew.

**But the all-volunteer team are convinced that their detention was politically motivated and that the action taken against them by Samsa was a direct result from pressure by Japan to keep the activists from returning to Antarctica.**

Amidst claims of an illegal whale meat trade between Japan and Cape Town, they believe that it is no coincidence that they were detained just two weeks after a hair-raising encounter with two Japanese whaling ships. One of which almost ended in a head on collision with the *Nisshin Maru*, a staggering 8 000 ton factory ship on which they butcher and pack harpooned whales.

After being detained for almost six months the crew of the *Farley Mowat* slipped out of Table Bay harbour under the cover of night on Friday 16th June. With them, on board was 19 year-old Gemma Kay Koyd, the second South African volunteer in the history of the organisation.

In a world where whales are hunted illegally, despite the moratorium on commercial whaling by the International Whaling Commission (IWC) since 1986, it is no surprise that the dedicated activists felt they had no choice but to hoist their pirate flag and high-tail out of Table Bay harbour. Last year alone, Japan killed over 900 minke whales and 10 endangered fin whales, while plans are in the pipeline to



## Farley Mowat?

Farley McGill Mowat (born May 12, 1921) is a conservationist and one of Canada's most widely-read authors. Many of his most popular works have been memoirs of his childhood, his war service, and his work as a naturalist. His works have been translated into 52 languages and he has sold more than 14 million copies of his books. Adding to that, a movie about his experiences with wolves, *Never Cry Wolf*, was released to widespread popularity in 1983.

The Sea Shepherd Conservation Society ship *Farley Mowat* was named in honor of him, and he frequently visits it in order to assist it on its mission.



Most commercial whaling occurs in the Southern Ocean Whale Sanctuary, an internationally recognised reserve, home to 11 out of the 13 great whales found on the planet.

But as one member of the *Farley Mowat* crew scathingly pointed out to me: “[the United Nations World Charter for Nature] it’s down on paper but it’s not worth anything.”

It occurred to me, at that moment, how ironic it is that this motley crew of passionate activists are regarded as anarchists or criminals when they are willing to risk their lives to uphold laws and treaties that no other country seems to be policing. Under the leadership of its founder Captain Watson, Sea Shepherd has employed controversial, yet effective techniques to successfully shut down seal hunts in Ireland, Scotland and England.

Paul Watson, an original founding member of Greenpeace, formed his own break-away organisation in the late 1970s out of a strong conviction that protest alone wasn’t going to save the whales. Since then, Sea Shepherd has had an uneasy relationship with Greenpeace, to say the least. I don’t think that calling Greenpeace the “Avon ladies of the environmental movement” in reference to their door-to-door fundraising helped either. Greenpeace has distanced themselves from Sea Shepherd for being too militant and violent but according to one of the *Farley Mowat*’s engineers, Dan Villa, this is the least of Watson’s concerns: “The captain says he doesn’t care what people call us, the whales and the seals are our

clients. The people that are killing all the life in the ocean are the real terrorists”.

Although the crew admit that they have no qualms about destroying property, no one has ever been harmed. If anything, their ‘we-mean-business’ tactics such as ramming whaling boats or positioning themselves as a human shield between the whales and their hunters is tempered with a healthy dash of humour.

**Apparently, the flamboyant Captain Watson is known for hoisting the ship’s Jolly Roger and blasting Wagner’s *Ride of the Valkyries* when he is getting ready to ram a whaling ship.**

They might be eco-terrorists to some but to others they are hailed as whale warriors. In fact, when the crew of the *Farley Mowat* met with the Dalai Lama he presented them with a small statue representing the spirit of compassionate wrath that is now proudly displayed on the ship’s bridge. The spiritual leader of Tibet, a committed environmentalist himself, encouraged the crew saying:

**“Sometimes when people do not see the path through enlightenment you must scare the hell out of them first”.**

It is not just the Dalai Lama that supports Sea Shepherd. Celebrity supporters include Pierce Brosnan, William Shatner and Martin Sheen.

And, as Captain Watson is fond of reminding his critics: “How can we go wrong when we’ve got James Bond and the President of the United States on our side?” 🌐

kill 50 fins and an equal number of endangered humpbacks. The IWC, an international body that regulates whaling around the world initially put the moratorium in place when it was becoming apparent that the whale population was under threat.

**However, pro-whaling countries such as Norway, Iceland and Japan exploit a loophole that allows a limited number of whales to be killed for scientific research.**

These nations have defended their actions by arguing that the only way to study and monitor the whale population is through lethal means. At the most recent meeting of the IWC on 16th June (the same day that the *Farley Mowat* slipped out the clutches of the South African authorities), representatives from different countries voted on whether to overturn the two-decade ban. Fortunately, the moratorium was upheld, but the battle was won by a mere two votes as an

increasing number of countries are lured, primarily by Japan, into the pro-whaling camp. The Japanese government insists that their generous contributions or “marine aid” to developing countries is by no means a way to win the 75% majority needed to legalise whale hunting.

However, from the outcome of this year’s IWC vote, it is clear that nations such as Nicaragua, St Kitts and Nevis and the Pacific island cluster of Palau, all of whom benefit from Japanese aid, are not prepared to bite the hand that feeds them. All voted with Japan at this year’s pow wow in favour of a return to commercial whaling.

Concerned environmentalists together with Greenpeace, Japan have spoken out against the government for using taxpayer’s money to bribe votes, especially in the face of mounting evidence that the majority of Japanese people oppose the slaughter of whales for commercial use.

# Beyond the School Wall

Could this be the catalyst for the major change that we are all so desperately seeking in our ailing education system?

by THE BIOPHILE TEAM

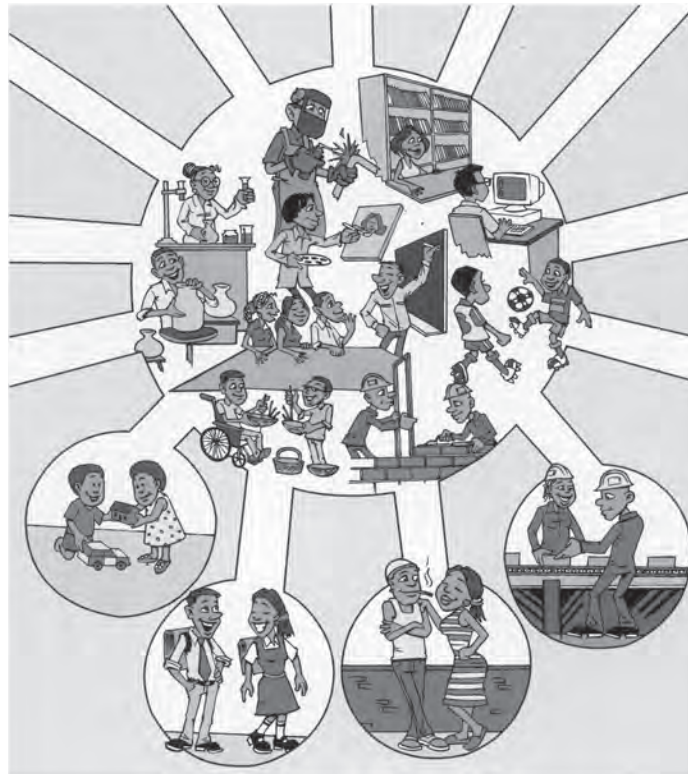
I WALKED ACROSS THE LITTLE GARDEN into the EMEP (the Extra-Mural Education Project) offices in a small house in Observatory, Cape Town, and immediately felt the buzz of the happy people working there. Their enthusiasm was tangible and the atmosphere warm and friendly.

I was greeted by Jonathan Gevisser, their director and founder, whose heart had the feeling and whose mind the range to put into being a dream of transforming schools into creative hubs of learning, art and play, and thereby feed more nourishingly the lives of thousands of school children and their families living in poor, historically disadvantaged areas of the Cape.

It started many years ago in the 70s, when Jonny was a post-graduate student in UCT's sociology department. He was living in Hout Bay and had befriended a group of poor children and their families living in a scattered informal settlement on the mountainside above. He spent time with the children, informally teaching literacy through story-telling, art and games.

With the support of Ellen Khuzwayo, a stalwart of the anti-apartheid struggle, and Betty Wolpert, a filmmaker living in exile, he started an educational film group for the squatter families, using a generator for power and a sheet as a screen, which led to craft-making and sewing groups for the women. Quite imaginable when you meet this eccentric, fun filled person, so obviously motivated by a strong desire to help children flower at each stage of their childhood, to make schools the most fertile,

## THE GOAL: The School as a Community Hub



### Direct, Safe, Local Access to Lifelong Learning, Recreation and Support Services — where people live

exploratory, creative and useful places to be, and to provide teachers with real, sustained support to shift from being 'loudspeakers for textbooks' to 'animateurs'".

Jonny and his dynamic team at EMEP have formed a unique, boundary-pushing partnership with progressive Education Department officials in three districts of the Western Cape to pilot an innovatively holistic extra-mural programme to reshape the school day so that the curriculum is not only

about 'bums on chairs, paper learning and IT' but enables a range of creative opportunities for the kids beyond the walls of the classroom, at a time when they would otherwise be on the streets, as well as for besieged teachers who don't have time for their many roles and responsibilities outside the 'traffic jam' of the classroom. Jonny says that his motto was originally about 'putting the fun back into functional' but that it's increasingly about opening up space in the very pressured school system

for 'children to be children' and teachers and parents to tap into this, and rediscover the wonder and happiness that comes from creative interaction as they play, explore, imagine, share and also, yes, contest together, and so discover and grow their humanity. As he says this, I notice a quote on the wall:

Dear Teacher:

I am a survivor of a concentration camp. My eyes saw what no person should witness: Gas chambers built by learned engineers. Infants killed by trained nurses. Women and babies shot and burned by high school and college graduates.

So, I am suspicious of education. My request is: Help your students become human. Your efforts must never produce learned monsters, skilled psychopaths, educated Eichmanns. Reading, writing, and arithmetic are important only if they serve to make our children more human.

— Author unknown; in Haim Ginnot, *Teacher and Child*.

"On a typical school day," says Jonny, "poor schools are empty before 8am in the morning, when so many arrive hungry and bullied, and after 2pm for junior schools and 2.30pm for high schools, except for those very few teachers who voluntarily give of their time to share their extra-mural passions, usually sporting plus a few arts like choir, dance, or drama. These extra-murals rarely involve more than 5 - 10% of the students, and usually only those with the most visibly developed talents. The rest pour onto the streets, or go

“The WCED considers the work of EMEP to be a major innovation and contribution towards education development and community empowerment in the province. My colleagues and I are of the opinion that EMEP will make significant impact at school, community and policy levels. We are including this project in the department’s plans, will second a key official, and are integrating EMEP’s ‘school as hub’ approach into the Human Capital Development Strategy. In doing so, the WCED is according EMEP special partnership status”.

**Ron Swartz, Head: Education, Western Cape Education Department**

home alone and unsupervised as latchkey kids, extremely vulnerable, and clear targets for abuse. But this neglected space may equally be seen as developable space: it presents a huge opportunity to us to target our efforts in a strategic and imaginative way, to the place where the largest developmental infrastructure in the land — our schools, is most neglected and yet most open to change.”

Jonny points out that throughout the developing world there are poorly managed, under-used schools, surrounded by communities in need, yet empty in the afternoons, nights, weekends and holidays, for at least three months of the year! These schools are usually the only resources in these communities.

“It doesn’t take much looking,” he says, “to see that this space can be used to transform the school system, to provide achingly-needed opportunities for our wondrous children to explore and play together, learn service, learn community, learn how to lead and how to follow, learn how to love well and fight well, and most importantly, learn that they’re okay, that they’re beautiful and strong and worthy!”

Jonny adds wryly, “It is such an unfortunate view underpinning too much educational theory and practice that education is about leading children to adulthood ... for if you look at this deeply, the ridiculous assumption is that a child is a non-adult! A strong case can be made that children are, well, children, and need to flower at each stage of childhood if they are to have the best chance of

being balanced adults. And for this, the curriculum needs to be humanised and activated, its content and pedagogy must harmonise with child development, bringing the spirit of childhood, which is discovery through play, into the foreground.

“To do this, teachers need to be exposed to a range of experiential learning, develop a wide set of skills in their pedagogical toolbox, and be supported by the system via flexible timetables and ‘small steps, small wins’ projects in high priority areas for the children, and that give an experience of success. This is what EMEP is addressing.”

#### **So who is EMEP and what exactly does it do, you may ask?**

It is a registered not-for-profit development organisation (an NPO, or NGO as they are also called), governed by a board of trustees, with a small staff of ten, almost all of them educational and community development practitioners.

EMEP aims to facilitate a national movement of schools growing extra-murally as community hubs, not only for their young learners but also after hours (nights, weekends and holidays) for youth out of school and adults (unemployed, under-employed and employed), as well as for early child development and child care. EMEP’s mantra is ‘schools as hubs of lifelong learning, recreation and support services’.

Says Jonny, “It’s not only about learning and results and standardisation, but also about service projects, *langarm* on a Saturday night, social games and crafts during weekday evenings (like EMEP’s popular soapmak-



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EMEP's phoenix is finally rising and this innovative organisation is now on its way to realising its dream of creating community hubs within the schooling system that allow the children to flourish and the teachers and parents to become part of a working, creative community.

ing programme) and about having access to support services like counselling, curative therapies, legal aid, an i-cafe ... and also critical space for community voices to be developed and heard, like what they call 'town hall' in the USA where local people meet around their needs and issues, from where they can engage with local authorities, make themselves heard, play a meaningful role. Schools are our key public resources and can be used much more imaginatively and optimally. We are restricted only by our imaginations. There are many hands willing to help."

**How does EMEP do this?**

They have three strategies. The first is demonstrating their model and keeping their own practice fresh. And here EMEP has been working for almost eight years with a small pool of four schools in Grassy Park, Lower Crossroads, Rocklands, and Nyanga.

EMEP's oldest partner in this pool, and their flagship school, is a poor but phenomenally dynamic primary school in Grassy Park called Sid G. Rule Primary. It is run by an entrepreneurial principal, Greg Vlotman.

The school has won many awards since EMEP first started working there eight years ago. They recently built their own school hall which they will use as a centre for community arts. Jonny says that EMEP can take only a small amount of credit for this, noting that all the capacity, energy, leadership, staff creativity was there, and that all that EMEP did was provide some strategy and structure and facilitation.

EMEP's second strategy is to spread the model through development training. They take on intakes of twelve schools at a time for a two year period,

training two teachers (one a senior manager) per school, as Extra-Mural Development Practitioners to facilitate their schools' extra-mural growth. The programme is provisionally accredited and is the first move to professionalise the sector. This was at the request of their donors and the provincial education department.

EMEP is midway through the pilot. The second intake of 12 schools starts in January 2007. Each intake then joins a growing network of schools. It is this network that will form the thrust of a national movement of schools growing extra-murally as community hubs.

EMEP's third strategy is to influence the environment through engaging and supporting decision-makers and inputting policy. Some of EMEP's innovative practices and proposals have already been included in government agendas, the most recent being the Western Cape's progressive Human Capital Development Strategy.

It started in 1991, when Jonny was awarded a much sought-after and highly acclaimed international fellowship from Ashoka-Innovators for the Public. This gave him three years to take forward the work begun in the 70s and 80s in black schools and then further refined over the next seven years as a language and games teacher at a more holistic Waldorf school.

Like most things ahead of their time that challenge existing systems, it is not an easy ride. After 17 years of hard work, with often more failures than successes ("Though we don't see them as failures," says Jonny, "but valuable lessons how to improve, become more awake"), EMEP's phoenix is finally rising and this innovative organisation is now on its way

to realising its dream of creating community hubs within the schooling system that allow the children to flourish and the teachers and parents to become part of a working, creative community. Sixteen schools and communities are now actively benefiting from this extra-mural programme and the numbers are growing by the year.

Their 10 year vision is ambitious and involves a national spread. This will depend on steady injections of funding and the continued partnership with government, to contribute towards training and support costs.

"This isn't easy," says Jonny. "Government's hands are full. We have to step up. They shouldn't be expected to do everything. Yes, they are the lead player on the democratic map, but only one player nevertheless. We all, civil society, business, labour, need to get gardening, let a thousand flowers bloom! There is too much policy and not enough *poli-do!*"

And his own biggest challenge? "Myself," says Jonny after a moment's pause. "We work with wonderful people and my biggest challenge is not to push, to work with their flow, somehow to do that dance between 'making things happen' and 'allowing things to happen' ... to project less, empty myself, listen more. Which means I have to work with my flow more ... which I haven't quite figured out yet!"

He says that an underlying metaphor for this work is of the ancient Chinese game of solitaire, with four quadrants of pegs in holes. However there is one open, empty space in the middle ... and it is that that allows the whole game to move, to open, release and change, and thereby ultimately to come single-point-

edly to the centre.

"We all need such open space," says Jonny. And it is our log-jammed schools, for him and his team, clearly the most important institution in society, that need this desperately. The potential extra-mural sector is just such a space, says Jonny quietly, passionately.

"It's about empowering the teachers to bring a little more space and creativity into their contacts with the children, to build their choice and voice and let them actually experience being changemakers by managing projects that interest them, have purpose for them.

"Teachers and students need to learn how to work effectively in groups, express themselves with awareness, own their own stuff, and feel okay about admitting mistakes", says Jonny. He quotes a teacher of his from India who said that "You must seek awareness as a person whose hair is on fire seeks the river."

**And the second biggest challenge?**

"Funding!", says Jonny unhesitatingly. "EMEP has been working quietly behind the scenes for many years with a very small pool of international and local donors. We now need to grow like bamboo, so our major task is now to find a few strong, developmental partners who see the gap, recognise the innovation, and are willing to invest in it and in us to make this marvellous project a reality."

All signs point to EMEP and their extra-mural project taking off. They have strong school, community and government support and a dynamic team. Hopefully corporate and philanthropic support is next.

Biophile will be watching their progress with great interest. 🌱



# ZERO WASTE COMMUNITIES

**C**OMMUNITIES AROUND THE WORLD have begun to adopt Zero Waste goals and Zero Waste Plans to implement those goals. The first community Zero Waste Plan was adopted by the Australian Capital City of Canberra in 1996.

Over half of the communities in New Zealand have adopted Zero Waste as a goal. Seattle, Washington adopted Zero Waste as a guiding principle in 1998. In California, the following communities have adopted Zero Waste goals: Del Norte County, San Francisco, San Luis Obispo County, Santa Cruz County.

Where best practices for eliminating waste, reusing and recycling discarded materials, and composting discarded organic materials are used, some businesses have diverted over 90% of their wastes from landfills.[6] Communities could adopt policies and programs to help their residents and businesses achieve similar results. If many communities adopted policies and programs to go beyond 50% waste diversion, the statewide waste diversion rate would rise significantly.

## Barriers to Zero Waste

1. Government subsidies favor wasting and extraction
2. The true costs of wasting are hidden, borne by the public and not factored into today's prices
3. Producers ignore responsibility for their products and packaging
4. Environmental and social costs of current system are not effectively addressed
5. Inertia of existing viewpoints and practices
6. Perception that land and natural resources are unlimited
7. Perception that technology will solve all problems
8. Perception that small individual efforts will have minimal impact on solving the overall problem.

## Key Policies and Programs for Zero Waste Communities

### Know Your Waste and Design It Out

1. Evaluate materials discarded according to the Urban Ore 12 Master Categories of discarded materials, determine how and where materials are discarded, and identify alternatives. Establish a monitoring and tracking database system that uses the Urban Ore categories to evaluate performance of diversion and source reduction programs by material type.
2. Design waste out of the system by holding

producers responsible for their impact. Ask product designers and marketers to consider Zero Waste to be a critical design criterion. Establish environmentally preferable purchasing guidelines to reduce resource use and cut air and water emissions.

### Adopt a Zero Waste Goal and Plan for It

3. Adopt a community-wide Zero Waste goal via resolution (see attached GRRN model) or an ordinance defining objectives and statements of policy.
4. Involve residents and businesses actively in the development of a Zero Waste Plan, including extensive education, outreach and input on the Plan's proposed policies and programs. Establish interim goals for 2010 and a target year to achieve Zero Waste goal (or darn close). Prioritize policies, incentives and programs to eliminate wasting and reduce the toxicity of discarded materials. Identify current waste elimination, reuse, recycling and composting policies and programs and select additional policies and programs from a menu of best practices around the world.
5. Work with other local governments and businesses to build useful alliances and share successes. Support state and federal policy that will enhance Zero Waste policies and programs. Support citizen actions to encourage businesses to change their policies and practices to move towards Zero Waste.

### Hold Producers Responsible

6. Hold businesses financially or physically responsible for their products and packaging manufactured and sold. For retailers, ask them to takeback products and packaging for problem materials not included in residential recycling programs, as in Ottawa, Canada. For contractors and developers, adopt requirements for LEED-certified Green Buildings, encourage adaptive reuse and deconstruction, and require recycling of construction, demolition and land-clearing debris.

### End Subsidies for Wasting

7. Adopt policies and economic incentives in Ordinances, contracts, franchises, permits, zoning, General Plans and garbage rate structures so that it is cheapest to stop discarding materials, and reusing, recycling or composting discarded materials is cheaper than land-filling or incineration.

### Build Infrastructure Beyond Recycling

8. Ask local businesses to adopt Zero Waste goals, to develop Zero Waste plans, to adhere to Zero Waste Business principles, to meet waste diversion targets, and to source materials that can be reused, recycled or composted.

9. Support existing recycling and composting businesses and nonprofit organizations and help them expand. Develop locally owned and independent infrastructure, on an open, competitive basis.

### Create Jobs and Sustainable Communities

10. Develop regional resource recovery parks to provide locations for expansion of reuse, recycling and composting businesses.

11. Fund community Zero Waste initiatives with fees levied on the transport, transfer and disposal of wastes and by leveraging the investments of the private sector. 🌍

## More about IZWA

IZWA, the Institute for Zero Waste in Africa, is a section 21 not for profit organisation and can be contacted via email at [zero.waste@iafrica.com](mailto:zero.waste@iafrica.com) or by writing to PO Box 701369, Overport 4067. IZWA is working towards a world without waste through public education and practical application of Zero Waste principles.

### IZWA's Charter Principles

1. Redesign products and methods of production to eliminate waste by mimicking natural processes and developing closed-loops
2. Convert waste to resources for the benefits of local production and the creation of a healthy and sustainable society.
3. Resist incineration and land filling in order to promote innovation in resource conservation and methods of production
4. Collaborate with others with common interests worldwide.

# Should we open up schools for parents?

The education of parents needs to go hand-in-hand with the education of their children.

by ROBIN BOOTH & TAHIRIH COOK, SYNERGY SCHOOLING [WWW.SYNERGYSCHOOLING.CO.ZA]

**T**HEY WERE ALL NODDING THEIR HEADS in agreement. Three hundred and fifty teachers, principals and educators at the International Education Conference on Integrated Human Values, India, were thinking along similar lines. They were responding to a joke I had made, "It's the parents who influence the children most. They are the ones who need supportive education. We should therefore close the school to the children and open it up for the parents instead."

Suddenly my joke no longer seemed so funny as I gazed out over this undulating sea of consensus. Suddenly my joke became a serious proposition. If parents have such a powerful impact on their children's lives then surely they too need to be part of the schooling process. So should we be focusing on opening schools for parents instead of just trying to constantly alter the structure of a school, the curriculum we provide to the children or the demands placed upon educators?

At present I don't know of any other school which has a program for parents that is more than just an add on. Many educationalist and schools acknowledge this need and have provided parents with workshops, information evenings and support in varying degrees. But these have often been optional and sporadic. Public Parent-Centres have also been developed to support parents in becoming effective parents. Public schools often use their PTA meetings as an opportunity to impart information about effective parenting to those who attend.

Generally speaking, these programs and workshops are voluntary and do not facilitate self-discovery and personal transformation. I have noticed in my own work that children tend to reflect their parent's emotional and behavioural patterns. For this reason, I feel that the education of parents needs to go hand in hand with the education of children. A sprinkling of voluntary workshops designed to impart information rather than facilitate self-discovery is inadequate.

The three hundred and fifty heads all nodding in agreement to opening up schools for parents, points to a sense of agreement

that if we support parents in their development and relationship to their children, we will see the positive changes in their children naturally and automatically. It's often not the children who need to change, but first the parents and as a consequence the children's views and behaviour patterns shift. Parenting is about taking charge of the development of their child, but who is there to support the parent in exploring this commitment and responsibility? Who is to say that schools should only focus on the education of children?

So perhaps this leads to an awareness that the educational context could be broader than just 'child-centred' or 'parent-centred'.

changed over time and schools remain a dynamic space within society. Perhaps this becomes clearer if we look back at some of the shifts which have occurred in schooling in recent times.

The industrial era brought about a rapid increase in the number of schools in our society. With both parents moving out into the work force, their children needed to go to some place safe, and to learn certain skills that would support them in obtaining employment. Much focus was placed on the curricula and content, with little regard to individual needs or the needs of human and personal development. School was a place where you needed to go to obtain information



The next step may be to see the parents-teachers-children relationship as a triadic approach with neither one being seen as more important than the other. By doing this more emphasis is placed on the relationships between these participants opposed to on a specific individual and it seems that schools are the perfect place to support this process.

**Many may argue that this is not the purpose of schooling and that schools have been created to focus on training children to become productive members of society.**

However, the purpose of schooling has

and knowledge. With the mass production of books and the introduction of the information age, this information was no longer limited to the schooling environment but readily available from libraries, books bought off the shelves and of course the Internet.

Children no longer needed to go to school to obtain all this information. As such, the curriculum has adapted slightly by placing more emphasis on learning skills opposed to the memorising of content and data. Schools began a shift from 'content-centred learning' to what may be called, 'child-centred places of learning'. The understanding behind this

is that by placing the child at the centre of the educational process, we would be able to accommodate their needs more. Children would be seen as unique individuals with specific needs and not solely a number on the educational conveyor belt.

This recent shift to “child centred” education has had a dramatic impact on contemporary education, but children are not just individuals, they are individuals-in-relation-to-others. They develop in the greater context out of their relationships to others. Their perceptions, their views, their beliefs and attitudes are formed by their interactions with other people. So if you wish to support a child in changing ineffective attitudes or perceptions they have on themselves, (most noticeable their levels of self esteem), then perhaps we need to look to the parents and teachers first as they are the ones who need to shift.

### **Using the triadic approach, how can we create a learning environment for all the teachers, the parents and their children?**

Can we explore a curriculum that looks broader than just developing the academic and personal development of the children? Can we create time and space for teachers

there is any specific recipe which can be implemented. What schools implement will depend on their understanding of what effective parenting is and the priority (i.e. time and finances) they place on supporting the parents.

Some schools may request parents spend one day a week in the schooling environment. Other schools may say once a month, or once a term. Schools may say that a certain number of the workshops on offer through the school are compulsory. Maybe parents need to read certain articles, or books, or meet once a month with other parents to debate and explore their understanding of how to develop their parenting skills.

It could include parents writing termly reports on how they see their child’s progress and development.

It could include the keeping of a reflective journal or a photographic journal.

It may be frequent conversations with the child’s teacher.

It could be a certain number of life coaching sessions that empower and support the parents in consciously creating the life they wish.

It may be a programme of activities that would support relationship building

programmes need to ensure that parents are engaged with their child’s education as well as their own personal development in a structured manner through the school.

### **At Synergy Schooling we are moving towards the implementation of such a programme for parents.**

These programmes will support the following skills, values and patterns listed below which we feel contribute to effective parenting:

- Treating others with respect (you don’t have to like them),
- being passionate,
- taking risks,
- being assertive while at all times respectful (i.e. full of respect),
- being proactive,
- owning your own stuff and stop blaming others for where you are at,
- to make others feel understood,
- being compassionate,
- being effective communicators,
- being on time,
- being committed to what you say,
- say what you mean and mean what you say,
- work towards understanding another’s understanding of the world,
- be tolerant and patient,
- have informed judgement,
- follow your dreams,
- be empowered and decisive even though you don’t feel like it,
- take full responsibility and understand that you are fully accountable, whether you want it or not,
- be sincere and authentic,
- engage and participate,
- make and handle agreements impeccably and with integrity

After my talk at the educational conference in India, I was inundated with people who thought this idea was really exciting. Many people warned to know how they could involve parents more in schools. It is important to acknowledge this is not an easy process and one that will take time, but as the three hundred and fifty nodding heads have confirmed, it is an essential change which needs to take place.

As teachers and parents we bring our own growth and development into play. We have to value educating ourselves as well in the current context of education. We are, ourselves becoming and changing, in a passionate, compassionate, and aesthetic relationship with those we are interacting with. We help make one another who we are by how we treat one another. 🌍



to develop their own sense of self, and for parents to explore their own interactions with their children? But perhaps more importantly, are we willing to take a stand that this is no longer a selective option for some parents but now becomes an integral part of the educational process for all?

Schooling as a process where parents (care givers) as well as children are enrolled in to the educational environment.

So what may an effective parent programme and curricula look like? My initial response to that question is, “What ever you wish for it to be like.” I don’t think

between child and parent. It may include workshops and assignments on effective communication, conflict resolution or the building of self esteem. It may be just the acknowledgement that by enrolling yourself as a parent in the schooling process, you are acknowledging that you play a primary role in the development of your child.

Whatever form an effective parenting programme may take, it needs to ensure that parents are able to understand that their child’s development and education cannot be separated from their own development and learning. Effective parenting

When applying Zipf's Law, our DNA appears to be a language!

**W**HERE DO WE COME FROM? Who made us? When? Why? The fact is, Homo Sapiens is the only new kid on the block. We have blessed ourselves with the name 'wise man'—in fact, Homo Sapiens Sapiens—doubly wise. We obviously think ourselves to be smart! Why then do we have so few answers regarding such questions?

Bill Bryson's book, *A Short History of Nearly Everything*, makes it very clear that we are a unique species which appeared in a narrow window of opportunity of Earth history. It's actually

filaments of DNA, (which account for our genetic make-up), why is it that this too seems to be largely useless, in fact described as 'junk'?

While the majority of our species are not overly concerned with such issues, our scientists don't like mysteries. Francis Crick, the scientist who cracked the code of DNA, found it impossible to accept that this complexity came about through 'accident'. Neither could Fred Hoyle, who developed the theory of Panspermia, to account for the origins of the DNA (which remarkably we have in common not only with mammals, but also of insects, bacteria and viruses!). This holds that meteors and comets from outer space were responsible for bringing these basic building blocks of life to Earth.

Yet answers have been provided from ancient times. The earliest civilizations left us evidence carved in stone or clay tablets, which has only been de-coded in comparatively recent times.

Christian O'Brien's book, *The Genius of the Few: Founders of the Garden of Eden*, Alan Alford's, *Gods of the Millennium*, Andrew Collins' *From the Ashes of Angels*, and South African author, Michael Tellinger's recent

# Beliefs and Reality

The origins of Man, and why what goes round comes round...

by DR ELAINE LEE

amazing  
that we are  
here!

Modern scientists have spent the last few decades unravelling some of the basic physical secrets of humanity: how the brain functions, and how our biological reality is based on the protein-building blocks encoded in our DNA.

Both areas have left us with unanswered questions: given the vast, almost infinite potential of the human brain, why is it so under-utilised? Given that each cell in our body is packed with microscopically small

(2005) *Slave Species of the Gods*, have all been attempts to illustrate with documentary evidence that early civilisations were in fact brought about by extremely sophisticated beings, Nephilim or Anunnaki, whose powers led the indigenous Homo Sapiens crediting them with being 'gods'.

Whilst such ideas initially seem bizarre (and are dismissed by many archaeologists out of hand as esoteric) it would seem that the time has come when we have to re-consider our belief systems.

It has always disturbed me that neither historians nor archaeologists have been able to provide satisfactory explanations for anomalies such as the ability of 'primitive' man to move from a 'hunter-gatherer' existence in the Ice Age, to the sophistication of building pyramids immediately thereafter!

The abilities demonstrated by the earliest

civilizations appeared dramatically. The understanding of astronomy, mathematics, building, and mining techniques demonstrated not only in 'Ancient' Egypt and Sumer, but in South America, China and Korea, are such that only in the past century have we been able to equal or surpass them. Yet in our arrogance, we assume that over the last few hundred years our technological achievements mean we are the pinnacle of human development!

In reality, we are only just beginning to regain the knowledge we had over 6,000 years ago. The *Book of Enoch* was omitted from the Bible—but it is an amazing description of Enoch's visit to "Heaven", with descriptions of technology which could have been 21st century!

The people of the ancient civilisations had few doubts as to who they were, or who had given them these 'skills'. They left us detailed explanations.

Zecharia Sitchin analysed thousands of ancient clay tablets from Sumeria, and there found amazing stories which led him to the conclusion that the early gods were physical beings, who brought us the knowledge on which civilizations were built. These accounts were published in a number of books from 1978 on.

He told the story of Enki and Enlil, and the decision of the Council to create a being, a man, who would resemble them and who "will be charged with the service of the gods, that they might have their ease" (Sitchin, *The Cosmic Code*, p.51).

At first Sitchin's work was met with derision. Yet the stories are not dissimilar to what we read in the Bible: "Let us make man in our image, in our likeness..." "The Lord God took the man and put him in the Garden of Eden to work it and take care of it..." (Genesis 1.2-6 and 2.15). In Genesis we also read about the inter-breeding between the 'sons of God and the daughters of men', (Genesis 6.1-4).

At the time of Sitchin's early work, we knew little about cloning, or about genetic modification of plants and animals, and even less of the secrets of DNA. Hence when he claimed that the "Anunnaki" cloned the initial hybrids, and manipulated our DNA, it all seemed far-fetched, 'science fiction'. Now we know that modern scientists are playing 'god' in this fashion!

After the unravelling of the human genome, it was found that only 3% of our DNA is required (coded) for the production of the physical body, and 97% was deemed to be "junk" or non-coded areas. What was its purpose?

Graham Hancock, famed for his work, *The Fingerprints of the Gods*, has recently pub-

lished *Supernatural*, (Century, 2005). Subtitled 'Meetings with the Ancient Teachers of Mankind', it is an attempt to explain the 'greatest riddle in human history'—how all the skills and qualities of modern man appeared fully formed, "as though bestowed on us by hidden powers".

From the Palaeolithic cave paintings of Europe, to the visionary experiences of shamans and the founders of early religions, he takes us on a journey of discovery. Hancock points out that one of the most significant aspects connected with DNA, is a strange even mysterious link with the linguistic codes of language. This is a ratio, documented by linguist George Zipf, between the most commonly to least commonly used words. It is common to all languages.

Researchers from Boston University and Harvard Medical School examined the DNA sequencing and amongst other things applied the standard linguistic tests to both "coded" (i.e. the basic protein-building blocks that make up our physical being) and "non-coded" areas (the 'junk').

The amazing outcome was that the Zipf law did NOT apply to the coded areas, but DID apply to the "junk" areas! (Hancock, 484-5).

Our amazing DNA would appear to be a language! But one that we have not yet apparently learnt. Or have we?

It is some years now since the advent of neuro-linguistic programming, NLP, which is based on the premise that our words act as a programme to our brain. Long ago Henry Ford said, "Whether a man says he can, or he can't, either way he's right".

This relates to the biblical text: "As a Man thinketh in his Heart, So is He". We become what we believe, and a belief in limits creates limited people.

This is borne out by work done on brain biochemistry, which demonstrates that negative or fear-based thoughts stimulate the production of adrenaline and cortisol. Cortisol is a known neural-inhibitor—that is, it blocks the transmission of neurotransmitters from one brain cell to another in the neo-cortex.

Our thoughts are both chemical and electrical, and that energy not only influences us at a cellular level, but it radiates out from us to others. Like attracts like—send out waves of negative energy, and it returns. This provides us with an explanation for that other Biblical tenet, "Man attracts that which he fears".

**Be careful what you wish for, you might just get it.**

We have been governed by our fears; it is time to eliminate these, and accept our inner power.

A very graphic illustration of this has been provided by the work of Japanese scientist Dr Masaru Emoto (see page 13 for news about Dr Emoto's visit to South Africa later this year). He has worked with photographing crystals formed in freezing water. His initial experiments showed that water from a negative environment reacted completely differently to water from temples and other positive places.

The former molecules were misshapen blobs, the latter formed exquisite and unique snowflake-like patterns. His amazing work in subsequent books went further: water placed in containers labelled with positive words similarly resulted in crystals, while that in containers with negative sentiments—I hate you!—resulted in formless, dark shapes (*The Hidden Messages in Water*).

What are the consequences for us as emotional human beings? We are largely made up of water, and if hate thoughts influence our very basic physical being, we



**Enki as portrayed on an ancient Sumerian cylinder seal.** Enki, the Sumerian high god of water, intellect and creation, was the source of all secret knowledge of life and immortality. Enki possessed the secret of culture and civilization and created order in the cosmos.

should avoid them! I have tried this with my own students. When someone appears disturbed or angry, I gave them paper cylinders inscribed with the words, Love, Peace, Harmony—and watch the change!

If our expectations are negative, and our words reinforce these, we are contributing to the negative world we live in, governed by fears. Do we want this? If we can accept that we do indeed create our own reality in the sense described in the foregoing, then the challenge is to create the world you want—There's a lot to be said for positive thinking! 🌍

# Controlling garden pests with their natural enemies and diseases

Garden pests and their natural enemies co-exist in balanced populations in well-managed organic gardens. All you have to do is sit back and let them get on with life, and you won't have a problem with losing your crops to the 'bad guys'.

by PAT FEATHERSTONE

***"Nearly half of all the food produced in the world today is lost to insects despite the fact that the use of pesticides has increased so dramatically. In 1945, when pesticide use was very low in the USA, maize crop losses were around 3.5%. In the late 1990's, with one thousand times more pesticides being used, crop losses were estimated at 12.5%."*** (Pimentel, 1995)

**P**ROGRESS HAS NOT BEEN MADE in the war against insects because they are developing immunities to pesticides, and because the natural predators and parasites are being destroyed along with them. So when you see some bugs in your veggie patch and you spray them with poison, it backfires on you. In a few days, or a few weeks, the same kind of bug is back again but, this time, there are more of them than before. Why does this happen?

You accidentally killed off the pest's natural enemies along with the pest. It is not always possible to kill off all the pests, apart from which you didn't spray the neighbourhood gardens that may harbour them, and so without any natural predators or parasites to hold them in check, those that didn't die, or those that flew in from elsewhere, are able to multiply without restriction.

Natural enemies do not usually reappear as quickly as the pest, and some insecticides are more toxic to predators and parasites than to the pests. At the same time, resistance to the poison sprays is developed. Individual insects have different levels of resistance to the sprays. Every time you spray an insect population, you change the balance between susceptible and resistant individuals. The resistant individuals survive and reproduce; most of the susceptible ones die. So it follows that the more pesticide you use to control the seeming problem, the faster

you produce a population of resistant pests, and the faster you lose your entire crop.

There is some good news though. Convert your gardening methods to an organic approach and at least two-thirds of your pest problems disappear. Don't be tempted to think "What can I use instead...? What if ...?" This is the wrong approach. Rather think along the lines of avoiding pest problems by managing your gardening correctly. This is about good gardening practices like building healthy soil, planting mixed crops, following crop rotations and seasonal plantings, companion planting, using resistant varieties, creating physical barriers and/or traps and creating habitats for frogs, lizards and birds. Many ideas have been given in previous issues of this magazine.

Allow your garden to take control of itself, and populations of natural enemies will re-establish themselves. Pest problems will become history.

### What are natural enemies?

There are three types of natural enemies:

• **Predators which eat insects.** Predators include spiders, ladybirds (watch out for the imposter ladybirds that have turned vegetarian and attack potatoes, beetroot, spinach and members of the pumpkin family), and wasps, praying mantids, lacewings and dragonflies.

Each predator can eat hundreds, even thousands, of insects in a lifetime. Some, like spiders, have been shown by DNA-based techniques which analyse their stomach contents, eat a wide variety of insects. For example, Money spiders (Lynxyidae) are prized by farmers in the UK for their voracious appetite for aphids. But aphids have little nutritional value and spiders need to eat other insects to balance their diet. Predatory insects (and arachnids) do not damage crops.

• **Parasites.** Most of these are insects that lay their eggs inside the body of a living insect called a host. The parasite feeds on its host until it finally kills it. Then the adult parasite emerges from the dead host and searches for more insects to lay its eggs in. Using parasites is a slower way to kill pests but it is effective. There are many examples of insect parasites in your own (unsprayed) garden. Take the time to find some of them.

• **Diseases carried by viruses and fungi can infect insects and kill them.** Because the disease is carried among the insect pests in your garden, whole populations can be wiped out quickly. For example, when caterpillars are a problem you can use a Bt spray which contains *Bacillus thuringiensis*, a soil-borne bacterium harmless to human beings and animals. The Bt bacterium produces a toxin which when ingested, causes the caterpillars to stop feeding, become ill and die. It is lethal to a variety of insects, particularly the larval forms of moths and butterflies and is quoted as being about 90% effective.

The Cabbage White butterfly (*Pieris brassicae*) is a common site in the vegetable garden and illustrates a number of examples of biological control in action. This species was accidentally introduced to the Western Cape from Europe (first sightings were reported in 1994) and it has since become a significant pest, particularly to small-scale farmers and home gardeners. Its green, black and yellow larvae cause a lot of damage to the mustard family (Cruciferae), particularly cabbage, broccoli, cauliflower and rocket, and also to nasturtiums. Interestingly its preferred local food plants are also introduced species.

The butterfly tolerates both hot and cold weather, seems unperturbed by the raging south-easters and broods continually through the year, laying up to 125 eggs at a time. Populations surge in the cold months. It has the potential to become a serious pest.

Mother Nature, left to her own devices, has deftly stepped in with a few nifty solutions for its extermination, at best, or to keep its population in check:

- **Argentine ants** – aggressive aliens – have been observed to feed on, and carry away, the first instar (newly hatched) larvae; one way to curb population growth.

- **Two species of Tachinid fly larvae** have been recorded as parasitising the Cabbage White caterpillars. The adult looks like a small hairy housefly and survives on the nectar of flowers, but the larvae live as parasites on other insects. They do this in one of two ways. Small, white, oval eggs are laid on the

gut wall and proceed to feed, leaving the poor victim's vitals to the end. In order to get the air they require, they pierce the body wall of the host and send their own breathing tubes to the surface or connect directly to the respiratory apparatus of the caterpillar.

- **If you have a vegetable patch** you may have noticed butterfly pupae attached to the wall of your house. Periodically you'll have the joy of watching the crumpled adult emerge, blow up its wings and take off into the garden. Often however, these cocoons remain intact; nothing ever comes out of them. That is a sign that Nature is at work or, should I say, that wasps – 'ecowarriors' in the caterpillar war – are doing their job.

the wasp grubs are ready to pupate and then they start nibbling at the brain. This brings about changes in the caterpillar's behaviour and it leaves the food plant and migrates up any vertical surface in the vicinity, in a premature attempt to pupate. The wasp grubs finally kills the ailing caterpillar, and emerge to spin tiny cocoons covered in a golden nets which will protect the pupating wasp larvae from attack by other parasites. Clusters of these cocoons can often be seen on vertical structures in and around your garden and home. You would have to be very observant to notice the little black wasps that emerge from them to continue their life cycle.

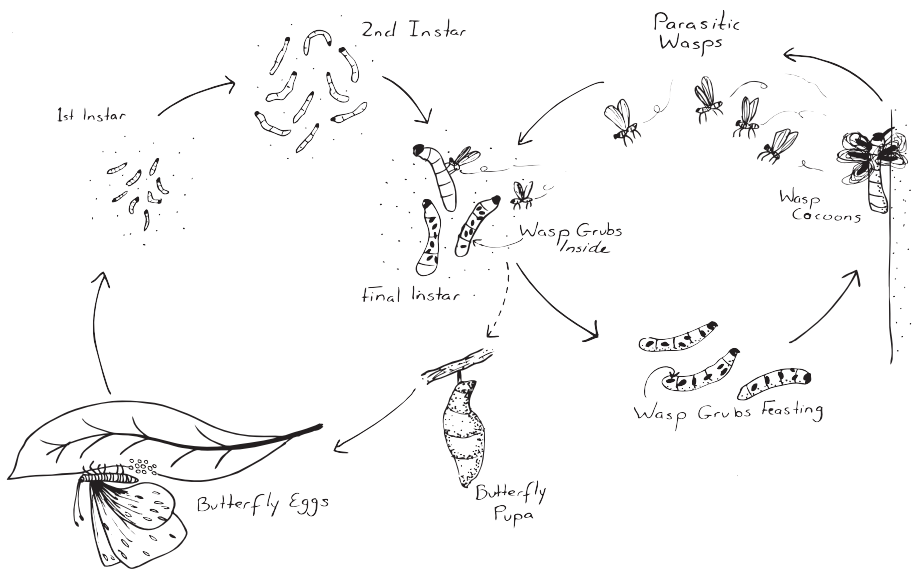
Unfortunately, as was mentioned earlier, populations of the Cabbage White butterfly increase quite dramatically in autumn and winter because the wasps do not tolerate the cold quite as well, and their activity levels are reduced. As the saying goes, 'when the cats are away, the mice do play'.

So successful are these techniques that Ma Nature has up her sleeve that some of these insect warriors are being shipped around the world. Overseas you can buy them from mail order catalogues, and fly them into your own garden, orchard, small holding or farm; ladybirds, lacewings, wasps, praying mantid egg cases – they're all in demand. A cup or two of ladybirds would be enough for the average garden, and give them a balanced diet too, as they feast on a huge variety of adult insects and larvae. Lacewing larvae have an insatiable appetite and can consume a few hundred aphids every two hours. Who needs poisons with allies like these?

Encourage the natural enemies to your garden by growing many different food crops and herbs and by keeping trees and shrubs and flowers growing around the boundaries.

Apply organic fertilisers and loads of compost instead of nitrogen fertilisers. Experiment with different natural sprays and repellent crops.

The important thing is that you try different techniques and find the best ones for your situation. In the end you will discover the best programme for managing any problems that arise in you garden. 🌱



outside of a caterpillar of another species. The eggs hatch into tiny maggots which bore into the living victims and devour them – first the body juices, then the fat, and finally the vital organs. The victim succumbs, and eventually only one brawny, hairy adult tachinid emerges. The other maggots were out-competed. Other tachinids lay lots of tiny eggs on the surface of food plants and these are swallowed by grazing caterpillars.

The emerging maggots bore through the

Cabbage White populations are checked by a tiny, indigenous, parasitic wasp, *Pteromalus puparum*. The female wasp lays her eggs in the body of the final larval stage of the caterpillars and the her grubs feast on the tissues of the host. They follow the same pattern of consumption as the Tachinid maggots – it would be unwise to kill the host before the grubs are fully developed – and attack the nervous system last of all. The caterpillar remains alive, and fresh, until just before

## To all who must eat to live, there is hope: **GROW YOUR OWN FOOD**

It's the simplest (and cheapest) way to good health. Soil For Life is a Cape Town-based NGO which teaches people to grow their own organic food. Soil For Life membership costs very little and entitles you to access to fresh, low cost seed (R2.50 a packet), access to the Resource Centre, a telephone advice service, a quarterly newsletter and an opportunity to help others to help themselves. Become a part of the food-growing culture in South Africa. **Soil For Life membership forms can be obtained by phoning Pat or Moira on 021 794 4982 during office hours.**

# Ancient Ways

Rodney and Margaret Crisford opened Ancient Ways, a new age shop in 2001. To meet the need in the area for a shop that catered for the people who required goods associated with being able to live in harmony with the environment, i.e. Nature based religions, Alternative healing etc. The shop is a virtual Aladdin's cave, carrying a wide selection of books, CDs, crystals and stones, essential oils along with magical and Shamanic items. Many of the items are hand crafted by local artists and their selves such as the wands, witches brooms, Shamanic drums, Native American style ceremonial pipes, pipe bags,

crane bags, tarot bags, dream catchers, medicine shields, dragon sculptures, and smudge Stix. Most of the material for these items is gathered locally, and great care is taken with the collection of all materials so that it has a negative affect on the environment. The love and reverence put in to these unique items can be seen in the end results and are only available from Ancient ways. Rodney and Margaret are both practicing Wiccans and Rodney has an associate degree in Conservation studies and a diploma in game ranch management, so that they are able to offer help and advise to enable people to

live in harmony with their environment.

**Ancient Ways' specialty is spirituality orientated toward nature, Goddess and Pagan heritage, Earth-centered religions, embracing our past, celebrating our spirit, restoring our world, and creating our future.**

Their shop can be found in the Ou-Fabriek corner of Main and Grey Streets, Knysna.

**Contacts:** Tel. 044-532-7571. Cell. 082-552-7187  
ancientways@absamail.co.za  
www.ancientways.co.za



## ANCIENT WAYS

**New Age Shop. Nature Based Religions. Alternative Healing, Books, Crystals, Stones, Essential Oils, Magical and Shamanic Items.**

Email: [ancientways@absamail.co.za](mailto:ancientways@absamail.co.za)  
[www.ancientways.co.za](http://www.ancientways.co.za)

Tel: 044 532 7571 Cell: 082 552 7187

### YOU DETERMINE YOUR ATTITUDE

Your attitude is not determined by circumstances, but by how you respond to your circumstances. You can respond positively or negatively to any situation. It's how you react to events, not the events themselves, that determines your attitude. Any challenge facing you is not as important as your attitude towards it, for that will determine your success or failure. Things turn out best for the people who make the best of the way things turn out. It's not your *position* but your *disposition* that counts.



# Anastasia

## and the Ringing Cedars of Russia

### Restoring mankind to a state of grace

*Anastasia* and subsequent volumes tell the story of a return of mankind to a state of grace through love, actualizing real love to everything around us and keeping our thoughts, hearts, minds in the place of love, touching with love the earth and celebrating the God's creation through loving it and caring for it.

I think the most important lesson for us is to move back to the work of the Creator and away from ways which destroy it. That is what I take from the Series and find myself inspired to work harder and being joyous, thankful and loving.

In my own life, our family works toward goals that aren't measured in dollars, which is a much richer life than working

for material wealth. We have a certified organic and wild crops farm, so I am very receptive to the medicines of the earth and see the importance of people interacting in a healing way with God's Creation - the earth.

In a very humble way, our work with native plants on our farm could be seen as demonstration of a way people can take some of the Ringing Cedars ideas and put them to work.

I think if people find a larger purpose for their lives than collecting material goods, everyone will be happier rediscovering the scope of humanity's tools from the Creator. The Ringing Cedars books help with explain-



ing ways to have a richer life, raise healthier children, filling one's heart rather than one's pockets. If we don't discover new ways of being human beings and put them to work, if we don't have a spirit rich enough to live with love and respect for God's creations, we have no future.

PENNY FRAZIER 🌿



# Creating our reality

Accepting our role as Conscious Creators

by ZANNA SCHILBACH

“These are the times, we are the people” *Jean Houston*

Judaism and Christianity promise a time when the covenant with death will be broken. Yet it is always for the people of future generations, never here and now.

Well, there are those of us who feel that we are this “future” generation.

To accept our role as Conscious Creators, we need to first and foremost come out of denial, and accept responsibility for the situation we live in, personally and globally.

All the dangers that we are exposed to – from the possibility of mass nuclear extinction, to global warming, climate and Earth changes (to mention only a few), are no accidents of nature or God’s will. They have been created by us, or our “44th cousin” (as apparently no one on the Planet is further away from us than our 44th cousin).

Taking responsibility is not about blame, condemnation or punishment.

Taking responsibility gives us back our power, first to clean up the “mess”, then to intend and create the present to enjoy, and the future to look forward to.

The passion to awaken to this cannot come if we believe that we only have power to attain certain things, yet have no power or say in the matters of life and death.

**“All healing is temporary, until we heal death”**

*Leonard Orr*

So it does not make sense to believe that we create our reality ( the job, the partner, the house, the money, the health, longevity, etc), yet have no say in grand matters – like the destiny of our Physical Form ( our Body) or the future of this Earth.

The next step in taking responsibility is to heal ourselves.



Insecurity and doubt (about who we are), “not good enough, not enough, life is a struggle, death is inevitable” beliefs, and other childhood and genetic traumas need to be transmuted, integrated, healed, and the ignorance forgiven. It is of course not a “simplistic task”, yet there is no way around it.

Besides, these “hidden wounds” are the core problems of addictions and abuse of ourselves, one another and this Earth.

Thirdly, we need to start living in the Now, with the awareness of Who We Are (made in) “The Image and Likeness of our Creator”.

“One of the great advantages of immortality is that it will finally allow us (or force us) to tackle the truly long-term problems that we face today (environmental, overpopulation; to name only a few), rather than passing them on to future generations.

“Why worry about global warming if it’s not going to have any real impact until after I’m dead and gone? “ , kind of attitude) .

**“Immortality will bring not only wisdom, but responsibility. The human race will end its adolescence and attain true adulthood at last” *Dr. Ben Bova* 🌐**

# Our deepest fear

by MARIANNE WILLIAMSON

Our deepest fear is not that we are inadequate.

Our deepest fear is that we are powerful beyond measure.

It is our light, not our darkness That most frightens us.

We ask ourselves  
Who am I to be brilliant,  
gorgeous, talented, fabulous?

Actually, who are you not to be?  
You are a child of God.

Your playing small  
Does not serve the world.

There’s nothing enlightened  
about shrinking  
So that other people won’t feel  
insecure around you.

We are all meant to shine,  
As children do.

We were born to make manifest  
The glory of God that is within  
us.

It’s not just in some of us;  
It’s in everyone.

And as we let our own light  
shine,  
We unconsciously give other  
people permission to do the  
same.

As we’re liberated from our own  
fear,  
Our presence automatically  
liberates others.

# Observe the Ego

“Men are disturbed, not by things that happen, but by their opinions of things that happen.”



**T**HE NEW MOON IN LEO at the end of July sees August in with a strong emphasis on Ego identification. If you know who you are, where you are going, and who is going with you, you can stand firm in this time of turmoil. This is a time of reaping rewards for past effort and special rewards where you are prepared to take age appropriate, and socially relevant, responsibility. Anyone who relies on ego recognition and approval from others, could find life quite difficult, for nothing is more easily dissolved than a fragile ego.

If you are caught up in the illusion of wishing or hoping things were different, or caught up in fantasy or pretence, rather than reality, then you may have an enforced reality check. The mask may have to come off. It is often harder to face yourself than facing those around you. During this phase of waxing moon, as she approaches fullness, spend some time to question, “Who am I? Where am I going? And who is going with me?”

**The key to unearthing the answers lies in being brutally honest,** and to excavate the layers, until you know for sure what is true and real — for you. Most importantly, to thine own self be true. This process does not have to take a lifetime, and you can have some fun along the way.

**De-clutter your living space, learn something new, go on an adventure, do something you said you never would, feel the fear and do it anyway.** Do anything (legal) that feels right, just for the pure pleasure. As you excavate the authentic self, don't measure yourself against, or be affected by, the opinions of others. More importantly, don't judge yourself or the outcome. Enjoy the journey while discovering who you are.

When the moon reaches fullness on the 9th August it heralds an energy that is reminiscent of the story of the three little pigs who are challenged by the huffing, puffing, big, bad wolf. Metaphorically speaking, in terms of your value system, have you built your house from straw or bricks? All may not be what it appears at this time. There is a sense of confusion, deception, and chaos.

This is Neptune's domain. Water, oil, and drugs can be issues of domestic and global proportions. Mars, who was sitting of the wall earlier, is now teamed up with the

rebellious and disruptive Uranus, and by the next new moon, will be in full battle gear. These can feel like turbulent times, life can be unpredictable, expectations can fall short, it is beneficial if you can find your personal centre.

## Cosmic card game

The Virgo new moon on the 23rd of August continues the theme of dissolving, together with the stirrings of the warrior energy. There is a planetary alignment that is like a cosmic card game. Saturn is playing a hand that restricts other players, Jupiter raises the stakes, he is after all comfortable taking a gamble, and Neptune, who is a master at dissolving things, sits opposite, bluffing. Pluto and Mars are being antagonistic. There is tension round the table.

**So how can we best work with these cosmic partners? Pick your battles carefully, wherever possible, don't sweat the small stuff.** Pluto, who was holding back, is now moving forward with full throttle and in challenging aspect to mars, stirring unconscious and often irrational anger. Don't issue ultimatums, look where you can compromise. Dealing with anger constructively can be an effective and driving force that instigates and motivates, getting things done. There is support for those who work with a spirit of co-operation, who face fears and restrictions with courage, and take personal responsibility. It is important to understand the bigger picture and not get locked into detail. Speak your truth in a responsible manner. Embrace a spirit of moderation and keep expectations in check.

**We can benefit from this time of earthy Virgo by making a connection between the body and the mind.** This is an excellent time to detox the body, look at your health and fitness regime, Look at, admit to, and face addictions. Embrace the spring equinox as a time of renewal and regeneration. Most importantly, remove the rose coloured spectacles. While some apparently chaotic conditions prevail, it may be difficult to keep order, internal peace cannot be affected by external events. One would be well advised to surrender, rather than loose, control.

The Pisces full moon on the evening of 7th September is a partial lunar eclipse, as

well as being stressed by the unpredictable Uranus. If you can't change and let go, at least be flexible. This is followed two weeks later by a solar eclipse on the 22nd. Both these eclipses carry strong Virgo/Pisces energies.

**Eclipses in an earth sign are said to rattle foundations of the business and agricultural world.** If we relate all the planetary energies that we have discussed here, to a global level, then we have to take into account, that which represents universal values, gold, money, and oil, will also be affected. This is a time when things come to a head. Conditions will be especially difficult under the darkness of the new moon when the sun is weakened by the eclipse.

Jupiter and Saturn, the 2 planets that are often associated with events in the middle east, and a third planet Chiron, which carries the archetype of the wounded healer, are involved are in a challenging position. It is apparent that the eye for and eye behaviour is being played out. This particular pattern is clearly active until October.

It would serves us well to consider the words of the Greek Philosopher Epictetus (55-135): “Men are disturbed, not by things that happen, but by their opinions of things that happen.” 🌍

Bernadette Medder of Cosmic Directions  
Consultant and Teacher since 1993  
021 794 4150 or cosmicdirections@icon.co.za



# Ask Anrita

Questions? Send them to [anrita@biophile.co.za](mailto:anrita@biophile.co.za)

Dear Anrita

Thank you for your article on the interlife, which was really interesting. A question came to mind while reading this on Soul retrieval or Soul fragmentation – I understand the when we experience a loss or trauma of some kind, often a piece of our Soul fragments, and this affects us in our daily lives. I experienced the loss of my partner some years back and have not felt quite right since this time – it was a traumatic event in which he died in a car accident very suddenly, and I experienced not only a deep loss and emptiness following this, but was in shock for a very long time.

Anita M.

Soul fragmentation occurs to all of us and forms an energetic matrix around the energy field that we bring with us into each lifetime.

So, often we continue to play out old contracts and negative patterns with family and friends, as this forms the basis of these karmic contracts. Usually too at these times of perceived trauma, we may also have made old Soul contracts of survival and we often perpetuate these patterns of survival in each lifetime, so it is important that we bring back these pieces of our Soul that have left and fragmented as they have been unable to deal with the incredible loss or pain experienced at specific times.

If we do not bring back these fragmented Soul pieces, we will never truly be grounded and in the Now, and will often find ourselves avoiding perceived confrontation or feel unable to deal with many of life's perceived challenges as they will keep coming up for us until we change our patterns and false beliefs.

And further to this, the loss of Soul pieces can also cause us to feel depressed or experience a lack of joy or Love and so on, in our lives. Sometimes this Soul fragmentation can occur early in life, particularly if there was abuse as a child, whether physical, emotional, sexual and so on. Unable to deal with this trauma, the Soul fragments and the child escapes his or her body, so to speak.

I have included a meditation for bringing back the Soul fragments from this and other realities using the seven main chakras in the body and the Overlighting of the seven main Archangels.

Get yourself into a comfortable and relaxed space. Now call upon Archangels Gabriel and Hope, Keepers of purity, joy, hope and discipline so you may fully embody these qualities. Archangels Gabriel and Hope now reach out and touch the base of your spine, your base chakra, and as they do, you experience a lifting of any

dark energy that fills this particular area. You see this base chakra area fill with Light and Love in a beautiful white ray, the symbolic color of Archangels Gabriel and Hope.

You see a beautiful white ray fill this area as your base chakra now starts to spin with your Love and the Love of the Archangels and Angels. Now ask that your fragmented Soul piece that is missing from your base chakra and did not want to belong come and join you. You are willing to Love this Soul piece and you let your Soul piece know that it is now in a loving and nurturing environment. Feel your fragmented Soul piece enter into your base chakra and in these high frequencies of Love and Light, in these qualities of purity, joy, hope and discipline, your Soul piece becomes whole again. It has finally come home in the white ray of Archangels Gabriel and Hope.

Now focus on your sacral chakra, which is two to three inches below the navel. Feel the wonderful violet ray of Archangels Zadkiel and Amethyst enter into the sacral centre.

Archangels Zadkiel and Amethyst bring with them the qualities of freedom, compassion and forgiveness and you allow yourself to experience your compassion and your forgiveness. You feel an exquisite sense of lightness in your sacral centre as you allow yourself to release all negative belief systems or judgements from your sacral centre. You transmute all these lower energies into frequencies of Love and Light through the violet ray of Archangels Zadkiel and Amethyst, as you bring in the qualities of freedom, compassion, and forgiveness. You fill your sacral centre with Self Love and the Love of all the Archangels and Angels.

Ask that your fragmented Soul piece that is missing from your sacral chakra join you now. Tell your Soul piece that it is now safe and protected, that you will Love and cherish this Soul piece, this part of you that so desperately needs your Love, your Light. Your Soul piece that is missing from your sacral centre now joins you as you breathe deeply into this violet color and as you become the qualities of freedom, compassion and forgiveness. Welcome your Soul piece back to its rightful home in these wonderful qualities and frequencies of Love and Light.

Now you move up to the heart centre and focus on opening your heart centre to Love. Archangels Chamuel and Charity now activate this heart area with a wonderful pink ray and bring with them the qualities of Love, creativity and beauty. You welcome these wonderful qualities and this powerful feeling of Love as you open your heart in these frequencies of Love. Release all negative feelings of Self-loathing or non-acceptance that you might hold in your heart centre. You experience your richness, you feel your Love for yourself, your friends and family and finally for this entire planet. You feel a universal sense of Love.

As you bask in this beautiful Light and newfound Love, ask that your Soul piece that is missing from this area join you now in this communion of Love. Breathe deeply into the rich pink colour as you see your Soul piece enter into your heart centre as you open your heart centre in Love and to the magic of the Archangels and Angels and all of life around you. Allow yourself

to be filled with Love, creativity and beauty for all of Life and for yourself.

You now move up to the throat chakra as Archangels Michael and Faith activate this point for you. Archangels Michael and Faith bring with them the qualities of power, faith and protection through a beautiful sky blue ray. You feel your vocal vitality and the knowledge that allows you to express yourself freely in Divine truth, for Archangels Michael and Faith bring with them the qualities of power, faith and protection.

Allow yourself to fully release all negativity that is harbored in this area. Now call out to your Soul piece that is missing from this area to come and join you, to experience your Higher Light, your Divine expression and Love through the qualities of power, faith and protection. You see or feel your fragmented Soul piece, the part belonging to these experiences, come back to you as you breathe in this beautiful sky blue ray. You embrace this part of your Soul that is rejoicing in this reunion with you as this wonderful Higher Light.

Now bring your attention to your third eye where you feel the light, soft and warm touch of Archangels Raphael and Mother Mary as they bring in a rich green ray. Archangels Raphael and Mother Mary bring with them the qualities of truth, abundance and healing and you feel these qualities moving through your third eye, becoming part of you.

Allow yourself to release all patterns and perceptions held in your third eye that no longer hold true for you as you now vibrate at a higher frequency.

Finally, bring your attention to your crown chakra at the top of your head. Archangels Jophiel and Constance activate this point and as they do they bring in a beautiful yellow ray and the qualities of wisdom, insight and understanding. The last part of your fragmented Soul that is missing now enters through your crown chakra on this beautiful yellow ray to become this Higher Light, to become part of you in your wisdom, insight and understanding.

You are feeling much more complete, much more whole now. You have brought your Soul fragments entirely back into your being and you now feel all parts of your Soul, all parts of yourself. You feel your Soul stir deep within your Soul Matrix, deep within your heart centre, as you open your heart centre to this wonderful feeling of Love. Welcome each part of your Soul that has come back to be with you as your Higher Light, in the frequencies of Love and Light. 🌟



Anrita Melchizedek is a channel, author, healer, Light essence producer and international Spiritual facilitator, working with nature intelligence and the Company of Heaven.

She has appeared on Free Spirit, as well as in numerous print publications, such as Namaste

and Renaissance magazines. Anrita has a private healing practice in Cape Town, offering readings and Spiritual counselling.

For more info on Anrita or her ascension network, please visit her web site: [www.pleiadianlight.net](http://www.pleiadianlight.net)

# Connect up — get active!

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Members of the public and any interested and affected persons may report any contraventions of environmental legislation or permits, including the dumping, burying or burning of any kind of waste; any soil or air pollution; the acquisition, sale, storage, transport and spillage of hazardous chemical waste as well as any unauthorized development by contacting the Department of the Environment and Tourism on the following toll-free number:

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Email: [beautywc@netactive.co.za](mailto:beautywc@netactive.co.za)

### **Compassion In World Farming (South Africa)**

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Website: [www.animal-voice.org](http://www.animal-voice.org)

### **PETA**

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### **WWF**

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Web: [www.ejnf.org.za](http://www.ejnf.org.za)

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Email: [team@groundwork.org.za](mailto:team@groundwork.org.za)

Tel: 033 342 5662

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Web: [www.earthlife.org.za](http://www.earthlife.org.za)

### **Cape Town:**

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Web: [www.earthlife-ct.org.za](http://www.earthlife-ct.org.za)

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Web: [www.earthlife.org.za](http://www.earthlife.org.za)

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Minister: Marthinus van Schalkwyk

Minister's spokesperson: Riaan Aucamp

Pretoria telephone: (012) 310-3611

Cape Town telephone: (021) 465-7240

E-mail: [raucamp@deat.gov.za](mailto:raucamp@deat.gov.za)

Web: [www.environment.gov.za](http://www.environment.gov.za)

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Private Secretary: Ms Nonzame Sodlala

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Director-General: Adv Sandile Nogxina

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### **Dept. of Public Enterprises**

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Web: [www.dpe.gov.za](http://www.dpe.gov.za)

### **Finance Minister**

Trevor Manuel

PO Box 29, Cape Town 8001

Tel: 021 464 6102

[tipsfortrevor@treasury.gov.za](mailto:tipsfortrevor@treasury.gov.za)

Secretary's email:

[patti.smith@treasury.gov.za](mailto:patti.smith@treasury.gov.za)

Web: [www.finance.gov.za](http://www.finance.gov.za)

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### **The Enviropaedia**

Web: [www.enviropaedia.com](http://www.enviropaedia.com)

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### **Hellkom**

Web: [www.hellkom.co.za](http://www.hellkom.co.za)

### **MyADSL Forum**

Web: [www.myadsl.co.za](http://www.myadsl.co.za)

# Leila's Permaculture Estate

**D**ID YOU KNOW that a carrot that you buy at your local supermarket provides your body with ten times LESS energy than it took to get that carrot there.

The amount of pesticides, insecticides, transport, labour etc used in the production of one carrot under our current monoculture system is very, very expensive to all of us, mother earth included. We are living in an unsustainable system and, even if, for the sake of our OWN species we need to look at alternatives.

Mark and Gaby Coetzee-Andrew have dedicated their lives to living this alternative life on a small holding, LEILA'S ESTATE, outside George in the Southern Cape. The dream is a common one, a north facing small holding, strawbale home, little sod cottage, own veggies, chickens, water tank, solar electricity, everyone's idea of the perfect life Well,

everyone from your regular Ethno Bongo, new age ferrel children in a trance, to the aging hippy following peace, love and happiness in a green haze of ideology.

We fit somewhere between the left and the right of this motley lot. Our aim is to have a high standard of living, (porcelain and hot running water, feta cheese and chilled white wine) with a low cost; to self and the environment. In other words To live a sustainable life.

Mark builds Earthen houses in the Southern Cape. He also runs **The School of Earthen Building** where he offers week-long building courses. The courses are held during the last week of the month and are hosted on the farm. Participants stay on site in the original sod building. A 175 year old cottage with a magnificent mountain view and a glorious sunny stoep. At

night participants share their experiences with like minded folk and create a network for similar type projects. You leave with a comprehensive manual, hands on experience and invaluable contacts.

The same cottage hosts the farm eatery; **Leila's Arms**. From Monday to Saturdays you can come and enjoy THE MOST EXTRAORDINARY food. Our menu is very small but we always have something for the vegetarian AND the meat eater. We serve a karoo lamb bredie or curry cooked in a sun oven or a straw box for four hours until the meat falls from the bone. We cater for vegans, blood type diets. food combining and whatever weird and wonderful programme we follow in the endless search for a healthy way of life. We collect water from the roof and grow our veggies, salads and herbs.

Apart from course venue and eatery, the little sod cot-

tage also serves as a workshop and conferencing venue with a difference, as well as holiday makers searching for a rustic environment.

We have been inspired by Bill Mollisons Permaculture concept and refer to it when possible. We have planted 6 hectares under indigenous Knysna forest. It is a young forest but it is a start. Everyone needs to be near a wild zone; a forest, the sea, a desert; any wild area to replenish mind, body and soul. (If all else fails, find your self a wild woman to befriend)

Our greatest learning is that this idealistic dream is AN ENORMOUS amount of work and takes courage, effort and commitment. We started this venture 13 years ago and are no where near complete. Reality sets in, especially when you have children and you have to put your dreams on hold to go out to work and put food on the table.

These basic principles however, have held us in good stead.

- USE WHAT YOU'VE GOT
- DIVERSIFY
- INTEGRATE YOUR PROJECTS
- REDUCE, REUSE AND RECYCLE

Did you know that if you chop off the top of a carrot and plant it, a new carrot will grow down. So if you plant your own carrots you will contribute, significantly, to a more sustainable world.

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**Contact info:**





Gaby 084 844 7996

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## Leila's Permaculture Estate

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and, above all, a sense of well being and happiness!

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| <p><b>VISITING TIMES:</b> Monday - Friday 10am - 4pm<br/><b>WHERE:</b> 1Km from Fancourt on the George Airport road.</p> | <p><b>CONTACT:</b> Mark Coetzee 082 588 6852<br/><b>EMAIL:</b> mark@leilas.co.za<br/><b>WEBSITE:</b> www.leilas.co.za</p> | <p><b>CONTACT:</b> Gaby Andrew 084 844 7996<br/><b>TELEPHONE:</b> 044 870 0292<br/><b>EMAIL:</b> eat@leilas.co.za</p> |
|--|---|---|

# Orgone Energy — the next revolution?

by GEORG RITSCHL, ORGONISE AFRICA

## The outgoing paradigm

Our present physics only understands entropic processes, that is processes where energy is dissipated by “using up” existing potential differences.

Under the rule of entropy, a cold and completely dead universe is the inevitable consequence of all there is.

Because engineers are trapped in this mindset, they can only design technology that is entropic and hence ultimately destructive.

The new emerging paradigm will allow us to create new technologies that harness the unlimited power of the ether and live in mental and physical balance with our planet and the wider universe.

## Rediscovery of the ether

A general rediscovery of the ether is happening in scientific circles at the moment.

Buzzwords to look for are: Zero Point Energy, Quantum fluctuation, Torsion fields, Free Energy.

Etheric energy is obviously more fundamental than the forms of energy our science is presently recognising, such as heat, electricity, magnetism, mechanical force, gravity or the weak nuclear force. It could be described as a pre-materialisation energy, a potential field or the “hyperdimensional energy and information matrix from which all material phenomena manifest”.



Wilhelm Reich

## An unsung hero: Wilhelm Reich

The term Orgone Energy was coined by Dr. Wilhelm Reich, a doctor and Psychiatrist who worked closely with Sigmund Freud in Vienna in his beginnings.

Reich went on to research the connection between human mental suffering and sexual oppression. In the 1940s he discovered the workings of the universal life energy which he called Orgone.

Reich's great contribution was the systematic scientific research into this energy, and that is the reason why we use the term orgone energy rather than any of the other possible names. He found that a high concentration of positive orgone was able to cure cancer and other degenerative diseases. Stagnating orgone energy or DOR (Deadly Orgone) was found to be responsible for disease on a personal level, biodegradation and desert forming on a planetary level.

In his early cloud busting experiments Reich was able to show how deserts can be brought back to life by removing the DOR and bringing the Orgone to flow again.

Wilhelm Reich's Research was brutally suppressed in the United States and he was incarcerated on trumped up charges and died under mysterious circumstances 1 day before his scheduled release from prison in 1957.

Orgone energy is the force of creation, that which makes life possible. It's working is anti-entropic. It is the Prana, Chi, Ether of older traditions under a new name.

## From dor to por

Wilhelm Reich discovered that layers of organic material such as cotton wool, wood etc. and metal had the property of intensifying the orgone field within an enclosed space. That was the principle of his Orgone accumulators.

The disadvantage of this was that it also concentrated negative Orgone (DOR) and could therefore be potentially hazardous.

The next step was the discovery that metal filings, suspended in an (organic) matrix of polyester resin would convert DOR to POR (Positive Orgone)

While first discovered by radionics inventor Karl Welz in the 1980s, this new discovery only showed it's truly revolutionary

potential when independent researcher Don Croft combined this new substance with Reich's original Cloud Buster concept and created the orgonite cloud buster.

This Device is also known as Don Croft cloud buster or chem buster because it soon became evident that the massive output of positive orgone energy would dissolve chemicals and other forms of pollution.

Inspired by Don's adventures and his generous sharing of his findings with the general public, a worldwide network of orgone activists has sprung up.

It consists of people who are taking responsibility for their environment and are doing environmental healing work with a number of simple yet effective tools:

## The arsenal of the orgone guerillero

Over the past few years a growing variety of specialised environmental healing tools has been developed. I can only introduce the 3 most important ones here

## The Don Croft Style Orgonite Cloud buster

Strong positive effects have been observed for distances of over 150 km after placing a CB. Other than the Reichian CB the Croft CB is not meant to be used for active weather manipulation, but rather as a general healing tool that needs no attendance or operating as such. It will just create a positive Orgone field in it's wider surrounding, thereby stimulating self healing processes on all levels: climatic, biological and mental (!)



## The Holy Hand Grenade

A HHG is the perfect personal orgone generator for house and garden, but can also be used to revitalise natural vortexes or neutralise strong DOR emitters in the environment.

Originally the HHG was designed to neutralise microwave towers as well, but it was soon found out that for most simple microwave towers much less is needed and since there are so many of these towers, we have to use our resources sparingly.



## The Towerbuster

The Towerbuster is the universal environmental healing tool. The name comes from it's main application, namely the neutralisation of cell phone towers and other DOR emitting radiation sources.

One TB is enough in order to transform a DOR emitting microwave tower into a positive orgone generator. Apparently without interfering with the cell phone signal. In that sense Orgonite works similar to many of the harmonisers on the market, like Q-link or Tachyon chips for Cell phones etc, only on an environmental scale.



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George

## “The Proof is in the pudding...”

says Don Croft: “... there will be enough evidence in common experience that this will be proven, as electricity is ‘proven’ to run a motor or light a room, even though nobody has ever quantified or even understood the nature of electricity. There’s so much empirical evidence that orgonite heals the environment, by now, that we’re approaching the ‘proof’ stage. Orgone is the emerging paradigm’s power source, in fact--that seems obvious by now to many of us.”

Wilhelm Reich already had a device that would measure the orgone charge indirectly via it’s effects on the atmospheric discharge of static electricity. Presently a device is available from a company called Heliognosis in Canada, called the “experiemental life energy meter”.

However, the best way to prove that orgonite works, is to experience it yourself.

The following effects are reported by people the world over:

- Increased rainfalls in drought areas
- Increased plant growth and animal fertility
- A general feeling of vitality and crispness in the atmosphere
- Visible and instantaneous Dissolution of chemtrails or other smog
- Psychics and sensitives can invariably see or feel the difference in the “aura” of a cell phone tower before and after

It is obvious from the above that orgone energy greatly benefits farming as well as the general Environment.

Says organic Farmer James Moffat from Ficksburg: “While Georg stayed with us he treated numerous cell- and radio-phone towers in our area by placing his orgonite discs at the bases of the towers. The impact of this drive has been amazing as mentioned above, in terms of rainfall, which we also experienced at Kirklington. Further to that I have seen a definite improvement in human, plant and animal health...”

Orgonise Africa has undertaken wide spread gifting work in southern and Eastern Africa with often immidiate changes noticeable.

We believe that the abundant rainfalls of the 2005/06 planting season in Southern Africa and the fact that the droughts predicted for 2003, 2004 and 2005 did not really happen, at least not on the expected scale, are a direct result of this work.

In our opinion the large scale application of Orgonite can reverse deserts and stop trends of biodegradation.

Thousands of experimenters worldwide have demonstrated that orgonite is absolutely without harm and has profoundly uplifting and empowering effects.

Practically every person can make it, following simple instructions or buy orgonite tools from a growing number of small scale producers world wide.

More information on the subject and our complete expedition reports can be found at [www.orgonise-africa.net](http://www.orgonise-africa.net).

Contact: Georg Ritschl 083 289 6196

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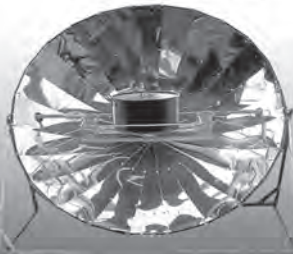
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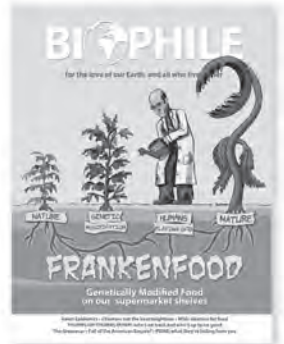
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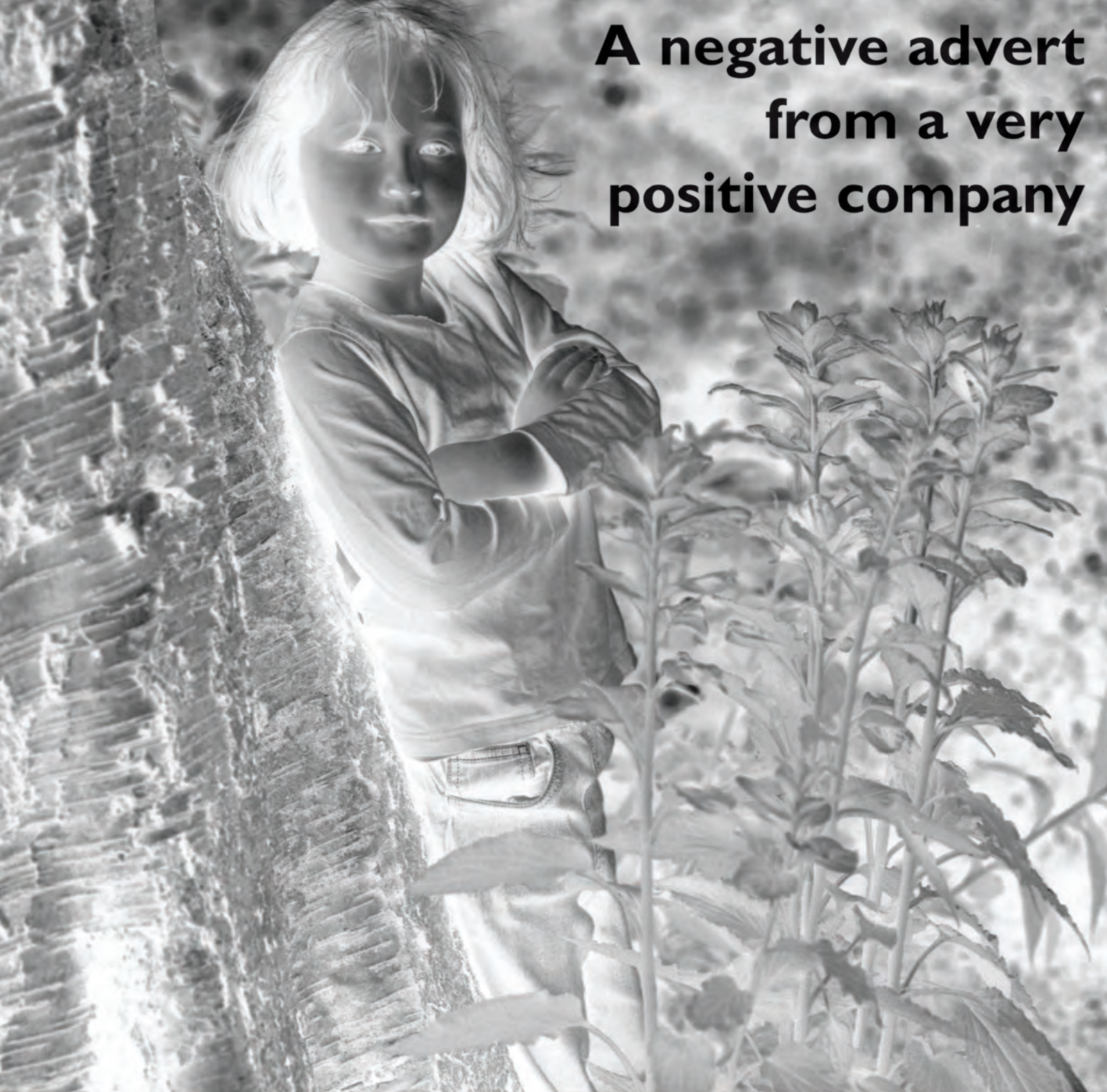
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## 18 A Guide to Green Cars

What makes one car greener than another? Certainly, having high fuel economy is one factor. Meeting one of the cleanest exhaust emissions standards is another.

## 20 South African Restaurant Oil Abuse

## 22 Making Bacon: the Shocking Truth

Many people think of *Charlotte's Web* and *Babe* when they imagine how pigs are raised for meat. Unfortunately, these Hollywood tales do not depict reality.

## 24 The Hidden Lives of Pigs

## 26 Do Africans Dare Care About Animals?

Are animal rights the domain of the world's affluent nations? Dare we Africans care about the well-being of animals while so many are dying of hunger, disease and bloody civil conflict?

## 28 The Wave is Cresting — Are We Ready to Surf?

For those of us who are at the rock face of the developments within the organic industry, it is obvious that the rate of change and growth is increasing daily and exponentially.

## 31 Organic Gardening... and the Humble Weeds

I have been growing organic fruit and vegetables around my house for five years now, and the most interesting things have become apparent.

## 32 Herbicides in Your Intestines?

Genetically engineered crops may produce herbicide inside our intestines, killing gut bacteria which are essential for our health.

## 35 Sugar Addiction

Scientists never really thought that a person could become hooked on sweets like they were a drug. Now a batch of findings is making researchers reexamine the concept.

## 36 The Right to Food

It is unlikely that you will know personally any of the ten children under five years old who die every hour in South Africa, and so are spared that suffering.

## 37 Worms at the Mount Nelson

Cape Town's most famous hotel has embarked on a novel way of disposing of its waste – an on-site worm farm to process leftover food and other organic matter.

## 38 Using Love, Not fear, in Prisons

Whatever is being done about crime, isn't working.

## 42 Whale Wars and Dangerous Vegans

When the president of the Japan Whaling Association accused a radical environmental group of being "dangerous vegans", not many people knew quite how literally he meant it.

## 44 Beyond the School Wall

Could this be the catalyst for the change that we are all seeking in our ailing education system?

## 47 Zero Waste Communities

Communities around the world have begun to adopt Zero Waste goals.

## 48 Should We Open Up Schools for Parents?

## 50 Beliefs and Reality

Where do we come from? The fact is, Homo Sapiens is the only new kid on the block.

## 55 Creating Our Reality

### Regulars

02 Inbox: Our Readers Write

07 Editorial

08 The Biofiles: News And Views

16 Thumbs Up / Thumbs Down

52 Soil For Life

56 Cosmic Directions

57 Ask Anrita

58 Connect Up — Get Active!

62 The Green Directory

64 Subscription Offer

Send us your thoughts, questions, ideas, constructive criticism and suggestions. We'd love to hear from you!

## Positive Saving

In the Editorial of Issue 9, you put forward the view that our world would be a better place if people shed the need to save their money. Although living without cash in the bank is an inspiring possibility, it is a lifestyle change unlikely to be snapped up by many, even those who believe themselves to be community or environmentally minded.

The average person will usually save for something which is important to them, be it a home, a child's education or a new pair of shoes. The money put away becomes a tool towards realizing a dream. I believe that to make money work positively for us it may not be necessary to give up saving, but instead to become acutely aware of where our savings go. In Europe opportunities for ethical investment have been multiplying as more people demand transparency from their banks. With growing social and environmental consciousness, savers are deciding not to entrust their finances to banks linked to the arms trade, oppressive regimes or corporations known to harm the environment. Instead, people are choosing to invest their money in worthwhile causes.

Banks like the UK's Co-operative Bank, with its slogan: "customer led, ethically guided" and the European based Triodos Bank assist people to invest ethically by spelling out clear policies on exactly who they will and will not lend to. In contrast to most banks that swallow up savings into ambiguously named funds, these organizations keep their customers well-informed.

Besides outlining their ethical policies in detail, the Co-operative Bank's website provides a platform for customer action campaigns and feedback. The Triodos Bank annual report lists all the organisations they lend to. Its pages full of colorful photographs and inspiring project profiles are a far cry from the grey financial documents peppered with graphs that are published by most other

banks. Triodos also produces a regular newsletter which combines articles on green lifestyles with details of the recycling networks, organic farms, small ethical businesses and cultural and community organisations it funds. Last year it even offered customers a chance to buy shares in a renewable energy fund that bought the UK's largest wind turbine.

In this way, saving becomes a way of channeling money into a network of exciting projects, while customers learn from fascinating stories just how their money is helping to make a difference. With so many exciting grassroots projects springing up in our own country in need of funding, isn't it time that South African banks jumped on the ethical bandwagon?

Not only will they attract more of the increasingly socially conscious young generation, but they will fulfill their corporate social objectives at the same time.

*EVE CUNARD, TSITSIKAMMA*

Thanks for taking the time to write and for making an excellent suggestion! I have heard through the grapevine that there is a group of investment bankers getting together to offer the SA public the option of investing in ethical ventures!

However I am still of belief that "saving for the future" is motivated mainly by feelings of lack and fear, and ultimately results in our 'doing it all for ourselves', which I believe is to a large extent responsible for the mess our world is in today. If we embraced the consciousness of abundance and sharing with complete faith, there would be no need to save. A good example of such living would be the few pockets of tribal people that still exist untouched by the western ways, where all is shared and people don't go without. Our western culture is based on materialism and driven by fear, so a massive shift in consciousness would be needed, to move into such a way of living. It seems that the wheel is turning however, with community living and 'eco villages' becoming more popular.

Anthea

## Green hair

I must start out by saying that I love your magazine. I read it from cover to cover as it is so packed with both useful and interesting articles.

I have been a hairstylist for 25 years and for the last 15 I have run a small intimate salon from the tranquillity of my home (away from the unnatural noises and air of shopping centres!)

Over the years I have strived to use and sell only the best products in my business. Lately I have become aware of all the nasties one finds in skincare products and strived to find organic products and in so doing stumbled across Esse and Enchantrix. I then was invited through my Esse representative to meet Dr Trevor Steyn, whom I found most interesting, due to his vast knowledge in organic products and his revelation to me about all the terrible things that one finds in all the hair care products that I have believed in for years.

It took me a few days to recover from the shock and then I decided to put some of this knowledge into action. I have decided that I will now endeavour to turn my business into an organic one, not an easy feat as there are not many products out there to choose from. I only managed to find 1 professional hair care product on the net, but at a frightful price (I want all my clients to be able to afford good products!) I now stock our wonderful local products (Esse and Enchantrix) and hoping that somewhere out there someone will fill the 'professional gap'!

In the meantime I try and impart all my newly found knowledge to all my clients (and anyone else who will listen) because I feel that we should all know what we are putting on our skin and hair and know that there are products out there that are safe.

Keep up the wonderful work that you are doing.

*SHARON WADE, PRETORIA*

## Strip mining in Limpopo?

Thank you for your commitment to our Earth and for a very inspiring and informative journal. I am a passionate and active Earth lover. I coordinate a small NGO called Eco Hope which promotes organic gardening and the use of organic herbs in healing, in informal settlements, rural areas and communities which have newly settled on farms transferred in the context of land reform.

In Issue 10, you mentioned strip mining on page 35. When driving to Limpopo via Rosenkral, I see a range of mountains stripped of their trees. Do any of your "rainbow warrior" readers know if this mine has a rehabilitation policy in place, and whether or not it is being put into practise?

*AM LAUB, ECO HOPE, ECOHOPE@MWEB.CO.ZA*

# Denying reality?

I am a journalist who has a respectable amount of experience covering science, the environment and, particularly, HIV/Aids. I am also a Buddhist, so not exactly a hard-core sceptical empiricist. I believe that the life of each and every human being (as with other beings) is an incredibly precious thing. I also think it is unlikely we will ever succeed in assuming a proper stewardship of this planet's environment if we do not take care of other as human beings.

The poor (though not as destructive as the rich), for whom the most basic issue is survival, often cannot care for their environment. I suspect many poor people are sceptical about environmentalists, because they sense that many environmentalists do not love people. Antiretroviral drugs are far from perfect. They are sold by corporations which undoubtedly have very little interest in human life and a whole lot of interest in making money.

But, if you spoke to every South African doctor and nurse who uses these drugs to treat people, you would hear that they can be almost miraculously effective. So much so that the term 'Lazarus effect' sometimes even finds its way into supposedly objective scientific discussions. Of those doctors and nurses working every day with HIV-positive patients, you would find but the tiniest minority prepared to endorse HIV denialism or a knee-jerk dislike of antiretrovirals. The introduction of antiretrovirals to our public health departments is beginning, where they are deployed, to slow the tide of death – which for professional healers has been a tide of despair. (Few if any people ever stop to consider the impact of this pandemic on medical professionals – an omission which betrays a staggering lack of imagination and compassion.)

The so-called science of HIV denialists is

corrupted by fear, fear of the immensity of the challenge HIV presents, fear of the darkness or simple ignorance in all of us which can encourage its transmission. Fear is natural, but yielding to it can kill us, especially when it has become irrational. The science of HIV treatment has advanced so far that the virus is no longer driving the pandemic – we are, we with our obstinacy, ignorance or fear.

Without science, we would know practically nothing of the damage we are doing to the environment. Yet, when science tells us things we do not like to hear about ourselves, such as the nature of those behaviours and fears that encourage the spreading of HIV, we reject their messages. In fact, rather than face the truth about certain aspects of ourselves, it seems we will often deny reality itself, deny the existence and nature of a virus which is all too real and thrives on such denial.

It is mostly scientists, those who manage the system of knowledge and common sense we call science, who are leading us away from environmental destruction. Perhaps we should wholeheartedly support their efforts to lead us away from human self-destruction.

Very few denialists are working public health doctors, or even doctors at all (though often scientists from other disciplines). The evidence for the nature and existence of HIV Culshaw believes to be so scarce is to be found in 10 000 clinics about this country. If hundreds of doctors were standing up, and saying, hey we're getting this HIV thing all wrong, now that would be worth listening to.

**DAVID LE PAGE**

Swimming against the current is always difficult in the beginning, using the (scientifically proven!) premise that we are what we think, the use of ARVs has its place,

respectful lives, whose own lives have been saved by courses of ARVs.

There must be even more people who are in early stages of awareness of the dangers inherent in their lifestyles in terms of what they eat, drink, breathe, watch, etc and who would appreciate taking on a new path in small steps - and live to take those steps, thanks to ARVs.

I for one, would appreciate a more compassionate and open-minded approach from one of my favourite magazines.

**ANNEMARIE HENDRIKZ**

## One of the greatest medical frauds ever

Your last *Biophile* was really excellent, as usual. And I'm also glad to see you're giving a voice to the 'Aids dissidents.' The 'HI Virus-causes-Aids theory' will yet be exposed as one of the greatest medical frauds ever perpetrated. Not only is there the contradiction in terms namely that a virus can cause a syndrome, but this virus has never been isolated in the way that other viruses such a polio have been.

By account of US Nobel-Prize-winning biochemist Dr. Kary Mullis, "its discovery owed more to politics and economics than to science." Certainly, it is a money spinner.

The myriad of vaccines to which children are subjected these days are more likely to be one of the major causes of the Auto Immune Disease Syndrome. Not to mention an accumulation of pollution, radiation, GM foods, chemicals in food and drinking water, etc.

**BEATRICE WILTSHIRE, SNOUT**

when people are given no option but to believe that this will prolong their life. We are wondering if you have any statistics regarding people who have survived (after being condemned to death by their diagnosis) bravely going against the current and using the ways given by nature to heal their bodies? I think you will find that there are many. There are more and more clinics being opened to address the issues from a holistic (physical, mental, emotional and spiritual) standpoint. From all accounts the results are very encouraging. We wholeheartedly agree with you when you say that the pandemic is driven by obstinacy, ignorance and fear...is now perhaps not the time to embrace a new way of dealing with the problem? Anthea

## One-sided view?

I love reading *Biophile* but am increasingly disappointed in your one-sided view on the HIV and AIDS challenge to our society.

*Biophile* is on issue number 10 and has devoted more than 15 columns during its lifetime to denial of the link between HIV and AIDS, and to the dangers of anti-retroviral drugs.

Don't you think it's time you gave some space to a more helpful view?

There must be many people living with HIV and/or AIDS who share a desire for healthy, sustainable, environmentally

While I understand where you are coming from, our intention is to awaken people to the many avenues in life that have — in the main — been deliberately put in place to dis-empower us and keep us in the bondage of limited thinking and being.

We focus, to the best of our ability, on educating and on sharing holistic and empowering alternatives to mainstream thought. There is more and more evidence coming to light in support of our stance.

Anthea

## Zero Waste

The article on waste (“Zero Waste: an introduction” *Biophile Issue 9*) was interesting and the objectives of the Institute are laudable. On reading the five basic tenets of Zero Waste, my first reaction was, ‘these all make sense’. My second reaction was, ‘the rub lies in the implementation’.

General acceptance of these principles will only come if the average level of education is fairly high, and where governments realise the importance of minimising human impact on the environment. Currently nearly all governments try their best to circumvent environmental legislation if the financial incentive is sufficiently high.

Of particular difficulty will be to persuade people not to over-consume. This goes against the very grain of living today. The business community is also sure to resist all limitations placed on their activities.

In most countries around the world today

meeting these objectives would require a phased approach at the very least.

In South Africa a starting point may be to put in place the required legislation which would force manufacturers to take responsibility for what they produce. This would in turn facilitate the process of getting municipalities to construct a number of collection points within easy reach of those who do not have private transport. People could then deposit sorted waste there and be paid for it. This money could be recouped from either the original manufacturers or those who will re-use the waste. A follow-on step would be to get the public to sort their waste and make it available to those who are willing to take it to a collection point.

To my knowledge not one of the issues listed in the article has been tackled in South Africa. If I am wrong, please let the general public know what has been achieved and let the educational process begin. This is vital to the future of the planet and the quality of life our children will enjoy.

Those who label ‘zero waste’ an unachievable target may very well be right in a society where the general attitude is one of ‘devil take the hindmost’. This should nonetheless not stop us from trying and giving our support to organisations such as Zero Waste.

**CASSIE PUREN, MULDRSDRIFT**

The only legislation which exists is the Polokwane Declaration — and you are mostly right in saying that Extended Producer Responsibility will be key; however, the idea that by simply recycling, we will solve the problem is a tad simplistic, as we need to re-design products and processes first, otherwise we are just fiddling at the edges.

While the concept of producer responsibility is in some of the legislation, it still speaks to eventual disposal, not keeping material in the economy.

So, with 100% post-consumer recycling, we would only tackle 2% of the waste stream... bit pointless, still worth doing, but limited in scope and impact.

Muna Lakhani, IZWA

## Frankenfood

In the recent article on “Frankenfood” (*Biophile Issue 10*) I was very pleased to see that the University of the Free State was finally using their GM testing equipment to the benefit of the consumer. The article paraphrases the report, but

leaves a couple of untied knots. The one that concerns me most (as a vegetarian who eats soya products) is the almost complete absence of un-modified soya products! What is misleading is the fact that no effort was

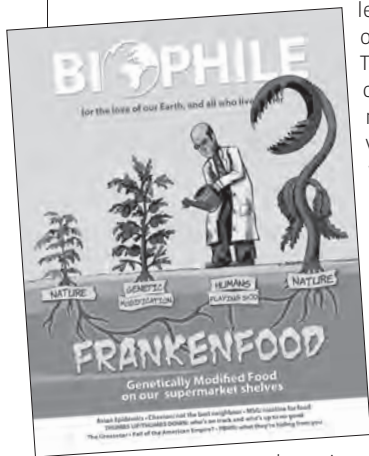
made to tie up the manufac-

turers to the tests and their claims.

Of noticeable mention is the Fry Group who boldly advertise their products as GMO free. Of the two of their products tested, they both tested positive for GM! In the article, a table is published saying that they use the EU certification of less than 0.9% GM content which is the worlds most stringent test. I sent them an email before this test was done asking for their certification body. Of course — no reply.

When is this level of LYING going to end. It is a completely unethical state of affairs and should be taken up with the advertising bodies if legislation cannot put an end to this scourge.

Ian Guest



## When I see a cattle truck...

Although we apparently don't all seem to agree that animals possess minds, notwithstanding that we so often punish them for not understanding or for not listening [implication: mental processes] we can surely all agree that animals do in fact have bodies.

So how can there be such neglect and cruelty to animals as is apparent in almost any area you look hard enough at (try it!), and how is it that it remains so very marginalized and pseudo-luxurious an issue. I always wanted to write about what happens to me when I see a cattle truck.

What I would have written would have been something along the lines of that when I see a cattle truck, I begin to feel panicky and hideously, tragically helpless because I know how they are a) currently suffering and b) going to continue to suffer. You do have to — having accepted the animals-have-bodies theory — acknowledge that they are going to suffer in the hot sun on the truck for several hours having been separated from herd and home thirsty and hungry and terrified then shunted into a building and murdered then eaten and well, you know the rest. It upsets me. It upsets my entire day but not as much as it upsets theirs, I believe.

I was going to write that I wondered if I felt anything like anti-Hitler German-folk must have felt watching those cattle trucks go by packed with bodies. I would go on to explain how I had many times wondered if I could begin a secret underground Operation to rescue these incredibly sensitive and

intelligent mammals who have the same responses physiologically - at least!

Even science has to say so - to stress and torture and murder of selves and family that we do, but where would I have the space to really accommodate them all? Even one would be difficult manage. But how can we just still be letting these things happen I would then have asked. What prevented me from ever formulating the above words was a comment that I came across in an otherwise unremarkable novel (apart from one or two good Jewish jokes) in which the narrator mentioned something along the lines of being outraged at someone daring to make a similar comparison.

That is, the transporting of bodies in cattle trucks under inhumane conditions to be killed for the maximum benefit of the minority is different to the transporting of live bodies on cattle trucks under inhumane conditions to be killed for the maximum benefit of the minority.

So I didn't write it because I don't want to ever cast doubt on the fact that those people suffered. Because, um...t hat's actually the point that I'm trying to make is that they suffer. Must it be proved to be “as much”, “mentally” before we will bother with anything radical like change?

Oh, and are my shoes made of leather? Have I killed an ant in my life? Let's you and I just agree that we have different agendas and not waste each other's time any further.

**HENRIETTE VAN ZYL, RHODES UNIVERSITY**



# Revenge of Gaia?

I have just finished reading one of the most timely and thought-provoking books on the state of our environment, its causes and most importantly what humanity should do.

This book, I believe, is especially relevant for those with children or planning children – you arguably carry the biggest burden to mitigate, educate and ensure the wheels don't come off our ecological support systems.

James Lovelock, the co-developer of the Gaia theory and one of the world's eminent scientists, has created a very readable book (*The Revenge of Gaia: Why the Earth Is Fighting Back - and How We Can Still Save Humanity*) – it almost reads like fiction (if only it was fiction) – and provides one of the most pragmatic set of arguments about what needs to be done.

Amongst other things, he has helped swing me from very anti, to semi pro-nuclear – it really seems to be the only immediate and viable large-scale energy technology we have at our disposal that has limited dangers. Emitting more CO<sub>2</sub> is vastly more dangerous to us and all other species.

**ROB ZIPPLIES, SUSTAINABILITY CONSULTANT  
(INCITE.CO.ZA)**

I tend to shy away from exegesis on this topic, having preferred to lead by example by simply getting on with the technologies that I have developed faith in from my education and background. I guess I have made the naive assumption that the merits speak for themselves to everyone as clearly as they have to me - neglecting the fact that information is not freely and unbiasedly available.

If you don't mind, I would rather not put myself into a lobbyist's role and get my fingers into arguing it either way, but perhaps just quickly I will explain some of my motivation for not supporting nuclear. I am at some risk here as, although I have heard about it, I have not read Lovelock's book.

In this quick response I will also not be taking the time to provide references for some of the statements made below, so please let me know if you intend to publish any of this discussion.

On the statement that “renewable

technologies will take a few decades to mature”, I must point out that, although it may be true that wave and tidal are in their infancy and large-scale sustainable base-load solar thermal and solar PV are still at the tipping point in some respects, it cannot be said that wind power has not matured - it only appears so in the South African vacuum.

The wind power industry has long since been the fastest growing energy sector in the world and the international development is staggering.

Recent discussions of a European “Supergrid” even suggest the ability to provide continuous baseload, given the varied weather patterns across Europe, allowing one area to provide to the grid while another is quiet. It has been clearly established that increased wind penetration in Europe is not a question of technical barriers but rather mind-set barriers.

The European Investment Bank has recently provided €225 million backing for the world's first commercial concentrated solar power plant and the technology is there to provide overnight continuity by means of liquid salt thermal storage.

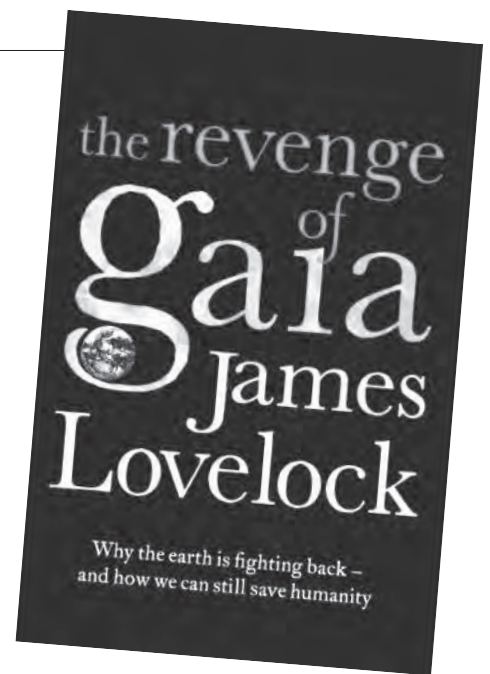
It can however be said that PBMR is far from matured - one need only look up the schedule and cost overruns on this still experimental system.

I do not propose that there is any single solution to baseload supply, and indeed quite on the contrary, the way forward is in diversification and decentralisation of supply options combined with demand management.

One of my prime motivations for opposing nuclear goes to the root of accident and reliability theory. A nuclear accident or problem with waste disposal, while it may be argued to have very low probability, has very high consequence. Insurers work in this field of maths - why do you think they would not insure nuclear endeavours?

Whether you are a student of High Reliability Theory or Normal Accident theory, having experience in the engineering world - or even just reading the papers about Koeberg lately - you will know that accidents do happen.

There is an underlying Catch 22 here



that will always irk me.

With enough effort one can introduce sufficient redundancy and develop sufficient procedures to bring the chance of accident down to an infinitesimal level, however there will always be the unexpected - either due to a singular combination of events overlooked or to the influence of people, by nature unpredictable creatures - a wing-nut dropping a loose bolt for instance, or putting their coffee mug in front of a pressure meter.

One can argue that for the latter, one should design an autonomous system in which the operators are merely observers, trained to the point of having absolutely no initiative outside of the system's procedures - almost like the army endeavours to do.

However for the former, it is exactly the incredibly unique creative and intuitive ability of a true expert with knowledge embedded in experience that could save the day in a case where the unexpected occurs - something for which there is no existing algorithm.

Bottom line is accidents will happen. Believe me, I have survived a few in the field. The question is simply: how severe will the consequences be, especially of those that we cannot foresee. The solution is complex, sorry - however that shouldn't stop us from getting into it.

**FRANCIS B. JACKSON, WIND TURBINE  
ENGINEER**

**WORDS TO LIVE BY**

## Give more. Take less.

## Hats off to Woolies — again!

*Biophile* has in past issues espoused the merits of drinking organic vegetable juice.

As a daily juicer I can attest firstly to the difficulties in sourcing organic vegetables on a year round basis, and secondly to the time and effort required in the juicing and cleaning up process.

No more, as Woolworths now has on offer organic beetroot, carrot and tomato juice. Beets contain an abundance of potassium, phosphorus, calcium, sulfur, iodine, iron and copper, as well as traces of rare minerals, rubidium and caesium. Along with carbohydrates, some protein and fat, one finds vitamins B1, B2, niacin, B6, B12 and C in beets.

Carrot juice contains a high content of beta-carotene, a precursor of vitamin A, which is converted to vitamin A in the body. It is considered essential for the visual cycle (focusing the conversion of light stimuli into electrical impulses), pigment formation in the skin (browning) and as an anti-oxidant in the cells. Good health and enjoy!

A M MACDONALD, KNYSNA

## A committed “animal rights” environmentalist



What a wonderful magazine! We own a wild life sanctuary, Suni-Ridge Wildlife Reserve, in North Eastern Zululand adjacent to the Greater St. Lucia Wetland World Natural Heritage Site. As a committed “animal rights” environmentalist I was really pleased to find my first copy of *BIOPHILE* in Richards Bay CNA.

There are many lodges in our area —over 200—and I believe most of them are in the eco tourism business because it’s a way to earn more money. For this reason they have guest lodges but also derive an income by “utilising their wildlife”. This is of course just another term which hides the truth about a huge amount of cruelty.

We are one, of only two, reserves in the area, that do not under any circumstances utilise our animals. We give them a chance to exist without the impact of hunting—game capture and resale (usually for hunting purposes) and other types of manipulation.

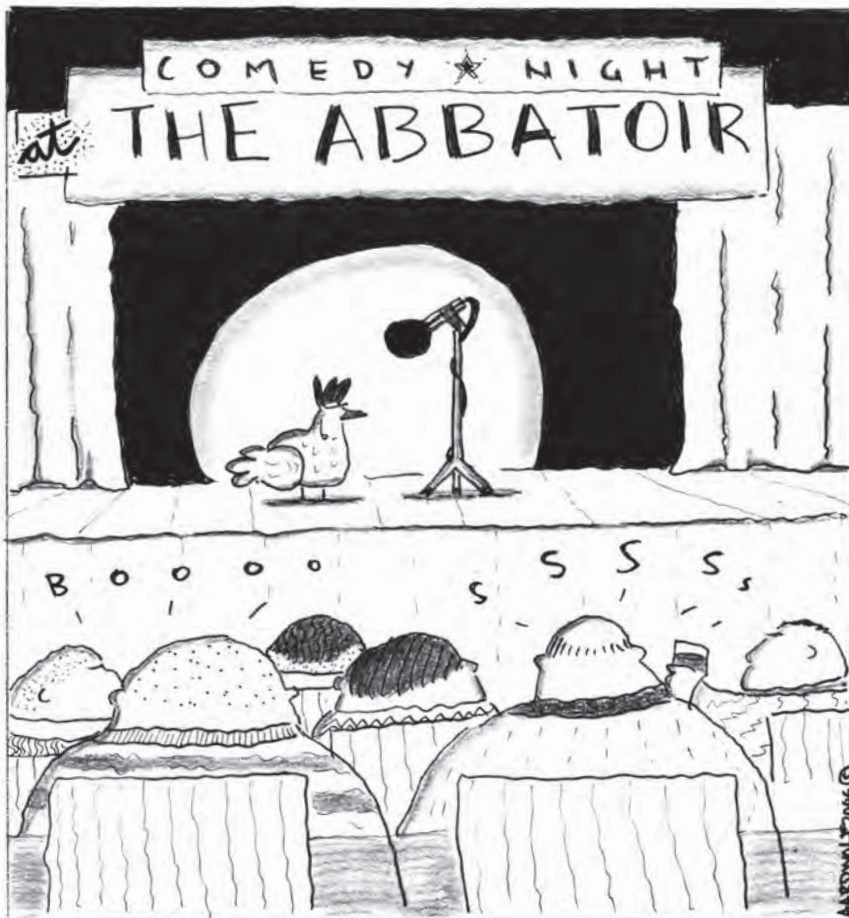
We set up our project 14 years ago and also established the Suni-Ridge Environmental Education and Rehabilitation Centre. It has been a “life task” to rehabilitate our land. It was previously degraded through inappropriate agricultural processes and it was a poachers paradise. Today we are proud to see the fruits of our effort and our reserve is now teaming with wildlife. It supports a huge biodiversity of mammals, birds and butterflies, reptiles and other life forms (many are red data species) in a well vegetated (and rare) sand forest habitat. Our animals are tame and our herds of zebra and wildebeest come right up to us and we can walk in amongst them! People are amazed to see this but we explain that animals

are not wild by nature. It is the human person that has made them that way. Take away the hunting and they naturally become tame again.

Some of our proposed important projects are:

1. Setting up environmental committees in each rural ward (under the auspices of the various chiefs) Through this committee we will run workshops and environmental projects to encourage each area to understand and practice the protection of biodiversity and home growing of organic food gardens. “Healthy land Healthy body” We are disturbed that there are organisations promoting primitive battery hens farming to these rural homes.
  2. We have been sustaining a very severe drought in our area and due to the fact that we refuse to hunt or cull our animals, we urgently need to find support to move numbers of our impala to a sister reserve where better grazing is to be found.
  3. We have recently established an accommodation facility which we are marketing to true nature lovers. The income from this project is to contribute to the sustainability of Suni-Ridge Wildlife Reserve and all our objectives.
- Thank you once again for the most inspiring and truthful magazine of the year!

**Janet Cuthbertson,**  
**Suni-Ridge Wildlife Reserve,**  
**suniridge@ballmail.co.za**



The slaughter continued until Animal Rights groups intervened...

**I**N THIS ISSUE we have two articles about school related topics. They came from different sources and yet they are both saying something similar, in different ways: namely that our current schooling system needs to be examined as clearly there is a need for new approaches and methods.

I am sure there are not many parents out there, with children at school, who have not at some time or other questioned the wisdom of our fear-based, competition-driven schooling system.

**My memories of school are filled with dread.** I was taken from the beautiful farm on which I was brought up, where my days were spent in nature blissfully exploring and discovering. We had no TVs and later in my childhood the electricity arrived via a generator!

I recall so vividly the freedom, peace and happiness I felt when left alone to spend my days riding horses and playing. (Just 'playing' is something children seem to do less and less nowadays). This all ended abruptly when the holidays were over and I was forced against my will to boarding school. We lived miles from the nearest town so there was no alternative. The only thing I really enjoyed about school was being with my friends and I don't think much has changed since then. When asked, the kids of today will generally say that school is 'boring', but they enjoy being with their friends, and if they enjoy sport that is also a reason to be there. The 'sporting types' are usually popular, as our culture places sporting heroes in the league of idols. If they are not good at sport, it appears that they mostly feel inadequate — although they may not like to admit it — and they are left out of the 'popular circle'.

**The tragedy is that most of their precious childhood is spent cooped up in some square room,** sitting in rows learning things that more often than not they don't

find very interesting and very useful. I certainly have not used much that I learned at school in my life to date, other than reading and writing. Children are expected to sit for the 45 minutes and are not allowed to move, which may be ok for the more sedentary types, but for a child who has a physiological need to move around, this is torture. Children are actually programmed to be very active, it makes their bodies and bones strong.

But these children are 'diagnosed' with Attention Deficit Disorder and usually forced to take some mind altering drug such as Ritalin so they fit into the system. They are all expected to fit into the 'on-size-fits-all' approach...behave the same, have the same interest in, look the same, sit the same and strive to be better than the person sitting next to them, and if they are not, their self esteem takes a knock and they often feel inferior and inadequate.

Parrot fashion learning kicks in for the tests and exams, and it is rarely that subjects are studied further unless it is required, simply because they are not interesting. If they laugh, which most of them are inclined to do as they get bored, they are punished (very sad as laughing is one of the most healing things we can do). Children like small animals like to play, and our system does not let them.

**The excessive competition is also questionable** — in the class room and on the sports field. The whole point of the games that are generally offered is to 'win'. I have seen parents almost frothing at the mouth with rage over their child's inability to 'pass the ball' or 'score the goal' in their quest for vicarious triumph, let alone the violence that often goes along with this type of competitiveness and the humiliation suffered by the children. Competition is part of our newly formed culture and the thrill of victory is addictive. The alternative is non-competitive games, and according to Alfie Kohn, in his



book *No Contest – The Case against Competition*, studies have been done which show that children actually prefer these games once they are exposed to them! The games still involve achieving a goal, despite the presence of an obstacle, but the obstacle is not another person or persons, this encourages positive cooperation and coordination.

**Drugs are becoming more common as children desperately seek to fill the holes in their confused minds and hearts.**

Resignation sets in as the genius present in virtually every child at birth is shut down and they learn to conform and fit in via the fear-based system that runs our schools. Don't forget that fear is the most disempowering emotion of all. Surely it's time to look at what and how we are teaching our children.

**Bland and boring teachings need to be replaced with real live experiences.** Trips into nature should surely be a regular activity, not just a treat? Guiding the children towards happy, loving, fulfilled relationships with themselves primarily, and then with others and nature, would surely be a great stride forward. Learning how to communicate with nature, grow plants and acknowledge and revere the elements and changing seasons with celebrations and gratitude should surely be part of every child's experience. Teaching them the importance of being responsible custodians of the earth and how to live a simple, fulfilled life, hurting nobody and nothing, is essential if we are to succeed on our path to enlightenment. Sadly we expose them to extreme stresses and pressures, fearfully filling them with irrelevant notions of amounting to nothing if they don't 'pass' or 'make the team', living out our own fear vicariously through our children.

ANTHEA



**MEET THE TEAM:** Coral McCallum, Shahied Ishmail, Debbie Gomersall, Steve Venter, Anthea Torr, Des Du Plooy (Missing from photo: Cindy Sanderson in Johannesburg. We'll catch her next time!)

# the biofiles

news and views from around our world

## Big Pharma blocks cheap blindness cure

A major drug company is blocking access to a medicine that is cheaply and effectively saving thousands of people from going blind because it wants to launch a more expensive product on the market.

Ophthalmologists around the world, on their own initiative, are injecting tiny quantities of a colon cancer drug called Avastin into the eyes of patients with wet macular degeneration, a common condition of older age that can lead to severely impaired eyesight and blindness. They report remarkable success at very low cost because one phial can be split and used for dozens of patients. But Genentech, the company that invented Avastin, does not want it used in this way. Instead it is applying to license a fragment of Avastin, called Lucentis, which is packaged in the tiny quantities suitable for eyes at a higher cost: R10 000.00 per dose instead of less than R100.00. [GUARDIAN]

## Cape Town pilots recycling e-waste initiative

Obsolete electrical and electronic equipment, which commonly ends up in landfills that pollute the environment, may now be taken to a site in Wynberg from which metal, glass and plastic components can be passed on to industrial recyclers and art projects. The City of Cape Town opened the new e-waste container at the Wynberg municipal drop-off site in Rosmead Avenue in June. The container, to which the public may deliver old computers, fax machines, printers, toasters or other equipment no longer useful to them, has been sponsored by Tarsus, a distributor of computer equipment. The project is also endorsed by the National e-Waste Association. The facility is open from 7.30am to 5.30pm on Mondays to Fridays and on public holidays. The initiative is designed to create jobs for the skilled unemployed and incentives for companies and individuals to recycle.

## Philippines Trains Eco-Warriors

Student teachers of twenty colleges and universities in the Philippines are being trained as eco-warriors. "Eco-warriors are ordinary men and women who stand up for the environment. They take action and do work to ensure a healthy environment for all," says Baboo Mondoñedo, executive director of the MTKISD.

The Maximo T. Kalaw Institute for Sustainable Development is providing the training, based on the work of Maximo T. Kalaw, an environmentalist who campaigned for the preservation of the rapidly disappearing Philippine wilderness. They plan to convert the National Service Training Program (NSTP), a civic welfare training course required to be taken by all students, into a course on environmental advocacy, expanding the concept of security beyond mere border protection.

"When teachers impart to students the concept of human and ecological security [HES] and arm them with the knowledge and skills to work for a better world, they are investing in the future," added Mondoñedo.

Aside from compost-making and recycling, the students will be taught the rudiments of "journaling" (keeping journals) and community organizing, Mondoñedo says.

## Rice and bamboo power

In some circles it's known as 'industrial ecology', where the 'waste' process of one industrial action is successfully employed by another. In Assam, India they are planning to build a 16 megawatt power plant that will be fuelled by rice husks from food production, and bamboo dust waste from paper fibre mills.

India is said to be the world's second largest producer of bamboo, after China, and these power plants are the first to utilise bamboo for fuel. The bamboo power stations are expected to be opera-



Mt Mayob, Philippines

Also important is the 'Our Earth, Our Body' module. "It shows that the earth is the extension of our life and body and when you heal the earth, you also heal yourself," she says. [IPANA]



## McDonalds teams up with China Petroleum

In June, a week after China's Ministry of Construction announced that it would be rebuilding bicycle lanes lost to the expansion of roads and the construction of huge numbers of new buildings, appears an unmistakable sign that the hunger for cars—and hamburgers—won't be stopped in China: McDonald's and the China Petroleum and Chemical Corporation, or Sinopec, announced plans to turn most of the 30,000 petrol service stations that Sinopec operates nationwide into drive-through McDonald's outlets.

The potential of fulfilling this particular American dream in China—the promise of a car in every garage and a milk shake in every cup holder—is of course a double-whammy for the country's green prospects. First, China's unprecedented demand for cars—car sales grew 30 percent last year, to 5.7 million vehicles—helps make the country the second highest producer of greenhouse gases after the United States, and makes it hard to breathe in cities like Beijing.

The McDonald's plan comes alongside Sinopec's other big deal this week: it bought a billion-barrel, \$20 billion Siberian oil field from a Russian-British venture, securing access to Russia's huge energy reserves for China's fuel-hungry economy.

Meanwhile, the rise of Big Macs in China (which is McDonald's fastest-growing market) will only contribute to more big waistlines in a country already suffering from deadly weight gains. A 2002 study conducted by the government revealed that the number of overweight people to have increased by 39 percent and the number of obese to have increased by 97 percent; incidence of hypertension had increased by 31 percent or 70 million cases since 1991 with 160 million people suffering from high blood pressure.

And then there's the problem of all those hamburger wrappers and the huge herds of soon-to-be-Big-Macs cattle, the overgrazing of which is held to be mainly responsible for the increasing desertification in the north of China. [TREEHUGGER]



## Hope for Giant Panda

Fears that the giant panda is on the brink of extinction may be unjustified, research suggests. Scientists believe populations have been underestimated in past surveys and there may be as many as 3,000 pandas left in the wild. Numbers in reserves could be restored if conservation efforts continue, they write in *Current Biology*.

The panda once inhabited much of China but is now found only in the forested mountain areas of the country. Its survival has become a cause célèbre of the conser-

vation movement, attracting worldwide attention. The giant panda has long suffered at the hands of poachers and loggers, and was hit by the large-scale die-off of bamboo in the 1980s. Numbers in the wild have been put at about 1,000 but the animal's elusive and wary nature has made it difficult to conduct accurate censuses. Previous surveys have used conventional techniques, but researchers in China and the UK tried out a new hi-tech method based on analysing DNA recovered from panda droppings. The

## China to assess its wind and solar energy potential

China has opened a new centre to assess its potential to generate wind and solar energy. The Centre for Wind and Solar Energy Assessment, part of the China Meteorology Administration, opened on 14 June.

It will assess how much energy can be generated through wind and solar power in key Chinese regions, generate estimates of the wind energy potential at specific locations to help plan for wind power plants, and evaluate the impact of natural disasters, such as sand storms, on the operation of the wind power plants.

It will also carry out nationwide surveys of China's solar energy potential.

In 2005, China generated 1.26 million kilowatts in wind energy. Scientists estimate that this number could be increased to 3.3 billion kilowatts for land-based wind energy alone. China's medium and long-term development plan for sustainable energy released in 2004 predicts that by 2020, wind power will supply 30 million kilowatts per year.

Zhang Qiang, a senior researcher of the Centre for Wind and Solar Energy Assessment, says that China's current wind forecasts are not precise enough to allow scientists to estimate how much wind energy could be generated in various regions.

The new centre will seek to refine the geographical aspect of wind forecasts. Currently, the smallest area that forecasts can resolve is 100 square kilometres.

Zhang says that when it comes to deciding where to place wind power plants, this resolution is not good enough. The new centre will try to develop and improve the resolution down to five square kilometres. [SCIDEV]

results suggest that about 66 pandas live in the Wanglang Nature Reserve in Sichuan Province, more than twice as many as were estimated in a survey conducted in 1998.

The study also provides evidence that pandas in the most important habitat of its kind have not suffered genetically over this period—there is no evidence of the sort of inbreeding or low genetic diversity that might threaten the species' long-term survival.

"It seems, therefore, that the giant panda population in Wanglang has the potential to be restored if habitat protection, local socio-economic measures and population monitoring issues are resolved," the researchers say in *Current Biology*. On the basis of the Wanglang findings, they estimate that there may be as many as 2,500 to 3,000 giant pandas left in the wild in the whole of China.

It is good news for the future, they add, as long as the Chinese government continues with bans on poaching and deforestation in

## UK to outlaw standby buttons

The British government is to outlaw standby switches on TVs and DVD players to cut the amount of electricity wasted in the home. Refrigerators, washing machines and dishwashers will have to become energy-efficient, and lightbulbs that burn too much energy will be phased out. The government's Energy Review, released in July, reports that standby facilities use 8 per cent of all domestic electricity in the UK. Energy efficiency is one of the main planks of the Government's Energy Review, which is intended to lay out how Britain receives and uses its power for the next 20 years. [GREENER]

## World's First Solar-Powered Scooter

Unveiled in July, the Solarin Turtle is "the world's first solar-powered scooter," according to the company that developed it, Solarin Holdings. Though it will be built in Malaysia, interest in the scooter around the world has been strong; China has already placed an order for 100,000 units. The scooter is reported to have a top speed of almost 90 km/h and will also be rechargeable by thermal heat or electrical charge. The price has also yet to be determined, but, according to the company president, will be around R6000. [GIZMODO]

## Ugly Fruit Movement could help organic farmers

The hidden story behind the perfect fruit in your local supermarket is the large volume of second grade fruits and vegetables diverted directly to juice makers, with little profit to the farmers. Starting in June 2006, the upmarket UK supermarket chain Waitrose will start exposing customers to "ugly" fruits and vegetables: produce which is perfectly healthy and tasty, but which has blemishes which would formerly have doomed it to diversion into low-value uses. The produce will be advertised for use in cooking and preserves, but the chain expects that some customers will enjoy these fruits and vegetables simply for eating as well. By breaking the prejudice for "beautiful" fruit, this will help the organic industry convince consumers that the produce of nature is naturally good. Ask your local grocer today: when will we get ugly fruit? [RAS]



Researchers at German's Fraunhofer Institute are working on a solar powered cell phone by using device-integrated, high-efficiency solar cells which offer a module efficiency rate of 20%. This allows the cell phone to remain continuously powered up as long as it receives sufficient sunlight

(about 2 hours per day), otherwise it can be charged using conventional means. The Fraunhofer Institute is an alliance of more than 50 research institutions, mostly in Germany, that pool their research and collaborate on innovative technology.

[FRAUNHOFER INSTITUTE]

## Shell says "no food for fuel"

Royal Dutch Shell considers using food crops to make biofuels "morally inappropriate" as long as there are people in the world who are starving.

Eric Holthusen, a fuels technology manager, said the company's research unit, Shell Global Solutions, has developed alternative fuels from renewable resources that use wood chips and plant waste rather than food crops — such as sugarcane and sugarbeet — that are typically used to make the fuels".

**A reasonable stand, you might think, until you question whether cane sugar even deserves to be defined as a food.**

In earth's northern temperate zone, where oil per-capita consumption is highest, there are plenty of marginal croplands and rock strewn hillsides suitable for productive aspen stands or similar species of trees or woody shrubs, making the moral and the practical delineation of this idea imminently practical for large scale fuel production. Non-cropland is much cheaper to control and manage.

Targeting non-food biomass as a feedstock, then, is just what we'd expect from Shell if they'd done their scenario thinking around business parameters. The morality statement above would be consistent with that, but not the only driver.

We should also consider other possible motivations for the Shell representative's statement.

Perhaps a bit more time would help to make a proprietary biomass-to-ethanol process work out?

Perhaps an argument is needed to spread government incentives for ethanol production around more fairly, benefiting more than just the agricultural sector? Put all these ideas together and we see the makings of a sustainable fuel system in early design stage. [TreeHugger]

## Courtesy opens all doors

There is no investment you'll ever make that will pay you so well as the effort to scatter sunshine and good cheer wherever you are.

The deepest principle in human nature is the craving to be appreciated.

If you treat an individual as if they were what they ought to be and could be, they will become what they ought to be and could be.

Everyone thrives on being appreciated, loved and needed.

There is no stimulus like that which comes from the consciousness of knowing that others believe in you.

Applaud others when they run.

Console them when they fail.

And cheer them when they recover.

As water is to a flower,  
so is praise to the heart of another.



## Saving the Dead Sea

The Dead Sea is a mystical and magical place and one that has real-life benefits—like its greasy, black mineral mud that visitors like to smother all over their bodies. Researchers say the first hominids crossed by way of the Dead Sea corridor from Africa as they migrated around the world;

some say it was Cleopatra's best beauty secret. Even though the Dead Sea sustains no or little life (there are some bacteria who are thriving there apparently) the ecosystem around it is anything but dead.

The skies are teeming with migratory birds on their way to Africa from Europe and vice versa; special animals such as bats, wild cats and hyrax find refuge in its surrounding mountains.

Over the last 40 years, exploitation of the Dead Sea has happened at an unprecedented rate, due to (ahem) human exploitation.

Israelis and Jordanians have been tapping into the Kinneret (“Sea of Galilee”) and the Yarmuk River, meaning less water makes it to the Dead Sea; the lack of freshwater, combined with mineral extraction on its south shores has led to the Sea's water level dropping by around a meter every year.

Through the Minerva Institute for Dead Sea Research, scientists are searching for sustainable solutions to reviving the dead parts of the Dead Sea. Some groups are suggesting a controversial \$5 billion canal leading to the Red Sea. The Dead Sea's unique make-up would be changed forever by introducing sea water into a body that has only ever been fed by fresh water. “The cost of the damage that would be caused to the environment may be greater than any possible benefits,” said local geologist Eli Raz. “The best plan for the Dead Sea is to let the Jordan river flow again, this is its natural state.” But the chances of that happening are next to nothing given the reliance of the region's countries on the Jordan's water, the article points out.

Environmentalists are pushing for the Dead Sea to be declared a World Heritage Site

by the UN Educational, Scientific and Cultural Organization, hoping this will force surrounding countries to come up with a plan. 🌍

### Saving silkworms

Kusuma Rajaiah, an Indian man, has developed a new technique for producing silk that does not require killing silk worms in the process. Right now, producing a silk sari involves killing of at least 50 thousand silkworms. Rajaiah has won the patent for producing the “Ahimsa” silk. Ahimsa is a religious concept which advocates non-violence and a respect for all life. However, the production of the silk is more expensive. For example, a sari which costs 2400 rupees to produce using regular silk, will cost 4000 rupees when made with Ahimsa silk. Rajaiah says: “My inspiration is Mahatma. He gave a message to the Indian silk industry that if silk can be produced without killing silkworms, it would be better. He dreamt but that did not happen in his lifetime. I am the happiest person that at least I could do this little thing.” Yarn for a silk sari is usually produced by throwing live cocoons of silkworm into boiling water. A single sari needs upto 50,000 cocoons. Rajaiah allows the moth to escape from the cocoon by waiting for 7-10 days and then uses the shells to produce yarn. [EcoFriend]

## London Oasis

As the 12-metre interactive eco-sculpture, dubbed the London Oasis, slowly opened up its petals, the question on everyone's lips was: what is it?

The London Oasis is the capital's answer to a desert refuge, a functional sculpture that will serve Londoners as a getaway from noise and pollution and surrounds visitors with cool, clean air, relaxing sounds and images all channelled into six “pods”

But it is also an eye-catching demonstration of sustainable technologies, with its photovoltaic ‘petals,’ vertical-axis wind turbine and hydrogen fuel cell powering the air-filtering and cooling mechanisms as well as an evening light show.

The clockwork flower even collects rain-water, used to irrigate a garden at its base. Transparent casing and information posters provide an insight into the plant's inner workings.

London architect Laurie Chetwood, the



mastermind behind the project, said: “The Oasis allows Londoners to get away from the noise, pollution and bustle of city life. It provides a tranquil oasis in an urban area where people can enjoy a more comfortable environment, meet friends, watch the oasis

interact and enjoy entertainment.”

“This is all in the knowledge that their enjoyment is not costing the planet as the Oasis is self-sustaining; harnessing and recycling natural resources.”

“The idea came from an eco-house that was planned to be built in the South American Andes. But as far as I know this is a first, nothing like it has ever been built,” he told edie.

The Oasis was conceived and built in less than five months by a team of around twenty engineers, architects and designers.

Although perhaps not the height of practicality, the Oasis—which was launched as part of London's Architectural Biennale 2006—demonstrates that architecture need not always stay in the narrow confines of functionality.

And when it comes to promoting renewables and sustainability, an impractical but eye-catching 12-metre spiky flower that glows blue and purple at night may be more effective than leaflets full of references to “sustainability principles”. [EDIE NEWS]

## Kiwis lick renewable energy

New Zealand Post has released a series of stamps celebrating the fact that over 60% of the country's electricity is generated as renewable energy via their hydro schemes (90c).

The stamps not only reflect the influence of this source of fossil fuel free energy, but myriad other forms too. The largest wind farm in the southern hemisphere is at Tararua, Palmerston, supplying juice to 30,000 homes (45c).

The biogas technology used at Waikato is said to be able to service a similar number of houses near to such facilities throughout the country (\$1.35).

Long before Lord of the Rings fever hit, the Land of the Long White Cloud was attracting tourists to its geothermal wonders, which have also been harnessed to provide 18% of primary energy needs (\$1.50).



And finally our old favourite Solar, shown here on the \$2 stamp, powering a remote lighthouse. [NZ Post]

## Mice have capacity for empathy

A new study by McGill University professor of psychology Dr. Jeffrey Mogil shows that the capacity for empathy, previously suspected but unproven even among higher primates, is also evident in lower mammals. In research published in the journal *Science*, Professor Mogil discovered that mice familiar to each other and able to see one another in pain were more sensitive to pain than those tested alone. The results, which for the first time show a form of "emotional contagion" between animals, shed light on how known social factors play a role in pain management.

The findings are not only unprecedented in what they tell us about animals, they may ultimately be relevant to understanding pain in humans. [Science]

## Long-haul birds returning early

Birds that migrate long distances have adapted to the world's changing climate in unexpected ways. As the planet warms, and spring arrives earlier in Europe, birds are being forced to change their migration patterns. It had been thought that birds travelling long distances from Africa to Europe would be unable to adapt. But a study in *Science* suggests they have evolved in response to climate change and are returning earlier.

The need for migratory birds to time their arrival at breeding grounds with plentiful food supplies is a known evolutionary pressure. Scientists had assumed

that birds travelling short distances would be better able to adapt—and arrive earlier for spring—because of similar climate conditions in their nearby winter grounds. But researchers in Europe decided to test this theory, using long-term banding and observational data from Scandinavia and Italy dating back to 1980.

The study revealed that long-distance fliers have adjusted their migration habits to arrive earlier in northern Europe in time for the start of spring.

This suggests a more permanent change in migratory behaviour due to climate change than previously thought.



## What about mercury from compact fluorescents?

Many people, when they learn that compact fluorescent bulbs contain mercury vapor, get sceptical about the much talked-about benefits of these and assume that traditional incandescent light bulbs are less damaging to the environment despite requiring more power and having shorter lives.

After all, mercury is really bad stuff, right?

"A toxic metal known to cause brain, spinal cord, kidney and liver damage in humans—does not break down easily and, once airborne, often finds its way into groundwater, rivers and the sea, where it can cause a host of contamination issues for wildlife and people alike."

But as often is the case, the truth can be a bit counter-intuitive.

Ironically, compact fluorescent bulbs are responsible for less mercury contamination than the incandescent bulbs they replaced, even though incandescents don't contain any mercury.

The highest source of mercury in our air and water results from the burning of fossil fuels, such as coal, in the power stations which supply our electricity.

Since a compact fluorescent bulb uses 75 percent less energy than an incandescent bulb, and lasts at least six times longer, it is responsible for far less mercury pollution in the long run.

A coal-burning power plant will emit four times more mercury to produce the electricity for an incandescent bulb than for a compact fluorescent.

Not to mention that it will save you money with a lower electricity bill. [E Magazine]



**A WALK IN THE PARK** David Gallagher, a student at the Dalhousie School of Architecture in Halifax, Nova Scotia, has created a grass-lined wheel to simulate an eternal lawn environment and to draw attention to what he considers a North American obsession with manicured lawns. People who were curious enough to ask one of the students what it was all about got slips of paper explaining the students' ideals. "They're just really curious about it," said James. "And we get a lot of hamster jokes."



# Dr Masaru Emoto to visit South Africa

Dr. Masaru Emoto will be visiting South Africa from 19-25th of September 2006 to highlight the message that “water is alive”.

The visit is also intended to relay the message that it is time to explore ways of finding the common language between science and traditional wisdom, which is being eroded in the process of modernization and globalization. Dr Emoto will be meeting with local scientists to explore options for expanding his science around water in South Africa.

## ZERISA Host Organisation

Dr Emoto visit is being organised by ZERI-SA assisted by ZERI international. ZERI believes that Dr Emoto's work is an important contribution in the field of developing innovative and sustainable technologies. Dr Emoto's visit will contribute profoundly to raise public awareness around water issues in this country.

Dr Emoto has never been to Africa. At the request of ZERI and Prof. Gunter Pauli, Emoto has made water crystals responding to traditional African music. This really inspired Dr Emoto to visit South Africa. Dr Emoto hopes to present this water crystal image to Nelson Mandela during his visit to South Africa.

## The relevance of Dr Emoto's message to South Africa

South Africa is going to face an enormous water shortage and water related problems in the near future.

- Old fashioned farming methods, polluting industries guzzling water and unsustainable water use-life styles need to be challenged if South Africa has to actively involve in regenerating water source for all.

- Water is simply a basic necessity as well as basic right that cannot be left only in the hands of government, politicians or industry alone.

- In townships across the country people are facing acute water problem. The rivers and waterways are polluted. The poor in particular women and children are facing the brunt of water problem

- Current water –use and related practices across the world and South Africa is no exception to this- is based on very narrow understanding of water and water technologies.

This narrow understanding has led to the current scenario where by clean water has become an affordable commodity only for the rich. Increase in the unsustainable bottled water industries will aggravate water



related problems.

On the other hand there is a gradual stripping away of the traditional wisdom around water. South African traditional culture like any other traditional pre-industrial cultures deeply respects water, water rituals are part of any ceremonies. Water is an integral part of nature with an innate intelligence of its own.

While the current industrial context has to be taken into account, it is imperative that all water development and water use designs become aware of the live consciousness of water, uphold the sacredness of water at the same time see how obsolete science and technologies that abuse water be reconsidered.

## Education building critical awareness around Water use

An active public awareness can thus challenge industries based on any unsustainable abuse of water causing more depletion of water source as well as polluting waters. Public participation on the basis of informed knowledge is the best way to move forward especially when it is something as basic and critical to life as water. Exposure such as that of Dr Emoto's messages from water will inevitably open up new ways of developing water technologies while making a conscious move towards a more sustainable water use in this country.

Smart approaches will emerge embark-

ing on greater water related campaigns and education bringing in the wisdom of the old ways blending it with the possible new solutions embedded in science and technology.

- How do we create public awareness around such an important natural resource, as water?

- How do we make sure that the awareness around water will assist general public to understand how industries and narrow science is polluting our land, our waters?

- How can we expose narrow and short-sighted business that uses old science as a crutch to uphold the greed and profit motives of few interest groups?

ZERI-SA believes that it is only through such public awareness and education that we are able to unlock the new scientific knowledge and blend this with ageless tradition and practices -which has incredible respect to water bodies and water use. We will thus be able to unlock an incredible way forward in terms of changing the behaviours of water guzzling industries such as mining, metals, chemicals as well as water intensive farming operations in this country while enabling challenging breakthroughs in the creation of new affordable and inclusive water use technologies that is sustainable.

**For more information email  
info@zerisa.org or visit  
www.zerisa.org**

## World's first magnetic levitation wind turbines unveiled

Chinese developers have unveiled the world's first permanent magnetic levitation wind power generator at the Wind Power Asia Exhibition 2006 in Beijing. The MagLev generator is regarded as a key breakthrough in wind power technology, expected to boost wind energy generating capacity by as much as 20 percent over traditional wind turbines. The MagLev is able to utilize winds with starting speeds as low as 1.5 meters per second (m/s) and will be able to provide roadside lighting along highways by utilizing the airflow generated from vehicles passing by. [Xinhua]

## Japan's ambitious plan to fight warming

Japan hopes to slash greenhouse gas emissions and fight global warming with a plan to pump carbon dioxide into underground storage reservoirs instead of releasing it into the atmosphere. The proposal aims to bury 200 million tons of carbon dioxide a year by 2020, cutting the country's emissions by one-sixth. Underground storage of carbon dioxide underlines the new urgency felt by industrialized countries trying to rein in the effects of global warming. But capturing carbon dioxide from factory emissions and pressurizing it into liquid form, scientists can inject it into underground aquifers, gas fields or gaps between rock strata, safely keeping it out of the air. [IPSICA]

## US demand for organic food outstrips supply

America's appetite for organic food is so strong that supply just can't keep up with demand. Organic products have only a tiny slice, about 2.5 percent, of the nation's food market. But the slice is expanding at a feverish pace. Growth in sales of organic food has been 15 percent to 21 percent each year, compared with 2 percent to 4 percent for total food sales. Mainstream supermarkets have rushed to meet demand. The number of organic farms in the US — an estimated 10,000 — is also increasing, but not fast enough. As a result, organic manufacturers are looking for ingredients outside the United States in places like Europe, Bolivia, Venezuela and South Africa. [Organic Source]

# Study shows global warming may not lead to greater crop yields

Scientists had thought that there was one potential upside to global warming: more food to feed the world.

Years of laboratory tests led them to believe that more carbon dioxide in the atmosphere could fertilize food crops such as corn, soybeans, wheat and rice, offsetting the plant-damaging effects of higher global temperatures and less rainfall.

But a new study with field tests in Illinois and other spots around the globe is challenging that assumption, suggesting that any increase in crop yields due to the buildup of greenhouse gases would be modest or nonexistent.

Lower-than-expected yields could have dire consequences for the world's food supply, the study's authors concluded. They called for more research into plant varieties that could withstand the atmospheric assault.

The prevailing scientific wisdom has been repeatedly cited in government projections on food supplies and by Bush administration officials who oppose mandatory limits on emissions of heat-trapping gases.

Authors of the new University of Illinois study, published in the journal *Science*, said their findings are more accurate because they mimic predicted atmospheric changes in farm fields. Instead of

growing plants in a greenhouse, the researchers set up plots surrounded by rings of tubes that spray carbon dioxide and ozone over the crops.

They found that corn yields didn't increase at all when the air over the plots contained the amount of carbon dioxide projected to be lingering in the atmosphere by 2050. Increases in wheat and soybean yields were about half of what was previously thought.

"These results are very important," said Bert Drake, a plant pathologist at the Smithsonian Environmental Research Center who was not involved in the study. "There hasn't been much of an effort to develop plants that will respond to projected conditions."

By the middle of the century, cars, power plants, factories and other sources are expected to boost the amount of carbon dioxide in the atmosphere by about 50 percent from current levels. Although that is expected to lead to higher global temperatures, it also could increase the photosynthesis of plants.

Tests conducted at University of Illinois plots in Illinois, Arizona, New Zealand, Japan and Switzerland found that those potential benefits are limited by the ability of many crop varieties to absorb more carbon. [KRT WIRE]

# The Canary Project: documenting climate change in photos

The Canary Project ([canary-project.org](http://canary-project.org)) photographs landscapes around the world that are exhibiting dramatic transformation due to global warming to persuade as many people as possible that global warming is already underway and of immediate concern. *Clockwise from top right:* This statue stands next to the Waal river (a distributary of the Rhine) and depicts how high the river can rise before the nearby Dutch town of Zaltbommel will flood; Rocks where there used to be snow at the Pitztal ski area. The machine in the foreground is a snow maker. Dead Sea Fan and Elkhorn Corals in Belize's Barrier Reef.





## Bill, please... what do we owe nature?

Never mind how polluted it might be, at least the air we breathe is still free. But what if you had to pay for it — and all the other essential freebies that nature provides?

Columbia University Ecology Prof. Shahid Naheem imagines: Our most vital utilities and services — such as the provisioning of breathable air, potable water, fertile soils, productive fisheries, equitable climate, environmental security, and much more — are all provided for us by millions of species that work around the clock.

And the plants, animals, and microorganisms that provide these services have never sent us a bill.

Nine years ago, I took part in a study that estimated

nature's services as worth in the neighborhood of 33 trillion dollars a year. Translate that into modern currency, divide by the 6.5 billion people estimated to currently inhabit the Earth, and every man, woman, and child would get a bill for about R3500 each month.

If we adjust payments so that the biggest users, say the wealthiest nations, pay the most, then the typical bill for a family of 4 in the United States would be more like R12000 per month.

Such back-of-the-envelope calculations are wacky, to be sure, but they do drive home the message — biodiversity does a lot for us and asks for nothing in return.

## Huge marine wetland starts life

After 400 years, Wallasea's sea wall comes tumbling down to create giant wetland site

A 300m section of a sea wall has been breached to begin the creation of the UK's largest man-made marine wetland. Almost 115 hectares has been flooded at Wallasea Island, Essex, to create wetland, mudflats, saline lagoons and seven artificial islands. The £7.5m UK government-funded project aims to replace bird habitats lost to development, improve flood defences, and create leisure opportunities. Excavators were used to breach the sea wall on 4 July to allow the sea in.

Mark Dixon, who is managing the Wallasea Wetlands Creation project, said the tide spread across land that was once wheat fields and it began the slow process of creating new salt marsh and mud-

flats. "It's eventually going to be a new sea defence, so you're going to have brand new mudflats, brand new salt marshes and they'll absorb the tide's energy. You've got a big new sea wall at the back, protecting land and property, and then in front of it a series of lagoons and islands and creeks, which birds and people can enjoy."

Biodiversity Minister Barry Gardiner said: "Salt marsh is more rare than rainforest, and is important to people, particularly as a flood and storm defence, and to wildlife. Hundreds of thousands of wetland birds rely entirely on the Essex salt marsh for their food each winter."

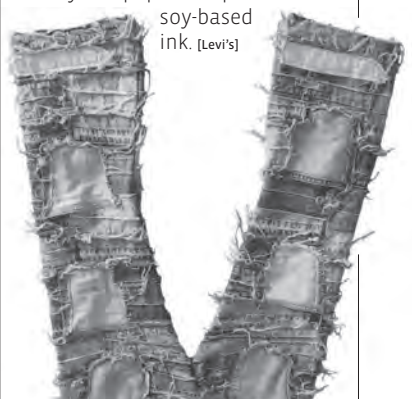
Photo: The sea-wall was breached on 4 July to restore 115 hectares of wetland.



## Levi's goes organic

Levi's will be adding 100% organic cotton jeans to their product line. Jeans made with all, or a significant percentage of, organic cotton will be signified as "Levi's Eco" and feature an embroidered lowercase "e" inside the front pocket, or at the bottom of the right leg of each jean. A natural colored canvas "Levi's" tab and "Two Horse Patch" will also indicate the jeans are made from organic cotton.

Other eco-friendly elements include the use of recycled buttons, rivets and zippers, and natural indigo was used to dye some styles of jeans. All external packaging will be made from organic fabric or recycled paper and printed with



soy-based ink. [Levi's]

**HERO OF THE HOUR:** Nicole Barlow, a medical representative now being called 'The Erin Brockovich of Boksburg' after she put her life on hold and went all the way to the Witwatersrand High Court to stop developers of a petrol station from ruining a wetland listed as an 'irreplaceable site' by the Gauteng government. She was quoted in the Mail & Guardian newspaper as saying "My whole life now is dedicated to saving wetlands, which are being destroyed at the rate of about 20% a year. On the East Rand we have at least 4 200 of the country's almost 7 000 wetlands.

The **Southern African Sustainable Seafood Initiative** (SASSI), which has made waves among restaurants and consumers of seafood for its campaign to educate people about which linefish are endangered and which are sustainable. SASSI is a partnership between WWF, Endangered Wildlife Trust and the Department of Environmental Affairs and Tourism. It's most effective device is a list of what you can eat and what you should avoid, available from [www.panda.org.za/sassi](http://www.panda.org.za/sassi).

The Green List (sustainable) shows you can, with good conscience, choose from yellowfin tuna, calamari, sardines, snoek,



## THUMBS UP

yellowtail and West Coast rock lobster.

The Orange List names fish that should be eaten sparingly, if at all. These linefish are in trouble. They include popular fish like kingklip, kabeljou (kob), red stumpnose, rockcods, skates and rays, and sole.

The Red List contains fish you should not eat in a restaurant at all, as they are hovering on the brink of extinction: galjoen (South Africa's national fish), rock salmon (river snapper), white musselcracker, white steenbras, potato bass, brindle bass, spotted grunter and East Coast rock lobster.

A wonderful new wave of giving by the mega-wealthy, which some say is the first sign of a new golden age of giving. Uber investor-capitalist **Warren Buffett**, second richest man in the world, recently committed to giving away 85% of his \$44 billion fortune to charities.

Also **Bill and Melinda Gates**, for working hard on giving away the vast bulk of their enormous fortune. The Gates foundation, the recipient of most of Buffett's money, is the largest charitable foundation in the US, with assets of \$29 billion. Sanford Weill, chairman of Citigroup, has also decided to give away his \$1.4 billion fortune in a "deal with God".

**Anita Roddick** seems to have kicked something off by saying



Warren Buffett

**VILLAIN OF THE PIECE:** Andre de Wet, recently fired Eastern Cape tourism and economic affairs minister, for stonewalling Wilderness Safaris' planned lodge in Mkambati provincial reserve on the Wild Coast. As a result, Wilderness, a top tourism company in Southern Africa, specialising in community partnerships and low environmental impact lodges, has reluctantly pulled out. Members of the Mkambati Land Trust, representing 40 000 villagers who were to benefit, are furious, according to a *Mail & Guardian* report.

They had pledged an extra 14 000 hectares of their own old agricultural land to add to the 7 200 hectare Mkambati reserve. The collapse of the deal cost surrounding communities a R50 million investment in their land, a 46% share of net profits from the planned lodges, a new clinic and a children's educational camp, as well as hundreds of jobs, a vegetable growing project and other enterprises. This in an area so poor that 3% of children are mentally retarded by the time they are 10 because of malnutrition.

De Wet sank the deal, approved by his (also fired) predecessor, Enoch Godongwana, saying it was "fatally flawed", but never explained why. The deal descended into a morass



## THUMBS DOWN

of red tape, delays, bungling and legal problems. Some skeptics are wondering whether tourism is being deliberately sabotaged on the Wild Coast to leave the field open for dune mining.

### Wagon Wheels Motel in Beaufort West

for penning up a handful of miserable springbok in small dusty enclosure as a roadside attraction. The 'boktronk' award also goes to the **SA Mint in Midrand**, which regularly gives motorists traveling between Pretoria and Johannesburg whiplash as they see blesbok, springbok and ostriches in the Mint's tightly fenced area.

**Japan, Iceland and Norway** for having killed tens of thousands of whales in the past two decades. Japan purports to be doing it for scientific purposes, although it is then sold in supermarkets. Norway doesn't even bother with an excuse, and openly flouts the rules of the International Whaling Commission. This year, Japan alarmed conservationists at the IWC by achieving a 33 to 32 majority in a vote on the repeal of the whaling moratorium. A 75% majority is needed to overturn the ban, but for many, the vote was an ominous reminder of the lengths Japan is prepared to go to. It has given more than \$100 million in aid to island nations that it has then persuaded to back its pro-whaling position.

Last year Japan announced plans to double its 'scientific' whaling in the Southern Ocean Sanctuary around Antarctica and add endangered humpback and fin whales to its target list.

**China**, for the railway from Beijing to Tibet's capital, Lhasa, opposed by most Tibetans. Beijing has announced plans to relocate 20 million Chinese in Tibet over the next decade, further eroding

she would rather give her multi-million fortune away than bequeath it to her children. Even Angelina Jolie gives away one third of her annual income to deserving causes.

**Nedbank**, for sponsoring a solar panel 'billboard' at the MC Weiler Primary School in Alexandra, Johannesburg. This will power the school's kitchen, allowing the school to be self-sufficient with clean energy. It enables at least 1 000 pupils a day to be given a hot meal – for many, the only substantial meal they receive. The billboard is the first of several planned for various sites around the country. It is a 4,5 x 18 metre double sided board with 10 solar panels, each generating 135 watts of power, charging twenty deep cell batteries – these produce enough power to boil 18 domestic kettles continuously.

**Wal-Mart**, that enormous American low-price supermarket chain, for making some interesting environmental advances. It has vowed to expand into the stocking of pesticide-free food, and recently opened two stores partially powered by wind turbines and solar panels.

**Spain**, which passed a resolution in Parliament in June this year that will give a set of rights to chimpanzees, bonobos, gorillas and orang-utans. These great apes will then have the status of legal persons within Spanish law. The step began in 1993, when philosophers Peter Singer and Paola Cavalieri urged the Spanish government to protect great apes from maltreatment, slavery, torture, death and extinction.

This was on the grounds that not only do they and humans have the vast majority of their DNA in common, but also because they are clearly intelligent beings with strong emotions that often mirror those of humans. It is a rejection of the notion that these animals can be considered property, with no more legal status than a piece of furniture.

**Vergelegen wine estate** near Stellenbosch, for being the only winery where the cellar, vineyards and hospitality divisions are environmentally certified. It is also the champion of the Biodiversity and Wine Initiative, which seeks to make vineyards eco-friendly. Vergelegen, owned by Anglo American and 3 170 hectares in extent, has 140 hectares dedicated to vines and 80 hectares set aside for fruit orchards. The rest, containing invasive alien vegetation, is to be rehabilitated over 10 years.

As alien plants have been removed, so streams that had not run for decades started to flow, and fynbos returned. Water run-off into their dams has increased by two million litres, and indigenous animals, including sunbirds, buck and fish eagles are increasing in number.

**Group 3**, for planning a new housing project on the edge of Clanwilliam Dam that will effectively be South Africa's first purpose-built solar-powered housing project. Not only will buyers be able to generate free electricity and hot water for their own needs, but will also be able to sell surplus power to neighbours or even Eskom.

The solar system of each of the 84 homes will act as an individual power plant, collecting and storing energy for the household's needs. All systems will also work in unison to generate power for the whole development. The locally developed technology, which allows unused power to be fed safely back into the power grid, is so efficient that it has been exported to many countries around the world. 🌍

the vanishing Tibetan culture, and increasing the marginalisation of Tibetans in the economy. His Holiness the Dalai Lama has said that China was committing a kind of "cultural genocide" was taking place inside Tibet. This follows an actual genocide in which over a million Tibetans are thought to have been killed since Chinese forces invaded the country in 1959.

The railway line has been estimated to cost three times the amount the Chinese government has spent on health care and education in the country in the past fifty years. Of the 38 000 people employed to build the railway, only 6 000 were Tibetans, none of them in supervisory positions.

Many Tibetans feel this is the final blow to their fragile ecology. Already the country has been used as a dumping ground for China's nuclear waste, and musk deer and chiru antelope have been hunted to the brink of extinction. It's thought Beijing's plans to form 25 new townships along the highway will overburden the ecology and increase illegal poaching.

**Rooipoort**, part of Mogale City, which used to be a place of beauty, with extraordinary ridges, for allowing them to be developed in the most inappropriate way. More specifically, for a decision taken by them and endorsed by the Gauteng government to build a reservoir on top of the same ridge that is pair to the only breeding pair of black eagles in the world.

The development is planned to be just a few hundred metres from the black eagle nesting site above the Walter Sisulu National Botanical Garden. Environmental groups fear that the eagles, which have been nesting there for 40 years, could permanently vacate the area during the envisaged 330 day construction period.

The ridge, home to Bankenveld grassland that evolved millions of years ago, cannot be re-established, say experts. The reservoir is to be built to supply burgeoning cluster and townhouse developments and a casino. Environmental groups are appealing the decision.



**Bat-eared Fox**

the feeding frenzy, while the plants enjoyed an even pruning," she said.

"Sadly many Karoo farmers still believe this problem can be solved with poison. So once again tons of chemicals have been sprayed throughout many districts in the Karoo.

We have had reports of flocks of birds like lesser kestrels eating the sprayed dead hoppers. Chemical companies tout synthetic pyrethroids as perfectly safe, yet are highly toxic to bees, all aquatic life and 90% of the creatures living in our precious Karoo soil."

The National Disaster Relief fund spent R48-million on the previous locust campaign - more than the cost of compensating farmers for veld damage.

- Courtesy Rose's Roundup. 🌍

**Karoo farmers**, for yet again spraying the veld against locusts. According to Marina Beal of the Nama Karoo Foundation, these periodic locust swarms are not the threat many think them to be.

"Millions of birds accompanied by bat-eared foxes and even sheep enjoyed

# A Guide to Green Cars

What makes one car greener than another? Certainly, having high fuel economy is one factor. Meeting one of the cleanest exhaust emissions standards is another.

Being manufactured in a clean factory with safe, non-toxic substances, or using a larger portion of recycled materials, are further aspects of environmental friendliness.

The key to progress on all of these fronts is design with the environment in mind.

**A** GENUINELY GREEN CAR IS, OF COURSE, impossible. Moving a tonne of steel and plastic around could never use no energy at all and even the zero emissions hydrogen fuel cell cars will require prodigious amounts of energy to produce the hydrogen in the first place.

## Buying Green – The “No-Compromise” Options

### PZEVs & Hybrids

PZEVs, or partial zero-emission vehicles, include the now familiar Toyota Prius and more than a dozen other vehicles.

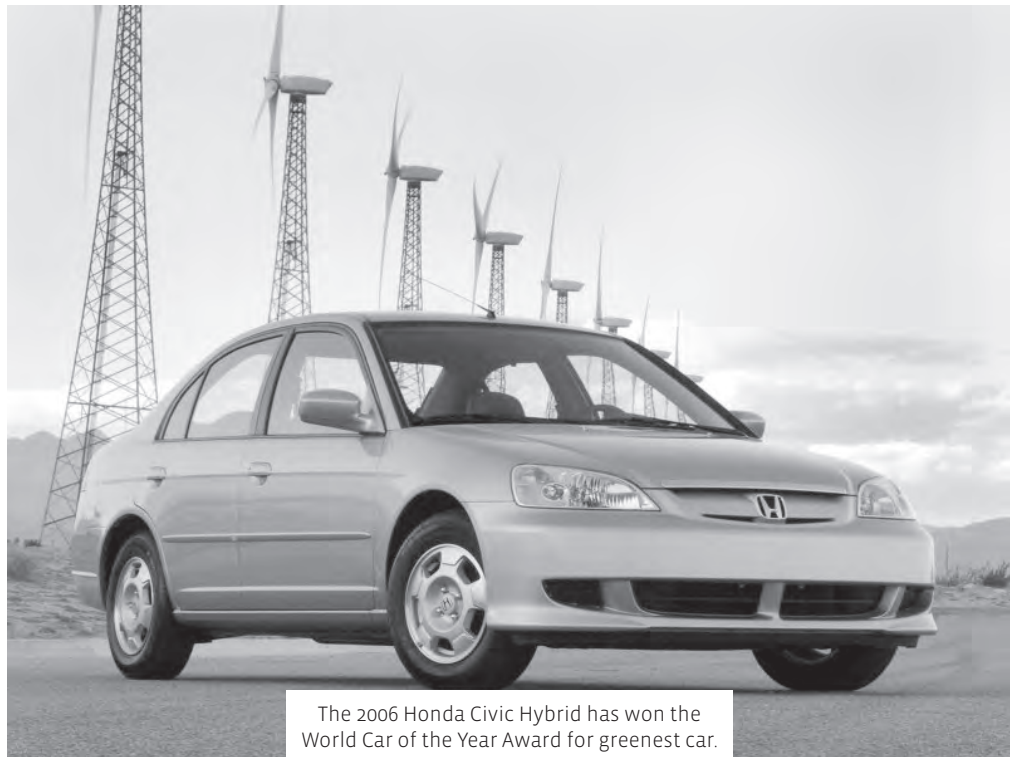
Car companies are promoting these cars as having better performance—and sales prove that as performance has soared so has popularity.

The Honda Civic Hybrid, for example, out-accelerates its petrol-only version and it also requires fewer stops at the service station. Public demand for the new Toyota Prius, which gets over 21.25km per liter, has outpaced production since it was introduced in 2001.

Hybrids and PZEVs look like regular cars, but under the hood they have sophisticated technology that reduces health-threatening tailpipe emissions by 90%, and evaporative emissions (the vapours that escape from the fuel tank) to nearly zero. PZEVs typically cost significantly more than their conventional counterparts.

PZEVs burn petrol so efficiently that their exhaust is cleaner than the air in some smoggy areas. PZEVs can help reduce urban smog which so badly affects the health of city dwellers, especially children and the elderly.

## Cars for People Who Want to Get off Oil or Reduce Climate Change Even More



The 2006 Honda Civic Hybrid has won the World Car of the Year Award for greenest car.

Climate change is no longer a theory, it is a scientifically proven fact. Thirty percent of the carbon dioxide (CO<sub>2</sub>) emissions, the major source of global climate change, are from transportation. Fortunately, there are several ways of reducing CO<sub>2</sub> emissions from your car.

The easiest option is to look for the most fuel efficient hybrid or PZEV vehicle. CO<sub>2</sub> emissions are directly proportional to the amount of petrol you use, so a 20km per liter car emits just half of the CO<sub>2</sub> of a 10km per liter car.

You could reduce your CO<sub>2</sub> emissions even more if you powered your vehicle with an ‘alternative fuel’ such as compressed natural gas (CNG), liquid propane (LPG), biodiesel, or ethanol. These fuels have the added advantage of reducing, often to

almost zero, the use of oil, most of which is imported. Let’s look at each alternative fuel option:

### Biodiesel

Biodiesel, a favorite fuel in the US bus and trucking industry, is beginning to make inroads in our local bus industry. Biodiesel is made from an oil-rich plant, such as soybeans, and can be run in a conventional diesel engine. Because it gets thick when cold, and ignites at a lower temperature than diesel, it is normally blended with diesel in cold climates. B20, the usual mix, is 20% biodiesel and 80% diesel, though 100% biodiesel (B100) can be purchased. Additionally, waste cooking oil can be run in a diesel vehicle if you have an additional tank and other simple modifications.

There are several conversion kits on the market. (See [www.greasecar.co.za](http://www.greasecar.co.za), for example). Bio will reduce greenhouse gas emissions by 77% (because the plants, when growing take CO<sub>2</sub> out of the atmosphere) and reduce dependence on foreign oil by 68% (unless the plants are grown with no chemical fertilizers, and tractors run on biodiesel, in which case 100% reductions could theoretically be achieved.) B2o reduces CO<sub>2</sub> by 28% and fossil fuel use by 13%. While biodiesel offers a great opportunity to use waste cooking oil and surplus soybeans,

## Greener Transport Also Means Reducing Driving

A vehicle's greenness depends not only on its design, but also on how it is used. A car is greener when it's carrying two people rather than one and it's greener still with three. And it's greenest of all if left at home when there's a cleaner way to go: by foot or by bicycle, by bus or by train, and even by wire (telecommuting or videoconferencing).

Consider your opportunities to reduce car use when practical, by walking or biking for short trips, ridesharing, and combining several errands into one trip.

Our options for getting to work or school, shopping or recreation, conducting business, and visiting family or friends depend very much on where we live. Choosing where you live for its walkability and convenience to work, school, or transit—what planners call location efficiency—is a key way to reduce your need for driving. In some areas, people find it surprisingly easy to do without a car at all.



15% petrol.

Ethanol is usually used in “flex-fuel” vehicles—vehicles that can be run on either petrol or ethanol. An estimated 2.5 million ethanol flex-fuel vehicles are in use in the US today, but only a small percentage actually are using ethanol. E85 reduces CO<sub>2</sub> emissions by 22%, and reduces fossil fuel use by 34%.

### Propane

Propane, a by-product of natural gas production and oil refining, is used by fleet vehicles. It is estimated that there are approximately 275,000 propane-powered vehicles in the US today. Propane reduces CO<sub>2</sub> emissions by 15%, but does not reduce fossil fuel use.

### Hydrogen

Hydrogen-powered vehicles have been much in the news, and have many attractive characteristics. They have the potential of making fuel choice a non-issue, since hydrogen can be produced from just about any fuel.

All car companies have hydrogen-powered prototype vehicles—but don't expect them in the showroom anytime soon, because there are still many technical challenges in making, storing, and transporting hydrogen, as well as using it in conventional internal combustion engines or in fuel cell vehicles.

Hydrogen's environmental advantages and its ability to compete in the market place will be determined by how it is made. Hydrogen can be made by electrolysis, using electricity to split water into hydrogen and oxygen. If the electricity to make the hydrogen were produced by wind, solar, or other zero emitting fuels, we could produce environmentally friendly zero emission hydrogen—but many feel this is not economically feasible.

If, however, it were made using electricity from today's power plants, CO<sub>2</sub> costly emissions would increase—and we would need to build new power plants to produce enough

## Facts and Figures

- **70 million** motor vehicles were on the world's roads in 1950
- **630 million** motor vehicles were on the world's roads in 1994
- **1 billion** motor vehicles are expected to be on the world's roads by 2025, if the current growth rate continues
- **12,000 pounds** of carbon dioxide are emitted by the average car each year
- **5 percent** of a car's fuel can be wasted by underinflated tires
- **2 billion gallons** of gasoline could be saved annually if 65 million car owners kept their tires properly inflated
- **85 percent** of auto fuel is consumed just to overcome inertia and start the wheels turning
- **2.5 times** more emissions are generated by SUVs and light trucks than by standard cars
- **50 million** new cars roll off the assembly line each year
- **11 million** cars are junked annually in the U.S.

many are concerned that if crops were grown specifically for fuel production that food producing land would be displaced and degraded.

### Compressed natural gas

Compressed natural gas vehicles have been used extensively in Canada and Australia. In the US they have been used most extensively by companies that have a fleet of ten or more vehicles. These companies usually install a CNG fueling station at their facility so they can refuel easily.

CNG is a naturally occurring, clean-burning fossil fuel. It emits 13% less CO<sub>2</sub> than a similarly fuel-efficient vehicle.

### Ethanol

Ethanol has been extensively used in Brazil for decades. Ethanol is an alcohol made from plant material that has a high sugar content. In Brazil, the waste from making sugar is the main feedstock. Research is being done on the potential of other waste plant materials to produce ethanol less expensively. A favorite of US Midwest farmers, ethanol is usually blended with petrol. E85 is 85% ethanol and

electricity to meet the demand for hydrogen.

Hydrogen can also be extracted from other materials that have a high hydrogen content, such as natural gas—many people feel this would be the best approach—but it does not get us away from using nonrenewable fossil fuels, or take CO<sub>2</sub> emissions to zero.

## Electric Vehicles

Like hydrogen, electricity can be produced from any fuel, and like hydrogen, electricity is only as clean as the fuels used to create it. For example, if a car ran on electricity produced from today's coal-fired plants, CO<sub>2</sub> emissions would be greater than those from petrol car. But if the electricity were pro-

duced from wind and solar, CO<sub>2</sub> emissions would approach zero.

Most car companies have tried to produce full-size electric vehicles that meet consumer demands for a car that can be refueled quickly and have at least a 160 kilometer driving range. Nevertheless, electric vehicles are becoming popular in niche markets such as airports, mines, and warehouses, and smaller electric vehicles are entering the consumer market.

Some people believe that battery technology will advance soon to a point where full-size electric vehicles could play an important role in the consumer market and deliver better value than hydrogen vehicles. Only time will tell. 🌐

## South African Restaurant Oil Abuse

**B**IODIESEL ONE aids in combating rampant abuse of waste restaurant cooking oil in South Africa.

It is generally accepted that when restaurant oils (i.e. used cooking oils and fats) are fit for human consumption, it is also fit to be included into animal feed. However, due to extensive abusive practices in South Africa causing restaurant oils to become toxic, it is of extreme importance that the safety and traceability of these oils are assured to avoid abuse.

Malpractices at South African frying establishments are responsible for extensive degradation of frying oils and fats (also referred to as restaurant oils) to levels unheard of in other countries. This is mainly caused by the repeated use of oil in order to save money. In many cases restaurant oils are also sold to the poor communities where it is further broken down through repeated usage to levels that poses a health threat.

These breakdown products have been shown to be hazardous to human and animal health and should therefore not be incorporated into animal feed or re-used for human consumption. It has been reported that these breakdown compounds can cause serious diseases such as cancer and diarrhoea in humans and animals. Consequently, strict legislation has been proclaimed in South Africa prohibiting the use of these oils.

As a result of these malpractices and poor quality management programs used by some restaurant oil collectors, many animal feed manufacturing companies are reluctant to

by **TERRY BOOYSEN, BIODIESEL ONE**

incorporate these oils into their animal feed stocks. Consequently, many restaurant oils are today recycled illegally into the human food chain or are channeled legally to the oleochemical industry.

It must be noted however that large amounts of waste restaurant oil is finding its way into “legally” to animal feedstocks such as the chicken industry and pet feeds to name a few.

The former, illegal route is preferred in South Africa since it affords much higher prices compared to the oleochemical route. Since we have estimated that more than 50 000 tons p.a. of restaurant oils are available in South Africa, the illegal distribution of large quantities of toxic over-used restaurant oils for human consumption can have disastrous effects.

We are convinced that the establishment of a traceability programme that would route all of this oil into the biofuels business will result in the channeling of large amounts of potentially dangerous restaurant oils away from the human food chain and animal feed since biofuel companies can afford more competitive prices than oleochemicals. Our experience is that many frying establishments will not use the illegal route if viable alternatives are to their disposal. Also, if strict quality management systems are applied by oil collectors at frying establishments, mainly restaurant oils within regulatory limits will be used in food preparation.

It is important to note that From the 31st October 2004 waste cooking oil from catering premises can no longer be used as an ingredient in animal feed. This change has been introduced as a measure to safeguard animal health and the subsequent food chain

## Practical Tips for Greener Driving

How you drive and take care of your vehicle affects its fuel economy and emissions levels. Follow these simple driving tips to reduce the environmental impact of your car today.

- \* Drive less. Driving as little as possible is the best way to reduce the environmental impact of your transportation needs. Link errands, carpool, use mass transit, bike, or walk whenever possible. Choose a place to live that reduces your need to drive. If your family already has one car, consider trying to meet your travel needs without buying a second one.

- \* Drive moderately. High-speed driving and jack-rabbit starts increase both fuel use and emissions.

- \* Keep your vehicle well tuned. Simple maintenance -- such as regular oil changes, air-filter changes, and spark plug replacements -- will lengthen the life of your car as well as improve fuel economy and minimize emissions.

- \* Inflate your tires. Keeping your tires properly inflated saves fuel by reducing the amount of drag your engine must overcome.

- \* Keep track of your fuel economy. A drop in your car's fuel economy can be a sign of engine trouble. Keeping track of your fuel economy on a regular basis can let you know when something is malfunctioning. You can check your gas mileage by noting the odometer reading and number of liters you purchase each time you fill up. Divide the number of kms traveled between fill-ups by the number of liters purchased.

- \* Don't let your car idle for more than a minute. During start-up, your engine burns extra gasoline. However, letting your engine idle for more than a minute burns more fuel than turning off the engine and restarting it.

- \* Park in the shade. Minimize evaporation of fuel and keep your car cooler in the summer by parking in the shade.

under the Animal By-Products Regulation EC 1774/2002 (ABPR) and applies across Europe, including the UK.

In most Member States the ban has applied since May 2002. This IS NOT the case in South Africa. We are hoping that the South African Government will follow suit. As consumers we are not aware that waste products are finding their way into our food chain. In some remote areas farmers are purchasing oil directly from restaurants and including it into the feed for their sheep.

We have encountered several cases where unsuspecting restaurants have been sold retreated waste cooking oil as new oil. This is happening today! 🌐



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### Who Uses Biodiesel?



There are a number of fleets that use biodiesel. Some buses use it, some nature reserves use it for their trucks and buses, and some government fleets use it. Many small to medium companies run their vehicles on biodiesel—does your business run on biodiesel?



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Pigs are intelligent, friendly animals whose complexity of social interaction is as advanced as that of dolphins and elephants. When in their natural surroundings rather than on factory farms, they are social, playful, protective animals who bond with each other, make beds, relax in the sun, and cool off in the mud. Please don't support the industry which abuses these fascinating animals.

# MAKING BACON: the shocking truth

compiled by COMPASSION IN WORLD FARMING (SA)

**M**ANY PEOPLE THINK OF *Charlotte's Web* and *Babe* when they imagine how pigs are raised for meat. Unfortunately, these Hollywood tales do not depict reality.

Almost all of the 100 million pigs killed for food in the United States every year endure horrific conditions in controlled animal feeding operations (CAFOs), the meat industry's euphemism for factory farms.

Smarter than dogs, these social, sensitive animals spend their lives in overcrowded, filthy warehouses, often seeing direct sunlight for the first time as they are crammed onto a truck bound for the slaughterhouse.

Many people who know pigs compare them to dogs because they are friendly, loyal, and intelligent. Pigs are naturally very clean and avoid, if at all possible, soiling their living areas. When given the chance to live away from factory farms, pigs will spend hours playing, lying in the sun, and exploring their surroundings with their powerful sense of smell.

Considered smarter than 3-year-old hu-

man children, pigs are very clever animals.

Most people rarely have the opportunity to interact with these outgoing, sensitive animals because 97 percent of pigs in United States today are raised on factory farms. These pigs spend their entire lives in cramped, filthy warehouses, under constant stress from the intense confinement and denied everything that is natural to them.

As piglets, they are taken away from their mothers when they are less than 1 month old; their tails are cut off, some of their teeth are cut off, and the males have their testicles ripped out of their scrotums (castration), all without any pain relief.



They spend their entire lives in overcrowded pens on a tiny slab of filthy concrete.

## Many breeding sows spend their entire miserable lives in tiny metal crates where they can't even turn around.

Shortly after giving birth, they are once again forcibly impregnated. This cycle continues for years until their bodies finally give out and they are sent to be killed. When the time comes for slaughter, these smart and sensitive animals are forced onto transport trucks that travel for many miles through all weather extremes—many die of heat exhaustion in the summer and arrive frozen to the inside of the truck in the winter.

A mother pig, or sow, spends her adult life confined to a tiny metal crate. She will never feel the warmth of a nest or the affectionate nuzzle of her mate—she will spend her life surrounded by thick, cold metal bars, living



on wet, feces-caked concrete floors. When she is old enough to give birth, she will be artificially impregnated and then imprisoned again for the entire length of her pregnancy in a “gestation crate,” a cage only 60cm wide—too small for her even to turn around or lie down in comfortably.

The piglets are taken away from their mother after less than a month—in nature, they would stay with their mother for several months.

She is impregnated again, and the cycle of forced breeding and imprisonment continues. For such an intelligent animal, this intensive confinement causes debilitating stress and boredom. With nothing to do but stare at the bars in front of her, a mother pig may go insane. This is often exhibited by neurotic chewing on the cage bars or obsessive pressing on her water bottle. After three or four years, when her body is exhausted and her mind pushed to or even past the brink of insanity, she is shipped off to slaughter.

Meanwhile, the sow's piglets have their testicles cut out of their scrotums, their tails cut off, many of their teeth clipped in half, and their ears mutilated, all without any pain relief. Terrified and in extreme pain, the piglets are often put alone into tiny metal wire cages (called “battery cages” by the farmers). These cages are stacked on top of each other, and urine and excrement constantly fall on the piglets in the lower cages.

Once the piglets have grown too big for the cages, they are placed into small, cramped pens crowded with many other piglets, where they are kept until they are large enough for slaughter. The animals are given almost no room to move because, as one pork-industry journal put it, “[O]vercrowding pigs pays.” Impeccably clean by nature, pigs on factory farms are forced to live in their own feces, vomit, and even amid the corpses of other pigs.

## Overcrowding, poor ventilation, and filth cause rampant disease.

Respiratory problems are common because of high levels of humidity and toxic gases from the manure pits—in fact, 70 percent of pigs on factory farms have pneumonia by the time they're sent to the slaughterhouse. Many pigs die from infections caused by the noxious fumes and filth of their enclosures. Pigs are fed massive doses of antibiotics to keep them alive in these conditions. Conditions are so filthy

Newborn piglets learn to run to their mothers' voices, and mother pigs sing to their young while nursing. Pigs are actually very clean animals: if given sufficient space, pigs will be careful not to excrete near where they sleep or eat. Pigs don't "sweat like pigs"; they are actually unable to sweat. Pigs like to bathe in water or mud to keep cool.

that at any given time, more than one-quarter of pigs suffer from mange.

Because of illness, lack of space to exercise, and genetic manipulation that forces them to grow too big too fast, pigs often develop arthritis and other joint problems. Many pigs on factory farms live on slatted floors above giant manure pits. Smaller pigs often suffer severe leg injuries when their legs get caught between the slats.

Always concerned with their bottom line, some farmers kill sick animals instead of giving them medicine or veterinary care. In nature, pigs live for 15 years, but pigs on fac-

tory farms are sent to slaughter after just six months of life. To get the terrified pigs onto the transport trucks bound for the slaughterhouse, workers may beat them on their sensitive noses and backs or stick electric prods in their rectums.

Crammed into 18-wheelers, pigs struggle to get air and are usually given no food or water for the entire journey (often hundreds of kilometres).

A former pig transporter told PETA that pigs are "packed in so tight, their guts actually pop out their butts—a little softball of guts actually comes out." 🌐

## The hidden lives of pigs

**U**S PRESIDENT HARRY TRUMAN stated, "No man should be allowed to be President who does not understand hogs."

Most people know very little about these fascinating animals. In fact, pigs are curious and insightful animals thought to have intelligence beyond that of an average 3-year-old human child. They are smarter than dogs and every bit as friendly, loyal, and affectionate. When in their natural surroundings, not on factory farms, they are social, playful, protective animals who bond with each other, make beds, relax in the sun, and cool off in the mud. Since most people are not that familiar with pigs, you may be surprised

to learn that they dream, recognize their names, play video games more effectively than some primates, and lead social lives of a complexity previously observed only in primates.

People who run animal sanctuaries often describe pigs with human characteristics, because they've learned that, like humans, pigs enjoy listening to music, playing with soccer balls, and getting massages.

### What the experts say

Professor Stanley Curtis of Penn State University found that pigs play and excel at joystick-controlled video games. He observed that they are "capable of abstract represen-





**Every year, more than two million pigs are slaughtered in South Africa.**

tation” and “are able to hold an icon in the mind and remember it at a later date.” Professor Curtis says that “there is much more going on in terms of thinking and observing by these pigs than we would ever have guessed.” Pigs are much smarter than dogs, according to the research, and even did better at video games than some primates. Says Dr. Sarah Boysen, Curtis’ colleague, “[Pigs] are able to focus with an intensity I have never seen in a chimp.”

**Pigs form complex social units and learn from one another in ways previously observed exclusively among primates.**

For example, pigs use clever ploys to try to outsmart each other. Pigs often learn how to follow others to food before snatching it away. Those who are tricked learn to change their behavior in order to reduce the number of times they are deceived.

And Dr. Mike Mendyl notes that pigs can signal their competitive strength and “use this information to minimize overt aggression during disputes about social ranks,” just like many primates (including humans). He explains that “pigs can develop quite sophisticated social competitive behavior, similar to that seen in some primate species.”

**Pigs communicate constantly with one another.**

More than 20 of their oinks, grunts, and squeals have been identified for different situations, from wooing their mates to expressing, “I’m hungry!”

**Pigs have a very long memory.**

Dr. Curtis put a ball, a Frisbee, and a dumbbell in front of several pigs and was

able to teach them to jump over, sit next to, or fetch any of the objects when asked to and they could distinguish between the objects three years later.

Scientists at the University of Illinois have learned that not only do pigs have temperature preferences, they also will learn through trial and error how to turn on the heat in a cold barn if given the chance and turn it off again when they are too warm.

Professor Donald Broom of Cambridge University Veterinary School says, “[Pigs] have the cognitive ability to be quite sophisticated. Even more so than dogs and certainly three-year-olds.”

Suzanne Held, who studies the cognitive abilities of farm animals at the University of Bristol’s Centre of Behavioural Biology, says that pigs are “really good at remembering where food is located, because in their natural environment food is patchily distributed and it pays to revisit profitable food patches.”

Newborn piglets learn to run to their mothers’ voices, and mother pigs sing to their young while nursing.

**Pigs are actually very clean animals.**

If given sufficient space, pigs will be careful not to excrete near where they sleep or eat. Pigs don’t “sweat like pigs”; they are actually unable to sweat. Pigs like to bathe in water or mud to keep cool.

**Pig prowess**

Like dogs, piglets learn their names by two to three weeks of age and respond when called. Pigs prefer water to mud. One woman developed a shower for her pigs, and these

astute animals learned to turn it on and off.

Pigs appear to have a good sense of direction and have found their way home over great distances. Adults can run at speeds of up to 20 km an hour.

**Pigs have shown gentleness and forgiveness.**

Norwegian author Bergljot Borresen writes about a mountain farmer who mistreated his pig. The pig locked her jaws into his thigh but didn’t bite down. The farmer believed it was a warning not to treat her unkindly again. In her own way, she gave him another chance.

Author John Robbins notes that “unlike dogs, horses and humans, they will never dangerously overeat even when given access to unlimited food.” The pork industry, however, has wreaked havoc on this healthful habit with a drug called Hog-Crave, which causes pigs to overeat so that they will grow faster and will thus be more profitable to those who kill them.

**Pigs have been known to save the lives of others, including their human friends.**

According to The Daily Telegraph, “a pet piglet called Pru was praised by her owner ... after dragging her free from a muddy bog.” The owner said, “I was panicking when I was stuck in the bog. I did not know what to do and I think Pru sensed that. ... I had a rope with me that I use as a dog lead and I put it around her. I was shouting ‘Go home, go home’ and she walked forward, slowly pulling me out of the mud.”

**Like dogs, pigs have done many heroic deeds.**

Babe’s real-life counterparts have rescued human and nonhuman companions, stopped intruders in their tracks, and even saved themselves from slaughterhouses. In addition to the previously mentioned piglet Pru, who dragged her human companion from a muddy bog, there is also Priscilla, who saved a young boy from drowning; Spammy, who led firefighters to a burning shed to save her calf friend Spot; and Lulu, who found help for her human companion who had collapsed from a heart attack.

A pig named Tunia chased away an intruder, and another named Mona held a fleeing suspect’s leg until the police arrived.

A pig in New Jersey jumped off a truck en route to the slaughterhouse, while in England, a stone carving of a pig named Butch was placed upon a historic cathedral after Butch and his friend Sundance escaped from a slaughterhouse and roamed the country for several days before being captured. Fortunately, a national outcry against slaughter allowed Butch and Sundance to go to a sanctuary. 🌍

# Do Africans dare care about animals?

In learning the gentle art of caring about the well-being of animals, we learn to care more about each other

by LOUISE VAN DER MERWE, ANIMAL VOICE

**A**RE ANIMAL RIGHTS the privileged domain of the world's affluent nations? Dare we, in Africa, care about the well-being of animals while so many of our people are dying of hunger, Aids or in bloody civil conflict?

To care about the well-being of animals in Africa today would seem misplaced—callous and indifferent to the plight of our own kind. Anti-human, even. Perhaps not...

This article poses the question: For the sake of Africa and all its people, dare we not care about the well-being of animals? I approach the argument from two angles. The first considers the impact of neglect and disregard for the well-being of animals on society in general and young minds in particular. The second considers the hidden, yet devastating impact of institutionalised animal cruelty, on the Continent as a whole.

1. The government in South Africa decided recently on a temporary black-out of official statistics on rape, murder and child molestation in an effort, inter alia, it is believed, to keep up the country's morale. Staggering statistics had revealed rape occurred every 25 seconds, that the murder rate was amongst the highest in the world, that 1 in 3 girls and 1 in 4 boys would be sexually molested before adulthood. In some communities, drive-by shootings and gang warfare in the streets had become commonplace.

Against this backdrop, Mr Wikus Gresse, Chairman of the Parole Board at Pollsmoor Prison near Cape Town, recently made an impassioned plea. "Teach people how to care," he said.

As founder of one of the most successful criminal rehabilitation projects in the world today, known as **The Bird Project**, Gresse has seen first hand the healing power inherent in the gentle art of caring. The Bird Project enables prisoners to hand-rear Love Birds, Cockatiels and parrots for ultimate sale to avid bird-keepers. "If these people (the prisoners), as youngsters, had been given the chance of humane education, of learning how to care—some of them would most probably not be here today," says Gresse.

Dr Sean Kaliski, head of forensic psychiatry at Valkenberg mental hospital, Cape

Town, goes as far as to say that the entire nation's mental health is diminished by the ubiquitous evidence of animal neglect and cruelty—from starving dogs which land up as road kill, to lame cart horses with suppurating harness wounds—from the bundles of chickens tied together by wings or legs, feebly fluttering in the dust, to the pigs which lie immobilised in the baking sun, waiting to die horrendous deaths often by way of a blunt pocket knife.

He said South Africa, as a whole, would benefit from a national programme to create an awareness of the need to treat animals kindly and with respect. "The link is there," says Kaliski. **"Someone who is cruel and violent to animals will also be so to people. We need to sensitise a desensitised nation and the younger we start, the better."**

The link between animal cruelty and human violence is now well established in socio-psychological circles. At the invitation of the Cape Town based Humane Education Trust (HET), American, Phil Arkow, who is chairman of a national task force in the USA on the prevention of animal abuse, child abuse and domestic violence, visited South Africa on a lecture tour in early 2000. Says Arkow: "Human violence almost always has its roots in animal cruelty." Of particular interest is the fact that animal abuse is now recognized as a sign of mental disorder.

In the last quarter of 2000 The Humane Education Trust was given the opportunity to rekindle a spirit of care and respect for life in 11 of the Western Cape's most disadvantaged and violence-torn schools. The Western Cape Education Department agreed that humane education, as a pilot project, would get a three-month opportunity to establish its value and benefit to school children. A clinical psychologist with six years experience in the rehabilitation of criminals was employed to assess the impact of the project on a scientific basis.

Details of the what, where and how of this pilot project are clearly shown in the HET's 21-minute documentary video *Caring Classrooms* and the psychologist's final assessment, also available from HET, was

that humane education was an "overwhelmingly positive" influence in the lives of the children and should be incorporated in the national schools curriculum.

Most noteworthy to the educators involved in the project, however, was the obvious sense of self-worth which the project generated among the children.

**Ironically, in learning the gentle art of caring about the well-being of animals, they also learned to care more about each other, to show more respect for their teachers and most importantly, they developed a sense of their own value as human beings.**

Brendan, in Grade 10, put it thus: "Humane Education gave me a new pair of eyes. Everything I look at now I see differently. Nowadays I don't throw stones at stray dogs anymore and I give that thief-cat that always hangs at our door, our left-over food. I don't even swear so much anymore and I really feel proud about it."

Elton, also in Grade 10, said: "For me Humane Education was a great and joyful programme. It made me into a better person."

As one of the educators involved in the project noted: "A sense of self-worth and pride in being human is diametrically in opposition to acts of crime and violence."

This article contends, therefore that we, as a society which yearns for peace and the burgeoning of the African Renaissance, raise our children to be callous and indifferent to the suffering of other living beings at our peril.

2. On the macro-scale, dare we allow an oligopoly of First World Agri-Industrialists to set up in Africa with their massive factory farms, hoping that Africans will still be naive enough to buy into the tired old idea that the cruelty involved in factory farming is a necessary evil in order to feed the poor?

Beset by outbreaks of disease on an unprecedented scale, the tide in Europe has turned away from factory farming, the iniquitous system of keeping huge numbers of animals in close confinement and deprivation, often mutilated to prevent cannibalism. As the tide recedes in Europe however, it is advancing steadily in developing countries

## SUPPORT ANIMAL VOICE

as Dutch, Belgian and other agri-farmers colonise huge markets in Africa, Asia and South America with the promise of cheap food.

The truth is, though, the actual cost of 'cheap food' is astronomical. The huge hidden costs of intensive farming are estimated to be 2.3 billion pounds sterling annually in the UK alone.

In a hard-hitting report just released by Compassion in World Farming (CIWF) in the UK entitled "The Livestock Revolution: Development or Destruction", the actual cost of 'cheap food' is revealed:

Small-scale farmers cannot compete with the factory farms and go out of business. They are forced to leave rural areas for urban centres where they join the long queue of unemployed. This leads to rural depopulation and increased urban problems such as split families and lowered quality of life.

Factory farms substitute labour with mechanisation causing further loss of livelihoods and a dependence on technological know-how.

Crops are now grown to feed the animals caught up in intensive systems, unable to forage or graze for food on their own. In South Africa 35% of cultivated land is used for animal feed.

Ninety per cent of South Africa is classified by the UN as arid, yet the biggest user of water is irrigation and one-third of this consumption irrigates crops to feed animals in factory farms. It is estimated that irrigation costs included, 100 000 litres of water are used to produce 1kg of beef—i.e. 100 times more water produces 1kg of beef compared to 1kg of wheat.

The intensive live-stock industry is dependent on toxic chemicals leading to pollution of soil, plants and waterways..

Human health suffers as overuse of antibiotics on the factory farm leads to disease-causing bugs becoming resistant to the drugs which combat them. It is for this reason that the Food and Drug Administration in the USA is now seeking to ban the use of certain antibiotics in intensive farming.

Indigenous stock, resistant to disease, heat and able to survive on marginal grazing, are replaced by more productive imported breeds which grow more quickly but cannot withstand the harsh environment.

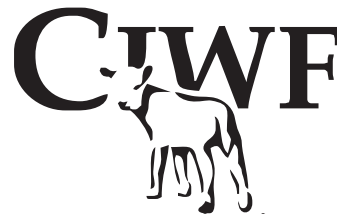
18 million people around the world die from malnutrition or starvation annually while a staggering 95% of world soybean production, for example, is used to feed animals on intensive farms to produce meat mainly to satisfy meat dependent First World countries.

As Janice Cox, co-author of the CIWF report says: "It is time to call a halt to the global growth of factory farming... to take time out to review the hard-learned lessons of the USA and Europe and assess how this deadly development can be halted, and energies redirected to growing food that is gentle to the animals and the environment, as well as being healthy and safe to eat, affordable and accessible to the poorest of the poor."

I ask you: DARE WE, as Africans, allow the third millennium to be blighted by the colonisation of Africa by Agri-Industrialists? I don't think so. 🌱

*Animal Voice* is the official mouthpiece of Compassion In World Farming (South Africa).

CIWA (South Africa) headed by Louise van der Merwe, is also busy bringing out a *Kind Food Guide*:



campaigning  
for farm animals

"... It has taken us 17 years to get to the point where a Kind Food Guide is possible and we request you

please to consider telling your colleagues, friends and contacts about it. Believe it or not, when we started off as Humanity for Hens way back in 1989 there wasn't a single free range egg available in any supermarket anywhere in South Africa. These days we take free range eggs for granted. Besides the eggs, we have made progress for other farm animals too..."

Please support the work of CIWF (SA):

Compassion in World Farming (South Africa)  
P O Box 825, Somerset West, 7129, South Africa  
Tel/fax: 021 852 8160

Email: [avoice@yebo.co.za](mailto:avoice@yebo.co.za) Website: [www.animal-voice.org](http://www.animal-voice.org)

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## SUPPORT THE SNOOT

Official Newsletter of South Africans for the Abolition of Vivisection.

"Although Snout mainly addresses the issue of vivisection, there are also other matters that need a closer look at the story behind the façade, especially where vested interests are concerned. Currently at the forefront of debate are 'canned' lions and culling of elephants, as well as the slaughter of South African seals. All these issues involve major cruelties and massive disinformation campaigns by those who profit from them. They concern our heritage, our wild life, which have a massive price placed upon their heads and, as a consequence, in many cases face extinction."

Editor: Beatrice Wiltshire

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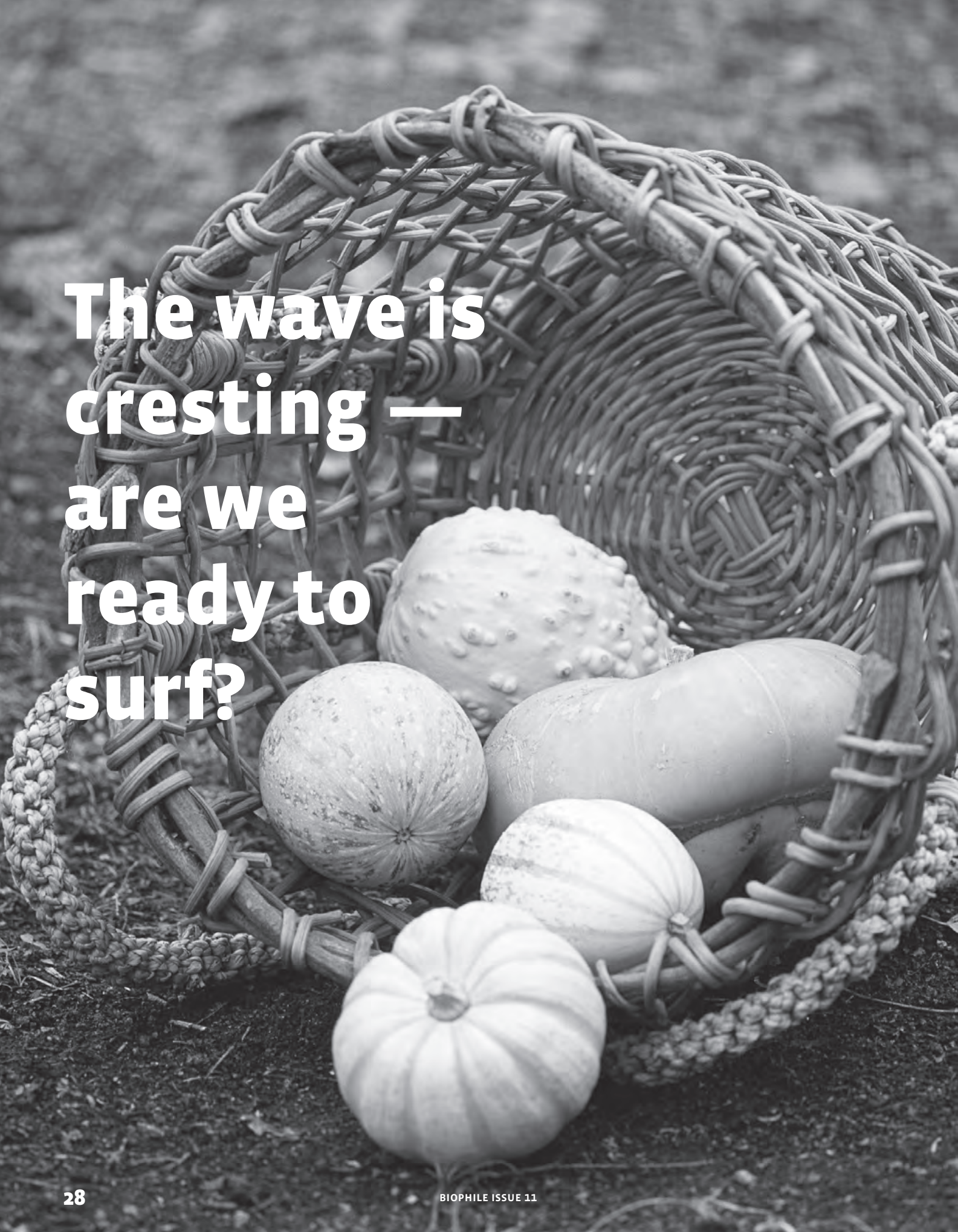
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**The wave is  
cresting —  
are we  
ready to  
surf?**



# A look at recent developments in the organic industry

by ALETTA VENTER, SACODAS

**F**OR THOSE OF US who are at the rock face of the developments within the organic industry, it is obvious that the rate of change and growth is increasing daily and exponentially. It is as though we have been waiting for the tide to turn, for the wave to pick up momentum and now we are the point that we need to know that we are ready to take advantage of the swell that will soon start breaking as a massive wave across the country.

Across all walks of life people are increasingly aware that we are running out of time and ideas to effect a real change in how human beings relate and interact with the natural environment that is our only real recourse for survival. As much as the technologists would like us to believe that we can live out of a laboratory and that money is all it takes, the average human being knows instinctively that is not the case.

And what is more, more and more people are recognizing that this is not what we really want. We all hanker after the beautiful sight of wild animals, clean rivers, flowers in bloom and all that feeds our souls and spirits, as well as our bodies. Our connection to mother earth may be tenuous at best, but it is still there and all it needs is an enabling environment.

## **This is where our government plays a critical role.**

Without conscious and concerted support from our government, our best efforts at civil society level will have only limited and local effect. This is not to say that we must stop working at this level, not at all. It is simply that our effort can have so much more impact if it is backed up and supported by government.

The creation of such an enabling environment is what SACODAS is about. The South African Council for Organic Development and Sustainability (SACODAS) was formed to act as the governing and custodian body for a national initiative called the National Organic Produce Initiative (The NOPI for short). All Public-Private Partnerships require such broad based stake holders' forum that can channel and express the needs and wishes of civil society in an ordered fashion to government role players. Through

the lengthy process of establishing such a partnership with government, we have achieved what has never happened before – for the very 1st time some government officials have recognized that anything other than a western, commercial and industrial approach to development has merit.

The NOPI is now an official national program in which sound sustainable agriculture (organic and biodynamic of course) forms the foundation for all sustainable development programs.

Because of work that was done through the NOPI and SACODAS, the national department of Agriculture was alerted to the fact that legislation was about to be passed on Biofuels that effectively excluded the small-scale private production of biofuels. SACODAS managed to persuade the officials that this was not fair and contrary to our constitution. Work is now underway to ensure that the legislation allows room for such production.

## **Accurate information on organic produce**

In order to implement the NOPI it was recognized that we need accurate information on organic produce in SA. As a result of the brief, checked and beleaguered history of organics in SA, there is virtually no reliable market information available.

The initiators of the NOPI approached the Dept. of Trade and Industry and persuaded them that the “organic agricultural industry” as part of the broader agro-ecological sector, could be viewed as a new economic sector in SA. This means that it qualifies for government support to research and evaluate how this sector can best be developed.

Such studies are conducted using the FRIDGE. The FRIDGE (Fund for Research into Industrial Growth, Development and Equity) is a project of the National Economic, Development and Labour Council's (NEDLAC) Trade and Industry Chamber. It is funded by the department of trade and industry and administered by the Industrial Development Corporation of South Africa Limited (IDC).

A stakeholder meeting was held in Dec 2005 to draft the terms of reference for such a study. The study was approved at the start of the year and the call for tenders has just

been published (in June). The study will be completed within 3 to 6 months after the consultants have been appointed, i.e. by early 2007. The outcome of this study will be document outlining a strategy for the development of the agro-ecology sector. For the 1st time the government will have an official reference document that will guide decisions affecting this newly defined economic sector. This is a major breakthrough and thanks need to be given to the tireless efforts of the individuals and organizations who took it upon themselves to make sure that this happens.

## **Focus in Africa**

Alongside this, another very exciting opportunity has presented itself. SIDA, The Swedish International Development Agency, annually conducts an international training program called Organic Agriculture Development (OAD). This year they decided to focus on Africa and opened the course to participants from Africa only.

Three applicants from South Africa were selected. The good news is that these 3 participants have agreed to work as a team to develop a joint national sustainable development plan for the Agro-Ecology sector agriculture in SA – and of course organic/biodynamic agriculture is again the foundation of this sector! The team consists of 3 women, one from SACODAS, one from the National Department of Agriculture and one from a private NGO (ASNAPP). SACODAS is calling on all its members to make inputs for the development of this very important development plan. See their contact details at the end of this article.

The good news has still not ended. We now have a new minister of Agriculture, Lulama Xingwana, who is set to blow some fresh air into her department. We understand that she visited organic farms on her recent trip to the UK and was very impressed and excited by what she saw. She has also indicated that if the stakeholders in the industry can present her department with the necessary documents, she would be willing to sign off the legislation regarding norms and standards in the organic industry.

The lack of such legislation has been a major constraint for all those that are

involved in the marketing and export of organic produce. Here Organics SA has taken steps to lead an investigating into the current status quo around certification. This will form part of the greater work that is to be done through the SIDA program about redefining quality standards for local and export production. All consumers are entitled to quality produce that they can rely on and that they can be sure has been produced in an eco-friendly and sustainable manner. Quality is about more than just a list of check boxes!

### Promoting exports of organic produce

In a recent call from the Department of Agriculture for candidates for a program promoting exports of organic produce; it was shocking to realize that there were virtually no emerging farmers who qualified for this program!

This highlights the huge potential that exists to convert farmers to organic and biodynamic farming. Effective training in sustainable and integrated agricultural methods such as organic and biodynamic farming remains the starting point for this conversion.

Here again Organics SA has recognized that what training is taking place in SA is not necessarily having the desired effect. In order to address these issues, OSA has obtained funds from Old Mutual to conduct a survey of training and to monitor the outcome of such training. This program is now underway. The results of this program should improve the quality and effectiveness of training in organic agriculture that is being offered in SA.

All of what is happening now is the result of the work and inputs of dedicated individuals and organizations who have never given up on their belief that there is a better way. However, the struggle continues and more and more it is clear that we need to present a united front to our opposition – both in government and in civil society.

### Huge concerns

There are still huge concerns around the wide-spread acceptance of GMO's, the lack of quality control, traceability and labeling.

These issues can only be addressed if we have a much higher level of public and private awareness. It is shocking to know that fewer than 5% of our population know what the acronym GMO stands for, yet they are quite happy to consume foods containing it!

In order to address some of these issues of awareness, Organics SA decided to open its annual conference to a much wider audience than in the past. The theme of this year's conference is "Sustainable Agriculture" and

they are inviting people and organizations from across the whole spectrum of our society, including key departments from government.

This conference is once again taking place in tandem with the Natural and Organic Products Exhibition that is being held in Gauteng at Gallagher Estate from the 20th to the 22nd of September 2006. This exhibition is being held annually and has contributed in a major way to the huge upswing in interest in organic products and produce. The OSA conference is taking place from the 19th to the 21st of Sept at the same venue. Check the OSA website ([www.organicsouth-africa.co.za](http://www.organicsouth-africa.co.za)) for details on the program and speakers.

### So what can you as a private individual do?

Become active – Be an activist. If you, or any organization that you are part of, is any way involved or interested in supporting organic development and sustainability (which includes more than just organic agriculture), please join SACODAS. SACODAS already has more than 50 members.

The more members there are, the more credible the organization becomes as a truly representative body of stakeholders and the more impact their work will have.

There are no fees attached and the only criteria is that the member agrees with the objectives of the company and that when called upon members are willing and able to participate and contribute to strategies and programs that will support the NOPI and other such related programs that will lead to a truly organic and sustainable development of our beautiful country.

The philosophy behind SACODAS and the NOPI are well illustrated in this passage quoted in Lovemore Mbigi's book *The Spirit of African Leadership* on page 13.

*"Spiritual capital challenges capitalism's assumptions that we are primarily economic creatures and argues instead that human beings are essentially creatures of meaning and purpose. The spiritual qualities of a business or a life show the need for dialogue with meaning vision, fundamental/values and deep purpose.*

*"Spiritual capital takes these as crucial commodities of exchange. A company or a person who acts in accordance with meaning, vision, purpose and fundamental values – while making a profit – is invested with spiritual capital. Its primary assumption is that companies can make more profit by doing more good. We act on this assumption by using our spiritual intelligence. (Danah Zohar)"* 🌱

## The objectives of SACODAS:

- SACODAS will set a leading example of Best Practice in excellent governance of PPP's such as the National Organic Produce Initiative (NOPI).
- Act as custodian of organic management principles as enshrined in the African concept of Ubuntu
- SACODAS will at all times function within the guidelines of and meeting requirements as set out in all national and international agendas, protocols and agreements that promote and enhance organic development and sustainability. e.g.
  - > The African Renaissance and NEPAD
  - > Skills Development, BEE, food safety and security, HIV-Aids, SMME stimulation, job creation
  - > Indigenous Peoples' Rights Charter
  - > Johannesburg Plan of Implementation 2002; Kyoto, Montreal, Stockholm and Carthaginian protocols
- Promote the inclusion and participation of all South Africans in the Sustainable and Integrated Villages for Agro-Ecology of the NOPI, providing that they are willing to commit to the principles of organic development and sustainability as set out in the cooperative constitutions of the village
- Organize the supply of organic quality produce on a non-exclusive contractual basis to local, national and international markets according to ethics and principles such as Fair Trade.
- SACODAS will seek to improve the prosperity of all its members through constantly working to improve quality at all levels of the organic value chain
- SACODAS will actively endeavour to empower small-scale PDI farmers to participate in the NOPI in order for them to join the 1st economy in agriculture
- To foster a culture of respect for each other and the earth as basis for all sustainable development

**If you wish to become a member, please contact either the coastal or inland offices and request a membership application form. The offices are:**

Coastal: Aletta Venter — 0734407805.  
Inland: Kim Hutton-Brown — 0826834397

# Organic gardening... and the humble weeds

by BRETT MULLER, EARTHMOTHER ORGANIC

I HAVE BEEN GROWING organic fruit and vegetables around my house for five years now, and the most interesting things have become apparent. As the soil is getting richer, due to the natural farming, more and more indigenous flora is emerging.

The interesting thing is that a vegetable polyculture is a forest pioneer culture as the conditions in which most food crops thrive are very similar to the forest floor. The soil already contains a seed bank from the vegetation which has grown previously and it is the soil conditions which determine which seeds will germinate.

A problem is sometimes in the eye of the observer, take weeds for example: in a naturally-balanced ecosystem you will not find bare soil very often because direct sunlight destroys microbial activity and makes living conditions very harsh for most soil improvers (such as earthworms).

The sun also causes the drying out of the soil often causing compaction that could lead to poor absorption and faster moving water on slopes which can lead to loss of topsoil via erosion. Is it not a wonder of nature that if the soil is laid bare, as in the case of building earthworks, the poor nutrient deficient subsoil leads to massive weed growth.

The best example of these willing plants is the humble Blackjack. He loves poor soil and will germinate best in these conditions. At this point we the “landscapers” usually move in and sort out the problem, or do we? The natural process of the weed is to grow as vigorously as possible to cover the soil from the sun so some sort of microbial activity can begin to re-establish.

The roots of a lot of weeds go deep into the subsoil and bring up valuable elements from the parent rock below, the leaves transform sunlight into nitrogen and

other vital building blocks and the poorer the soil the more vigorous the growth. The weeds if left to their own devices will grow so fast that they will outgrow themselves and as they fall they mulch the earth and enrich the soil. This enrichment leads to the next step of seed germination which will lead over time to further enrichment and eventually the area will reach a state of balance without our involvement.

One can determine the state of the soil by observing the plant life contained therein. Weeds are poor soil indicators so before you pull them out, be prepared to do the work that they had already undertaken, or else those unsatisfied niches will be filled at the first opportunity by the same weed or something similar (or worse!)

Have mulch handy – I use veld hay but any dried organic matter works – look around in your garden for sustainable resources as a first option. The mulch will perform the task of sun protection, water conservation and nutrient accumulation. Plant beneficial soil improvers like lettuce, spinach and beans and throw a few marigolds in too.

A little Lucerne will bring up those valuable bedrock minerals and as well as flowering beautifully, it can be used as power mulch later on. If the soil is hard plant some sweet potatoes or beetroot whose powerful roots will do the job much more effectively and with less effort than a fork. Don't pull all the weeds, a lot of them are beneficial;

educate yourself as they are eager helpers.

After a few months you will have performed the task the weeds set out to do and as a bonus to your newly enriched, weed managed soil you will have a few things to harvest for the table.

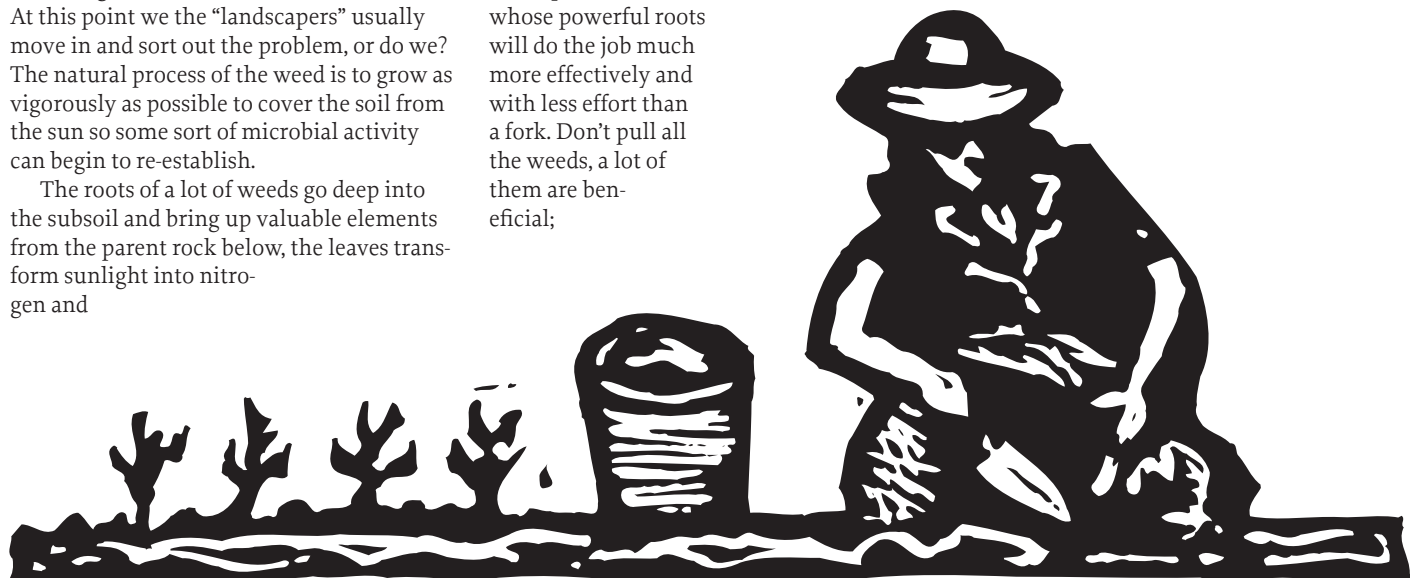
We have a wonderful small grove of trees where our sweet potato patch was and numerous other trees around the garden. Not to mention plenty of other plants of interest which have become part of the landscaping. What gifts nature provides when you take steps towards her.

Be patient with plants you don't recognize that come up on their own, it may be a flower just desperate to open for you. 🌱

EARTHMOTHER ORGANIC

[www.earthmother.co.za](http://www.earthmother.co.za)

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Jeffrey Smith is the author of the international bestseller, *Seeds of Deception*. The information in this article presents some of the numerous health risks of GM foods that will be presented in his forthcoming book, *Genetic Roulette: The Documented Health Risks Of Genetically Engineered Foods*, due out later this year.

# Herbicide in your intestines?

Genetically engineered crops may produce herbicide inside our intestines, killing gut bacteria which are essential for our health.

by JEFFREY SMITH

**P**IONEER HI-BRED'S WEBSITE boasts that their genetically modified (GM) Liberty Link[1] corn survives doses of Liberty herbicide, which would normally kill corn. The reason, they say, is that the herbicide becomes "inactive in the corn plant." [2]

They fail to reveal, however, that after you eat the GM corn, some inactive herbicide may become reactivated inside your gut and cause a toxic reaction. In addition, a gene that was inserted into the corn might transfer into the DNA of your gut bacteria, producing long-term effects. These are just a couple of the many potential side-effects of GM crops that critics say put the public at risk.

Herbicide tolerance (HT) is one of two basic traits common to nearly all GM crops. About 71% of the crops are engineered to resist herbicide, including Liberty (glufosinate ammonium) and Roundup[3] (glyphosate). About 18% produce their own pesticide. And 11% do both. The four major GM crops are soy, corn, cotton and canola, all of which have approved Liberty- and Roundup-tolerant varieties.

**Herbicide tolerant (HT) crops are a particularly big money-maker for biotech companies, because when farmers buy HT seeds, they are required to purchase the companies' brand of herbicide as well.**

In addition, HT crops dramatically increase the use of herbicide,[4] which further contributes to the companies' bottom line.

There are no required safety tests for HT crops in the US—if the biotech companies declare them fit for human consumption, the FDA has no further questions. But many scientists and consumers remain concerned, and the Liberty Link varieties pose unique risks.

Liberty herbicide (also marketed as Basta, Ignite, Rely, Finale and Challenge) can kill a wide variety of plants. It can also kill bacteria,[5] fungi[6] and insects,[7] and has toxic effects on humans and animals.[8] The herbicide is derived from a natural antibiotic, which is produced by two strains of a soil bacterium. In order that the bacteria are not killed by the antibiotic that they themselves create, the strains also produce specialized enzymes which transform the antibiotic to a non-toxic form called NAG (N-acetyl-L-glufosinate).

The specialized enzymes are called the pat protein and the bar protein, which are produced by the pat gene and the bar gene, respectively. The two genes are inserted into the DNA of GM crops, where they produce the enzymes in every cell. When the plant is sprayed, Liberty's solvents and surfactants transport glufosinate ammonium throughout the plant, where the enzymes convert it primarily into NAG. Thus, the GM plant detoxifies the herbicide and lives, while the surrounding weeds die.

The problem is that the NAG, which is not naturally present in plants, remains there and accumulates with every subsequent spray. Thus, when we eat these GM crops, we consume NAG. Once the NAG is inside our digestive system, some of it may be re-transformed back into the toxic herbicide.

In rats fed NAG, for example, 10% of it



was converted back to glufosinate by the time it was excreted in the feces.[9] Another rat study found a 1% conversion.[10] And with goats, more than one-third of what was excreted had turned into glufosinate.[11]

It is believed that gut bacteria, primarily found in the colon or rectum, are responsible for this re-toxification.[12] Although these parts of the gut do not absorb as many nutrients as other sections, rats fed NAG did show toxic effects. This indicates that the herbicide had been regenerated, was biologically active, and had been assimilated by the rats.[13] A goat study also confirmed that some of the herbicide regenerated from NAG ended up in the kidneys, liver, muscle, fat and milk.[14]

More information about the impact of this conversion is presumably found in “Toxicology and Metabolism Studies” on NAG, submitted to European regulators by AgrEvo (now Bayer CropScience). These unpublished studies were part of the application seeking approval of herbicide-tolerant canola. When the UK government’s Pesticide Safety Directorate attempted to provide some of this information to an independent researcher, they were blocked by the company’s threats of legal action.[15] The studies remained private.

## Toxicity of the herbicide

Glufosinate ammonium is structurally similar to a natural amino acid called glutamic acid, which can stimulate the central nervous system and, in excess levels, cause the death of nerve cells in the brain.[16] The common reactions to glufosinate poisoning in humans include unconsciousness, respiratory distress and convulsions. One study also linked the herbicide with a kidney disorder.[17] These reactions typically involve large amounts of the herbicide. It is unclear if the amount converted from GM crops would accumulate to promote such responses or if there are low dose chronic effects.

Perhaps a more critical question may be whether infants or fetuses are impacted with smaller doses. A January 2006 report issued by the Environmental Protection Agency’s (EPA) Office of Inspector General said that studies demonstrate that certain pesticides easily enter the brain of young children and fetuses, and can destroy cells. That same report, however, stated that the EPA lacks standard evaluation protocols for measuring the toxicity of pesticides on developing nervous systems.[18] Scientists at the agency also charged that “risk assessments cannot state with confidence the degree to which any exposure of a fetus, infant or child to a pesticide will or will not adversely affect their

neurological development.” [19] Furthermore, three trade unions representing 9,000 EPA workers claimed that the evaluation techniques used at the agency were highly politicized. According to a May 24, 2006 letter to the EPA’s administrator, the unions cited “political pressure exerted by Agency officials perceived to be too closely aligned with the pesticide industry and former EPA officials now representing the pesticide and agricultural community.”[20]

Although the EPA may be hampered in its evaluations, research has nonetheless accumulated which suggests that glufosinate carries significant risks for the next generation. According to Yoichiro Kuroda, the principal investigator in the Japanese project entitled “Effects of Endocrine Disruptors on the Developing Brain,” glufosinate is like a “mock neurotransmitter.” Exposure of a baby or embryo can affect behavior, because the chemical disturbs gene functions that regulate brain development.[21]

When mouse embryos were exposed to glufosinate, it resulted in growth retardation, increased death rates, incomplete development of the forebrain and cleft lips,[22] as well as cell death in part of the brain.[23] After pregnant rats were injected with glufosinate, the number of glutamate receptors in the brains of the offspring appeared to be reduced.[24] When infant rats were exposed to low doses of glufosinate, some of their brain receptors appeared to change as well.[25]

Glufosinate herbicide might also influence behavior. According to Kuroda, “female rats born from mothers that were given high doses of glufosinate became aggressive and started to bite each other—in some cases until one died.” He added, “That report sent a chill through me.”[26]

## Disturbing gut bacteria

If the herbicide is regenerated inside our gut, since it is an antibiotic, it will likely kill gut bacteria. Gut microorganisms are crucial for health. They not only provide essential metabolites like certain vitamins and short fatty acids, but also help the break down and absorption of food and protect against pathogens. Disrupting the balance of gut bacteria can cause a wide range of problems. According to molecular geneticist Ricarda Steinbrecher, “the data obtained strongly suggest that the balance of gut bacteria will be affected”[27] by the conversion of NAG to glufosinate.

When eating Liberty Link corn, we not only consume NAG, but also the pat and bar genes with their pat and bar proteins. It is possible that when NAG is converted to herbicide in our gut, the pat protein,

for example, might reconvert some of the herbicide back to NAG. This might lower concentrations of glufosinate inside of our gut. On the other hand, some microorganisms may be able to convert in both directions, from glufosinate to NAG and also back again. If the pat protein can do this, that is, if it can transform NAG to herbicide, than the presence of the pat protein inside our gut might regenerate more herbicide from the ingested NAG. Since there are no public studies on this, we do not know if consuming the pat gene or bar genes will make the situation better or worse.

But one study on the pat gene raises all sorts of red flags. German scientist Hans-Heinrich Kaatz demonstrated that the pat gene can transfer into the DNA of gut bacteria. He found his evidence in young bees that had been fed pollen from glufosinate-tolerant canola plants. The pat gene transferred into the bacteria and yeast inside the bees’ intestines. Kaatz said, “This happened rarely, but it did happen.”[28] Although no studies have looked at whether pat genes end up in human gut bacteria, the only human GM-feeding study ever conducted did show that genetic material can transfer to our gut bacteria. This study, published in 2004, confirmed that portions of the Roundup-tolerant gene in soybeans transferred to microorganisms within the human digestive tract.[29]

**Since the pat gene can transfer to gut bacteria in bees, and since genetic material from another GM crop can transfer to human gut bacteria, it is likely that the pat gene can also transfer from Liberty Link corn or soybeans to our intestinal flora.**

If so, a key question is whether the presence of the pat gene confers some sort of survival advantage to the bacteria. If so, “selection pressure” would favor its long term proliferation in the gut.

Because the pat protein can protect bacteria from being killed by glufosinate, gut bacteria that take up the gene appears to have a significant survival advantage. Thus, the gene may spread from bacteria to bacteria, and might stick around inside us for the long-term. With more pat genes, more and more pat protein is created. The effects of long-term exposure to this protein have not been evaluated.

Now suppose that the pat protein can also re-toxify NAG back into active herbicide, as discussed above. A dangerous feedback loop may be created: We eat Liberty Link corn or soy. Our gut bacteria, plus the pat protein,

turns NAG into herbicide. With more herbicide, more bacteria are killed. This increases the survival advantage for bacteria that contain the pat gene. As a consequence, more bacteria end up with the gene. Then, more pat protein is produced, which converts more NAG into herbicide, which threatens more bacteria, which creates more selection pressure, and so on. Since studies have not been done to see if such a cycle is occurring, we can only speculate.

## Endocrine disruption at extremely low doses

Another potential danger from the glufosinate-tolerant crops is the potential for endocrine disruption. Recent studies reveal that endocrine-disrupting chemicals (EDCs) can have significant hormonal effects at doses far below those previously thought to be significant. The disruptive effects are often found only at minute levels, which are measured in parts per trillion or in the low parts per billion. This is seen, for example, in the way estrogen works in women. When the brain encounters a mere 3 parts per trillion, it shuts down production of key hormones. When estrogen concentration reaches 10 parts per trillion, however, there is a hormone surge, followed by ovulation.

Unfortunately, the regulation and testing of agricultural chemicals, including herbicides, has lagged behind these findings of extremely low dose effects. The determination of legally acceptable levels of herbicide residues on food was based on a linear model, where the effect of toxic chemicals was thought to be consistent and proportional with its dosage. But as the paper *Large Effects from Small Exposures* shows, this model underestimates biological effects of EDCs by as much as 10,000 fold.<sup>[30]</sup>

In anticipation of their (not-yet-commercialized) Liberty Link rice, Bayer Crop-Science successfully petitioned the EPA in 2003 to approve maximum threshold levels of glufosinate ammonium on rice. During the comment period preceding approval, a Sierra Club submittal stated the following.

“We find EPA’s statements on the potential of glufosinate to function as an endocrine-disrupting substance in humans and animals as not founded on logical information or peer-reviewed studies. In fact EPA states that no special studies have been conducted to investigate the potential of glufosinate ammonium to induce estrogenic or other endocrine effects. . . . We feel it’s totally premature for EPA at this time to dismiss all concerns about glufosinate as an endocrine-disrupting substance. . . . Due to the millions of Americans and their children exposed to glufosinate and its metabolites, EPA needs to

conclusively determine if this herbicide has endocrine-disrupting potential.”

The EPA’s response was that “glufosinate ammonium may be subjected to additional screening and/or testing to better characterize effects related to endocrine disruption” but this will only take place after these protocols are developed. In the mean time, the agency approved glufosinate ammonium residues on rice at 1 part per million.

Since glufosinate ammonium might have endocrine disrupting properties, even small conversions of NAG to herbicide may carry significant health risks for ourselves and our children.

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## Inadequate animal feeding studies

If we look to animal feeding studies to find out if Liberty Link corn creates health effects, we encounter what independent observers have expressed for years—frustration. Industry-sponsored safety studies, which are rarely published and often kept secret, are often described as designed to avoid finding problems.

If we look to animal feeding studies to find out if Liberty Link corn creates health effects, we encounter what independent observers have expressed for years—frustration. Industry-sponsored safety studies, which are rarely published and often kept secret, are often described as designed to avoid finding problems.

In a 42-day feeding study on chickens, for example, 10 chickens (7%) fed Liberty Link corn died compared to 5 chickens eating natural corn. Even with a the death rate doubled, “because the experimental design was so flawed,” said bio-physicist Mae-Wan Ho, “statistical analysis failed to detect a significant difference between the two groups.” Similarly, although the GM-fed group gained less weight, the study failed to recognize that as significant. According to testimony by two experts in chicken feeding studies, the Liberty Link corn study wouldn’t identify something as significant unless there had been “huge” changes. The experts said, “It may be worth noting, in passing, that if one

were seeking to show no effect, one of the best methods to do this is would be to use insufficient replication, a small n,” which is exactly the case in the chicken study.

Without adequate tests and with a rubber stamp approval process, GM crops like Liberty Link corn may already be creating significant hard-to-detect health problems. In Europe, Japan, Korea, Russia, China, India, Brazil and elsewhere, shoppers have the benefit of laws that require foods with GM ingredients to be labeled. In the US, however, consumers wishing to avoid them are forced to eliminate all products containing soy and corn, as well as canola and cottonseed oils. Or they can buy products that are organic or say “non-GMO” on the package. Changing one’s diet is a hassle, but with the hidden surprises inside GM foods, it may be a prudent option for health-conscious people, especially young children and pregnant women. 🌍

### Footnotes:

- 1, Liberty Link is a registered trademark of Bayer Crop-Science
- 2, Pioneer Brand hybrids with the LibertyLink1 gene
- 3, Roundup is a registered trademark of Monsanto
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# Sugar addiction

Scientists never really thought that a person could become hooked on sweets like they were a drug. Now a batch of findings is making researchers reexamine the concept.

by THE SOCIETY FOR NEUROSCIENCE

**S**UGAR ADDICTION has long been joked about. Most researchers, however, believed you could not get hooked on sweets and lose control over consuming them, as if they were drugs. Studies are now making some scientists revisit the idea. The results do not indicate that donuts are in the same category as addictive drugs like heroin, alcohol or nicotine, but they do suggest that some brain actions and characteristics associated with the intake of sweets and drug addiction may overlap. The findings are leading to:

- A better understanding of how the brain controls food intake and how this system may go awry.

- New ideas on how to treat people with extreme compulsions to overeat sweets.

Studies that focused on brain chemicals, known as opioids, provided some of the first clues that an overlap may exist between sweets and drugs. Some addictive drugs like heroin or morphine activate the opioid system to produce a pleasurable response that many believe helps fuel a longing for more drugs and is key to the addiction process.

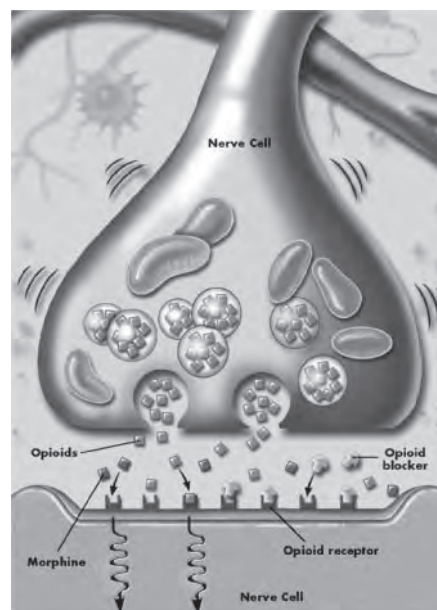
In one study, compounds that blocked the activity of opioids made animals less interested in eating meals, particularly sweetened versions. Researchers found similar results in tests of humans with eating disorders like bulimia, marked by a habit of bingeing on foods that are typically sweet. The blockers cut in half the consumption of sweets packed with sugar and fat including candy bars and cookies. The intake of low sugar, low fat snacks such as popcorn, saltines, breadsticks and pretzels did not decrease. Some believe that the studies hint that sweets, like some drugs, have a pronounced affect on the brain's opioid system (see image), although direct proof is still lacking.

Whether through opioids or some other brain chemical, the scientists suspect that sweets like drugs can activate an "incentive system" in the brain that helps reinforce behaviors. Activation by food is generally beneficial. It makes us want more and keeps us alive. Sweets, however, packed with calories, may create extra activity that helped us in primitive times when food was scarce, but

is not needed today.

Recent behavioral tests in rats further back the idea of an overlap between sweets and drugs. Drug addiction often includes three steps. A person will increase his intake of the drug, experience withdrawal symptoms when access to the drug is cut off and then face an urge to relapse back into drug use. Rats on sugar have similar experiences. Researchers withheld food for 12 hours and then gave rats food plus sugar water. This created a cycle of bingeing where the animals increased their daily sugar intake until it doubled. When researchers either stopped the diet or administered an opioid blocker the rats showed signs common to drug withdrawal, such as teeth-chattering and the shakes. Early findings also indicate signs of relapse. Rats weaned off sugar repeatedly pressed a lever that previously dispensed the sweet solution.

Plans are under way to study binge eaters and further determine whether molecular and behavioral signs common to drug addiction exist. If confirmed, the research could lead to new ideas for treating eating disorders. It also may give you more incentive to steer clear of that tub of chocolate fudge icecream. Well maybe. 🌐



# The Right to Food

It is unlikely that you will know personally any of the ten children under five years old who die every hour in South Africa, and so are spared that suffering.

by MARGARET LEGUM, SANE

**I**F YOU CAN BUY AND READ THIS MAGAZINE you probably do not live among very poor people. They suffer, and then they die, from poverty: they could have survived their diseases with good food and medication; but they have access to neither. It is hard to imagine suffering on such a scale, in your own community and in peace-time.

Many of the hundreds of people who attended the Conference in June on the Right

it reflected the 'laws of God and man', nor because other nations thought it should be done, but 'fundamentally because it is the right thing to do'.

In those days it was hard to imagine South Africa recognizing the equality of all human beings. Forty years later we have done so in principle – except that some of our people still die from lack of nourishment.

under the World Trade Organisation, higher than the economic principle that the market shall determine all prices and therefore who can pay them, higher than the ideology that food must be produced, like all other goods and services, as cheaply and profitably as possible everywhere; higher than the opinions of wealthy potential investors.

It would take a decision to recognise food as not just another product, like cars and shoes and fridges, but as a daily necessity, like water or air. We need to eat food regularly or else we sicken and die. But we can postpone or deny our purchases of other consumer goods. Food should be treated in that light.

**Second, we would need to recognize that food must be subsidized.** As an industry agriculture has a range of unpredictable challenges from the weather and pests and changes in climate. It can give a sustainable livelihoods only if the price at least is predictable. Farmers cannot change the cycles of nature is response to volatile market conditions, including the value of the rand.

Food subsidy has often been taken for granted since the industrial revolution: its current rejection is the exception. And many nations, notably France, will always subsidize agriculture, not only because of the strength of the farming lobby, but because it is the reason for the flourishing rural economy, the prosperous small farmers and the sheer quality of the French countryside, for which it is globally celebrated. The French are prepared to pay a price for this, and they will not end it, whatever they promise in the way of reform

**Third, we would shift the problem focus from the bottom end of the income hierarchy** – poor people and their presumed 'culture of entitlement and dependence' – to the top of the income pyramid.

There the rich feel entitled to a regular stream of passive income from their investments – for which they have lifted not one finger. That entitlement, and its regular enhancement with free perks, parties and holidays, funnily enough, does not apparently encourage a new culture of dependence, as it is presumed to do for poor people. 🌍



to Work will personally know some of the children who have died of poverty. Many are very angry. The right to work in South Africa is closely associated with the right to survive – to buy the basic food, clothing, shelter and energy needed to carry on living. Since few have access to land for subsistence, the only way to survive is to go out and get a job. Only there are not enough jobs to go around: everyone knows that. But we persist in advising job-seeking as the gateway to life.

Surprisingly, many people seem to think that situation is OK. Not perfect, of course; it would be better if there were enough jobs to go around. But probably inevitable – in other words we can live with it.

It reminds me of the words of Robert Kennedy, visiting South Africa in 1966. He spoke of the imperative to recognize the equality of all human beings, not because it was economically advantageous, nor because

**Suppose we said everyone has a right to eat enough food every day** – not because that would make them more efficient workers, or to create a proper demand for local food or to stave off their anger, but because 'fundamentally it is the right thing to do'.

In war time all nations do that. Food security for the nation and for individuals is given the highest priority; and the economy can be turned round very quickly to do so. That is because people cannot fight on an empty stomach, and civilians' loyalty is more reliable if they are looked after.

But should the right to food be limited to war time? Is a strong fighting force the only reason for a healthy population? What would it take to make the right to food an automatic right – because it is the right thing to do?

**First, it would take a decision to give it top priority** – higher than our obligations



# Worms at the Mount Nelson

Cape Town's most famous hotel has embarked on a novel way of disposing of its waste: an on-site worm farm

by MARY MURPHY

**C**APE TOWN'S MOST FAMOUS HOTEL, the Mount Nelson, has embarked on a novel way of disposing of its waste – it has established an on-site worm farm, or vermiculture, to process leftover food and other organic matter. The end-product – vermicast—is rich in nutrients and can be

used as a fertiliser and soil conditioner. The Waste- man Group, with the idea, and helped set up the farm on the hotel grounds. “Waste is a huge problem. It winds up in landfills and ends up polluting our groundwater and generating greenhouse gases responsible for climate change”.

Each day's organic waste is separated

and are completely free of parasites. They eat harmful organisms and excrete masses of beneficial organisms in their droppings, known as worm casts. They modify their environment by processing and aerating the waste, thereby preventing the decay process from turning ‘bad’ – anaerobic decomposition. This helps prevent the formation of carbon dioxide and methane, and keeps carbon and nitrogen bound in the soil in forms that are available to plants”.

Earthworms are able to convert in a matter of days what would otherwise be a putrid, foul-smelling mass of food waste into earthworm compost. Another product produced by this process is ‘worm tea’, the liquid that drains from the worm casts and makes an exceptional liquid fertiliser.

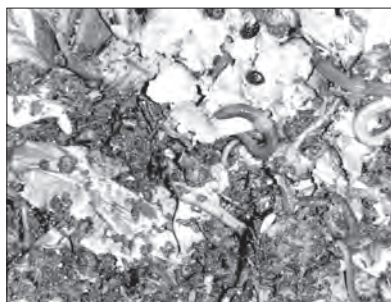
The earthworm farm is made up of a custom designed system built out of recycled crates, and is modified according to the availability of space and the amount of organic waste that is available. The waste is first audited and the system is then designed. The system includes electronic data management via sms, known as Emon.

Emon (Environmental Monitoring via SMS) is a shortcode data management system with defined parameters that allow for daily worm feeding and stocking information to be easily managed and analysed. Information is sent and acknowledged via SMS. Alerts are automatically triggered to facilitate quick response time to potential problems. Emon supports off-site farm management, reducing inefficiencies and costs.

Some home farms are already available, and Murphy and Jaques now plan to approach other hotels and schools to convince them to set up their own worm farms.

By way of a close working relationship with the Wasteman Group, Full-cycle is able to integrate their innovative environment-friendly system with other waste management solutions. In this way waste is being diverted from landfill in compliance with the Polokawne Declaration.

The Mount Nelson Hotel is making a real difference to the environment with their waste reduction systems of recycling and now worm farming. 🌱



Mary and friends at the Mount Nelson worm farm

used as a fertiliser and soil conditioner.

The worms are currently munching on 200 kilograms of scraps of breakfast buffet and high tea – 20% of the hotel's usable organic waste. Hopefully by next year, all of the hotel's organic waste will be processed this way. Already, the worms – thousands of them—have started to produce liquid fertiliser for the Pink Lady's pot plants.

The project was the idea of Mary Murphy, an environmental activist, and Roger Jaques, a botanist, environmental scientist, Landscape Architect and vermiculturist; who call their company, FullCycle.

Murphy approached the Mount Nelson via their waste service provider, the Waste-

man Group, with the idea, and helped set up the farm on the hotel grounds. The trainee worm farmer, Shaun Gibbons, then feeds the waste to the earthworms, under the guidance of Jaques.

Murphy-Roger says that, “in nature, there is no such thing as waste —the waste products from one organism provide the matter and energy for other organisms. We have ignored this basic principle in the design of our urban spaces.

“Earthworms are amazing creatures.

They are able to process their own weight in food waste every day, turning it into the finest soil conditioner. They do not harbour any bacteria or viruses harmful to humans,

# Using love, not fear, in prisons

by NMP/DR GEORGE-GABRIEL BERKOVITS

**W**E ALL KNOW about the crime statistics we have in our country. While the authorities are addressing the problem to the best of their abilities, for thousands of years or more, the emphasis has been on enforcing changes of “behaviour patterns” of criminals.

Behaviour is a symptom. The cause is belief system. We need to look at the cause, the belief system.

## How?

The first power we received at the time of Creation was Total Freedom of Spirit. The Spirit cannot be suppressed or oppressed. Together with the second power we received, Total Freedom of Choice, it means, that the individual needs to believe in something he chooses, and choose it with the freedom of his own spiritual understanding and agreement.

Not by force from an outside entity, law, rule or authority. A difference between Love Choice and Fear Choice.

So, we decided to show the prisoners another angle to look at life, including their own situation and circumstances. Without rights or wrongs. Just creating an observation what works and what does not. No judgement. Just Truth. Using Love, not Fear. IT WORKS.

There are three of us healers at this time presenting different courses for inmates: myself, Gabby and Bella. We work independently on different days, but with cooperation with each other. Each Wednesday I spend half a day giving a six-week-long “Soulhealing Seminar” to the inmates.

**The experience gained through doing this work, is simply overwhelming.**

To describe it in a nutshell, it is life’s irony, that one regains faith in humanity... in a prison. Through personal experiences, one sees another undeniable proof what those “love” teachings from all those Masters are all about and how they work to a practical, physical effect. We work with all those murderers, rapists and hi-jackers, popularly called “the dregs of humanity”.

## The coin has many sides

It is understandable, that many of the inmates initially volunteer to take part in the seminar for the simple reason of killing time. Inactivity and boredom are destructive features for a human being in prison. You encounter the cynical first glances.

This is where the “love” and open-heartedness, the being who you are comes in. If you try to put on some sort of “image”, the prisoners see right through you, their sixth sense is uncanny.

The first connection, the first session is crucial. But after the beginning 20 minutes of talking from heart, the eyes start to shine, the heads begin to nod, and more and more polite hands are raised to ask questions.

**This is the time, when we the facilitators with great humbleness really understand the meaning in the words: “We Are One”.**

The inmates’ lifelong fear based

philosophy visibly changes to that innocent childlike wonder, when a new world opens up in their Soul, even more, when they realise, that this is really the same world, but now they themselves are looking at it from a different angle.

**After being together with the men for six weeks, they recreate their outlook on life to such a degree, that it is astounding.**

At the closing ceremony, where they also receive their certificates, you are given so much Unconditional Love from all the men, that it leaves you weak at the knees and you will find, that it is very difficult to talk. There are a lot of long embraces and choked back tears. This is between men, with previous philosophy of “never show weakness”. This is the moment, when you know, that you are privileged to be able to do what you do.

There are several wardens at Leeuwkop Prison who take their part very seriously and really make a difference with their smiles, kindness and human-ness. I have not seen any negative behaviour by the wardens towards the prisoners at any time. (Of course we do not see everything just by spending a day per week at the prison) There is a relatively easy-going but respectful relationship in existence. Naturally, there is an “us-and-them” situation, a not entirely trust-





The SANCTUARY OF SOUL is a not-for-profit organisation which depends on donations to do its good work.  
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ing status, but that is due to many factors. The wardens work long hours and are very short staffed.

Prison is a Dark Space by nature. To work there every day to put the bread on the table for the family, is soul destroying to describe it correctly. This fact is not only not addressed in any way, but the Correctional Services are simply not aware of its existence. I realized this within myself. Teaching the inmates fills you with elation and after each session you walk out with that warm feeling in the heart. Then I drive home, and it is then when the wheels come off.

Every single time, without exception, I am finished for the day. It is a semi-negative floating dimension where you feel detached from the rest of the world. I feel so exhausted in body-mind-spirit (especially in spirit), that I just lie down and I go to sleep for 3-4 hours at least. I never ever sleep during the day normally.

We have discussed plans, to also include the wardens in the Soulhealing Seminar and other programs. That would be the ideal and very desirable solution.

To give you another angle of “our” inmates’ advancement of caring and understanding, they themselves made suggestions to me, to include the wardens in the seminars, so they do not feel “left out” from learning all these wonderful new things what they enjoy so much. And they (the inmates) were never aware that we (the facilitators) were thinking to do just that from the beginning! Isn’t that “Love stuff” just magic?!

The prison work we do, is fully funded by ourselves.

There is a lot of work, time, money and energy we put into this project. Dealing with 20 men intensively at the time needs preparation, creation and printing of special workbooks, papers, and a lot of night work. While Correctional Services acknowledges the success and uniqueness of our efforts, they are unable to fund our work. So presently our passion alone carries the project. We would greatly appreciate sponsorship or donations from any source.

By all indication, we envisage that our project is going to expand and grow, where more healers/lightworkers will soon be needed as more prisons countrywide will want to take advantage of the success of this work. I think, we probably did more for genuine rehabilitation so far, than any official entity in history. We will also need to organise ourselves in a more practical manner, however I believe, that each individual healer needs to operate freely according to their own system, method or modality. After all, the passion and the intention to create is the driving force, not rules and regulations.

**We all know the destructive effect our country suffers from crime. We believe that we have an effective answer to solve the problem. 🌐**

# Letters of hope and thanks

A selection of unedited letters sent to George-Gabriel Berkovits by prisoners

**First of all** I would like to make use of this opportunity to thank you for your time. Thank you for coming here to Prison to teach me, and to broaden my knowledge. I would like to say that I appreciate it very much..This course really meant a lot to me. I also learnt a lot about myself. I also learn a lot about life. I learnt about other people's feelings.

To respect other people.This course equipped me how to live outside in society. How to give something back into society. Without a doubt this course definitely was, is, and will be beneficial to me. From now on my life will be lived positively.Thank you for your time and your skills and may god bless you richly.

*K.M.*

**Soulhealing is more of a life skill tool to me.** Through this programme I learnt that life is a continuous strive towards perfection and accepting challenges that it (life) presents.The seminar which was held on the 4th June 2006 was an eye opener for me, as Mr George allowed me to express my intake about religious issues. I since realised that some people embraced religion for wrong reasons, e.g. "they get into it just for being seen to be pious" even though their souls aren't yet ready for spiritual stability. Which means they happen to be destabilised spiritually but are in it, to be accepted by others.For me, I think community moves differs from one community to the other. So, the world would have been better if we all had common vision about life, which is Universal love. Over-

all, I believe Soulhealer helps me to introspect and be bold enough to say no or yes to issues that surrounds my world.

I have since embraced my immediate community (inmates) as part of my present life, as they're closer to me than outside guys. I would like the initiators of this programme to expand it and reach out to other troubled souls out there.

*S.P.*

**I am writing this letter** due to the ending of the course Soul Healing Seminar.I think that I also deserve your certificate of this course. I did attend the course to the best of my ability. Due to other obligations I had to leave the course almost at the end.My humble request to you is to please supply me with the Soul Healing Seminar Certificate which will help me a lot in prison and in my sentence.I thank you in advance.Yours sincerely Andre J.

Soul Healing Seminar means lot of things to me from where I came from. First of all I would like to thank Mr G Gabriel for his great mercy because the course changed my life completely. Though I was dubious to do this course, but now the materials of this course let my life spiritually clean as I was a person without direction all the time.

I was a sin servitude, but now my behaviour and manners are good. In addition I'm able to tell other people about the fruit of

this course. Particularly to those whose lives are out of order.The Soulhealing Seminar change my life. May God bles us all.

*T.V.*

**I've learned that each one of us is a unique individual**, with our own perceptions, feelings, attitudes and beliefs. Very interesting I've learned that God has given us the three magnificent powers which are 'Freedom of Spirit', 'Freedom of Choice' and 'Power of Creation'. We are the masters/creators of our own circumstances. Everything that we do/create we have total power to undo it.

God lives within us and we don't have to believe everything we hear or see. But have to learn to ask questions.I learned to respect others opinion – religious beliefs and that there is a big difference between religion and spirituality. You choose what to believe and what works for oneself. Our religion teaches us fear instead of love. God is love so how can we be God fearing if God is love?

Makes one think!!

As a little child I was taught many things which I can tell now , with certainty, that it was a lot of Bull. Simply because as a child you are little as a blank slate and believe everything that comes your way. Society and media works upside down and therefore teaches us fear and not love.

Today I am a different person and therefore

I choose to believe differently 'coz through my experience in life I've grown to the extent to make my own decisions based on my own This is a very good course and I recommend it to be compulsory, a must do, for all inmates and members at Larcoe, in the Correctional Institute. Together we can learn to respect other cultures, different belief systems etc. Most importantly it teaches us to see things from/ as the bigger frame/picture 'coz there is much more to it.Change is possible but it starts within.

*G.G.*

**Since attending the Soul Healing Seminar** I have come to terms that I have to take responsibility of my thinking and my well being. I now know that my belief is the most powerful energy. I can now change my mind and believe.

I never knew before that the are three total powers in life which are very important to know. The Total Freedom of Spirit, Freedom of choice and Power of creation. I can now see people from a distance and listen to them and sense that they are coming from love or fear. I am now familiar with the definition of love. I know and practice to show love by example to people not by words. I have learned that I don't have to dominate or manipulate people as this is



**“I regret committing crime**, but I don’t regret being in prison cause this serves me good in so many ways. My special request is to see this kind of seminar being funded to that it can be **an on-going process** since lots of Inmates want to do it not for the fun part of it, but **for the healing and teaching** it does to us.”

an illusion and that the Soul claims its freedom. I know the solutions for life misperceptions, ignorance and how to eliminate fear. I now have the power to change my mind and thinking thanks to the Soul Healing Seminars. I have been attending for the past weeks. My life and way of thinking have changed for the better.

*M.B.*

**I’ll like to take this opportunity** to thank all the organisers of Soulhealing Seminar and George in acknowledging me that there is nothing in the world that is superior than a mind of man. Soulhealing turns fear into freedom, denial into acceptance and anger into love. Soulhealing generates positive energy, happiness and peace. Cicero, an ancient Roman philosopher and politician, once said “gratitude is not only the greatest of virtues, but the parent of all others. Living life with gratitude leads to o

happiness and Spiritual development. Thanksgiving, grace and purify our heart, Sharpen our Soul and attract abundance into our life.

Given the pain and misery in the world around us, we should be deeply grateful for the suffering we have been spared. We should be thankful for little things in life because those who do not thank for little things will not thank for big things.

Ungratefulness generates negative energy, contraction and suffering. It fuels greed, jealousy and Mistrust. It creates an impoverished Mind.

Exercise and attitude of empowering yourself and say thank you for life to the universe everyday – and you will not need any other prayer. Awaken your potential, knowing that the power of Soulhealing is within you. Thanks for everything that this Course has learned me and foremost for making me a better person and allowing me a Chance to grow as a person. Thanks.

*A. D.*

**The Soulhealing Seminar mean a lot to me**

because it has change my life and before this course I used to think too much but now I can leave the past, and I can understand the environment that I am in now. The seminar have changed me to understand the things more clearly and I’ve learnt how thoughts emotions manifest themselves and how thoughts affects my attitudes and how my thoughts affect my belief trans-

ferred from conscious mind to subconscious mind.

How can I change my mind and belief from negative to positive creation. And how through my thoughts I can control anger and learn to forgive and be responsible for all my actions. I’ve learnt about my origin from the creation by God and accept that I am the entity of God.

What I learnt from my past experience and how I can change my life from my past experience, and how we blame other people, society and outer circumstances for our failures in life and that develops anger, anxiety, depression which to various sickness and disorders and financial pressures.

I really appreciated what the course have done for me in changing my life. Thank You to you George-Gabriel Berkovits.

*P. M.*

My life has improved a lot from what it was before. I have been treating my fellow Inmates well, and with respect as well with Warders and the reward is respect and better treatment from them. I know now my inner self and can control myself according to anger, self esteem and peer pressure.

I have also learned a lot about dignity and admiration. I look at myself as a very positive person and thank the Soulhealing course has change my life around and taught me to be honest and 100% truthful to myself. I am a person now with integrity after realizing that life becomes smoother when one applies these precepts. Now do able to handle the difficult or hard situation and how face a difficult situation.

*P. T.*

**I believe there is no man born evil** and every human being is unique in his or her own way.

Since I started to do the Soulhealing seminar I have found my true self and what I am capable of doing without any fear of being laughed at. I am able to express myself freely, be in control of my life.

From the beginning of time it was destined that at some stage I will be incarcerated and that will serve as an eye-opener in so many opportunities that life can throw at me. I never realize how special I am until I met Mr George-Gabriel who showed me all that I can be in this planet earth. Really being in prison is a blessing in disguise.

I regret committing crime but I don’t regret being in prison cause this serves me good in so many ways. My special request is to see this kind of seminar being funded to that it can be an on-going process since lots of Inmates want to do it not for the fun part of it but for the healing and teaching it does to us.

*R. N.*

I am highly being motivated by your words, they are a real inspiration. At first I thought problems are part and parcel of human nature.

The result that it is up to an individual to change his/her mind to the better decision making, thinking pure thoughts and practice every good you preach..

About ignorance: “true” there are things that must be ignored like our past failed life’s plans or whatever it may be that you failed from. But everything that brings fear to your life you have to change that situation and take away fear from yourself because we’ve never being given the spirit of power and victory.

The seminar of Soulhealing, it injected my mind with a quality mindset of solving problems of any kind.

*K. T.*



# Whale Wars and Dangerous Vegans

“Sometimes, when people do not see the path through enlightenment, you must scare the hell out of them first”.

*The Dalai Lama, speaking to the crew of the Farley Mowat.*



by RAFFAELLA DELLE DONNE

**W**HEN THE PRESIDENT of the Japan Whaling Association accused the radical environmental group, Sea Shepherd of being “dangerous vegans”, not many people knew quite how literally he meant it.

Brandished as militant activists, the crew of the *Farley Mowat* take on whale hunters armed with the infamous ‘goo gun’ that shoots rotten tofu and even, on some occasions, spoiled pie-filling courtesy of the U.S. marines. But for the volunteer crew of the Sea Shepherd’s flagship, it’s not all about fun and games trying to single-handedly sabotage the relentless slaughter of the world’s largest mammals. For almost three decades, dedicated members of the Sea Shepherd Conservation Society have risked their lives on the front-lines of environmental activism in their determination to shut down illegal whaling and sealing operations.

In January this year, the *Farley Mowat* entered South African waters to dock at Table Bay harbour and, instead of receiving a hero’s welcome, was detained by the South African Maritime Safety Authority (Samsa) after it was alleged that it did not comply with the correct safety regulations. Although the *Farley Mowat* has been registered as a yacht in Canada for the last 10 years both the South African and Canadian authorities now claim that it should be registered as a commercial boat and therefore

requires certified crew.

**But the all-volunteer team are convinced that their detention was politically motivated and that the action taken against them by Samsa was a direct result from pressure by Japan to keep the activists from returning to Antarctica.**

Amidst claims of an illegal whale meat trade between Japan and Cape Town, they believe that it is no coincidence that they were detained just two weeks after a hair-raising encounter with two Japanese whaling ships. One of which almost ended in a head on collision with the *Nisshin Maru*, a staggering 8 000 ton factory ship on which they butcher and pack harpooned whales.

After being detained for almost six months the crew of the *Farley Mowat* slipped out of Table Bay harbour under the cover of night on Friday 16th June. With them, on board was 19 year-old Gemma Kay Koyd, the second South African volunteer in the history of the organisation.

In a world where whales are hunted illegally, despite the moratorium on commercial whaling by the International Whaling Commission (IWC) since 1986, it is no surprise that the dedicated activists felt they had no choice but to hoist their pirate flag and high-tail out of Table Bay harbour. Last year alone, Japan killed over 900 minke whales and 10 endangered fin whales, while plans are in the pipeline to



## Farley Mowat?

Farley McGill Mowat (born May 12, 1921) is a conservationist and one of Canada's most widely-read authors. Many of his most popular works have been memoirs of his childhood, his war service, and his work as a naturalist. His works have been translated into 52 languages and he has sold more than 14 million copies of his books. Adding to that, a movie about his experiences with wolves, *Never Cry Wolf*, was released to widespread popularity in 1983.

The Sea Shepherd Conservation Society ship *Farley Mowat* was named in honor of him, and he frequently visits it in order to assist it on its mission.



Most commercial whaling occurs in the Southern Ocean Whale Sanctuary, an internationally recognised reserve, home to 11 out of the 13 great whales found on the planet.

But as one member of the *Farley Mowat* crew scathingly pointed out to me: “[the United Nations World Charter for Nature] it’s down on paper but it’s not worth anything.”

It occurred to me, at that moment, how ironic it is that this motley crew of passionate activists are regarded as anarchists or criminals when they are willing to risk their lives to uphold laws and treaties that no other country seems to be policing. Under the leadership of its founder Captain Watson, Sea Shepherd has employed controversial, yet effective techniques to successfully shut down seal hunts in Ireland, Scotland and England.

Paul Watson, an original founding member of Greenpeace, formed his own break-away organisation in the late 1970s out of a strong conviction that protest alone wasn’t going to save the whales. Since then, Sea Shepherd has had an uneasy relationship with Greenpeace, to say the least. I don’t think that calling Greenpeace the “Avon ladies of the environmental movement” in reference to their door-to-door fundraising helped either. Greenpeace has distanced themselves from Sea Shepherd for being too militant and violent but according to one of the *Farley Mowat*’s engineers, Dan Villa, this is the least of Watson’s concerns: “The captain says he doesn’t care what people call us, the whales and the seals are our

clients. The people that are killing all the life in the ocean are the real terrorists”.

Although the crew admit that they have no qualms about destroying property, no one has ever been harmed. If anything, their ‘we-mean-business’ tactics such as ramming whaling boats or positioning themselves as a human shield between the whales and their hunters is tempered with a healthy dash of humour.

**Apparently, the flamboyant Captain Watson is known for hoisting the ship’s Jolly Roger and blasting Wagner’s *Ride of the Valkyries* when he is getting ready to ram a whaling ship.**

They might be eco-terrorists to some but to others they are hailed as whale warriors. In fact, when the crew of the *Farley Mowat* met with the Dalai Lama he presented them with a small statue representing the spirit of compassionate wrath that is now proudly displayed on the ship’s bridge. The spiritual leader of Tibet, a committed environmentalist himself, encouraged the crew saying:

**“Sometimes when people do not see the path through enlightenment you must scare the hell out of them first”.**

It is not just the Dalai Lama that supports Sea Shepherd. Celebrity supporters include Pierce Brosnan, William Shatner and Martin Sheen.

And, as Captain Watson is fond of reminding his critics: “How can we go wrong when we’ve got James Bond and the President of the United States on our side?” 🌐

kill 50 fins and an equal number of endangered humpbacks. The IWC, an international body that regulates whaling around the world initially put the moratorium in place when it was becoming apparent that the whale population was under threat.

**However, pro-whaling countries such as Norway, Iceland and Japan exploit a loophole that allows a limited number of whales to be killed for scientific research.**

These nations have defended their actions by arguing that the only way to study and monitor the whale population is through lethal means. At the most recent meeting of the IWC on 16th June (the same day that the *Farley Mowat* slipped out the clutches of the South African authorities), representatives from different countries voted on whether to overturn the two-decade ban. Fortunately, the moratorium was upheld, but the battle was won by a mere two votes as an

increasing number of countries are lured, primarily by Japan, into the pro-whaling camp. The Japanese government insists that their generous contributions or “marine aid” to developing countries is by no means a way to win the 75% majority needed to legalise whale hunting.

However, from the outcome of this year’s IWC vote, it is clear that nations such as Nicaragua, St Kitts and Nevis and the Pacific island cluster of Palau, all of whom benefit from Japanese aid, are not prepared to bite the hand that feeds them. All voted with Japan at this year’s pow wow in favour of a return to commercial whaling.

Concerned environmentalists together with Greenpeace, Japan have spoken out against the government for using taxpayer’s money to bribe votes, especially in the face of mounting evidence that the majority of Japanese people oppose the slaughter of whales for commercial use.

# Beyond the School Wall

Could this be the catalyst for the major change that we are all so desperately seeking in our ailing education system?

by THE BIOPHILE TEAM

I WALKED ACROSS THE LITTLE GARDEN into the EMEP (the Extra-Mural Education Project) offices in a small house in Observatory, Cape Town, and immediately felt the buzz of the happy people working there. Their enthusiasm was tangible and the atmosphere warm and friendly.

I was greeted by Jonathan Gevisser, their director and founder, whose heart had the feeling and whose mind the range to put into being a dream of transforming schools into creative hubs of learning, art and play, and thereby feed more nourishingly the lives of thousands of school children and their families living in poor, historically disadvantaged areas of the Cape.

It started many years ago in the 70s, when Jonny was a post-graduate student in UCT's sociology department. He was living in Hout Bay and had befriended a group of poor children and their families living in a scattered informal settlement on the mountainside above. He spent time with the children, informally teaching literacy through story-telling, art and games.

With the support of Ellen Khuzwayo, a stalwart of the anti-apartheid struggle, and Betty Wolpert, a filmmaker living in exile, he started an educational film group for the squatter families, using a generator for power and a sheet as a screen, which led to craft-making and sewing groups for the women. Quite imaginable when you meet this eccentric, fun filled person, so obviously motivated by a strong desire to help children flower at each stage of their childhood, to make schools the most fertile,

## THE GOAL: The School as a Community Hub



### Direct, Safe, Local Access to Lifelong Learning, Recreation and Support Services — where people live

exploratory, creative and useful places to be, and to provide teachers with real, sustained support to shift from being 'loudspeakers for textbooks' to 'animateurs'".

Jonny and his dynamic team at EMEP have formed a unique, boundary-pushing partnership with progressive Education Department officials in three districts of the Western Cape to pilot an innovatively holistic extra-mural programme to reshape the school day so that the curriculum is not only

about 'bums on chairs, paper learning and IT' but enables a range of creative opportunities for the kids beyond the walls of the classroom, at a time when they would otherwise be on the streets, as well as for besieged teachers who don't have time for their many roles and responsibilities outside the 'traffic jam' of the classroom. Jonny says that his motto was originally about 'putting the fun back into functional' but that it's increasingly about opening up space in the very pressured school system

for 'children to be children' and teachers and parents to tap into this, and rediscover the wonder and happiness that comes from creative interaction as they play, explore, imagine, share and also, yes, contest together, and so discover and grow their humanity. As he says this, I notice a quote on the wall:

Dear Teacher:

I am a survivor of a concentration camp. My eyes saw what no person should witness: Gas chambers built by learned engineers. Infants killed by trained nurses. Women and babies shot and burned by high school and college graduates.

So, I am suspicious of education. My request is: Help your students become human. Your efforts must never produce learned monsters, skilled psychopaths, educated Eichmanns. Reading, writing, and arithmetic are important only if they serve to make our children more human.

— Author unknown; in Haim Ginnot, *Teacher and Child*.

"On a typical school day," says Jonny, "poor schools are empty before 8am in the morning, when so many arrive hungry and bullied, and after 2pm for junior schools and 2.30pm for high schools, except for those very few teachers who voluntarily give of their time to share their extra-mural passions, usually sporting plus a few arts like choir, dance, or drama. These extra-murals rarely involve more than 5 - 10% of the students, and usually only those with the most visibly developed talents. The rest pour onto the streets, or go



“The WCED considers the work of EMEP to be a major innovation and contribution towards education development and community empowerment in the province. My colleagues and I are of the opinion that EMEP will make significant impact at school, community and policy levels. We are including this project in the department’s plans, will second a key official, and are integrating EMEP’s ‘school as hub’ approach into the Human Capital Development Strategy. In doing so, the WCED is according EMEP special partnership status”.

**Ron Swartz, Head: Education, Western Cape Education Department**

home alone and unsupervised as latchkey kids, extremely vulnerable, and clear targets for abuse. But this neglected space may equally be seen as developable space: it presents a huge opportunity to us to target our efforts in a strategic and imaginative way, to the place where the largest developmental infrastructure in the land — our schools, is most neglected and yet most open to change.”

Jonny points out that throughout the developing world there are poorly managed, under-used schools, surrounded by communities in need, yet empty in the afternoons, nights, weekends and holidays, for at least three months of the year! These schools are usually the only resources in these communities.

“It doesn’t take much looking,” he says, “to see that this space can be used to transform the school system, to provide achingly-needed opportunities for our wondrous children to explore and play together, learn service, learn community, learn how to lead and how to follow, learn how to love well and fight well, and most importantly, learn that they’re okay, that they’re beautiful and strong and worthy!”

Jonny adds wryly, “It is such an unfortunate view underpinning too much educational theory and practice that education is about leading children to adulthood ... for if you look at this deeply, the ridiculous assumption is that a child is a non-adult! A strong case can be made that children are, well, children, and need to flower at each stage of childhood if they are to have the best chance of

being balanced adults. And for this, the curriculum needs to be humanised and activated, its content and pedagogy must harmonise with child development, bringing the spirit of childhood, which is discovery through play, into the foreground.

“To do this, teachers need to be exposed to a range of experiential learning, develop a wide set of skills in their pedagogical toolbox, and be supported by the system via flexible timetables and ‘small steps, small wins’ projects in high priority areas for the children, and that give an experience of success. This is what EMEP is addressing.”

#### **So who is EMEP and what exactly does it do, you may ask?**

It is a registered not-for-profit development organisation (an NPO, or NGO as they are also called), governed by a board of trustees, with a small staff of ten, almost all of them educational and community development practitioners.

EMEP aims to facilitate a national movement of schools growing extra-murally as community hubs, not only for their young learners but also after hours (nights, weekends and holidays) for youth out of school and adults (unemployed, under-employed and employed), as well as for early child development and child care. EMEP’s mantra is ‘schools as hubs of lifelong learning, recreation and support services’.

Says Jonny, “It’s not only about learning and results and standardisation, but also about service projects, *langarm* on a Saturday night, social games and crafts during weekday evenings (like EMEP’s popular soapmak-



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EMEP's phoenix is finally rising and this innovative organisation is now on its way to realising its dream of creating community hubs within the schooling system that allow the children to flourish and the teachers and parents to become part of a working, creative community.

ing programme) and about having access to support services like counselling, curative therapies, legal aid, an i-cafe ... and also critical space for community voices to be developed and heard, like what they call 'town hall' in the USA where local people meet around their needs and issues, from where they can engage with local authorities, make themselves heard, play a meaningful role. Schools are our key public resources and can be used much more imaginatively and optimally. We are restricted only by our imaginations. There are many hands willing to help."

**How does EMEP do this?**

They have three strategies. The first is demonstrating their model and keeping their own practice fresh. And here EMEP has been working for almost eight years with a small pool of four schools in Grassy Park, Lower Crossroads, Rocklands, and Nyanga.

EMEP's oldest partner in this pool, and their flagship school, is a poor but phenomenally dynamic primary school in Grassy Park called Sid G. Rule Primary. It is run by an entrepreneurial principal, Greg Vlotman.

The school has won many awards since EMEP first started working there eight years ago. They recently built their own school hall which they will use as a centre for community arts. Jonny says that EMEP can take only a small amount of credit for this, noting that all the capacity, energy, leadership, staff creativity was there, and that all that EMEP did was provide some strategy and structure and facilitation.

EMEP's second strategy is to spread the model through development training. They take on intakes of twelve schools at a time for a two year period,

training two teachers (one a senior manager) per school, as Extra-Mural Development Practitioners to facilitate their schools' extra-mural growth. The programme is provisionally accredited and is the first move to professionalise the sector. This was at the request of their donors and the provincial education department.

EMEP is midway through the pilot. The second intake of 12 schools starts in January 2007. Each intake then joins a growing network of schools. It is this network that will form the thrust of a national movement of schools growing extra-murally as community hubs.

EMEP's third strategy is to influence the environment through engaging and supporting decision-makers and inputting policy. Some of EMEP's innovative practices and proposals have already been included in government agendas, the most recent being the Western Cape's progressive Human Capital Development Strategy.

It started in 1991, when Jonny was awarded a much sought-after and highly acclaimed international fellowship from Ashoka-Innovators for the Public. This gave him three years to take forward the work begun in the 70s and 80s in black schools and then further refined over the next seven years as a language and games teacher at a more holistic Waldorf school.

Like most things ahead of their time that challenge existing systems, it is not an easy ride. After 17 years of hard work, with often more failures than successes ("Though we don't see them as failures," says Jonny, "but valuable lessons how to improve, become more awake"), EMEP's phoenix is finally rising and this innovative organisation is now on its way

to realising its dream of creating community hubs within the schooling system that allow the children to flourish and the teachers and parents to become part of a working, creative community. Sixteen schools and communities are now actively benefiting from this extra-mural programme and the numbers are growing by the year.

Their 10 year vision is ambitious and involves a national spread. This will depend on steady injections of funding and the continued partnership with government, to contribute towards training and support costs.

"This isn't easy," says Jonny. "Government's hands are full. We have to step up. They shouldn't be expected to do everything. Yes, they are the lead player on the democratic map, but only one player nevertheless. We all, civil society, business, labour, need to get gardening, let a thousand flowers bloom! There is too much policy and not enough *poli-do!*"

And his own biggest challenge? "Myself," says Jonny after a moment's pause. "We work with wonderful people and my biggest challenge is not to push, to work with their flow, somehow to do that dance between 'making things happen' and 'allowing things to happen' ... to project less, empty myself, listen more. Which means I have to work with my flow more ... which I haven't quite figured out yet!"

He says that an underlying metaphor for this work is of the ancient Chinese game of solitaire, with four quadrants of pegs in holes. However there is one open, empty space in the middle ... and it is that that allows the whole game to move, to open, release and change, and thereby ultimately to come single-point-

edly to the centre.

"We all need such open space," says Jonny. And it is our log-jammed schools, for him and his team, clearly the most important institution in society, that need this desperately. The potential extra-mural sector is just such a space, says Jonny quietly, passionately.

"It's about empowering the teachers to bring a little more space and creativity into their contacts with the children, to build their choice and voice and let them actually experience being changemakers by managing projects that interest them, have purpose for them.

"Teachers and students need to learn how to work effectively in groups, express themselves with awareness, own their own stuff, and feel okay about admitting mistakes", says Jonny. He quotes a teacher of his from India who said that "You must seek awareness as a person whose hair is on fire seeks the river."

**And the second biggest challenge?**

"Funding!", says Jonny unhesitatingly. "EMEP has been working quietly behind the scenes for many years with a very small pool of international and local donors. We now need to grow like bamboo, so our major task is now to find a few strong, developmental partners who see the gap, recognise the innovation, and are willing to invest in it and in us to make this marvellous project a reality."

All signs point to EMEP and their extra-mural project taking off. They have strong school, community and government support and a dynamic team. Hopefully corporate and philanthropic support is next.

Biophile will be watching their progress with great interest. 🌱

# ZERO WASTE COMMUNITIES

**C**OMMUNITIES AROUND THE WORLD have begun to adopt Zero Waste goals and Zero Waste Plans to implement those goals. The first community Zero Waste Plan was adopted by the Australian Capital City of Canberra in 1996.

Over half of the communities in New Zealand have adopted Zero Waste as a goal. Seattle, Washington adopted Zero Waste as a guiding principle in 1998. In California, the following communities have adopted Zero Waste goals: Del Norte County, San Francisco, San Luis Obispo County, Santa Cruz County.

Where best practices for eliminating waste, reusing and recycling discarded materials, and composting discarded organic materials are used, some businesses have diverted over 90% of their wastes from landfills.[6] Communities could adopt policies and programs to help their residents and businesses achieve similar results. If many communities adopted policies and programs to go beyond 50% waste diversion, the statewide waste diversion rate would rise significantly.

## Barriers to Zero Waste

1. Government subsidies favor wasting and extraction
2. The true costs of wasting are hidden, borne by the public and not factored into today's prices
3. Producers ignore responsibility for their products and packaging
4. Environmental and social costs of current system are not effectively addressed
5. Inertia of existing viewpoints and practices
6. Perception that land and natural resources are unlimited
7. Perception that technology will solve all problems
8. Perception that small individual efforts will have minimal impact on solving the overall problem.

## Key Policies and Programs for Zero Waste Communities

### Know Your Waste and Design It Out

1. Evaluate materials discarded according to the Urban Ore 12 Master Categories of discarded materials, determine how and where materials are discarded, and identify alternatives. Establish a monitoring and tracking database system that uses the Urban Ore categories to evaluate performance of diversion and source reduction programs by material type.
2. Design waste out of the system by holding

producers responsible for their impact. Ask product designers and marketers to consider Zero Waste to be a critical design criterion. Establish environmentally preferable purchasing guidelines to reduce resource use and cut air and water emissions.

### Adopt a Zero Waste Goal and Plan for It

3. Adopt a community-wide Zero Waste goal via resolution (see attached GRRN model) or an ordinance defining objectives and statements of policy.
4. Involve residents and businesses actively in the development of a Zero Waste Plan, including extensive education, outreach and input on the Plan's proposed policies and programs. Establish interim goals for 2010 and a target year to achieve Zero Waste goal (or darn close). Prioritize policies, incentives and programs to eliminate wasting and reduce the toxicity of discarded materials. Identify current waste elimination, reuse, recycling and composting policies and programs and select additional policies and programs from a menu of best practices around the world.
5. Work with other local governments and businesses to build useful alliances and share successes. Support state and federal policy that will enhance Zero Waste policies and programs. Support citizen actions to encourage businesses to change their policies and practices to move towards Zero Waste.

### Hold Producers Responsible

6. Hold businesses financially or physically responsible for their products and packaging manufactured and sold. For retailers, ask them to takeback products and packaging for problem materials not included in residential recycling programs, as in Ottawa, Canada. For contractors and developers, adopt requirements for LEED-certified Green Buildings, encourage adaptive reuse and deconstruction, and require recycling of construction, demolition and land-clearing debris.

### End Subsidies for Wasting

7. Adopt policies and economic incentives in Ordinances, contracts, franchises, permits, zoning, General Plans and garbage rate structures so that it is cheapest to stop discarding materials, and reusing, recycling or composting discarded materials is cheaper than land-filling or incineration.

### Build Infrastructure Beyond Recycling

8. Ask local businesses to adopt Zero Waste goals, to develop Zero Waste plans, to adhere to Zero Waste Business principles, to meet waste diversion targets, and to source materials that can be reused, recycled or composted.
9. Support existing recycling and composting businesses and nonprofit organizations and help them expand. Develop locally owned and independent infrastructure, on an open, competitive basis.

### Create Jobs and Sustainable Communities

10. Develop regional resource recovery parks to provide locations for expansion of reuse, recycling and composting businesses.
11. Fund community Zero Waste initiatives with fees levied on the transport, transfer and disposal of wastes and by leveraging the investments of the private sector. 🌍

## More about IZWA

IZWA, the Institute for Zero Waste in Africa, is a section 21 not for profit organisation and can be contacted via email at [zero.waste@iafrica.com](mailto:zero.waste@iafrica.com) or by writing to PO Box 701369, Overport 4067. IZWA is working towards a world without waste through public education and practical application of Zero Waste principles.

### IZWA's Charter Principles

1. Redesign products and methods of production to eliminate waste by mimicking natural processes and developing closed-loops
2. Convert waste to resources for the benefits of local production and the creation of a healthy and sustainable society.
3. Resist incineration and land filling in order to promote innovation in resource conservation and methods of production
4. Collaborate with others with common interests worldwide.

# Should we open up schools for parents?

The education of parents needs to go hand-in-hand with the education of their children.

by ROBIN BOOTH & TAHIRIH COOK, SYNERGY SCHOOLING [WWW.SYNERGYSCHOOLING.CO.ZA]

THEY WERE ALL NODDING THEIR HEADS in agreement. Three hundred and fifty teachers, principals and educators at the International Education Conference on Integrated Human Values, India, were thinking along similar lines. They were responding to a joke I had made, "It's the parents who influence the children most. They are the ones who need supportive education. We should therefore close the school to the children and open it up for the parents instead."

Suddenly my joke no longer seemed so funny as I gazed out over this undulating sea of consensus. Suddenly my joke became a serious proposition. If parents have such a powerful impact on their children's lives then surely they too need to be part of the schooling process. So should we be focusing on opening schools for parents instead of just trying to constantly alter the structure of a school, the curriculum we provide to the children or the demands placed upon educators?

At present I don't know of any other school which has a program for parents that is more than just an add on. Many educationalist and schools acknowledge this need and have provided parents with workshops, information evenings and support in varying degrees. But these have often been optional and sporadic. Public Parent-Centres have also been developed to support parents in becoming effective parents. Public schools often use their PTA meetings as an opportunity to impart information about effective parenting to those who attend.

Generally speaking, these programs and workshops are voluntary and do not facilitate self-discovery and personal transformation. I have noticed in my own work that children tend to reflect their parent's emotional and behavioural patterns. For this reason, I feel that the education of parents needs to go hand in hand with the education of children. A sprinkling of voluntary workshops designed to impart information rather than facilitate self-discovery is inadequate.

The three hundred and fifty heads all nodding in agreement to opening up schools for parents, points to a sense of agreement

that if we support parents in their development and relationship to their children, we will see the positive changes in their children naturally and automatically. It's often not the children who need to change, but first the parents and as a consequence the children's views and behaviour patterns shift. Parenting is about taking charge of the development of their child, but who is there to support the parent in exploring this commitment and responsibility? Who is to say that schools should only focus on the education of children?

So perhaps this leads to an awareness that the educational context could be broader than just 'child-centred' or 'parent-centred'.

changed over time and schools remain a dynamic space within society. Perhaps this becomes clearer if we look back at some of the shifts which have occurred in schooling in recent times.

The industrial era brought about a rapid increase in the number of schools in our society. With both parents moving out into the work force, their children needed to go to some place safe, and to learn certain skills that would support them in obtaining employment. Much focus was placed on the curricula and content, with little regard to individual needs or the needs of human and personal development. School was a place where you needed to go to obtain information



The next step may be to see the parents-teachers-children relationship as a triadic approach with neither one being seen as more important than the other. By doing this more emphasis is placed on the relationships between these participants opposed to on a specific individual and it seems that schools are the perfect place to support this process.

**Many may argue that this is not the purpose of schooling and that schools have been created to focus on training children to become productive members of society.**

However, the purpose of schooling has

and knowledge. With the mass production of books and the introduction of the information age, this information was no longer limited to the schooling environment but readily available from libraries, books bought off the shelves and of course the Internet.

Children no longer needed to go to school to obtain all this information. As such, the curriculum has adapted slightly by placing more emphasis on learning skills opposed to the memorising of content and data. Schools began a shift from 'content-centred learning' to what may be called, 'child-centred places of learning'. The understanding behind this

is that by placing the child at the centre of the educational process, we would be able to accommodate their needs more. Children would be seen as unique individuals with specific needs and not solely a number on the educational conveyor belt.

This recent shift to “child centred” education has had a dramatic impact on contemporary education, but children are not just individuals, they are individuals-in-relation-to-others. They develop in the greater context out of their relationships to others. Their perceptions, their views, their beliefs and attitudes are formed by their interactions with other people. So if you wish to support a child in changing ineffective attitudes or perceptions they have on themselves, (most noticeable their levels of self esteem), then perhaps we need to look to the parents and teachers first as they are the ones who need to shift.

### **Using the triadic approach, how can we create a learning environment for all the teachers, the parents and their children?**

Can we explore a curriculum that looks broader than just developing the academic and personal development of the children? Can we create time and space for teachers

there is any specific recipe which can be implemented. What schools implement will depend on their understanding of what effective parenting is and the priority (i.e. time and finances) they place on supporting the parents.

Some schools may request parents spend one day a week in the schooling environment. Other schools may say once a month, or once a term. Schools may say that a certain number of the workshops on offer through the school are compulsory. Maybe parents need to read certain articles, or books, or meet once a month with other parents to debate and explore their understanding of how to develop their parenting skills.

It could include parents writing termly reports on how they see their child’s progress and development.

It could include the keeping of a reflective journal or a photographic journal.

It may be frequent conversations with the child’s teacher.

It could be a certain number of life coaching sessions that empower and support the parents in consciously creating the life they wish.

It may be a programme of activities that would support relationship building

programmes need to ensure that parents are engaged with their child’s education as well as their own personal development in a structured manner through the school.

### **At Synergy Schooling we are moving towards the implementation of such a programme for parents.**

These programmes will support the following skills, values and patterns listed below which we feel contribute to effective parenting:

- Treating others with respect (you don’t have to like them),
- being passionate,
- taking risks,
- being assertive while at all times respectful (i.e. full of respect),
- being proactive,
- owning your own stuff and stop blaming others for where you are at,
- to make others feel understood,
- being compassionate,
- being effective communicators,
- being on time,
- being committed to what you say,
- say what you mean and mean what you say,
- work towards understanding another’s understanding of the world,
- be tolerant and patient,
- have informed judgement,
- follow your dreams,
- be empowered and decisive even though you don’t feel like it,
- take full responsibility and understand that you are fully accountable, whether you want it or not,
- be sincere and authentic,
- engage and participate,
- make and handle agreements impeccably and with integrity

After my talk at the educational conference in India, I was inundated with people who thought this idea was really exciting. Many people warned to know how they could involve parents more in schools. It is important to acknowledge this is not an easy process and one that will take time, but as the three hundred and fifty nodding heads have confirmed, it is an essential change which needs to take place.

As teachers and parents we bring our own growth and development into play. We have to value educating ourselves as well in the current context of education. We are, ourselves becoming and changing, in a passionate, compassionate, and aesthetic relationship with those we are interacting with. We help make one another who we are by how we treat one another. 🌍




to develop their own sense of self, and for parents to explore their own interactions with their children? But perhaps more importantly, are we willing to take a stand that this is no longer a selective option for some parents but now becomes an integral part of the educational process for all?

Schooling as a process where parents (care givers) as well as children are enrolled in to the educational environment.

So what may an effective parent programme and curricula look like? My initial response to that question is, “What ever you wish for it to be like.” I don’t think

between child and parent. It may include workshops and assignments on effective communication, conflict resolution or the building of self esteem. It may be just the acknowledgement that by enrolling yourself as a parent in the schooling process, you are acknowledging that you play a primary role in the development of your child.

Whatever form an effective parenting programme may take, it needs to ensure that parents are able to understand that their child’s development and education cannot be separated from their own development and learning. Effective parenting



When applying Zipf's Law, our DNA appears to be a language!

**W**HERE DO WE COME FROM? Who made us? When? Why? The fact is, Homo Sapiens is the only new kid on the block. We have blessed ourselves with the name 'wise man'—in fact, Homo Sapiens Sapiens—doubly wise. We obviously think ourselves to be smart! Why then do we have so few answers regarding such questions?

Bill Bryson's book, *A Short History of Nearly Everything*, makes it very clear that we are a unique species which appeared in a narrow window of opportunity of Earth history. It's actually

filaments of DNA, (which account for our genetic make-up), why is it that this too seems to be largely useless, in fact described as 'junk'?

While the majority of our species are not overly concerned with such issues, our scientists don't like mysteries. Francis Crick, the scientist who cracked the code of DNA, found it impossible to accept that this complexity came about through 'accident'. Neither could Fred Hoyle, who developed the theory of Panspermia, to account for the origins of the DNA (which remarkably we have in common not only with mammals, but also of insects, bacteria and viruses!). This holds that meteors and comets from outer space were responsible for bringing these basic building blocks of life to Earth.

Yet answers have been provided from ancient times. The earliest civilizations left us evidence carved in stone or clay tablets, which has only been de-coded in comparatively recent times.

Christian O'Brien's book, *The Genius of the Few: Founders of the Garden of Eden*, Alan Alford's, *Gods of the Millennium*, Andrew Collins' *From the Ashes of Angels*, and South African author, Michael Tellinger's recent

# Beliefs and Reality

The origins of Man, and why what goes round comes round...

by DR ELAINE LEE

amazing that we are here!

Modern scientists have spent the last few decades unravelling some of the basic physical secrets of humanity: how the brain functions, and how our biological reality is based on the protein-building blocks encoded in our DNA.

Both areas have left us with unanswered questions: given the vast, almost infinite potential of the human brain, why is it so under-utilised? Given that each cell in our body is packed with microscopically small

(2005) *Slave Species of the Gods*, have all been attempts to illustrate with documentary evidence that early civilisations were in fact brought about by extremely sophisticated beings, Nephilim or Anunnaki, whose powers led the indigenous Homo Sapiens crediting them with being 'gods'.

Whilst such ideas initially seem bizarre (and are dismissed by many archaeologists out of hand as esoteric) it would seem that the time has come when we have to re-consider our belief systems.

It has always disturbed me that neither historians nor archaeologists have been able to provide satisfactory explanations for anomalies such as the ability of 'primitive' man to move from a 'hunter-gatherer' existence in the Ice Age, to the sophistication of building pyramids immediately thereafter!

The abilities demonstrated by the earliest

civilizations appeared dramatically. The understanding of astronomy, mathematics, building, and mining techniques demonstrated not only in 'Ancient' Egypt and Sumer, but in South America, China and Korea, are such that only in the past century have we been able to equal or surpass them. Yet in our arrogance, we assume that over the last few hundred years our technological achievements mean we are the pinnacle of human development!

In reality, we are only just beginning to regain the knowledge we had over 6,000 years ago. The *Book of Enoch* was omitted from the Bible—but it is an amazing description of Enoch's visit to "Heaven", with descriptions of technology which could have been 21st century!

The people of the ancient civilisations had few doubts as to who they were, or who had given them these 'skills'. They left us detailed explanations.

Zecharia Sitchin analysed thousands of ancient clay tablets from Sumeria, and there found amazing stories which led him to the conclusion that the early gods were physical beings, who brought us the knowledge on which civilizations were built. These accounts were published in a number of books from 1978 on.

He told the story of Enki and Enlil, and the decision of the Council to create a being, a man, who would resemble them and who "will be charged with the service of the gods, that they might have their ease" (Sitchin, *The Cosmic Code*, p.51).

At first Sitchin's work was met with derision. Yet the stories are not dissimilar to what we read in the Bible: "Let us make man in our image, in our likeness..." "The Lord God took the man and put him in the Garden of Eden to work it and take care of it..." (Genesis 1.2-6 and 2.15). In Genesis we also read about the inter-breeding between the 'sons of God and the daughters of men', (Genesis 6.1-4).

At the time of Sitchin's early work, we knew little about cloning, or about genetic modification of plants and animals, and even less of the secrets of DNA. Hence when he claimed that the "Anunnaki" cloned the initial hybrids, and manipulated our DNA, it all seemed far-fetched, 'science fiction'. Now we know that modern scientists are playing 'god' in this fashion!

After the unravelling of the human genome, it was found that only 3% of our DNA is required (coded) for the production of the physical body, and 97% was deemed to be "junk" or non-coded areas. What was its purpose?

Graham Hancock, famed for his work, *The Fingerprints of the Gods*, has recently pub-

lished *Supernatural*, (Century, 2005). Sub-titled 'Meetings with the Ancient Teachers of Mankind', it is an attempt to explain the 'greatest riddle in human history'—how all the skills and qualities of modern man appeared fully formed, "as though bestowed on us by hidden powers".

From the Palaeolithic cave paintings of Europe, to the visionary experiences of shamans and the founders of early religions, he takes us on a journey of discovery. Hancock points out that one of the most significant aspects connected with DNA, is a strange even mysterious link with the linguistic codes of language. This is a ratio, documented by linguist George Zipf, between the most commonly to least commonly used words. It is common to all languages.

Researchers from Boston University and Harvard Medical School examined the DNA sequencing and amongst other things applied the standard linguistic tests to both "coded" (i.e. the basic protein-building blocks that make up our physical being) and "non-coded" areas (the 'junk').

The amazing outcome was that the Zipf law did NOT apply to the coded areas, but DID apply to the "junk" areas! (Hancock, 484-5).

Our amazing DNA would appear to be a language! But one that we have not yet apparently learnt. Or have we?

It is some years now since the advent of neuro-linguistic programming, NLP, which is based on the premise that our words act as a programme to our brain. Long ago Henry Ford said, "Whether a man says he can, or he can't, either way he's right".

This relates to the biblical text: "As a Man thinketh in his Heart, So is He". We become what we believe, and a belief in limits creates limited people.

This is borne out by work done on brain biochemistry, which demonstrates that negative or fear-based thoughts stimulate the production of adrenaline and cortisol. Cortisol is a known neural-inhibitor—that is, it blocks the transmission of neurotransmitters from one brain cell to another in the neo-cortex.

Our thoughts are both chemical and electrical, and that energy not only influences us at a cellular level, but it radiates out from us to others. Like attracts like—send out waves of negative energy, and it returns. This provides us with an explanation for that other Biblical tenet, "Man attracts that which he fears".

**Be careful what you wish for, you might just get it.**

We have been governed by our fears; it is time to eliminate these, and accept our inner power.

A very graphic illustration of this has been provided by the work of Japanese scientist Dr Masaru Emoto (see page 13 for news about Dr Emoto's visit to South Africa later this year). He has worked with photographing crystals formed in freezing water. His initial experiments showed that water from a negative environment reacted completely differently to water from temples and other positive places.

The former molecules were misshapen blobs, the latter formed exquisite and unique snowflake-like patterns. His amazing work in subsequent books went further: water placed in containers labelled with positive words similarly resulted in crystals, while that in containers with negative sentiments—I hate you!—resulted in formless, dark shapes (*The Hidden Messages in Water*).

What are the consequences for us as emotional human beings? We are largely made up of water, and if hate thoughts influence our very basic physical being, we



**Enki as portrayed on an ancient Sumerian cylinder seal.** Enki, the Sumerian high god of water, intellect and creation, was the source of all secret knowledge of life and immortality. Enki possessed the secret of culture and civilization and created order in the cosmos.

should avoid them! I have tried this with my own students. When someone appears disturbed or angry, I gave them paper cylinders inscribed with the words, Love, Peace, Harmony—and watch the change!

If our expectations are negative, and our words reinforce these, we are contributing to the negative world we live in, governed by fears. Do we want this? If we can accept that we do indeed create our own reality in the sense described in the foregoing, then the challenge is to create the world you want—There's a lot to be said for positive thinking! 🌍

# Controlling garden pests with their natural enemies and diseases

Garden pests and their natural enemies co-exist in balanced populations in well-managed organic gardens. All you have to do is sit back and let them get on with life, and you won't have a problem with losing your crops to the 'bad guys'.

by PAT FEATHERSTONE

***"Nearly half of all the food produced in the world today is lost to insects despite the fact that the use of pesticides has increased so dramatically. In 1945, when pesticide use was very low in the USA, maize crop losses were around 3.5%. In the late 1990's, with one thousand times more pesticides being used, crop losses were estimated at 12.5%."*** (Pimentel, 1995)

**P**ROGRESS HAS NOT BEEN MADE in the war against insects because they are developing immunities to pesticides, and because the natural predators and parasites are being destroyed along with them. So when you see some bugs in your veggie patch and you spray them with poison, it backfires on you. In a few days, or a few weeks, the same kind of bug is back again but, this time, there are more of them than before. Why does this happen?

You accidentally killed off the pest's natural enemies along with the pest. It is not always possible to kill off all the pests, apart from which you didn't spray the neighbourhood gardens that may harbour them, and so without any natural predators or parasites to hold them in check, those that didn't die, or those that flew in from elsewhere, are able to multiply without restriction.

Natural enemies do not usually reappear as quickly as the pest, and some insecticides are more toxic to predators and parasites than to the pests. At the same time, resistance to the poison sprays is developed. Individual insects have different levels of resistance to the sprays. Every time you spray an insect population, you change the balance between susceptible and resistant individuals. The resistant individuals survive and reproduce; most of the susceptible ones die. So it follows that the more pesticide you use to control the seeming problem, the faster

you produce a population of resistant pests, and the faster you lose your entire crop.

There is some good news though. Convert your gardening methods to an organic approach and at least two-thirds of your pest problems disappear. Don't be tempted to think "What can I use instead...? What if...?" This is the wrong approach. Rather think along the lines of avoiding pest problems by managing your gardening correctly. This is about good gardening practices like building healthy soil, planting mixed crops, following crop rotations and seasonal plantings, companion planting, using resistant varieties, creating physical barriers and/or traps and creating habitats for frogs, lizards and birds. Many ideas have been given in previous issues of this magazine.

Allow your garden to take control of itself, and populations of natural enemies will re-establish themselves. Pest problems will become history.

### What are natural enemies?

There are three types of natural enemies:

• **Predators which eat insects.** Predators include spiders, ladybirds (watch out for the imposter ladybirds that have turned vegetarian and attack potatoes, beetroot, spinach and members of the pumpkin family), and wasps, praying mantids, lacewings and dragonflies.

Each predator can eat hundreds, even thousands, of insects in a lifetime. Some, like spiders, have been shown by DNA-based techniques which analyse their stomach contents, eat a wide variety of insects. For example, Money spiders (Lynphiidae) are prized by farmers in the UK for their voracious appetite for aphids. But aphids have little nutritional value and spiders need to eat other insects to balance their diet. Predatory insects (and arachnids) do not damage crops.

• **Parasites.** Most of these are insects that lay their eggs inside the body of a living insect called a host. The parasite feeds on its host until it finally kills it. Then the adult parasite emerges from the dead host and searches for more insects to lay its eggs in. Using parasites is a slower way to kill pests but it is effective. There are many examples of insect parasites in your own (unsprayed) garden. Take the time to find some of them.

• **Diseases carried by viruses and fungi can infect insects and kill them.** Because the disease is carried among the insect pests in your garden, whole populations can be wiped out quickly. For example, when caterpillars are a problem you can use a Bt spray which contains *Bacillus thuringiensis*, a soil-borne bacterium harmless to human beings and animals. The Bt bacterium produces a toxin which when ingested, causes the caterpillars to stop feeding, become ill and die. It is lethal to a variety of insects, particularly the larval forms of moths and butterflies and is quoted as being about 90% effective.

The Cabbage White butterfly (*Pieris brassicae*) is a common site in the vegetable garden and illustrates a number of examples of biological control in action. This species was accidentally introduced to the Western Cape from Europe (first sightings were reported in 1994) and it has since become a significant pest, particularly to small-scale farmers and home gardeners. Its green, black and yellow larvae cause a lot of damage to the mustard family (Cruciferae), particularly cabbage, broccoli, cauliflower and rocket, and also to nasturtiums. Interestingly its preferred local food plants are also introduced species.

The butterfly tolerates both hot and cold weather, seems unperturbed by the raging south-easters and broods continually through the year, laying up to 125 eggs at a time. Populations surge in the cold months. It has the potential to become a serious pest.



Mother Nature, left to her own devices, has deftly stepped in with a few nifty solutions for its extermination, at best, or to keep its population in check:

- **Argentine ants** – aggressive aliens – have been observed to feed on, and carry away, the first instar (newly hatched) larvae; one way to curb population growth.

- **Two species of Tachinid fly larvae** have been recorded as parasitising the Cabbage White caterpillars. The adult looks like a small hairy housefly and survives on the nectar of flowers, but the larvae live as parasites on other insects. They do this in one of two ways. Small, white, oval eggs are laid on the

gut wall and proceed to feed, leaving the poor victim's vitals to the end. In order to get the air they require, they pierce the body wall of the host and send their own breathing tubes to the surface or connect directly to the respiratory apparatus of the caterpillar.

- **If you have a vegetable patch** you may have noticed butterfly pupae attached to the wall of your house. Periodically you'll have the joy of watching the crumpled adult emerge, blow up its wings and take off into the garden. Often however, these cocoons remain intact; nothing ever comes out of them. That is a sign that Nature is at work or, should I say, that wasps – 'ecowarriors' in the caterpillar war – are doing their job.

the wasp grubs are ready to pupate and then they start nibbling at the brain. This brings about changes in the caterpillar's behaviour and it leaves the food plant and migrates up any vertical surface in the vicinity, in a premature attempt to pupate. The wasp grubs finally kills the ailing caterpillar, and emerge to spin tiny cocoons covered in a golden nets which will protect the pupating wasp larvae from attack by other parasites. Clusters of these cocoons can often be seen on vertical structures in and around your garden and home. You would have to very observant to notice the little black wasps that emerge from them to continue their life cycle.

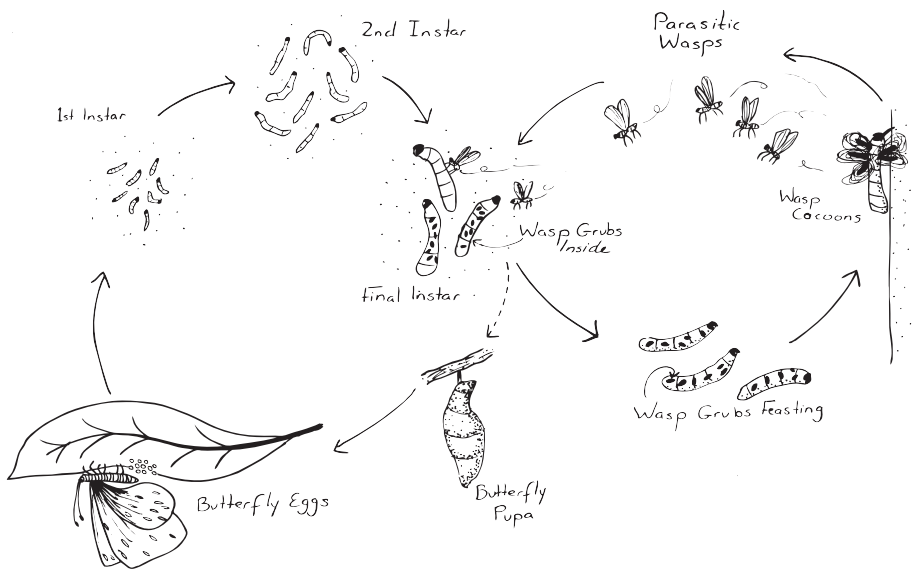
Unfortunately, as was mentioned earlier, populations of the Cabbage White butterfly increase quite dramatically in autumn and winter because the wasps do not tolerate the cold quite as well, and their activity levels are reduced. As the saying goes, 'when the cats are away, the mice do play'.

So successful are these techniques that Ma Nature has up her sleeve that some of these insect warriors are being shipped around the world. Overseas you can buy them from mail order catalogues, and fly them into your own garden, orchard, small holding or farm; ladybirds, lacewings, wasps, praying mantid egg cases – they're all in demand. A cup or two of ladybirds would be enough for the average garden, and give them a balanced diet too, as they feast on a huge variety of adult insects and larvae. Lacewing larvae have an insatiable appetite and can consume a few hundred aphids every two hours. Who needs poisons with allies like these?

Encourage the natural enemies to your garden by growing many different food crops and herbs and by keeping trees and shrubs and flowers growing around the boundaries.

Apply organic fertilisers and loads of compost instead of nitrogen fertilisers. Experiment with different natural sprays and repellent crops.

The important thing is that you try different techniques and find the best ones for your situation. In the end you will discover the best programme for managing any problems that arise in you garden. 🌱



outside of a caterpillar of another species. The eggs hatch into tiny maggots which bore into the living victims and devour them – first the body juices, then the fat, and finally the vital organs. The victim succumbs, and eventually only one brawny, hairy adult tachinid emerges. The other maggots were out-competed. Other tachinids lay lots of tiny eggs on the surface of food plants and these are swallowed by grazing caterpillars.

The emerging maggots bore through the

Cabbage White populations are checked by a tiny, indigenous, parasitic wasp, *Pteromalus puparum*. The female wasp lays her eggs in the body of the final larval stage of the caterpillars and the her grubs feast on the tissues of the host. They follow the same pattern of consumption as the Tachinid maggots – it would be unwise to kill the host before the grubs are fully developed – and attack the nervous system last of all. The caterpillar remains alive, and fresh, until just before

## To all who must eat to live, there is hope: **GROW YOUR OWN FOOD**

It's the simplest (and cheapest) way to good health. Soil For Life is a Cape Town-based NGO which teaches people to grow their own organic food. Soil For Life membership costs very little and entitles you to access to fresh, low cost seed (R2.50 a packet), access to the Resource Centre, a telephone advice service, a quarterly newsletter and an opportunity to help others to help themselves. Become a part of the food-growing culture in South Africa. **Soil For Life membership forms can be obtained by phoning Pat or Moira on 021 794 4982 during office hours.**

# Ancient Ways

Rodney and Margaret Crisford opened Ancient Ways, a new age shop in 2001. To meet the need in the area for a shop that catered for the people who required goods associated with being able to live in harmony with the environment, i.e. Nature based religions, Alternative healing etc. The shop is a virtual Aladdin's cave, carrying a wide selection of books, CDs, crystals and stones, essential oils along with magical and Shamanic items. Many of the items are hand crafted by local artists and their selves such as the wands, witches brooms, Shamanic drums, Native American style ceremonial pipes, pipe bags,

crane bags, tarot bags, dream catchers, medicine shields, dragon sculptures, and smudge Stix. Most of the material for these items is gathered locally, and great care is taken with the collection of all materials so that it has a negative affect on the environment. The love and reverence put in to these unique items can be seen in the end results and are only available from Ancient ways. Rodney and Margaret are both practicing Wiccans and Rodney has an associate degree in Conservation studies and a diploma in game ranch management, so that they are able to offer help and advise to enable people to

live in harmony with their environment.

**Ancient Ways' specialty is spirituality orientated toward nature, Goddess and Pagan heritage, Earth-centered religions, embracing our past, celebrating our spirit, restoring our world, and creating our future.**

Their shop can be found in the Ou-Fabriek corner of Main and Grey Streets, Knysna.

**Contacts:** Tel. 044-532-7571. Cell. 082-552-7187 ancientways@absamail.co.za www.ancientways.co.za



## ANCIENT WAYS

**New Age Shop. Nature Based Religions. Alternative Healing, Books, Crystals, Stones, Essential Oils, Magical and Shamanic Items.**

Email: ancientways@absamail.co.za  
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### YOU DETERMINE YOUR ATTITUDE

Your attitude is not determined by circumstances, but by how you respond to your circumstances. You can respond positively or negatively to any situation. It's how you react to events, not the events themselves, that determines your attitude. Any challenge facing you is not as important as your attitude towards it, for that will determine your success or failure. Things turn out best for the people who make the best of the way things turn out. It's not your *position* but your *disposition* that counts.



# Anastasia

## and the Ringing Cedars of Russia

### Restoring mankind to a state of grace

*Anastasia* and subsequent volumes tell the story of a return of mankind to a state of grace through love, actualizing real love to everything around us and keeping our thoughts, hearts, minds in the place of love, touching with love the earth and celebrating the God's creation through loving it and caring for it.

I think the most important lesson for us is to move back to the work of the Creator and away from ways which destroy it. That is what I take from the Series and find myself inspired to work harder and being joyous, thankful and loving.

In my own life, our family works toward goals that aren't measured in dollars, which is a much richer life than working

for material wealth. We have a certified organic and wild crops farm, so I am very receptive to the medicines of the earth and see the importance of people interacting in a healing way with God's Creation - the earth.

In a very humble way, our work with native plants on our farm could be seen as demonstration of a way people can take some of the Ringing Cedars ideas and put them to work.

I think if people find a larger purpose for their lives than collecting material goods, everyone will be happier rediscovering the scope of humanity's tools from the Creator. The Ringing Cedars books help with explain-



ing ways to have a richer life, raise healthier children, filling one's heart rather than one's pockets. If we don't discover new ways of being human beings and put them to work, if we don't have a spirit rich enough to live with love and respect for God's creations, we have no future.

PENNY FRAZIER 🌱

# Creating our reality

Accepting our role as Conscious Creators

by ZANNA SCHILBACH

“These are the times, we are the people” *Jean Houston*

Judaism and Christianity promise a time when the covenant with death will be broken. Yet it is always for the people of future generations, never here and now.

Well, there are those of us who feel that we are this “future” generation.

To accept our role as Conscious Creators, we need to first and foremost come out of denial, and accept responsibility for the situation we live in, personally and globally.

All the dangers that we are exposed to – from the possibility of mass nuclear extinction, to global warming, climate and Earth changes (to mention only a few), are no accidents of nature or God’s will. They have been created by us, or our “44th cousin” (as apparently no one on the Planet is further away from us than our 44th cousin).

Taking responsibility is not about blame, condemnation or punishment.

Taking responsibility gives us back our power, first to clean up the “mess”, then to intend and create the present to enjoy, and the future to look forward to.

The passion to awaken to this cannot come if we believe that we only have power to attain certain things, yet have no power or say in the matters of life and death.

“All healing is temporary, until we heal death”

*Leonard Orr*

So it does not make sense to believe that we create our reality ( the job, the partner, the house, the money, the health, longevity, etc), yet have no say in grand matters – like the destiny of our Physical Form ( our Body) or the future of this Earth.

The next step in taking responsibility is to heal ourselves.



Insecurity and doubt (about who we are), “not good enough, not enough, life is a struggle, death is inevitable” beliefs, and other childhood and genetic traumas need to be transmuted, integrated, healed, and the ignorance forgiven. It is of course not a “simplistic task”, yet there is no way around it.

Besides, these “hidden wounds” are the core problems of addictions and abuse of ourselves, one another and this Earth.

Thirdly, we need to start living in the Now, with the awareness of Who We Are (made in) “The Image and Likeness of our Creator”.

“One of the great advantages of immortality is that it will finally allow us (or force us) to tackle the truly long-term problems that we face today (environmental, overpopulation; to name only a few), rather than passing them on to future generations.

“Why worry about global warming if it’s not going to have any real impact until after I’m dead and gone? “ , kind of attitude) .

**“Immortality will bring not only wisdom, but responsibility. The human race will end its adolescence and attain true adulthood at last” *Dr. Ben Bova* 🌐**

## Our deepest fear

by MARIANNE WILLIAMSON

Our deepest fear is not that we are inadequate.

Our deepest fear is that we are powerful beyond measure.

It is our light, not our darkness That most frightens us.

We ask ourselves  
Who am I to be brilliant,  
gorgeous, talented, fabulous?

Actually, who are you not to be?  
You are a child of God.

Your playing small  
Does not serve the world.

There’s nothing enlightened  
about shrinking  
So that other people won’t feel  
insecure around you.

We are all meant to shine,  
As children do.

We were born to make manifest  
The glory of God that is within  
us.

It’s not just in some of us;  
It’s in everyone.

And as we let our own light  
shine,  
We unconsciously give other  
people permission to do the  
same.

As we’re liberated from our own  
fear,  
Our presence automatically  
liberates others.

# Observe the Ego

“Men are disturbed, not by things that happen, but by their opinions of things that happen.”



**T**HE NEW MOON IN LEO at the end of July sees August in with a strong emphasis on Ego identification. If you know who you are, where you are going, and who is going with you, you can stand firm in this time of turmoil. This is a time of reaping rewards for past effort and special rewards where you are prepared to take age appropriate, and socially relevant, responsibility. Anyone who relies on ego recognition and approval from others, could find life quite difficult, for nothing is more easily dissolved than a fragile ego.

If you are caught up in the illusion of wishing or hoping things were different, or caught up in fantasy or pretence, rather than reality, then you may have an enforced reality check. The mask may have to come off. It is often harder to face yourself than facing those around you. During this phase of waxing moon, as she approaches fullness, spend some time to question, “Who am I? Where am I going? And who is going with me?”

**The key to unearthing the answers lies in being brutally honest,** and to excavate the layers, until you know for sure what is true and real — for you. Most importantly, to thine own self be true. This process does not have to take a lifetime, and you can have some fun along the way.

**De-clutter your living space, learn something new, go on an adventure, do something you said you never would, feel the fear and do it anyway.** Do anything (legal) that feels right, just for the pure pleasure. As you excavate the authentic self, don't measure yourself against, or be affected by, the opinions of others. More importantly, don't judge yourself or the outcome. Enjoy the journey while discovering who you are.

When the moon reaches fullness on the 9th August it heralds an energy that is reminiscent of the story of the three little pigs who are challenged by the huffing, puffing, big, bad wolf. Metaphorically speaking, in terms of your value system, have you built your house from straw or bricks? All may not be what it appears at this time. There is a sense of confusion, deception, and chaos.

This is Neptune's domain. Water, oil, and drugs can be issues of domestic and global proportions. Mars, who was sitting of the wall earlier, is now teamed up with the

rebellious and disruptive Uranus, and by the next new moon, will be in full battle gear. These can feel like turbulent times, life can be unpredictable, expectations can fall short, it is beneficial if you can find your personal centre.

## Cosmic card game

The Virgo new moon on the 23rd of August continues the theme of dissolving, together with the stirrings of the warrior energy. There is a planetary alignment that is like a cosmic card game. Saturn is playing a hand that restricts other players, Jupiter raises the stakes, he is after all comfortable taking a gamble, and Neptune, who is a master at dissolving things, sits opposite, bluffing. Pluto and Mars are being antagonistic. There is tension round the table.

**So how can we best work with these cosmic partners? Pick your battles carefully, wherever possible, don't sweat the small stuff.** Pluto, who was holding back, is now moving forward with full throttle and in challenging aspect to mars, stirring unconscious and often irrational anger. Don't issue ultimatums, look where you can compromise. Dealing with anger constructively can be an effective and driving force that instigates and motivates, getting things done. There is support for those who work with a spirit of co-operation, who face fears and restrictions with courage, and take personal responsibility. It is important to understand the bigger picture and not get locked into detail. Speak your truth in a responsible manner. Embrace a spirit of moderation and keep expectations in check.

**We can benefit from this time of earthy Virgo by making a connection between the body and the mind.** This is an excellent time to detox the body, look at your health and fitness regime, Look at, admit to, and face addictions. Embrace the spring equinox as a time of renewal and regeneration. Most importantly, remove the rose coloured spectacles. While some apparently chaotic conditions prevail, it may be difficult to keep order, internal peace cannot be affected by external events. One would be well advised to surrender, rather than loose, control.

The Pisces full moon on the evening of 7th September is a partial lunar eclipse, as

well as being stressed by the unpredictable Uranus. If you can't change and let go, at least be flexible. This is followed two weeks later by a solar eclipse on the 22nd. Both these eclipses carry strong Virgo/Pisces energies.

**Eclipses in an earth sign are said to rattle foundations of the business and agricultural world.** If we relate all the planetary energies that we have discussed here, to a global level, then we have to take into account, that which represents universal values, gold, money, and oil, will also be affected. This is a time when things come to a head. Conditions will be especially difficult under the darkness of the new moon when the sun is weakened by the eclipse.

Jupiter and Saturn, the 2 planets that are often associated with events in the middle east, and a third planet Chiron, which carries the archetype of the wounded healer, are involved are in a challenging position. It is apparent that the eye for and eye behaviour is being played out. This particular pattern is clearly active until October.

It would serves us well to consider the words of the Greek Philosopher Epictetus (55-135): “Men are disturbed, not by things that happen, but by their opinions of things that happen.” 🌍

Bernadette Medder of Cosmic Directions  
Consultant and Teacher since 1993  
021 794 4150 or cosmicdirections@icon.co.za



# Ask Anrita

Questions? Send them to [anrita@biophile.co.za](mailto:anrita@biophile.co.za)

Dear Anrita

Thank you for your article on the interlife, which was really interesting. A question came to mind while reading this on Soul retrieval or Soul fragmentation – I understand the when we experience a loss or trauma of some kind, often a piece of our Soul fragments, and this affects us in our daily lives. I experienced the loss of my partner some years back and have not felt quite right since this time – it was a traumatic event in which he died in a car accident very suddenly, and I experienced not only a deep loss and emptiness following this, but was in shock for a very long time.

Anita M.

Soul fragmentation occurs to all of us and forms an energetic matrix around the energy field that we bring with us into each lifetime.

So, often we continue to play out old contracts and negative patterns with family and friends, as this forms the basis of these karmic contracts. Usually too at these times of perceived trauma, we may also have made old Soul contracts of survival and we often perpetuate these patterns of survival in each lifetime, so it is important that we bring back these pieces of our Soul that have left and fragmented as they have been unable to deal with the incredible loss or pain experienced at specific times.

If we do not bring back these fragmented Soul pieces, we will never truly be grounded and in the Now, and will often find ourselves avoiding perceived confrontation or feel unable to deal with many of life's perceived challenges as they will keep coming up for us until we change our patterns and false beliefs.

And further to this, the loss of Soul pieces can also cause us to feel depressed or experience a lack of joy or Love and so on, in our lives. Sometimes this Soul fragmentation can occur early in life, particularly if there was abuse as a child, whether physical, emotional, sexual and so on. Unable to deal with this trauma, the Soul fragments and the child escapes his or her body, so to speak.

I have included a meditation for bringing back the Soul fragments from this and other realities using the seven main chakras in the body and the Overlighting of the seven main Archangels.

Get yourself into a comfortable and relaxed space. Now call upon Archangels Gabriel and Hope, Keepers of purity, joy, hope and discipline so you may fully embody these qualities. Archangels Gabriel and Hope now reach out and touch the base of your spine, your base chakra, and as they do, you experience a lifting of any

dark energy that fills this particular area. You see this base chakra area fill with Light and Love in a beautiful white ray, the symbolic color of Archangels Gabriel and Hope.

You see a beautiful white ray fill this area as your base chakra now starts to spin with your Love and the Love of the Archangels and Angels. Now ask that your fragmented Soul piece that is missing from your base chakra and did not want to belong come and join you. You are willing to Love this Soul piece and you let your Soul piece know that it is now in a loving and nurturing environment. Feel your fragmented Soul piece enter into your base chakra and in these high frequencies of Love and Light, in these qualities of purity, joy, hope and discipline, your Soul piece becomes whole again. It has finally come home in the white ray of Archangels Gabriel and Hope.

Now focus on your sacral chakra, which is two to three inches below the navel. Feel the wonderful violet ray of Archangels Zadkiel and Amethyst enter into the sacral centre.

Archangels Zadkiel and Amethyst bring with them the qualities of freedom, compassion and forgiveness and you allow yourself to experience your compassion and your forgiveness. You feel an exquisite sense of lightness in your sacral centre as you allow yourself to release all negative belief systems or judgements from your sacral centre. You transmute all these lower energies into frequencies of Love and Light through the violet ray of Archangels Zadkiel and Amethyst, as you bring in the qualities of freedom, compassion, and forgiveness. You fill your sacral centre with Self Love and the Love of all the Archangels and Angels.

Ask that your fragmented Soul piece that is missing from your sacral chakra join you now. Tell your Soul piece that it is now safe and protected, that you will Love and cherish this Soul piece, this part of you that so desperately needs your Love, your Light. Your Soul piece that is missing from your sacral centre now joins you as you breathe deeply into this violet color and as you become the qualities of freedom, compassion and forgiveness. Welcome your Soul piece back to its rightful home in these wonderful qualities and frequencies of Love and Light.

Now you move up to the heart centre and focus on opening your heart centre to Love. Archangels Chamuel and Charity now activate this heart area with a wonderful pink ray and bring with them the qualities of Love, creativity and beauty. You welcome these wonderful qualities and this powerful feeling of Love as you open your heart in these frequencies of Love. Release all negative feelings of Self-loathing or non-acceptance that you might hold in your heart centre. You experience your richness, you feel your Love for yourself, your friends and family and finally for this entire planet. You feel a universal sense of Love.

As you bask in this beautiful Light and newfound Love, ask that your Soul piece that is missing from this area join you now in this communion of Love. Breathe deeply into the rich pink colour as you see your Soul piece enter into your heart centre as you open your heart centre in Love and to the magic of the Archangels and Angels and all of life around you. Allow yourself

to be filled with Love, creativity and beauty for all of Life and for yourself.

You now move up to the throat chakra as Archangels Michael and Faith activate this point for you. Archangels Michael and Faith bring with them the qualities of power, faith and protection through a beautiful sky blue ray. You feel your vocal vitality and the knowledge that allows you to express yourself freely in Divine truth, for Archangels Michael and Faith bring with them the qualities of power, faith and protection.

Allow yourself to fully release all negativity that is harbored in this area. Now call out to your Soul piece that is missing from this area to come and join you, to experience your Higher Light, your Divine expression and Love through the qualities of power, faith and protection. You see or feel your fragmented Soul piece, the part belonging to these experiences, come back to you as you breathe in this beautiful sky blue ray. You embrace this part of your Soul that is rejoicing in this reunion with you as this wonderful Higher Light.

Now bring your attention to your third eye where you feel the light, soft and warm touch of Archangels Raphael and Mother Mary as they bring in a rich green ray. Archangels Raphael and Mother Mary bring with them the qualities of truth, abundance and healing and you feel these qualities moving through your third eye, becoming part of you.

Allow yourself to release all patterns and perceptions held in your third eye that no longer hold true for you as you now vibrate at a higher frequency.

Finally, bring your attention to your crown chakra at the top of your head. Archangels Jophiel and Constance activate this point and as they do they bring in a beautiful yellow ray and the qualities of wisdom, insight and understanding. The last part of your fragmented Soul that is missing now enters through your crown chakra on this beautiful yellow ray to become this Higher Light, to become part of you in your wisdom, insight and understanding.

You are feeling much more complete, much more whole now. You have brought your Soul fragments entirely back into your being and you now feel all parts of your Soul, all parts of yourself. You feel your Soul stir deep within your Soul Matrix, deep within your heart centre, as you open your heart centre to this wonderful feeling of Love. Welcome each part of your Soul that has come back to be with you as your Higher Light, in the frequencies of Love and Light. 🌟



Anrita Melchizedek is a channel, author, healer, Light essence producer and international Spiritual facilitator, working with nature intelligence and the Company of Heaven.

She has appeared on Free Spirit, as well as in numerous print publications, such as Namaste

and Renaissance magazines. Anrita has a private healing practice in Cape Town, offering readings and Spiritual counselling.

For more info on Anrita or her ascension network, please visit her web site: [www.pleiadianlight.net](http://www.pleiadianlight.net)

# Connect up — get active!

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Members of the public and any interested and affected persons may report any contraventions of environmental legislation or permits, including the dumping, burying or burning of any kind of waste; any soil or air pollution; the acquisition, sale, storage, transport and spillage of hazardous chemical waste as well as any unauthorized development by contacting the Department of the Environment and Tourism on the following toll-free number:

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Email: [sane@iafrica.com](mailto:sane@iafrica.com)  
Web: [www.sane.org.za](http://www.sane.org.za)

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Tel/Fax: +27 (0)21 671 4583  
Email: [beautywc@netactive.co.za](mailto:beautywc@netactive.co.za)

### **Compassion In World Farming (South Africa)**

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Tel/fax: 021 852 8160  
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Website: [www.animal-voice.org](http://www.animal-voice.org)

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Web: [www.peta.org](http://www.peta.org)

## **CAUSES**

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### **WWF**

Web: [www.panda.org.za](http://www.panda.org.za)

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of participating South African non-governmental and community-based organizations on matters concerning environmental justice and sustainable development.

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Fax: +27 (0)11 339 3859

Web: [www.ejnf.org.za](http://www.ejnf.org.za)

### **groundWork**

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PO Box 32184, Braamfontein 2017

Web: [www.groundwork.org.za](http://www.groundwork.org.za)

Email: [team@groundwork.org.za](mailto:team@groundwork.org.za)

Tel: 033 342 5662

### **Earthlife Africa**

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PO Box 11383, Johannesburg 2000

Web: [www.earthlife.org.za](http://www.earthlife.org.za)

### **Cape Town:**

PO Box 176, Observatory 7935

Web: [www.earthlife-ct.org.za](http://www.earthlife-ct.org.za)

### **Namibia:**

PO Box 24892, Windhoek, Namibia

Web: [www.earthlife.org.za](http://www.earthlife.org.za)

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Minister: Marthinus van Schalkwyk

Minister's spokesperson: Riaan Aucamp

Pretoria telephone: (012) 310-3611

Cape Town telephone: (021) 465-7240

E-mail: [raucamp@deat.gov.za](mailto:raucamp@deat.gov.za)

Web: [www.environment.gov.za](http://www.environment.gov.za)

### **Dept. of Minerals and Energy**

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Private Secretary: Ms Nonzame Sodlala

Email: [nonzame.sodladla@dme.gov.za](mailto:nonzame.sodladla@dme.gov.za)

Director-General: Adv Sandile Nogxina

Email: [mpumi.gaven@dme.gov.za](mailto:mpumi.gaven@dme.gov.za)

Chief Director: Communications

Ms Yvonne Mfolo

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Web: [www.dme.gov.za](http://www.dme.gov.za)

### **Dept. of Public Enterprises**

Minister: Alec Erwin

Private bag x15, Hatfield 0028

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Fax: (012) 342 6194

Email: [info@dpe.gov.za](mailto:info@dpe.gov.za)

Web: [www.dpe.gov.za](http://www.dpe.gov.za)

### **Finance Minister**

Trevor Manuel

PO Box 29, Cape Town 8001

Tel: 021 464 6102

[tipsfortrevor@treasury.gov.za](mailto:tipsfortrevor@treasury.gov.za)

Secretary's email:

[patti.smith@treasury.gov.za](mailto:patti.smith@treasury.gov.za)

Web: [www.finance.gov.za](http://www.finance.gov.za)

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### **50/50**

Web: [www.5050.co.za](http://www.5050.co.za)

### **Greenprint**

Web: [www.greenprint.co.za](http://www.greenprint.co.za)

### **The Enviropaedia**

Web: [www.enviropaedia.com](http://www.enviropaedia.com)

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### **Hellkom**

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### **MyADSL Forum**

Web: [www.myadsl.co.za](http://www.myadsl.co.za)

# Leila's Permaculture Estate

**D**ID YOU KNOW that a carrot that you buy at your local supermarket provides your body with ten times LESS energy than it took to get that carrot there.

The amount of pesticides, insecticides, transport, labour etc used in the production of one carrot under our current monoculture system is very, very expensive to all of us, mother earth included. We are living in an unsustainable system and, even if, for the sake of our OWN species we need to look at alternatives.

Mark and Gaby Coetzee-Andrew have dedicated their lives to living this alternative life on a small holding, LEILA'S ESTATE, outside George in the Southern Cape. The dream is a common one, a north facing small holding, strawbale home, little sod cottage, own veggies, chickens, water tank, solar electricity, everyone's idea of the perfect life Well,

everyone from your regular Ethno Bongo, new age ferrel children in a trance, to the aging hippy following peace, love and happiness in a green haze of ideology.

We fit somewhere between the left and the right of this motley lot. Our aim is to have a high standard of living, (porcelain and hot running water, feta cheese and chilled white wine) with a low cost; to self and the environment. In other words To live a sustainable life.

Mark builds Earthen houses in the Southern Cape. He also runs **The School of Earthen Building** where he offers week-long building courses. The courses are held during the last week of the month and are hosted on the farm. Participants stay on site in the original sod building. A 175 year old cottage with a magnificent mountain view and a glorious sunny stoep. At

night participants share their experiences with like minded folk and create a network for similar type projects. You leave with a comprehensive manual, hands on experience and invaluable contacts.

The same cottage hosts the farm eatery; **Leila's Arms**. From Monday to Saturdays you can come and enjoy THE MOST EXTRAORDINARY food. Our menu is very small but we always have something for the vegetarian AND the meat eater. We serve a karoo lamb bredie or curry cooked in a sun oven or a straw box for four hours until the meat falls from the bone. We cater for vegans, blood type diets. food combining and whatever weird and wonderful programme we follow in the endless search for a healthy way of life. We collect water from the roof and grow our veggies, salads and herbs.

Apart from course venue and eatery, the little sod cot-

tage also serves as a workshop and conferencing venue with a difference, as well as holiday makers searching for a rustic environment.

We have been inspired by Bill Mollisons Permaculture concept and refer to it when possible. We have planted 6 hectares under indigenous Knysna forest. It is a young forest but it is a start. Everyone needs to be near a wild zone; a forest, the sea, a desert; any wild area to replenish mind, body and soul. (If all else fails, find your self a wild woman to befriend)

Our greatest learning is that this idealistic dream is AN ENORMOUS amount of work and takes courage, effort and commitment. We started this venture 13 years ago and are no where near complete. Reality sets in, especially when you have children and you have to put your dreams on hold to go out to work and put food on the table.

These basic principles however, have held us in good stead.

- USE WHAT YOU'VE GOT
- DIVERSIFY
- INTEGRATE YOUR PROJECTS
- REDUCE, REUSE AND RECYCLE

Did you know that if you chop off the top of a carrot and plant it, a new carrot will grow down. So if you plant your own carrots you will contribute, significantly, to a more sustainable world.

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## Leila's Permaculture Estate

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and, above all, a sense of well being and happiness!

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# Orgone Energy — the next revolution?

by GEORG RITSCHL, ORGONISE AFRICA

## The outgoing paradigm

Our present physics only understands entropic processes, that is processes where energy is dissipated by “using up” existing potential differences.

Under the rule of entropy, a cold and completely dead universe is the inevitable consequence of all there is.

Because engineers are trapped in this mindset, they can only design technology that is entropic and hence ultimately destructive.

The new emerging paradigm will allow us to create new technologies that harness the unlimited power of the ether and live in mental and physical balance with our planet and the wider universe.

## Rediscovery of the ether

A general rediscovery of the ether is happening in scientific circles at the moment.

Buzzwords to look for are: Zero Point Energy, Quantum fluctuation, Torsion fields, Free Energy.

Etheric energy is obviously more fundamental than the forms of energy our science is presently recognising, such as heat, electricity, magnetism, mechanical force, gravity or the weak nuclear force. It could be described as a pre-materialisation energy, a potential field or the “hyperdimensional energy and information matrix from which all material phenomena manifest”.



Wilhelm Reich

## An unsung hero: Wilhelm Reich

The term Orgone Energy was coined by Dr. Wilhelm Reich, a doctor and Psychiatrist who worked closely with Sigmund Freud in Vienna in his beginnings.

Reich went on to research the connection between human mental suffering and sexual oppression. In the 1940s he discovered the workings of the universal life energy which he called Orgone.

Reich's great contribution was the systematic scientific research into this energy, and that is the reason why we use the term orgone energy rather than any of the other possible names. He found that a high concentration of positive orgone was able to cure cancer and other degenerative diseases. Stagnating orgone energy or DOR (Deadly Orgone) was found to be responsible for disease on a personal level, biodegradation and desert forming on a planetary level.

In his early cloud busting experiments Reich was able to show how deserts can be brought back to life by removing the DOR and bringing the Orgone to flow again.

Wilhelm Reich's Research was brutally suppressed in the United States and he was incarcerated on trumped up charges and died under mysterious circumstances 1 day before his scheduled release from prison in 1957.

Orgone energy is the force of creation, that which makes life possible. It's working is anti-entropic. It is the Prana, Chi, Ether of older traditions under a new name.

## From dor to por

Wilhelm Reich discovered that layers of organic material such as cotton wool, wood etc. and metal had the property of intensifying the orgone field within an enclosed space. That was the principle of his Orgone accumulators.

The disadvantage of this was that it also concentrated negative Orgone (DOR) and could therefore be potentially hazardous.

The next step was the discovery that metal filings, suspended in an (organic) matrix of polyester resin would convert DOR to POR (Positive Orgone)

While first discovered by radionics inventor Karl Welz in the 1980s, this new discovery only showed it's truly revolutionary

potential when independent researcher Don Croft combined this new substance with Reich's original Cloud Buster concept and created the orgonite cloud buster.

This Device is also known as Don Croft cloud buster or chem buster because it soon became evident that the massive output of positive orgone energy would dissolve chemical trails and other forms of pollution.

Inspired by Don's adventures and his generous sharing of his findings with the general public, a worldwide network of orgone activists has sprung up.

It consists of people who are taking responsibility for their environment and are doing environmental healing work with a number of simple yet effective tools:

## The arsenal of the orgone guerillero

Over the past few years a growing variety of specialised environmental healing tools has been developed. I can only introduce the 3 most important ones here

## The Don Croft Style Orgonite Cloud buster

Strong positive effects have been observed for distances of over 150 km after placing a CB. Other than the Reichian CB the Croft CB is not meant to be used for active weather manipulation, but rather as a general healing tool that needs no attendance or operating as such. It will just create a positive Orgone field in it's wider surrounding, thereby stimulating self healing processes on all levels: climatic, biological and mental (!)





## The Holy Hand Grenade

A HHG is the perfect personal orgone generator for house and garden, but can also be used to revitalise natural vortexes or neutralise strong DOR emitters in the environment.

Originally the HHG was designed to neutralise microwave towers as well, but it was soon found out that for most simple microwave towers much less is needed and since there are so many of these towers, we have to use our resources sparingly.



## The Towerbuster

The Towerbuster is the universal environmental healing tool. The name comes from it's main application, namely the neutralisation of cell phone towers and other DOR emitting radiation sources.

One TB is enough in order to transform a DOR emitting microwave tower into a positive orgone generator. Apparently without interfering with the cell phone signal. In that sense Orgonite works similar to many of the harmonisers on the market, like Q-link or Tachyon chips for Cell phones etc, only on an environmental scale.



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George

### “The Proof is in the pudding...”

says Don Croft: “... there will be enough evidence in common experience that this will be proven, as electricity is ‘proven’ to run a motor or light a room, even though nobody has ever quantified or even understood the nature of electricity. There’s so much empirical evidence that orgonite heals the environment, by now, that we’re approaching the ‘proof’ stage. Orgone is the emerging paradigm’s power source, in fact--that seems obvious by now to many of us.”

Wilhelm Reich already had a device that would measure the orgone charge indirectly via it’s effects on the atmospheric discharge of static electricity. Presently a device is available from a company called Heliognosis in Canada, called the “experiemental life energy meter”.

However, the best way to prove that orgonite works, is to experience it yourself.

The following effects are reported by people the world over:

- Increased rainfalls in drought areas
- Increased plant growth and animal fertility
- A general feeling of vitality and crispness in the atmosphere
- Visible and instantaneous Dissolution of chemtrails or other smog
- Psychics and sensitives can invariably see or feel the difference in the “aura” of a cell phone tower before and after

It is obvious from the above that orgone energy greatly benefits farming as well as the general Environment.

Says organic Farmer James Moffat from Ficksburg: “While Georg stayed with us he treated numerous cell- and radio-phone towers in our area by placing his orgonite discs at the bases of the towers. The impact of this drive has been amazing as mentioned above, in terms of rainfall, which we also experienced at Kirklington. Further to that I have seen a definite improvement in human, plant and animal health...”

Orgonise Africa has undertaken wide spread gifting work in southern and Eastern Africa with often immidiate changes noticeable.

We believe that the abundant rainfalls of the 2005/06 planting season in Southern Africa and the fact that the droughts predicted for 2003, 2004 and 2005 did not really happen, at least not on the expected scale, are a direct result of this work.

In our opinion the large scale application of Orgonite can reverse deserts and stop trends of biodegradation.

Thousands of experimenters worldwide have demonstrated that orgonite is absolutely without harm and has profoundly uplifting and empowering effects.

Practically every person can make it, following simple instructions or buy orgonite tools from a growing number of small scale producers world wide.

More information on the subject and our complete expedition reports can be found at [www.orgonise-africa.net](http://www.orgonise-africa.net).

Contact: Georg Ritschl 083 289 6196

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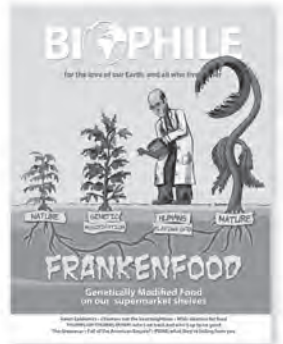
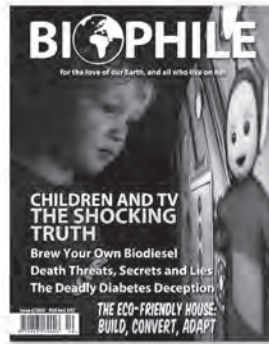
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## 18 A Guide to Green Cars

What makes one car greener than another? Certainly, having high fuel economy is one factor. Meeting one of the cleanest exhaust emissions standards is another.

## 20 South African Restaurant Oil Abuse

## 22 Making Bacon: the Shocking Truth

Many people think of *Charlotte's Web* and *Babe* when they imagine how pigs are raised for meat. Unfortunately, these Hollywood tales do not depict reality.

## 24 The Hidden Lives of Pigs

## 26 Do Africans Dare Care About Animals?

Are animal rights the domain of the world's affluent nations? Dare we Africans care about the well-being of animals while so many are dying of hunger, disease and bloody civil conflict?

## 28 The Wave is Cresting — Are We Ready to Surf?

For those of us who are at the rock face of the developments within the organic industry, it is obvious that the rate of change and growth is increasing daily and exponentially.

## 31 Organic Gardening... and the Humble Weeds

I have been growing organic fruit and vegetables around my house for five years now, and the most interesting things have become apparent.

## 32 Herbicides in Your Intestines?

Genetically engineered crops may produce herbicide inside our intestines, killing gut bacteria which are essential for our health.

## 35 Sugar Addiction

Scientists never really thought that a person could become hooked on sweets like they were a drug. Now a batch of findings is making researchers reexamine the concept.

## 36 The Right to Food

It is unlikely that you will know personally any of the ten children under five years old who die every hour in South Africa, and so are spared that suffering.

## 37 Worms at the Mount Nelson

Cape Town's most famous hotel has embarked on a novel way of disposing of its waste – an on-site worm farm to process leftover food and other organic matter.

## 38 Using Love, Not fear, in Prisons

Whatever is being done about crime, isn't working.

## 42 Whale Wars and Dangerous Vegans

When the president of the Japan Whaling Association accused a radical environmental group of being "dangerous vegans", not many people knew quite how literally he meant it.

## 44 Beyond the School Wall

Could this be the catalyst for the change that we are all seeking in our ailing education system?

## 47 Zero Waste Communities

Communities around the world have begun to adopt Zero Waste goals.

## 48 Should We Open Up Schools for Parents?

## 50 Beliefs and Reality

Where do we come from? The fact is, Homo Sapiens is the only new kid on the block.

## 55 Creating Our Reality

### Regulars

02 Inbox: Our Readers Write

07 Editorial

08 The Biofiles: News And Views

16 Thumbs Up / Thumbs Down

52 Soil For Life

56 Cosmic Directions

57 Ask Anrita

58 Connect Up — Get Active!

62 The Green Directory

64 Subscription Offer

Send us your thoughts, questions, ideas, constructive criticism and suggestions. We'd love to hear from you!

## Positive Saving

In the Editorial of Issue 9, you put forward the view that our world would be a better place if people shed the need to save their money. Although living without cash in the bank is an inspiring possibility, it is a lifestyle change unlikely to be snapped up by many, even those who believe themselves to be community or environmentally minded.

The average person will usually save for something which is important to them, be it a home, a child's education or a new pair of shoes. The money put away becomes a tool towards realizing a dream. I believe that to make money work positively for us it may not be necessary to give up saving, but instead to become acutely aware of where our savings go. In Europe opportunities for ethical investment have been multiplying as more people demand transparency from their banks. With growing social and environmental consciousness, savers are deciding not to entrust their finances to banks linked to the arms trade, oppressive regimes or corporations known to harm the environment. Instead, people are choosing to invest their money in worthwhile causes.

Banks like the UK's Co-operative Bank, with its slogan: "customer led, ethically guided" and the European based Triodos Bank assist people to invest ethically by spelling out clear policies on exactly who they will and will not lend to. In contrast to most banks that swallow up savings into ambiguously named funds, these organizations keep their customers well-informed.

Besides outlining their ethical policies in detail, the Co-operative Bank's website provides a platform for customer action campaigns and feedback. The Triodos Bank annual report lists all the organisations they lend to. Its pages full of colorful photographs and inspiring project profiles are a far cry from the grey financial documents peppered with graphs that are published by most other

banks. Triodos also produces a regular newsletter which combines articles on green lifestyles with details of the recycling networks, organic farms, small ethical businesses and cultural and community organisations it funds. Last year it even offered customers a chance to buy shares in a renewable energy fund that bought the UK's largest wind turbine.

In this way, saving becomes a way of channeling money into a network of exciting projects, while customers learn from fascinating stories just how their money is helping to make a difference. With so many exciting grassroots projects springing up in our own country in need of funding, isn't it time that South African banks jumped on the ethical bandwagon?

Not only will they attract more of the increasingly socially conscious young generation, but they will fulfill their corporate social objectives at the same time.

*EVE CUNARD, TSITSIKAMMA*

Thanks for taking the time to write and for making an excellent suggestion! I have heard through the grapevine that there is a group of investment bankers getting together to offer the SA public the option of investing in ethical ventures!

However I am still of belief that "saving for the future" is motivated mainly by feelings of lack and fear, and ultimately results in our 'doing it all for ourselves', which I believe is to a large extent responsible for the mess our world is in today. If we embraced the consciousness of abundance and sharing with complete faith, there would be no need to save. A good example of such living would be the few pockets of tribal people that still exist untouched by the western ways, where all is shared and people don't go without. Our western culture is based on materialism and driven by fear, so a massive shift in consciousness would be needed, to move into such a way of living. It seems that the wheel is turning however, with community living and 'eco villages' becoming more popular.

Anthea

## Green hair

I must start out by saying that I love your magazine. I read it from cover to cover as it is so packed with both useful and interesting articles.

I have been a hairstylist for 25 years and for the last 15 I have run a small intimate salon from the tranquillity of my home (away from the unnatural noises and air of shopping centres!)

Over the years I have strived to use and sell only the best products in my business. Lately I have become aware of all the nasties one finds in skincare products and strived to find organic products and in so doing stumbled across Esse and Enchantrix. I then was invited through my Esse representative to meet Dr Trevor Steyn, whom I found most interesting, due to his vast knowledge in organic products and his revelation to me about all the terrible things that one finds in all the hair care products that I have believed in for years.

It took me a few days to recover from the shock and then I decided to put some of this knowledge into action. I have decided that I will now endeavour to turn my business into an organic one, not an easy feat as there are not many products out there to choose from. I only managed to find 1 professional hair care product on the net, but at a frightful price (I want all my clients to be able to afford good products!) I now stock our wonderful local products (Esse and Enchantrix) and hoping that somewhere out there someone will fill the 'professional gap'! In the meantime I try and impart all my newly found knowledge to all my clients (and anyone else who will listen) because I feel that we should all know what we are putting on our skin and hair and know that there are products out there that are safe.

Keep up the wonderful work that you are doing.

*SHARON WADE, PRETORIA*

## Strip mining in Limpopo?

Thank you for your commitment to our Earth and for a very inspiring and informative journal. I am a passionate and active Earth lover. I coordinate a small NGO called Eco Hope which promotes organic gardening and the use of organic herbs in healing, in informal settlements, rural areas and communities which have newly settled on farms transferred in the context of land reform.

In Issue 10, you mentioned strip mining on page 35. When driving to Limpopo via Rosenkral, I see a range of mountains stripped of their trees. Do any of your "rainbow warrior" readers know if this mine has a rehabilitation policy in place, and whether or not it is being put into practise?

*AM LAUB, ECO HOPE, ECOHOPE@AMWEB.CO.ZA*



# Denying reality?

I am a journalist who has a respectable amount of experience covering science, the environment and, particularly, HIV/Aids. I am also a Buddhist, so not exactly a hard-core sceptical empiricist. I believe that the life of each and every human being (as with other beings) is an incredibly precious thing. I also think it is unlikely we will ever succeed in assuming a proper stewardship of this planet's environment if we do not take care of other as human beings.

The poor (though not as destructive as the rich), for whom the most basic issue is survival, often cannot care for their environment. I suspect many poor people are sceptical about environmentalists, because they sense that many environmentalists do not love people. Antiretroviral drugs are far from perfect. They are sold by corporations which undoubtedly have very little interest in human life and a whole lot of interest in making money.

But, if you spoke to every South African doctor and nurse who uses these drugs to treat people, you would hear that they can be almost miraculously effective. So much so that the term 'Lazarus effect' sometimes even finds its way into supposedly objective scientific discussions. Of those doctors and nurses working every day with HIV-positive patients, you would find but the tiniest minority prepared to endorse HIV denialism or a knee-jerk dislike of antiretrovirals. The introduction of antiretrovirals to our public health departments is beginning, where they are deployed, to slow the tide of death – which for professional healers has been a tide of despair. (Few if any people ever stop to consider the impact of this pandemic on medical professionals – an omission which betrays a staggering lack of imagination and compassion.)

The so-called science of HIV denialists is

corrupted by fear, fear of the immensity of the challenge HIV presents, fear of the darkness or simple ignorance in all of us which can encourage its transmission. Fear is natural, but yielding to it can kill us, especially when it has become irrational. The science of HIV treatment has advanced so far that the virus is no longer driving the pandemic – we are, we with our obstinacy, ignorance or fear.

Without science, we would know practically nothing of the damage we are doing to the environment. Yet, when science tells us things we do not like to hear about ourselves, such as the nature of those behaviours and fears that encourage the spreading of HIV, we reject their messages. In fact, rather than face the truth about certain aspects of ourselves, it seems we will often deny reality itself, deny the existence and nature of a virus which is all too real and thrives on such denial.

It is mostly scientists, those who manage the system of knowledge and common sense we call science, who are leading us away from environmental destruction. Perhaps we should wholeheartedly support their efforts to lead us away from human self-destruction.

Very few denialists are working public health doctors, or even doctors at all (though often scientists from other disciplines). The evidence for the nature and existence of HIV Culshaw believes to be so scarce is to be found in 10 000 clinics about this country. If hundreds of doctors were standing up, and saying, hey we're getting this HIV thing all wrong, now that would be worth listening to.

**DAVID LE PAGE**

Swimming against the current is always difficult in the beginning, using the (scientifically proven!) premise that we are what we think, the use of ARVs has its place,

respectful lives, whose own lives have been saved by courses of ARVs.

There must be even more people who are in early stages of awareness of the dangers inherent in their lifestyles in terms of what they eat, drink, breathe, watch, etc and who would appreciate taking on a new path in small steps - and live to take those steps, thanks to ARVs.

I for one, would appreciate a more compassionate and open-minded approach from one of my favourite magazines.

**ANNEMARIE HENDRIKZ**

## One of the greatest medical frauds ever

Your last *Biophile* was really excellent, as usual. And I'm also glad to see you're giving a voice to the 'Aids dissidents.' The 'HI Virus-causes-Aids theory' will yet be exposed as one of the greatest medical frauds ever perpetrated. Not only is there the contradiction in terms namely that a virus can cause a syndrome, but this virus has never been isolated in the way that other viruses such a polio have been.

By account of US Nobel-Prize-winning biochemist Dr. Kary Mullis, "its discovery owed more to politics and economics than to science." Certainly, it is a money spinner.

The myriad of vaccines to which children are subjected these days are more likely to be one of the major causes of the Auto Immune Disease Syndrome. Not to mention an accumulation of pollution, radiation, GM foods, chemicals in food and drinking water, etc.

**BEATRICE WILTSHIRE, SNOUT**

when people are given no option but to believe that this will prolong their life. We are wondering if you have any statistics regarding people who have survived (after being condemned to death by their diagnosis) bravely going against the current and using the ways given by nature to heal their bodies? I think you will find that there are many. There are more and more clinics being opened to address the issues from a holistic (physical, mental, emotional and spiritual) standpoint. From all accounts the results are very encouraging. We wholeheartedly agree with you when you say that the pandemic is driven by obstinacy, ignorance and fear...is now perhaps not the time to embrace a new way of dealing with the problem? Anthea

## One-sided view?

I love reading *Biophile* but am increasingly disappointed in your one-sided view on the HIV and AIDS challenge to our society.

*Biophile* is on issue number 10 and has devoted more than 15 columns during its lifetime to denial of the link between HIV and AIDS, and to the dangers of anti-retroviral drugs.

Don't you think it's time you gave some space to a more helpful view?

There must be many people living with HIV and/or AIDS who share a desire for healthy, sustainable, environmentally

While I understand where you are coming from, our intention is to awaken people to the many avenues in life that have — in the main — been deliberately put in place to dis-empower us and keep us in the bondage of limited thinking and being.

We focus, to the best of our ability, on educating and on sharing holistic and empowering alternatives to mainstream thought. There is more and more evidence coming to light in support of our stance.

Anthea

## Zero Waste

The article on waste (“Zero Waste: an introduction” *Biophile Issue 9*) was interesting and the objectives of the Institute are laudable. On reading the five basic tenets of Zero Waste, my first reaction was, ‘these all make sense’. My second reaction was, ‘the rub lies in the implementation’.

General acceptance of these principles will only come if the average level of education is fairly high, and where governments realise the importance of minimising human impact on the environment. Currently nearly all governments try their best to circumvent environmental legislation if the financial incentive is sufficiently high.

Of particular difficulty will be to persuade people not to over-consume. This goes against the very grain of living today. The business community is also sure to resist all limitations placed on their activities.

In most countries around the world today

meeting these objectives would require a phased approach at the very least.

In South Africa a starting point may be to put in place the required legislation which would force manufacturers to take responsibility for what they produce. This would in turn facilitate the process of getting municipalities to construct a number of collection points within easy reach of those who do not have private transport. People could then deposit sorted waste there and be paid for it. This money could be recouped from either the original manufacturers or those who will re-use the waste. A follow-on step would be to get the public to sort their waste and make it available to those who are willing to take it to a collection point.

To my knowledge not one of the issues listed in the article has been tackled in South Africa. If I am wrong, please let the general public know what has been achieved and let the educational process begin. This is vital to the future of the planet and the quality of life our children will enjoy.

Those who label ‘zero waste’ an unachievable target may very well be right in a society where the general attitude is one of ‘devil take the hindmost’. This should nonetheless not stop us from trying and giving our support to organisations such as Zero Waste.

**CASSIE PUREN, MULDRSDRIFT**

The only legislation which exists is the Polokwane Declaration — and you are mostly right in saying that Extended Producer Responsibility will be key; however, the idea that by simply recycling, we will solve the problem is a tad simplistic, as we need to re-design products and processes first, otherwise we are just fiddling at the edges.

While the concept of producer responsibility is in some of the legislation, it still speaks to eventual disposal, not keeping material in the economy.

So, with 100% post-consumer recycling, we would only tackle 2% of the waste stream... bit pointless, still worth doing, but limited in scope and impact.

Muna Lakhani, IZWA

## Frankenfood

In the recent article on “Frankenfood” (*Biophile Issue 10*) I was very pleased to see that the University of the Free State was finally using their GM testing equipment to the benefit of the consumer. The article paraphrases the report, but

leaves a couple of untied knots. The one that concerns me most (as a vegetarian who eats soya products) is the almost complete absence of un-modified soya products! What is misleading is the fact that no effort was

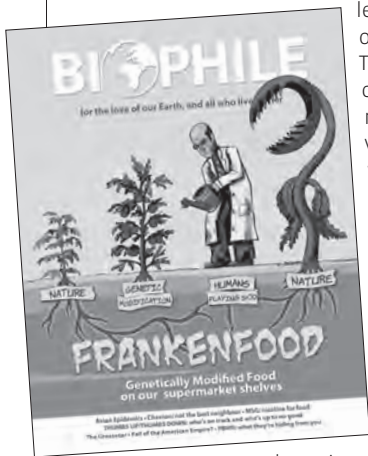
made to tie up the manufac-

turers to the tests and their claims.

Of noticeable mention is the Fry Group who boldly advertise their products as GMO free. Of the two of their products tested, they both tested positive for GM! In the article, a table is published saying that they use the EU certification of less than 0.9% GM content which is the worlds most stringent test. I sent them an email before this test was done asking for their certification body. Of course — no reply.

When is this level of LYING going to end. It is a completely unethical state of affairs and should be taken up with the advertising bodies if legislation cannot put an end to this scourge.

Ian Guest



## When I see a cattle truck...

Although we apparently don't all seem to agree that animals possess minds, notwithstanding that we so often punish them for not understanding or for not listening [implication: mental processes] we can surely all agree that animals do in fact have bodies.

So how can there be such neglect and cruelty to animals as is apparent in almost any area you look hard enough at (try it!), and how is it that it remains so very marginalized and pseudo-luxurious an issue. I always wanted to write about what happens to me when I see a cattle truck.

What I would have written would have been something along the lines of that when I see a cattle truck, I begin to feel panicky and hideously, tragically helpless because I know how they are a) currently suffering and b) going to continue to suffer. You do have to — having accepted the animals-have-bodies theory — acknowledge that they are going to suffer in the hot sun on the truck for several hours having been separated from herd and home thirsty and hungry and terrified then shunted into a building and murdered then eaten and well, you know the rest. It upsets me. It upsets my entire day but not as much as it upsets theirs, I believe.

I was going to write that I wondered if I felt anything like anti-Hitler German-folk must have felt watching those cattle trucks go by packed with bodies. I would go on to explain how I had many times wondered if I could begin a secret underground Operation to rescue these incredibly sensitive and

intelligent mammals who have the same responses physiologically - at least!

Even science has to say so - to stress and torture and murder of selves and family that we do, but where would I have the space to really accommodate them all? Even one would be difficult manage. But how can we just still be letting these things happen I would then have asked. What prevented me from ever formulating the above words was a comment that I came across in an otherwise unremarkable novel (apart from one or two good Jewish jokes) in which the narrator mentioned something along the lines of being outraged at someone daring to make a similar comparison.

That is, the transporting of bodies in cattle trucks under inhumane conditions to be killed for the maximum benefit of the minority is different to the transporting of live bodies on cattle trucks under inhumane conditions to be killed for the maximum benefit of the minority.

So I didn't write it because I don't want to ever cast doubt on the fact that those people suffered. Because, um...t hat's actually the point that I'm trying to make is that they suffer. Must it be proved to be “as much”, “mentally” before we will bother with anything radical like change?

Oh, and are my shoes made of leather? Have I killed an ant in my life? Let's you and I just agree that we have different agendas and not waste each other's time any further.

**HENRIETTE VAN ZYL, RHODES UNIVERSITY**

# Revenge of Gaia?

I have just finished reading one of the most timely and thought-provoking books on the state of our environment, its causes and most importantly what humanity should do.

This book, I believe, is especially relevant for those with children or planning children – you arguably carry the biggest burden to mitigate, educate and ensure the wheels don't come off our ecological support systems.

James Lovelock, the co-developer of the Gaia theory and one of the world's eminent scientists, has created a very readable book (*The Revenge of Gaia: Why the Earth Is Fighting Back - and How We Can Still Save Humanity*) – it almost reads like fiction (if only it was fiction) – and provides one of the most pragmatic set of arguments about what needs to be done.

Amongst other things, he has helped swing me from very anti, to semi pro-nuclear – it really seems to be the only immediate and viable large-scale energy technology we have at our disposal that has limited dangers. Emitting more CO<sub>2</sub> is vastly more dangerous to us and all other species.

**ROB ZIPPLIES, SUSTAINABILITY CONSULTANT (INCITE.CO.ZA)**

I tend to shy away from exegesis on this topic, having preferred to lead by example by simply getting on with the technologies that I have developed faith in from my education and background. I guess I have made the naive assumption that the merits speak for themselves to everyone as clearly as they have to me - neglecting the fact that information is not freely and unbiasedly available.

If you don't mind, I would rather not put myself into a lobbyist's role and get my fingers into arguing it either way, but perhaps just quickly I will explain some of my motivation for not supporting nuclear. I am at some risk here as, although I have heard about it, I have not read Lovelock's book.

In this quick response I will also not be taking the time to provide references for some of the statements made below, so please let me know if you intend to publish any of this discussion.

On the statement that “renewable

technologies will take a few decades to mature”, I must point out that, although it may be true that wave and tidal are in their infancy and large-scale sustainable base-load solar thermal and solar PV are still at the tipping point in some respects, it cannot be said that wind power has not matured - it only appears so in the South African vacuum.

The wind power industry has long since been the fastest growing energy sector in the world and the international development is staggering.

Recent discussions of a European “Supergrid” even suggest the ability to provide continuous baseload, given the varied weather patterns across Europe, allowing one area to provide to the grid while another is quiet. It has been clearly established that increased wind penetration in Europe is not a question of technical barriers but rather mind-set barriers.

The European Investment Bank has recently provided €225 million backing for the world's first commercial concentrated solar power plant and the technology is there to provide overnight continuity by means of liquid salt thermal storage.

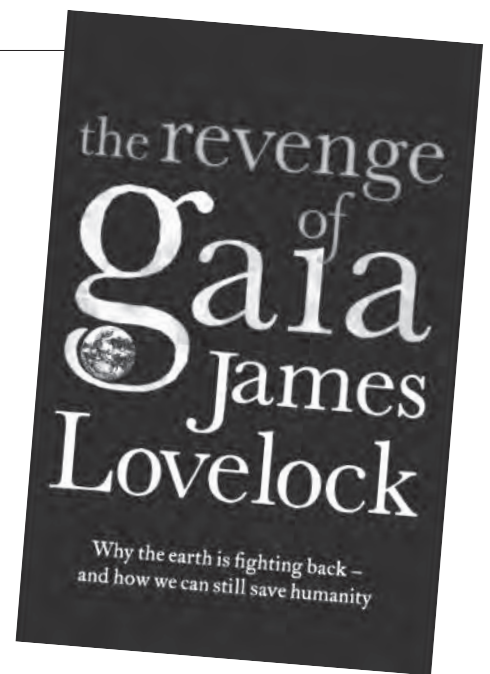
It can however be said that PBMR is far from matured - one need only look up the schedule and cost overruns on this still experimental system.

I do not propose that there is any single solution to baseload supply, and indeed quite on the contrary, the way forward is in diversification and decentralisation of supply options combined with demand management.

One of my prime motivations for opposing nuclear goes to the root of accident and reliability theory. A nuclear accident or problem with waste disposal, while it may be argued to have very low probability, has very high consequence. Insurers work in this field of maths - why do you think they would not insure nuclear endeavours?

Whether you are a student of High Reliability Theory or Normal Accident theory, having experience in the engineering world - or even just reading the papers about Koeberg lately - you will know that accidents do happen.

There is an underlying Catch 22 here



that will always irk me.

With enough effort one can introduce sufficient redundancy and develop sufficient procedures to bring the chance of accident down to an infinitesimal level, however there will always be the unexpected - either due to a singular combination of events overlooked or to the influence of people, by nature unpredictable creatures - a wing-nut dropping a loose bolt for instance, or putting their coffee mug in front of a pressure meter.

One can argue that for the latter, one should design an autonomous system in which the operators are merely observers, trained to the point of having absolutely no initiative outside of the system's procedures - almost like the army endeavours to do.

However for the former, it is exactly the incredibly unique creative and intuitive ability of a true expert with knowledge embedded in experience that could save the day in a case where the unexpected occurs - something for which there is no existing algorithm.

Bottom line is accidents will happen. Believe me, I have survived a few in the field. The question is simply: how severe will the consequences be, especially of those that we cannot foresee. The solution is complex, sorry - however that shouldn't stop us from getting into it.

**FRANCIS B. JACKSON, WIND TURBINE ENGINEER**

**WORDS TO LIVE BY**

## Give more. Take less.

## Hats off to Woolies — again!

*Biophile* has in past issues espoused the merits of drinking organic vegetable juice.

As a daily juicer I can attest firstly to the difficulties in sourcing organic vegetables on a year round basis, and secondly to the time and effort required in the juicing and cleaning up process.

No more, as Woolworths now has on offer organic beetroot, carrot and tomato juice. Beets contain an abundance of potassium, phosphorus, calcium, sulfur, iodine, iron and copper, as well as traces of rare minerals, rubidium and caesium. Along with carbohydrates, some protein and fat, one finds vitamins B1, B2, niacin, B6, B12 and C in beets.

Carrot juice contains a high content of beta-carotene, a precursor of vitamin A, which is converted to vitamin A in the body. It is considered essential for the visual cycle (focusing the conversion of light stimuli into electrical impulses), pigment formation in the skin (browning) and as an anti-oxidant in the cells. Good health and enjoy!

A M MACDONALD, KNYSNA

## A committed “animal rights” environmentalist



What a wonderful magazine! We own a wild life sanctuary, Suni-Ridge Wildlife Reserve, in North Eastern Zululand adjacent to the Greater St. Lucia Wetland World Natural Heritage Site. As a committed “animal rights” environmentalist I was really pleased to find my first copy of *BIOPHILE* in Richards Bay CNA.

There are many lodges in our area —over 200—and I believe most of them are in the eco tourism business because it’s a way to earn more money. For this reason they have guest lodges but also derive an income by “utilising their wildlife”. This is of course just another term which hides the truth about a huge amount of cruelty.

We are one, of only two, reserves in the area, that do not under any circumstances utilise our animals. We give them a chance to exist without the impact of hunting—game capture and resale (usually for hunting purposes) and other types of manipulation.

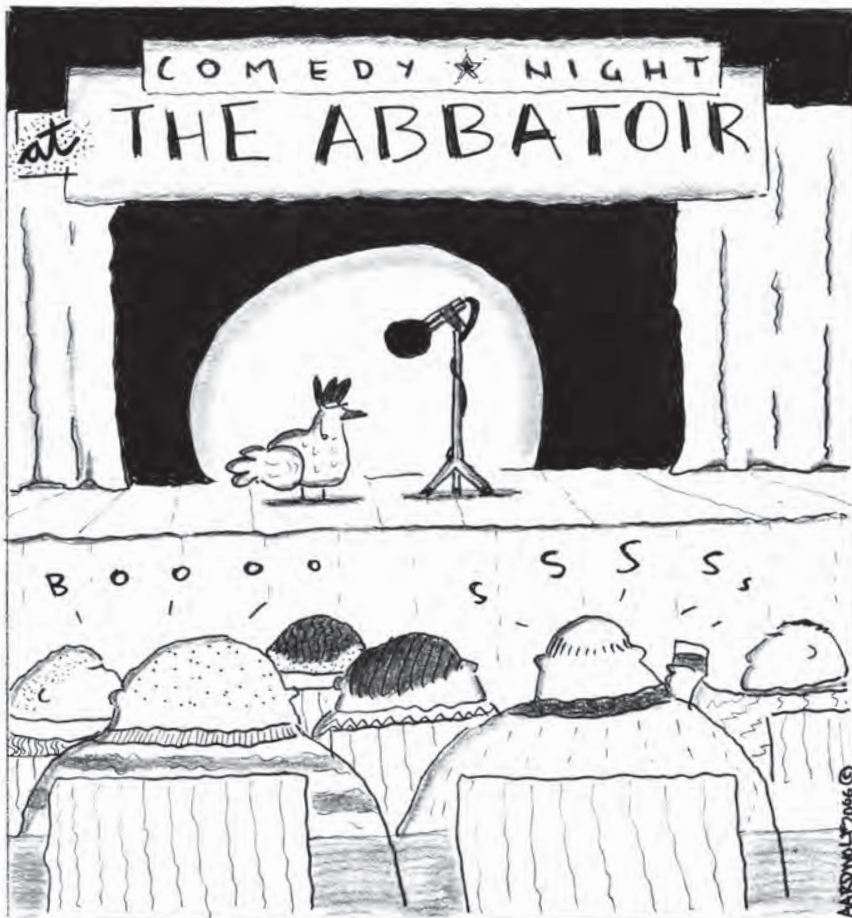
We set up our project 14 years ago and also established the Suni-Ridge Environmental Education and Rehabilitation Centre. It has been a “life task” to rehabilitate our land. It was previously degraded through inappropriate agricultural processes and it was a poachers paradise. Today we are proud to see the fruits of our effort and our reserve is now teaming with wildlife. It supports a huge biodiversity of mammals, birds and butterflies, reptiles and other life forms (many are red data species) in a well vegetated (and rare) sand forest habitat. Our animals are tame and our herds of zebra and wildebeest come right up to us and we can walk in amongst them! People are amazed to see this but we explain that animals

are not wild by nature. It is the human person that has made them that way. Take away the hunting and they naturally become tame again.

Some of our proposed important projects are:

1. Setting up environmental committees in each rural ward (under the auspices of the various chiefs) Through this committee we will run workshops and environmental projects to encourage each area to understand and practice the protection of biodiversity and home growing of organic food gardens. “Healthy land Healthy body” We are disturbed that there are organisations promoting primitive battery hens farming to these rural homes.
  2. We have been sustaining a very severe drought in our area and due to the fact that we refuse to hunt or cull our animals, we urgently need to find support to move numbers of our impala to a sister reserve where better grazing is to be found.
  3. We have recently established an accommodation facility which we are marketing to true nature lovers. The income from this project is to contribute to the sustainability of Suni-Ridge Wildlife Reserve and all our objectives.
- Thank you once again for the most inspiring and truthful magazine of the year!

**Janet Cuthbertson,**  
**Suni-Ridge Wildlife Reserve,**  
**suniridge@ballmail.co.za**



The slaughter continued until Animal Rights groups intervened...

**I**N THIS ISSUE we have two articles about school related topics. They came from different sources and yet they are both saying something similar, in different ways: namely that our current schooling system needs to be examined as clearly there is a need for new approaches and methods.

I am sure there are not many parents out there, with children at school, who have not at some time or other questioned the wisdom of our fear-based, competition-driven schooling system.

**My memories of school are filled with dread.** I was taken from the beautiful farm on which I was brought up, where my days were spent in nature blissfully exploring and discovering. We had no TVs and later in my childhood the electricity arrived via a generator!

I recall so vividly the freedom, peace and happiness I felt when left alone to spend my days riding horses and playing. (Just 'playing' is something children seem to do less and less nowadays). This all ended abruptly when the holidays were over and I was forced against my will to boarding school. We lived miles from the nearest town so there was no alternative. The only thing I really enjoyed about school was being with my friends and I don't think much has changed since then. When asked, the kids of today will generally say that school is 'boring', but they enjoy being with their friends, and if they enjoy sport that is also a reason to be there. The 'sporting types' are usually popular, as our culture places sporting heroes in the league of idols. If they are not good at sport, it appears that they mostly feel inadequate — although they may not like to admit it — and they are left out of the 'popular circle'.

**The tragedy is that most of their precious childhood is spent cooped up in some square room,** sitting in rows learning things that more often than not they don't

find very interesting and very useful. I certainly have not used much that I learned at school in my life to date, other than reading and writing. Children are expected to sit for the 45 minutes and are not allowed to move, which may be ok for the more sedentary types, but for a child who has a physiological need to move around, this is torture. Children are actually programmed to be very active, it makes their bodies and bones strong.

But these children are 'diagnosed' with Attention Deficit Disorder and usually forced to take some mind altering drug such as Ritalin so they fit into the system. They are all expected to fit into the 'on-size-fits-all' approach...behave the same, have the same interest in, look the same, sit the same and strive to be better than the person sitting next to them, and if they are not, their self esteem takes a knock and they often feel inferior and inadequate.

Parrot fashion learning kicks in for the tests and exams, and it is rarely that subjects are studied further unless it is required, simply because they are not interesting. If they laugh, which most of them are inclined to do as they get bored, they are punished (very sad as laughing is one of the most healing things we can do). Children like small animals like to play, and our system does not let them.

**The excessive competition is also questionable** — in the class room and on the sports field. The whole point of the games that are generally offered is to 'win'. I have seen parents almost frothing at the mouth with rage over their child's inability to 'pass the ball' or 'score the goal' in their quest for vicarious triumph, let alone the violence that often goes along with this type of competitiveness and the humiliation suffered by the children. Competition is part of our newly formed culture and the thrill of victory is addictive. The alternative is non-competitive games, and according to Alfie Kohn, in his



book *No Contest – The Case against Competition*, studies have been done which show that children actually prefer these games once they are exposed to them! The games still involve achieving a goal, despite the presence of an obstacle, but the obstacle is not another person or persons, this encourages positive cooperation and coordination.

**Drugs are becoming more common as children desperately seek to fill the holes in their confused minds and hearts.**

Resignation sets in as the genius present in virtually every child at birth is shut down and they learn to conform and fit in via the fear-based system that runs our schools. Don't forget that fear is the most disempowering emotion of all. Surely it's time to look at what and how we are teaching our children.

**Bland and boring teachings need to be replaced with real live experiences.** Trips into nature should surely be a regular activity, not just a treat? Guiding the children towards happy, loving, fulfilled relationships with themselves primarily, and then with others and nature, would surely be a great stride forward. Learning how to communicate with nature, grow plants and acknowledge and revere the elements and changing seasons with celebrations and gratitude should surely be part of every child's experience. Teaching them the importance of being responsible custodians of the earth and how to live a simple, fulfilled life, hurting nobody and nothing, is essential if we are to succeed on our path to enlightenment. Sadly we expose them to extreme stresses and pressures, fearfully filling them with irrelevant notions of amounting to nothing if they don't 'pass' or 'make the team', living out our own fear vicariously through our children.

ANTHEA



**MEET THE TEAM:** Coral McCallum, Shahied Ishmail, Debbie Gomersall, Steve Venter, Anthea Torr, Des Du Plooy (Missing from photo: Cindy Sanderson in Johannesburg. We'll catch her next time!)

# the biofiles

news and views from around our world

## Big Pharma blocks cheap blindness cure

A major drug company is blocking access to a medicine that is cheaply and effectively saving thousands of people from going blind because it wants to launch a more expensive product on the market.

Ophthalmologists around the world, on their own initiative, are injecting tiny quantities of a colon cancer drug called Avastin into the eyes of patients with wet macular degeneration, a common condition of older age that can lead to severely impaired eyesight and blindness. They report remarkable success at very low cost because one phial can be split and used for dozens of patients. But Genentech, the company that invented Avastin, does not want it used in this way. Instead it is applying to license a fragment of Avastin, called Lucentis, which is packaged in the tiny quantities suitable for eyes at a higher cost: R10 000.00 per dose instead of less than R100.00. [GUARDIAN]

## Cape Town pilots recycling e-waste initiative

Obsolete electrical and electronic equipment, which commonly ends up in landfills that pollute the environment, may now be taken to a site in Wynberg from which metal, glass and plastic components can be passed on to industrial recyclers and art projects. The City of Cape Town opened the new e-waste container at the Wynberg municipal drop-off site in Rosmead Avenue in June. The container, to which the public may deliver old computers, fax machines, printers, toasters or other equipment no longer useful to them, has been sponsored by Tarsus, a distributor of computer equipment. The project is also endorsed by the National e-Waste Association. The facility is open from 7.30am to 5.30pm on Mondays to Fridays and on public holidays. The initiative is designed to create jobs for the skilled unemployed and incentives for companies and individuals to recycle.

## Philippines Trains Eco-Warriors

Student teachers of twenty colleges and universities in the Philippines are being trained as eco-warriors. "Eco-warriors are ordinary men and women who stand up for the environment. They take action and do work to ensure a healthy environment for all," says Baboo Mondoñedo, executive director of the MTKISD.

The Maximo T. Kalaw Institute for Sustainable Development is providing the training, based on the work of Maximo T. Kalaw, an environmentalist who campaigned for the preservation of the rapidly disappearing Philippine wilderness. They plan to convert the National Service Training Program (NSTP), a civic welfare training course required to be taken by all students, into a course on environmental advocacy, expanding the concept of security beyond mere border protection.

"When teachers impart to students the concept of human and ecological security [HES] and arm them with the knowledge and skills to work for a better world, they are investing in the future," added Mondoñedo.

Aside from compost-making and recycling, the students will be taught the rudiments of "journaling" (keeping journals) and community organizing, Mondoñedo says.

## Rice and bamboo power

In some circles it's known as 'industrial ecology', where the 'waste' process of one industrial action is successfully employed by another. In Assam, India they are planning to build a 16 megawatt power plant that will be fuelled by rice husks from food production, and bamboo dust waste from paper fibre mills.

India is said to be the world's second largest producer of bamboo, after China, and these power plants are the first to utilise bamboo for fuel. The bamboo power stations are expected to be opera-



Mt Mayob, Philippines

Also important is the 'Our Earth, Our Body' module. "It shows that the earth is the extension of our life and body and when you heal the earth, you also heal yourself," she says. [IPANA]



## McDonalds teams up with China Petroleum

In June, a week after China's Ministry of Construction announced that it would be rebuilding bicycle lanes lost to the expansion of roads and the construction of huge numbers of new buildings, appears an unmistakable sign that the hunger for cars—and hamburgers—won't be stopped in China: McDonald's and the China Petroleum and Chemical Corporation, or Sinopec, announced plans to turn most of the 30,000 petrol service stations that Sinopec operates nationwide into drive-through McDonald's outlets.

The potential of fulfilling this particular American dream in China—the promise of a car in every garage and a milk shake in every cup holder—is of course a double-whammy for the country's green prospects. First, China's unprecedented demand for cars—car sales grew 30 percent last year, to 5.7 million vehicles—helps make the country the second highest producer of greenhouse gases after the United States, and makes it hard to breathe in cities like Beijing.

The McDonald's plan comes alongside Sinopec's other big deal this week: it bought a billion-barrel, \$20 billion Siberian oil field from a Russian-British venture, securing access to Russia's huge energy reserves for China's fuel-hungry economy.

Meanwhile, the rise of Big Macs in China (which is McDonald's fastest-growing market) will only contribute to more big waistlines in a country already suffering from deadly weight gains. A 2002 study conducted by the government revealed that the number of overweight people to have increased by 39 percent and the number of obese to have increased by 97 percent; incidence of hypertension had increased by 31 percent or 70 million cases since 1991 with 160 million people suffering from high blood pressure.

And then there's the problem of all those hamburger wrappers and the huge herds of soon-to-be-Big-Macs cattle, the overgrazing of which is held to be mainly responsible for the increasing desertification in the north of China. [TREEHUGGER]



## Hope for Giant Panda

Fears that the giant panda is on the brink of extinction may be unjustified, research suggests. Scientists believe populations have been underestimated in past surveys and there may be as many as 3,000 pandas left in the wild. Numbers in reserves could be restored if conservation efforts continue, they write in *Current Biology*.

The panda once inhabited much of China but is now found only in the forested mountain areas of the country. Its survival has become a cause célèbre of the conser-

vation movement, attracting worldwide attention. The giant panda has long suffered at the hands of poachers and loggers, and was hit by the large-scale die-off of bamboo in the 1980s. Numbers in the wild have been put at about 1,000 but the animal's elusive and wary nature has made it difficult to conduct accurate censuses. Previous surveys have used conventional techniques, but researchers in China and the UK tried out a new hi-tech method based on analysing DNA recovered from panda droppings. The

## China to assess its wind and solar energy potential

China has opened a new centre to assess its potential to generate wind and solar energy. The Centre for Wind and Solar Energy Assessment, part of the China Meteorology Administration, opened on 14 June.

It will assess how much energy can be generated through wind and solar power in key Chinese regions, generate estimates of the wind energy potential at specific locations to help plan for wind power plants, and evaluate the impact of natural disasters, such as sand storms, on the operation of the wind power plants.

It will also carry out nationwide surveys of China's solar energy potential.

In 2005, China generated 1.26 million kilowatts in wind energy. Scientists estimate that this number could be increased to 3.3 billion kilowatts for land-based wind energy alone. China's medium and long-term development plan for sustainable energy released in 2004 predicts that by 2020, wind power will supply 30 million kilowatts per year.

Zhang Qiang, a senior researcher of the Centre for Wind and Solar Energy Assessment, says that China's current wind forecasts are not precise enough to allow scientists to estimate how much wind energy could be generated in various regions.

The new centre will seek to refine the geographical aspect of wind forecasts. Currently, the smallest area that forecasts can resolve is 100 square kilometres.

Zhang says that when it comes to deciding where to place wind power plants, this resolution is not good enough. The new centre will try to develop and improve the resolution down to five square kilometres. [SCIDEV]

results suggest that about 66 pandas live in the Wanglang Nature Reserve in Sichuan Province, more than twice as many as were estimated in a survey conducted in 1998.

The study also provides evidence that pandas in the most important habitat of its kind have not suffered genetically over this period—there is no evidence of the sort of inbreeding or low genetic diversity that might threaten the species' long-term survival.

"It seems, therefore, that the giant panda population in Wanglang has the potential to be restored if habitat protection, local socio-economic measures and population monitoring issues are resolved," the researchers say in *Current Biology*. On the basis of the Wanglang findings, they estimate that there may be as many as 2,500 to 3,000 giant pandas left in the wild in the whole of China.

It is good news for the future, they add, as long as the Chinese government continues with bans on poaching and deforestation in

## UK to outlaw standby buttons

The British government is to outlaw standby switches on TVs and DVD players to cut the amount of electricity wasted in the home. Refrigerators, washing machines and dishwashers will have to become energy-efficient, and lightbulbs that burn too much energy will be phased out. The government's Energy Review, released in July, reports that standby facilities use 8 per cent of all domestic electricity in the UK. Energy efficiency is one of the main planks of the Government's Energy Review, which is intended to lay out how Britain receives and uses its power for the next 20 years. [GREENER]

## World's First Solar-Powered Scooter

Unveiled in July, the Solarin Turtle is "the world's first solar-powered scooter," according to the company that developed it, Solarin Holdings. Though it will be built in Malaysia, interest in the scooter around the world has been strong; China has already placed an order for 100,000 units. The scooter is reported to have a top speed of almost 90 km/h and will also be rechargeable by thermal heat or electrical charge. The price has also yet to be determined, but, according to the company president, will be around R6000. [GIZMODO]

## Ugly Fruit Movement could help organic farmers

The hidden story behind the perfect fruit in your local supermarket is the large volume of second grade fruits and vegetables diverted directly to juice makers, with little profit to the farmers. Starting in June 2006, the upmarket UK supermarket chain Waitrose will start exposing customers to "ugly" fruits and vegetables: produce which is perfectly healthy and tasty, but which has blemishes which would formerly have doomed it to diversion into low-value uses. The produce will be advertised for use in cooking and preserves, but the chain expects that some customers will enjoy these fruits and vegetables simply for eating as well. By breaking the prejudice for "beautiful" fruit, this will help the organic industry convince consumers that the produce of nature is naturally good. Ask your local grocer today: when will we get ugly fruit? [RAS]



**Researchers at German's Fraunhofer Institute** are working on a solar powered cell phone by using device-integrated, high-efficiency solar cells which offer a module efficiency rate of 20%. This allows the cell phone to remain continuously powered up as long as it receives sufficient sunlight

(about 2 hours per day), otherwise it can be charged using conventional means. The Fraunhofer Institute is an alliance of more than 50 research institutions, mostly in Germany, that pool their research and collaborate on innovative technology.

[FRAUNHOFER INSTITUTE]

## Shell says "no food for fuel"

Royal Dutch Shell considers using food crops to make biofuels "morally inappropriate" as long as there are people in the world who are starving.

Eric Holthusen, a fuels technology manager, said the company's research unit, Shell Global Solutions, has developed alternative fuels from renewable resources that use wood chips and plant waste rather than food crops — such as sugarcane and sugarbeet — that are typically used to make the fuels".

**A reasonable stand, you might think, until you question whether cane sugar even deserves to be defined as a food.**

In earth's northern temperate zone, where oil per-capita consumption is highest, there are plenty of marginal croplands and rock strewn hillsides suitable for productive aspen stands or similar species of trees or woody shrubs, making the moral and the practical delineation of this idea imminently practical for large scale fuel production. Non-cropland is much cheaper to control and manage.

Targeting non-food biomass as a feedstock, then, is just what we'd expect from Shell if they'd done their scenario thinking around business parameters. The morality statement above would be consistent with that, but not the only driver.

We should also consider other possible motivations for the Shell representative's statement.

Perhaps a bit more time would help to make a proprietary biomass-to-ethanol process work out?

Perhaps an argument is needed to spread government incentives for ethanol production around more fairly, benefiting more than just the agricultural sector? Put all these ideas together and we see the makings of a sustainable fuel system in early design stage. [TreeHugger]

## Courtesy opens all doors

There is no investment you'll ever make that will pay you so well as the effort to scatter sunshine and good cheer wherever you are.

The deepest principle in human nature is the craving to be appreciated.

If you treat an individual as if they were what they ought to be and could be, they will become what they ought to be and could be.

Everyone thrives on being appreciated, loved and needed.

There is no stimulus like that which comes from the consciousness of knowing that others believe in you.

Applaud others when they run.

Console them when they fail.

And cheer them when they recover.

As water is to a flower,  
so is praise to the heart of another.





## Saving the Dead Sea

The Dead Sea is a mystical and magical place and one that has real-life benefits—like its greasy, black mineral mud that visitors like to smother all over their bodies. Researchers say the first hominids crossed by way of the Dead Sea corridor from Africa as they migrated around the world;

some say it was Cleopatra's best beauty secret. Even though the Dead Sea sustains no or little life (there are some bacteria who are thriving there apparently) the ecosystem around it is anything but dead.

The skies are teeming with migratory birds on their way to Africa from Europe and vice versa; special animals such as bats, wild cats and hyrax find refuge in its surrounding mountains.

Over the last 40 years, exploitation of the Dead Sea has happened at an unprecedented rate, due to (ahem) human exploitation.

Israelis and Jordanians have been tapping into the Kinneret (“Sea of Galilee”) and the Yarmuk River, meaning less water makes it to the Dead Sea; the lack of freshwater, combined with mineral extraction on its south shores has led to the Sea’s water level dropping by around a meter every year.

Through the Minerva Institute for Dead Sea Research, scientists are searching for sustainable solutions to reviving the dead parts of the Dead Sea. Some groups are suggesting a controversial \$5 billion canal leading to the Red Sea. The Dead Sea’s unique make-up would be changed forever by introducing sea water into a body that has only ever been fed by fresh water. “The cost of the damage that would be caused to the environment may be greater than any possible benefits,” said local geologist Eli Raz. “The best plan for the Dead Sea is to let the Jordan river flow again, this is its natural state.” But the chances of that happening are next to nothing given the reliance of the region’s countries on the Jordan’s water, the article points out.

Environmentalists are pushing for the Dead Sea to be declared a World Heritage Site

by the UN Educational, Scientific and Cultural Organization, hoping this will force surrounding countries to come up with a plan. 🌍

### Saving silkworms

Kusuma Rajaiah, an Indian man, has developed a new technique for producing silk that does not require killing silk worms in the process. Right now, producing a silk sari involves killing of at least 50 thousand silkworms. Rajaiah has won the patent for producing the “Ahimsa” silk. Ahimsa is a religious concept which advocates non-violence and a respect for all life. However, the production of the silk is more expensive. For example, a sari which costs 2400 rupees to produce using regular silk, will cost 4000 rupees when made with Ahimsa silk. Rajaiah says: “My inspiration is Mahatma. He gave a message to the Indian silk industry that if silk can be produced without killing silkworms, it would be better. He dreamt but that did not happen in his lifetime. I am the happiest person that at least I could do this little thing.” Yarn for a silk sari is usually produced by throwing live cocoons of silkworm into boiling water. A single sari needs upto 50,000 cocoons. Rajaiah allows the moth to escape from the cocoon by waiting for 7-10 days and then uses the shells to produce yarn. [EcoFriend]

## London Oasis

As the 12-metre interactive eco-sculpture, dubbed the London Oasis, slowly opened up its petals, the question on everyone’s lips was: what is it?

The London Oasis is the capital’s answer to a desert refuge, a functional sculpture that will serve Londoners as a getaway from noise and pollution and surrounds visitors with cool, clean air, relaxing sounds and images all channelled into six “pods”

But it is also an eye-catching demonstration of sustainable technologies, with its photovoltaic ‘petals,’ vertical-axis wind turbine and hydrogen fuel cell powering the air-filtering and cooling mechanisms as well as an evening light show.

The clockwork flower even collects rainwater, used to irrigate a garden at its base. Transparent casing and information posters provide an insight into the plant’s inner workings.

London architect Laurie Chetwood, the



mastermind behind the project, said: “The Oasis allows Londoners to get away from the noise, pollution and bustle of city life. It provides a tranquil oasis in an urban area where people can enjoy a more comfortable environment, meet friends, watch the oasis

interact and enjoy entertainment.”

“This is all in the knowledge that their enjoyment is not costing the planet as the Oasis is self-sustaining; harnessing and recycling natural resources.”

“The idea came from an eco-house that was planned to be built in the South American Andes. But as far as I know this is a first, nothing like it has ever been built,” he told edie.

The Oasis was conceived and built in less than five months by a team of around twenty engineers, architects and designers.

Although perhaps not the height of practicality, the Oasis—which was launched as part of London’s Architectural Biennale 2006—demonstrates that architecture need not always stay in the narrow confines of functionality.

And when it comes to promoting renewables and sustainability, an impractical but eye-catching 12-metre spiky flower that glows blue and purple at night may be more effective than leaflets full of references to “sustainability principles”. [EDIE NEWS]

## Kiwis lick renewable energy

New Zealand Post has released a series of stamps celebrating the fact that over 60% of the country's electricity is generated as renewable energy via their hydro schemes (90c).

The stamps not only reflect the influence of this source of fossil fuel free energy, but myriad other forms too. The largest wind farm in the southern hemisphere is at Tararua, Palmerston, supplying juice to 30,000 homes (45c).

The biogas technology used at Waikato is said to be able to service a similar number of houses near to such facilities throughout the country (\$1.35).

Long before Lord of the Rings fever hit, the Land of the Long White Cloud was attracting tourists to its geothermal wonders, which have also been harnessed to provide 18% of primary energy needs (\$1.50).



And finally our old favourite Solar, shown here on the \$2 stamp, powering a remote lighthouse. [NZ Post]

## Mice have capacity for empathy

A new study by McGill University professor of psychology Dr. Jeffrey Mogil shows that the capacity for empathy, previously suspected but unproven even among higher primates, is also evident in lower mammals. In research published in the journal *Science*, Professor Mogil discovered that mice familiar to each other and able to see one another in pain were more sensitive to pain than those tested alone. The results, which for the first time show a form of "emotional contagion" between animals, shed light on how known social factors play a role in pain management.

The findings are not only unprecedented in what they tell us about animals, they may ultimately be relevant to understanding pain in humans. [Science]

## Long-haul birds returning early

Birds that migrate long distances have adapted to the world's changing climate in unexpected ways. As the planet warms, and spring arrives earlier in Europe, birds are being forced to change their migration patterns. It had been thought that birds travelling long distances from Africa to Europe would be unable to adapt. But a study in *Science* suggests they have evolved in response to climate change and are returning earlier.

The need for migratory birds to time their arrival at breeding grounds with plentiful food supplies is a known evolutionary pressure. Scientists had assumed

that birds travelling short distances would be better able to adapt—and arrive earlier for spring—because of similar climate conditions in their nearby winter grounds. But researchers in Europe decided to test this theory, using long-term banding and observational data from Scandinavia and Italy dating back to 1980.

The study revealed that long-distance fliers have adjusted their migration habits to arrive earlier in northern Europe in time for the start of spring.

This suggests a more permanent change in migratory behaviour due to climate change than previously thought.



## What about mercury from compact fluorescents?

Many people, when they learn that compact fluorescent bulbs contain mercury vapor, get sceptical about the much talked-about benefits of these and assume that traditional incandescent light bulbs are less damaging to the environment despite requiring more power and having shorter lives.

After all, mercury is really bad stuff, right?

"A toxic metal known to cause brain, spinal cord, kidney and liver damage in humans—does not break down easily and, once airborne, often finds its way into groundwater, rivers and the sea, where it can cause a host of contamination issues for wildlife and people alike."

But as often is the case, the truth can be a bit counter-intuitive.

Ironically, compact fluorescent bulbs are responsible for less mercury contamination than the incandescent bulbs they replaced, even though incandescents don't contain any mercury.

The highest source of mercury in our air and water results from the burning of fossil fuels, such as coal, in the power stations which supply our electricity.

Since a compact fluorescent bulb uses 75 percent less energy than an incandescent bulb, and lasts at least six times longer, it is responsible for far less mercury pollution in the long run.

A coal-burning power plant will emit four times more mercury to produce the electricity for an incandescent bulb than for a compact fluorescent.

Not to mention that it will save you money with a lower electricity bill. [E Magazine]



**A WALK IN THE PARK** David Gallagher, a student at the Dalhousie School of Architecture in Halifax, Nova Scotia, has created a grass-lined wheel to simulate an eternal lawn environment and to draw attention to what he considers a North American obsession with manicured lawns. People who were curious enough to ask one of the students what it was all about got slips of paper explaining the students' ideals. "They're just really curious about it," said James. "And we get a lot of hamster jokes."

# Dr Masaru Emoto to visit South Africa

Dr. Masaru Emoto will be visiting South Africa from 19-25th of September 2006 to highlight the message that “water is alive”.

The visit is also intended to relay the message that it is time to explore ways of finding the common language between science and traditional wisdom, which is being eroded in the process of modernization and globalization. Dr Emoto will be meeting with local scientists to explore options for expanding his science around water in South Africa.

## ZERISA Host Organisation

Dr Emoto visit is being organised by ZERI-SA assisted by ZERI international. ZERI believes that Dr Emoto's work is an important contribution in the field of developing innovative and sustainable technologies. Dr Emoto's visit will contribute profoundly to raise public awareness around water issues in this country.

Dr Emoto has never been to Africa. At the request of ZERI and Prof. Gunter Pauli, Emoto has made water crystals responding to traditional African music. This really inspired Dr Emoto to visit South Africa. Dr Emoto hopes to present this water crystal image to Nelson Mandela during his visit to South Africa.

## The relevance of Dr Emoto's message to South Africa

South Africa is going to face an enormous water shortage and water related problems in the near future.

- Old fashioned farming methods, polluting industries guzzling water and unsustainable water use-life styles need to be challenged if South Africa has to actively involve in regenerating water source for all.

- Water is simply a basic necessity as well as basic right that cannot be left only in the hands of government, politicians or industry alone.

- In townships across the country people are facing acute water problem. The rivers and waterways are polluted. The poor in particular women and children are facing the brunt of water problem

- Current water –use and related practices across the world and South Africa is no exception to this- is based on very narrow understanding of water and water technologies.

This narrow understanding has led to the current scenario where by clean water has become an affordable commodity only for the rich. Increase in the unsustainable bottled water industries will aggravate water



related problems.

On the other hand there is a gradual stripping away of the traditional wisdom around water. South African traditional culture like any other traditional pre-industrial cultures deeply respects water, water rituals are part of any ceremonies. Water is an integral part of nature with an innate intelligence of its own.

While the current industrial context has to be taken into account, it is imperative that all water development and water use designs become aware of the live consciousness of water, uphold the sacredness of water at the same time see how obsolete science and technologies that abuse water be reconsidered.

## Education building critical awareness around Water use

An active public awareness can thus challenge industries based on any unsustainable abuse of water causing more depletion of water source as well as polluting waters. Public participation on the basis of informed knowledge is the best way to move forward especially when it is something as basic and critical to life as water. Exposure such as that of Dr Emoto's messages from water will inevitably open up new ways of developing water technologies while making a conscious move towards a more sustainable water use in this country.

Smart approaches will emerge embark-

ing on greater water related campaigns and education bringing in the wisdom of the old ways blending it with the possible new solutions embedded in science and technology.

- How do we create public awareness around such an important natural resource, as water?

- How do we make sure that the awareness around water will assist general public to understand how industries and narrow science is polluting our land, our waters?

- How can we expose narrow and short-sighted business that uses old science as a crutch to uphold the greed and profit motives of few interest groups?

ZERI-SA believes that it is only through such public awareness and education that we are able to unlock the new scientific knowledge and blend this with ageless tradition and practices -which has incredible respect to water bodies and water use. We will thus be able to unlock an incredible way forward in terms of changing the behaviours of water guzzling industries such as mining, metals, chemicals as well as water intensive farming operations in this country while enabling challenging breakthroughs in the creation of new affordable and inclusive water use technologies that is sustainable.

**For more information email  
info@zerisa.org or visit  
www.zerisa.org**

## World's first magnetic levitation wind turbines unveiled

Chinese developers have unveiled the world's first permanent magnetic levitation wind power generator at the Wind Power Asia Exhibition 2006 in Beijing. The MagLev generator is regarded as a key breakthrough in wind power technology, expected to boost wind energy generating capacity by as much as 20 percent over traditional wind turbines. The MagLev is able to utilize winds with starting speeds as low as 1.5 meters per second (m/s) and will be able to provide roadside lighting along highways by utilizing the airflow generated from vehicles passing by. [Xinhua]

## Japan's ambitious plan to fight warming

Japan hopes to slash greenhouse gas emissions and fight global warming with a plan to pump carbon dioxide into underground storage reservoirs instead of releasing it into the atmosphere. The proposal aims to bury 200 million tons of carbon dioxide a year by 2020, cutting the country's emissions by one-sixth. Underground storage of carbon dioxide underlines the new urgency felt by industrialized countries trying to rein in the effects of global warming. But capturing carbon dioxide from factory emissions and pressurizing it into liquid form, scientists can inject it into underground aquifers, gas fields or gaps between rock strata, safely keeping it out of the air. [IPSICA]

## US demand for organic food outstrips supply

America's appetite for organic food is so strong that supply just can't keep up with demand. Organic products have only a tiny slice, about 2.5 percent, of the nation's food market. But the slice is expanding at a feverish pace. Growth in sales of organic food has been 15 percent to 21 percent each year, compared with 2 percent to 4 percent for total food sales. Mainstream supermarkets have rushed to meet demand. The number of organic farms in the US — an estimated 10,000 — is also increasing, but not fast enough. As a result, organic manufacturers are looking for ingredients outside the United States in places like Europe, Bolivia, Venezuela and South Africa. [Organic Source]

# Study shows global warming may not lead to greater crop yields

Scientists had thought that there was one potential upside to global warming: more food to feed the world.

Years of laboratory tests led them to believe that more carbon dioxide in the atmosphere could fertilize food crops such as corn, soybeans, wheat and rice, offsetting the plant-damaging effects of higher global temperatures and less rainfall.

But a new study with field tests in Illinois and other spots around the globe is challenging that assumption, suggesting that any increase in crop yields due to the buildup of greenhouse gases would be modest or nonexistent.

Lower-than-expected yields could have dire consequences for the world's food supply, the study's authors concluded. They called for more research into plant varieties that could withstand the atmospheric assault.

The prevailing scientific wisdom has been repeatedly cited in government projections on food supplies and by Bush administration officials who oppose mandatory limits on emissions of heat-trapping gases.

Authors of the new University of Illinois study, published in the journal *Science*, said their findings are more accurate because they mimic predicted atmospheric changes in farm fields. Instead of

growing plants in a greenhouse, the researchers set up plots surrounded by rings of tubes that spray carbon dioxide and ozone over the crops.

They found that corn yields didn't increase at all when the air over the plots contained the amount of carbon dioxide projected to be lingering in the atmosphere by 2050. Increases in wheat and soybean yields were about half of what was previously thought.

"These results are very important," said Bert Drake, a plant pathologist at the Smithsonian Environmental Research Center who was not involved in the study. "There hasn't been much of an effort to develop plants that will respond to projected conditions."

By the middle of the century, cars, power plants, factories and other sources are expected to boost the amount of carbon dioxide in the atmosphere by about 50 percent from current levels. Although that is expected to lead to higher global temperatures, it also could increase the photosynthesis of plants.

Tests conducted at University of Illinois plots in Illinois, Arizona, New Zealand, Japan and Switzerland found that those potential benefits are limited by the ability of many crop varieties to absorb more carbon. [KRT WIRE]

# The Canary Project: documenting climate change in photos

The Canary Project ([canary-project.org](http://canary-project.org)) photographs landscapes around the world that are exhibiting dramatic transformation due to global warming to persuade as many people as possible that global warming is already underway and of immediate concern. *Clockwise from top right:* This statue stands next to the Waal river (a distributary of the Rhine) and depicts how high the river can rise before the nearby Dutch town of Zaltbommel will flood; Rocks where there used to be snow at the Pitztal ski area. The machine in the foreground is a snow maker. Dead Sea Fan and Elkhorn Corals in Belize's Barrier Reef.





## Bill, please... what do we owe nature?

Never mind how polluted it might be, at least the air we breathe is still free. But what if you had to pay for it — and all the other essential freebies that nature provides?

Columbia University Ecology Prof. Shahid Naheem imagines: Our most vital utilities and services — such as the provisioning of breathable air, potable water, fertile soils, productive fisheries, equitable climate, environmental security, and much more — are all provided for us by millions of species that work around the clock.

And the plants, animals, and microorganisms that provide these services have never sent us a bill.

Nine years ago, I took part in a study that estimated

nature's services as worth in the neighborhood of 33 trillion dollars a year. Translate that into modern currency, divide by the 6.5 billion people estimated to currently inhabit the Earth, and every man, woman, and child would get a bill for about R3500 each month.

If we adjust payments so that the biggest users, say the wealthiest nations, pay the most, then the typical bill for a family of 4 in the United States would be more like R12000 per month.

Such back-of-the-envelope calculations are wacky, to be sure, but they do drive home the message — biodiversity does a lot for us and asks for nothing in return.

## Huge marine wetland starts life

After 400 years, Wallasea's sea wall comes tumbling down to create giant wetland site

A 300m section of a sea wall has been breached to begin the creation of the UK's largest man-made marine wetland. Almost 115 hectares has been flooded at Wallasea Island, Essex, to create wetland, mudflats, saline lagoons and seven artificial islands. The £7.5m UK government-funded project aims to replace bird habitats lost to development, improve flood defences, and create leisure opportunities. Excavators were used to breach the sea wall on 4 July to allow the sea in.

Mark Dixon, who is managing the Wallasea Wetlands Creation project, said the tide spread across land that was once wheat fields and it began the slow process of creating new salt marsh and mud-

flats. "It's eventually going to be a new sea defence, so you're going to have brand new mudflats, brand new salt marshes and they'll absorb the tide's energy. You've got a big new sea wall at the back, protecting land and property, and then in front of it a series of lagoons and islands and creeks, which birds and people can enjoy."

Biodiversity Minister Barry Gardiner said: "Salt marsh is more rare than rainforest, and is important to people, particularly as a flood and storm defence, and to wildlife. Hundreds of thousands of wetland birds rely entirely on the Essex salt marsh for their food each winter."

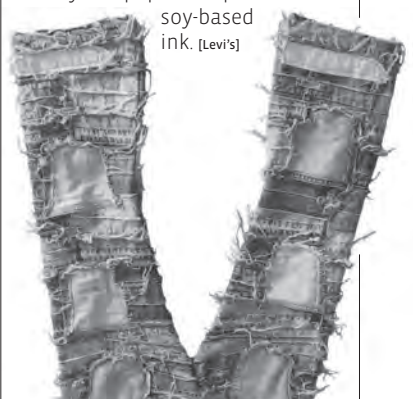
Photo: The sea-wall was breached on 4 July to restore 115 hectares of wetland.



## Levi's goes organic

Levi's will be adding 100% organic cotton jeans to their product line. Jeans made with all, or a significant percentage of, organic cotton will be signified as "Levi's Eco" and feature an embroidered lowercase "e" inside the front pocket, or at the bottom of the right leg of each jean. A natural colored canvas "Levi's" tab and "Two Horse Patch" will also indicate the jeans are made from organic cotton.

Other eco-friendly elements include the use of recycled buttons, rivets and zippers, and natural indigo was used to dye some styles of jeans. All external packaging will be made from organic fabric or recycled paper and printed with



soy-based ink. [Levi's]

**HERO OF THE HOUR:** Nicole Barlow, a medical representative now being called 'The Erin Brockovich of Boksburg' after she put her life on hold and went all the way to the Witwatersrand High Court to stop developers of a petrol station from ruining a wetland listed as an 'irreplaceable site' by the Gauteng government. She was quoted in the Mail & Guardian newspaper as saying "My whole life now is dedicated to saving wetlands, which are being destroyed at the rate of about 20% a year. On the East Rand we have at least 4 200 of the country's almost 7 000 wetlands.

The **Southern African Sustainable Seafood Initiative** (SASSI), which has made waves among restaurants and consumers of seafood for its campaign to educate people about which linefish are endangered and which are sustainable. SASSI is a partnership between WWF, Endangered Wildlife Trust and the Department of Environmental Affairs and Tourism. It's most effective device is a list of what you can eat and what you should avoid, available from [www.panda.org.za/sassi](http://www.panda.org.za/sassi).

The Green List (sustainable) shows you can, with good conscience, choose from yellowfin tuna, calamari, sardines, snoek,



## THUMBS UP

yellowtail and West Coast rock lobster.

The Orange List names fish that should be eaten sparingly, if at all. These linefish are in trouble. They include popular fish like kingklip, kabeljou (kob), red stumpnose, rockcods, skates and rays, and sole.

The Red List contains fish you should not eat in a restaurant at all, as they are hovering on the brink of extinction: galjoen (South Africa's national fish), rock salmon (river snapper), white musselcracker, white steenbras, potato bass, brindle bass, spotted grunter and East Coast rock lobster.

A wonderful new wave of giving by the mega-wealthy, which some say is the first sign of a new golden age of giving. Uber investor-capitalist **Warren Buffett**, second richest man in the world, recently committed to giving away 85% of his \$44 billion fortune to charities.

Also **Bill and Melinda Gates**, for working hard on giving away the vast bulk of their enormous fortune. The Gates foundation, the recipient of most of Buffett's money, is the largest charitable foundation in the US, with assets of \$29 billion. Sanford Weill, chairman of Citigroup, has also decided to give away his \$1.4 billion fortune in a "deal with God".

**Anita Roddick** seems to have kicked something off by saying



Warren Buffett

**VILLAIN OF THE PIECE:** Andre de Wet, recently fired Eastern Cape tourism and economic affairs minister, for stonewalling Wilderness Safaris' planned lodge in Mkambati provincial reserve on the Wild Coast. As a result, Wilderness, a top tourism company in Southern Africa, specialising in community partnerships and low environmental impact lodges, has reluctantly pulled out. Members of the Mkambati Land Trust, representing 40 000 villagers who were to benefit, are furious, according to a *Mail & Guardian* report.

They had pledged an extra 14 000 hectares of their own old agricultural land to add to the 7 200 hectare Mkambati reserve. The collapse of the deal cost surrounding communities a R50 million investment in their land, a 46% share of net profits from the planned lodges, a new clinic and a children's educational camp, as well as hundreds of jobs, a vegetable growing project and other enterprises. This in an area so poor that 3% of children are mentally retarded by the time they are 10 because of malnutrition.

De Wet sank the deal, approved by his (also fired) predecessor, Enoch Godongwana, saying it was "fatally flawed", but never explained why. The deal descended into a morass



## THUMBS DOWN

of red tape, delays, bungling and legal problems. Some skeptics are wondering whether tourism is being deliberately sabotaged on the Wild Coast to leave the field open for dune mining.

### Wagon Wheels Motel in Beaufort West

for penning up a handful of miserable springbok in small dusty enclosure as a roadside attraction. The 'boktronk' award also goes to the **SA Mint in Midrand**, which regularly gives motorists traveling between Pretoria and Johannesburg whiplash as they see blesbok, springbok and ostriches in the Mint's tightly fenced area.

**Japan, Iceland and Norway** for having killed tens of thousands of whales in the past two decades. Japan purports to be doing it for scientific purposes, although it is then sold in supermarkets. Norway doesn't even bother with an excuse, and openly flouts the rules of the International Whaling Commission. This year, Japan alarmed conservationists at the IWC by achieving a 33 to 32 majority in a vote on the repeal of the whaling moratorium. A 75% majority is needed to overturn the ban, but for many, the vote was an ominous reminder of the lengths Japan is prepared to go to. It has given more than \$100 million in aid to island nations that it has then persuaded to back its pro-whaling position.

Last year Japan announced plans to double its 'scientific' whaling in the Southern Ocean Sanctuary around Antarctica and add endangered humpback and fin whales to its target list.

**China**, for the railway from Beijing to Tibet's capital, Lhasa, opposed by most Tibetans. Beijing has announced plans to relocate 20 million Chinese in Tibet over the next decade, further eroding

she would rather give her multi-million fortune away than bequeath it to her children. Even Angelina Jolie gives away one third of her annual income to deserving causes.

**Nedbank**, for sponsoring a solar panel 'billboard' at the MC Weiler Primary School in Alexandra, Johannesburg. This will power the school's kitchen, allowing the school to be self-sufficient with clean energy. It enables at least 1 000 pupils a day to be given a hot meal – for many, the only substantial meal they receive. The billboard is the first of several planned for various sites around the country. It is a 4,5 x 18 metre double sided board with 10 solar panels, each generating 135 watts of power, charging twenty deep cell batteries – these produce enough power to boil 18 domestic kettles continuously.

**Wal-Mart**, that enormous American low-price supermarket chain, for making some interesting environmental advances. It has vowed to expand into the stocking of pesticide-free food, and recently opened two stores partially powered by wind turbines and solar panels.

**Spain**, which passed a resolution in Parliament in June this year that will give a set of rights to chimpanzees, bonobos, gorillas and orang-utans. These great apes will then have the status of legal persons within Spanish law. The step began in 1993, when philosophers Peter Singer and Paola Cavalieri urged the Spanish government to protect great apes from maltreatment, slavery, torture, death and extinction.

This was on the grounds that not only do they and humans have the vast majority of their DNA in common, but also because they are clearly intelligent beings with strong emotions that often mirror those of humans. It is a rejection of the notion that these animals can be considered property, with no more legal status than a piece of furniture.

**Vergelegen wine estate** near Stellenbosch, for being the only winery where the cellar, vineyards and hospitality divisions are environmentally certified. It is also the champion of the Biodiversity and Wine Initiative, which seeks to make vineyards eco-friendly. Vergelegen, owned by Anglo American and 3 170 hectares in extent, has 140 hectares dedicated to vines and 80 hectares set aside for fruit orchards. The rest, containing invasive alien vegetation, is to be rehabilitated over 10 years.

As alien plants have been removed, so streams that had not run for decades started to flow, and fynbos returned. Water run-off into their dams has increased by two million litres, and indigenous animals, including sunbirds, buck and fish eagles are increasing in number.

**Group 3**, for planning a new housing project on the edge of Clanwilliam Dam that will effectively be South Africa's first purpose-built solar-powered housing project. Not only will buyers be able to generate free electricity and hot water for their own needs, but will also be able to sell surplus power to neighbours or even Eskom.

The solar system of each of the 84 homes will act as an individual power plant, collecting and storing energy for the household's needs. All systems will also work in unison to generate power for the whole development. The locally developed technology, which allows unused power to be fed safely back into the power grid, is so efficient that it has been exported to many countries around the world. 🌍

the vanishing Tibetan culture, and increasing the marginalisation of Tibetans in the economy. His Holiness the Dalai Lama has said that China was committing a kind of "cultural genocide" was taking place inside Tibet. This follows an actual genocide in which over a million Tibetans are thought to have been killed since Chinese forces invaded the country in 1959.

The railway line has been estimated to cost three times the amount the Chinese government has spent on health care and education in the country in the past fifty years. Of the 38 000 people employed to build the railway, only 6 000 were Tibetans, none of them in supervisory positions.

Many Tibetans feel this is the final blow to their fragile ecology. Already the country has been used as a dumping ground for China's nuclear waste, and musk deer and chiru antelope have been hunted to the brink of extinction. It's thought Beijing's plans to form 25 new townships along the highway will overburden the ecology and increase illegal poaching.

**Rooipoort**, part of Mogale City, which used to be a place of beauty, with extraordinary ridges, for allowing them to be developed in the most inappropriate way. More specifically, for a decision taken by them and endorsed by the Gauteng government to build a reservoir on top of the same ridge that is pair to the only breeding pair of black eagles in the world.

The development is planned to be just a few hundred metres from the black eagle nesting site above the Walter Sisulu National Botanical Garden. Environmental groups fear that the eagles, which have been nesting there for 40 years, could permanently vacate the area during the envisaged 330 day construction period.

The ridge, home to Bankenveld grassland that evolved millions of years ago, cannot be re-established, say experts. The reservoir is to be built to supply burgeoning cluster and townhouse developments and a casino. Environmental groups are appealing the decision.



**Bat-eared Fox**

the feeding frenzy, while the plants enjoyed an even pruning," she said.

"Sadly many Karoo farmers still believe this problem can be solved with poison. So once again tons of chemicals have been sprayed throughout many districts in the Karoo.

We have had reports of flocks of birds like lesser kestrels eating the sprayed dead hoppers. Chemical companies tout synthetic pyrethroids as perfectly safe, yet are highly toxic to bees, all aquatic life and 90% of the creatures living in our precious Karoo soil."

The National Disaster Relief fund spent R48-million on the previous locust campaign - more than the cost of compensating farmers for veld damage.

- Courtesy Rose's Roundup. 🌍

**Karoo farmers**, for yet again spraying the veld against locusts. According to Marina Beal of the Nama Karoo Foundation, these periodic locust swarms are not the threat many think them to be.

"Millions of birds accompanied by bat-eared foxes and even sheep enjoyed

# A Guide to Green Cars

What makes one car greener than another? Certainly, having high fuel economy is one factor. Meeting one of the cleanest exhaust emissions standards is another.

Being manufactured in a clean factory with safe, non-toxic substances, or using a larger portion of recycled materials, are further aspects of environmental friendliness.

The key to progress on all of these fronts is design with the environment in mind.

**A** GENUINELY GREEN CAR IS, OF COURSE, impossible. Moving a tonne of steel and plastic around could never use no energy at all and even the zero emissions hydrogen fuel cell cars will require prodigious amounts of energy to produce the hydrogen in the first place.

## Buying Green – The “No-Compromise” Options

### PZEVs & Hybrids

PZEVs, or partial zero-emission vehicles, include the now familiar Toyota Prius and more than a dozen other vehicles.

Car companies are promoting these cars as having better performance—and sales prove that as performance has soared so has popularity.

The Honda Civic Hybrid, for example, out-accelerates its petrol-only version and it also requires fewer stops at the service station. Public demand for the new Toyota Prius, which gets over 21.25km per liter, has outpaced production since it was introduced in 2001.

Hybrids and PZEVs look like regular cars, but under the hood they have sophisticated technology that reduces health-threatening tailpipe emissions by 90%, and evaporative emissions (the vapours that escape from the fuel tank) to nearly zero. PZEVs typically cost significantly more than their conventional counterparts.

PZEVs burn petrol so efficiently that their exhaust is cleaner than the air in some smoggy areas. PZEVs can help reduce urban smog which so badly affects the health of city dwellers, especially children and the elderly.

## Cars for People Who Want to Get off Oil or Reduce Climate Change Even More



The 2006 Honda Civic Hybrid has won the World Car of the Year Award for greenest car.

Climate change is no longer a theory, it is a scientifically proven fact. Thirty percent of the carbon dioxide (CO<sub>2</sub>) emissions, the major source of global climate change, are from transportation. Fortunately, there are several ways of reducing CO<sub>2</sub> emissions from your car.

The easiest option is to look for the most fuel efficient hybrid or PZEV vehicle. CO<sub>2</sub> emissions are directly proportional to the amount of petrol you use, so a 20km per liter car emits just half of the CO<sub>2</sub> of a 10km per liter car.

You could reduce your CO<sub>2</sub> emissions even more if you powered your vehicle with an ‘alternative fuel’ such as compressed natural gas (CNG), liquid propane (LPG), biodiesel, or ethanol. These fuels have the added advantage of reducing, often to

almost zero, the use of oil, most of which is imported. Let’s look at each alternative fuel option:

### Biodiesel

Biodiesel, a favorite fuel in the US bus and trucking industry, is beginning to make inroads in our local bus industry. Biodiesel is made from an oil-rich plant, such as soybeans, and can be run in a conventional diesel engine. Because it gets thick when cold, and ignites at a lower temperature than diesel, it is normally blended with diesel in cold climates. B20, the usual mix, is 20% biodiesel and 80% diesel, though 100% biodiesel (B100) can be purchased. Additionally, waste cooking oil can be run in a diesel vehicle if you have an additional tank and other simple modifications.



There are several conversion kits on the market. (See [www.greasecar.co.za](http://www.greasecar.co.za), for example). B100 will reduce greenhouse gas emissions by 77% (because the plants, when growing take CO<sub>2</sub> out of the atmosphere) and reduce dependence on foreign oil by 68% (unless the plants are grown with no chemical fertilizers, and tractors run on biodiesel, in which case 100% reductions could theoretically be achieved.) B20 reduces CO<sub>2</sub> by 28% and fossil fuel use by 13%. While biodiesel offers a great opportunity to use waste cooking oil and surplus soybeans,

## Greener Transport Also Means Reducing Driving

A vehicle's greenness depends not only on its design, but also on how it is used. A car is greener when it's carrying two people rather than one and it's greener still with three. And it's greenest of all if left at home when there's a cleaner way to go: by foot or by bicycle, by bus or by train, and even by wire (telecommuting or videoconferencing).

Consider your opportunities to reduce car use when practical, by walking or biking for short trips, ridesharing, and combining several errands into one trip.

Our options for getting to work or school, shopping or recreation, conducting business, and visiting family or friends depend very much on where we live. Choosing where you live for its walkability and convenience to work, school, or transit—what planners call location efficiency—is a key way to reduce your need for driving. In some areas, people find it surprisingly easy to do without a car at all.



15% petrol.

Ethanol is usually used in “flex-fuel” vehicles—vehicles that can be run on either petrol or ethanol. An estimated 2.5 million ethanol flex-fuel vehicles are in use in the US today, but only a small percentage actually are using ethanol. E85 reduces CO<sub>2</sub> emissions by 22%, and reduces fossil fuel use by 34%.

### Propane

Propane, a by-product of natural gas production and oil refining, is used by fleet vehicles. It is estimated that there are approximately 275,000 propane-powered vehicles in the US today. Propane reduces CO<sub>2</sub> emissions by 15%, but does not reduce fossil fuel use.

### Hydrogen

Hydrogen-powered vehicles have been much in the news, and have many attractive characteristics. They have the potential of making fuel choice a non-issue, since hydrogen can be produced from just about any fuel.

All car companies have hydrogen-powered prototype vehicles—but don't expect them in the showroom anytime soon, because there are still many technical challenges in making, storing, and transporting hydrogen, as well as using it in conventional internal combustion engines or in fuel cell vehicles.

Hydrogen's environmental advantages and its ability to compete in the market place will be determined by how it is made. Hydrogen can be made by electrolysis, using electricity to split water into hydrogen and oxygen. If the electricity to make the hydrogen were produced by wind, solar, or other zero emitting fuels, we could produce environmentally friendly zero emission hydrogen—but many feel this is not economically feasible.

If, however, it were made using electricity from today's power plants, CO<sub>2</sub> costly emissions would increase—and we would need to build new power plants to produce enough

## Facts and Figures

- **70 million** motor vehicles were on the world's roads in 1950
- **630 million** motor vehicles were on the world's roads in 1994
- **1 billion** motor vehicles are expected to be on the world's roads by 2025, if the current growth rate continues
- **12,000 pounds** of carbon dioxide are emitted by the average car each year
- **5 percent** of a car's fuel can be wasted by underinflated tires
- **2 billion gallons** of gasoline could be saved annually if 65 million car owners kept their tires properly inflated
- **85 percent** of auto fuel is consumed just to overcome inertia and start the wheels turning
- **2.5 times** more emissions are generated by SUVs and light trucks than by standard cars
- **50 million** new cars roll off the assembly line each year
- **11 million** cars are junked annually in the U.S.

many are concerned that if crops were grown specifically for fuel production that food producing land would be displaced and degraded.

### Compressed natural gas

Compressed natural gas vehicles have been used extensively in Canada and Australia. In the US they have been used most extensively by companies that have a fleet of ten or more vehicles. These companies usually install a CNG fueling station at their facility so they can refuel easily.

CNG is a naturally occurring, clean-burning fossil fuel. It emits 13% less CO<sub>2</sub> than a similarly fuel-efficient vehicle.

### Ethanol

Ethanol has been extensively used in Brazil for decades. Ethanol is an alcohol made from plant material that has a high sugar content. In Brazil, the waste from making sugar is the main feedstock. Research is being done on the potential of other waste plant materials to produce ethanol less expensively. A favorite of US Midwest farmers, ethanol is usually blended with petrol. E85 is 85% ethanol and

electricity to meet the demand for hydrogen.

Hydrogen can also be extracted from other materials that have a high hydrogen content, such as natural gas—many people feel this would be the best approach—but it does not get us away from using nonrenewable fossil fuels, or take CO<sub>2</sub> emissions to zero.

## Electric Vehicles

Like hydrogen, electricity can be produced from any fuel, and like hydrogen, electricity is only as clean as the fuels used to create it. For example, if a car ran on electricity produced from today's coal-fired plants, CO<sub>2</sub> emissions would be greater than those from petrol car. But if the electricity were pro-

duced from wind and solar, CO<sub>2</sub> emissions would approach zero.

Most car companies have tried to produce full-size electric vehicles that meet consumer demands for a car that can be refueled quickly and have at least a 160 kilometer driving range. Nevertheless, electric vehicles are becoming popular in niche markets such as airports, mines, and warehouses, and smaller electric vehicles are entering the consumer market.

Some people believe that battery technology will advance soon to a point where full-size electric vehicles could play an important role in the consumer market and deliver better value than hydrogen vehicles. Only time will tell. 🌐

## South African Restaurant Oil Abuse

**B**IODIESEL ONE aids in combating rampant abuse of waste restaurant cooking oil in South Africa.

It is generally accepted that when restaurant oils (i.e. used cooking oils and fats) are fit for human consumption, it is also fit to be included into animal feed. However, due to extensive abusive practices in South Africa causing restaurant oils to become toxic, it is of extreme importance that the safety and traceability of these oils are assured to avoid abuse.

Malpractices at South African frying establishments are responsible for extensive degradation of frying oils and fats (also referred to as restaurant oils) to levels unheard of in other countries. This is mainly caused by the repeated use of oil in order to save money. In many cases restaurant oils are also sold to the poor communities where it is further broken down through repeated usage to levels that poses a health threat.

These breakdown products have been shown to be hazardous to human and animal health and should therefore not be incorporated into animal feed or re-used for human consumption. It has been reported that these breakdown compounds can cause serious diseases such as cancer and diarrhoea in humans and animals. Consequently, strict legislation has been proclaimed in South Africa prohibiting the use of these oils.

As a result of these malpractices and poor quality management programs used by some restaurant oil collectors, many animal feed manufacturing companies are reluctant to

by **TERRY BOOYSEN, BIODIESEL ONE**

incorporate these oils into their animal feed stocks. Consequently, many restaurant oils are today recycled illegally into the human food chain or are channeled legally to the oleochemical industry.

It must be noted however that large amounts of waste restaurant oil is finding its way into “legally” to animal feedstocks such as the chicken industry and pet feeds to name a few.

The former, illegal route is preferred in South Africa since it affords much higher prices compared to the oleochemical route. Since we have estimated that more than 50 000 tons p.a. of restaurant oils are available in South Africa, the illegal distribution of large quantities of toxic over-used restaurant oils for human consumption can have disastrous effects.

We are convinced that the establishment of a traceability programme that would route all of this oil into the biofuels business will result in the channeling of large amounts of potentially dangerous restaurant oils away from the human food chain and animal feed since biofuel companies can afford more competitive prices than oleochemicals. Our experience is that many frying establishments will not use the illegal route if viable alternatives are to their disposal. Also, if strict quality management systems are applied by oil collectors at frying establishments, mainly restaurant oils within regulatory limits will be used in food preparation.

It is important to note that From the 31st October 2004 waste cooking oil from catering premises can no longer be used as an ingredient in animal feed. This change has been introduced as a measure to safeguard animal health and the subsequent food chain

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\* Drive less. Driving as little as possible is the best way to reduce the environmental impact of your transportation needs. Link errands, carpool, use mass transit, bike, or walk whenever possible. Choose a place to live that reduces your need to drive. If your family already has one car, consider trying to meet your travel needs without buying a second one.

\* Drive moderately. High-speed driving and jack-rabbit starts increase both fuel use and emissions.

\* Keep your vehicle well tuned. Simple maintenance -- such as regular oil changes, air-filter changes, and spark plug replacements -- will lengthen the life of your car as well as improve fuel economy and minimize emissions.

\* Inflate your tires. Keeping your tires properly inflated saves fuel by reducing the amount of drag your engine must overcome.

\* Keep track of your fuel economy. A drop in your car's fuel economy can be a sign of engine trouble. Keeping track of your fuel economy on a regular basis can let you know when something is malfunctioning. You can check your gas mileage by noting the odometer reading and number of liters you purchase each time you fill up. Divide the number of kms traveled between fill-ups by the number of liters purchased.

\* Don't let your car idle for more than a minute. During start-up, your engine burns extra gasoline. However, letting your engine idle for more than a minute burns more fuel than turning off the engine and restarting it.

\* Park in the shade. Minimize evaporation of fuel and keep your car cooler in the summer by parking in the shade.

under the Animal By-Products Regulation EC 1774/2002 (ABPR) and applies across Europe, including the UK.

In most Member States the ban has applied since May 2002. This IS NOT the case in South Africa. We are hoping that the South African Government will follow suit. As consumers we are not aware that waste products are finding their way into our food chain. In some remote areas farmers are purchasing oil directly from restaurants and including it into the feed for their sheep.

We have encountered several cases where unsuspecting restaurants have been sold retreated waste cooking oil as new oil. This is happening today! 🌐

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Biodiesel One is a manufacturer of Biodiesel, an alternative fuel source and renewable diesel fuel substitute.

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Pigs are intelligent, friendly animals whose complexity of social interaction is as advanced as that of dolphins and elephants. When in their natural surroundings rather than on factory farms, they are social, playful, protective animals who bond with each other, make beds, relax in the sun, and cool off in the mud. Please don't support the industry which abuses these fascinating animals.

# MAKING BACON: the shocking truth

compiled by COMPASSION IN WORLD FARMING (SA)

**M**ANY PEOPLE THINK OF *Charlotte's Web* and *Babe* when they imagine how pigs are raised for meat. Unfortunately, these Hollywood tales do not depict reality.

Almost all of the 100 million pigs killed for food in the United States every year endure horrific conditions in controlled animal feeding operations (CAFOs), the meat industry's euphemism for factory farms.

Smarter than dogs, these social, sensitive animals spend their lives in overcrowded, filthy warehouses, often seeing direct sunlight for the first time as they are crammed onto a truck bound for the slaughterhouse.

Many people who know pigs compare them to dogs because they are friendly, loyal, and intelligent. Pigs are naturally very clean and avoid, if at all possible, soiling their living areas. When given the chance to live away from factory farms, pigs will spend hours playing, lying in the sun, and exploring their surroundings with their powerful sense of smell.

Considered smarter than 3-year-old hu-

man children, pigs are very clever animals.

Most people rarely have the opportunity to interact with these outgoing, sensitive animals because 97 percent of pigs in United States today are raised on factory farms. These pigs spend their entire lives in cramped, filthy warehouses, under constant stress from the intense confinement and denied everything that is natural to them.

As piglets, they are taken away from their mothers when they are less than 1 month old; their tails are cut off, some of their teeth are cut off, and the males have their testicles ripped out of their scrotums (castration), all without any pain relief.



They spend their entire lives in overcrowded pens on a tiny slab of filthy concrete.

## Many breeding sows spend their entire miserable lives in tiny metal crates where they can't even turn around.

Shortly after giving birth, they are once again forcibly impregnated. This cycle continues for years until their bodies finally give out and they are sent to be killed. When the time comes for slaughter, these smart and sensitive animals are forced onto transport trucks that travel for many miles through all weather extremes—many die of heat exhaustion in the summer and arrive frozen to the inside of the truck in the winter.

A mother pig, or sow, spends her adult life confined to a tiny metal crate. She will never feel the warmth of a nest or the affectionate nuzzle of her mate—she will spend her life surrounded by thick, cold metal bars, living



on wet, feces-caked concrete floors. When she is old enough to give birth, she will be artificially impregnated and then imprisoned again for the entire length of her pregnancy in a “gestation crate,” a cage only 60cm wide—too small for her even to turn around or lie down in comfortably.

The piglets are taken away from their mother after less than a month—in nature, they would stay with their mother for several months.

She is impregnated again, and the cycle of forced breeding and imprisonment continues. For such an intelligent animal, this intensive confinement causes debilitating stress and boredom. With nothing to do but stare at the bars in front of her, a mother pig may go insane. This is often exhibited by neurotic chewing on the cage bars or obsessive pressing on her water bottle. After three or four years, when her body is exhausted and her mind pushed to or even past the brink of insanity, she is shipped off to slaughter.

Meanwhile, the sow's piglets have their testicles cut out of their scrotums, their tails cut off, many of their teeth clipped in half, and their ears mutilated, all without any pain relief. Terrified and in extreme pain, the piglets are often put alone into tiny metal wire cages (called “battery cages” by the farmers). These cages are stacked on top of each other, and urine and excrement constantly fall on the piglets in the lower cages.

Once the piglets have grown too big for the cages, they are placed into small, cramped pens crowded with many other piglets, where they are kept until they are large enough for slaughter. The animals are given almost no room to move because, as one pork-industry journal put it, “[O]vercrowding pigs pays.” Impeccably clean by nature, pigs on factory farms are forced to live in their own feces, vomit, and even amid the corpses of other pigs.

## Overcrowding, poor ventilation, and filth cause rampant disease.

Respiratory problems are common because of high levels of humidity and toxic gases from the manure pits—in fact, 70 percent of pigs on factory farms have pneumonia by the time they're sent to the slaughterhouse. Many pigs die from infections caused by the noxious fumes and filth of their enclosures. Pigs are fed massive doses of antibiotics to keep them alive in these conditions. Conditions are so filthy

Newborn piglets learn to run to their mothers' voices, and mother pigs sing to their young while nursing. Pigs are actually very clean animals: if given sufficient space, pigs will be careful not to excrete near where they sleep or eat. Pigs don't "sweat like pigs"; they are actually unable to sweat. Pigs like to bathe in water or mud to keep cool.

that at any given time, more than one-quarter of pigs suffer from mange.

Because of illness, lack of space to exercise, and genetic manipulation that forces them to grow too big too fast, pigs often develop arthritis and other joint problems. Many pigs on factory farms live on slatted floors above giant manure pits. Smaller pigs often suffer severe leg injuries when their legs get caught between the slats.

Always concerned with their bottom line, some farmers kill sick animals instead of giving them medicine or veterinary care. In nature, pigs live for 15 years, but pigs on fac-

tory farms are sent to slaughter after just six months of life. To get the terrified pigs onto the transport trucks bound for the slaughterhouse, workers may beat them on their sensitive noses and backs or stick electric prods in their rectums.

Crammed into 18-wheelers, pigs struggle to get air and are usually given no food or water for the entire journey (often hundreds of kilometres).

A former pig transporter told PETA that pigs are "packed in so tight, their guts actually pop out their butts—a little softball of guts actually comes out." 🌐

## The hidden lives of pigs

**U**S PRESIDENT HARRY TRUMAN stated, "No man should be allowed to be President who does not understand hogs."

Most people know very little about these fascinating animals. In fact, pigs are curious and insightful animals thought to have intelligence beyond that of an average 3-year-old human child. They are smarter than dogs and every bit as friendly, loyal, and affectionate. When in their natural surroundings, not on factory farms, they are social, playful, protective animals who bond with each other, make beds, relax in the sun, and cool off in the mud. Since most people are not that familiar with pigs, you may be surprised

to learn that they dream, recognize their names, play video games more effectively than some primates, and lead social lives of a complexity previously observed only in primates.

People who run animal sanctuaries often describe pigs with human characteristics, because they've learned that, like humans, pigs enjoy listening to music, playing with soccer balls, and getting massages.

### What the experts say

Professor Stanley Curtis of Penn State University found that pigs play and excel at joystick-controlled video games. He observed that they are "capable of abstract represen-





**Every year, more than two million pigs are slaughtered in South Africa.**

tation” and “are able to hold an icon in the mind and remember it at a later date.” Professor Curtis says that “there is much more going on in terms of thinking and observing by these pigs than we would ever have guessed.” Pigs are much smarter than dogs, according to the research, and even did better at video games than some primates. Says Dr. Sarah Boysen, Curtis’ colleague, “[Pigs] are able to focus with an intensity I have never seen in a chimp.”

**Pigs form complex social units and learn from one another in ways previously observed exclusively among primates.**

For example, pigs use clever ploys to try to outsmart each other. Pigs often learn how to follow others to food before snatching it away. Those who are tricked learn to change their behavior in order to reduce the number of times they are deceived.

And Dr. Mike Mendyl notes that pigs can signal their competitive strength and “use this information to minimize overt aggression during disputes about social ranks,” just like many primates (including humans). He explains that “pigs can develop quite sophisticated social competitive behavior, similar to that seen in some primate species.”

**Pigs communicate constantly with one another.**

More than 20 of their oinks, grunts, and squeals have been identified for different situations, from wooing their mates to expressing, “I’m hungry!”

**Pigs have a very long memory.**

Dr. Curtis put a ball, a Frisbee, and a dumbbell in front of several pigs and was

able to teach them to jump over, sit next to, or fetch any of the objects when asked to and they could distinguish between the objects three years later.

Scientists at the University of Illinois have learned that not only do pigs have temperature preferences, they also will learn through trial and error how to turn on the heat in a cold barn if given the chance and turn it off again when they are too warm.

Professor Donald Broom of Cambridge University Veterinary School says, “[Pigs] have the cognitive ability to be quite sophisticated. Even more so than dogs and certainly three-year-olds.”

Suzanne Held, who studies the cognitive abilities of farm animals at the University of Bristol’s Centre of Behavioural Biology, says that pigs are “really good at remembering where food is located, because in their natural environment food is patchily distributed and it pays to revisit profitable food patches.”

Newborn piglets learn to run to their mothers’ voices, and mother pigs sing to their young while nursing.

**Pigs are actually very clean animals.**

If given sufficient space, pigs will be careful not to excrete near where they sleep or eat. Pigs don’t “sweat like pigs”; they are actually unable to sweat. Pigs like to bathe in water or mud to keep cool.

**Pig prowess**

Like dogs, piglets learn their names by two to three weeks of age and respond when called. Pigs prefer water to mud. One woman developed a shower for her pigs, and these

astute animals learned to turn it on and off.

Pigs appear to have a good sense of direction and have found their way home over great distances. Adults can run at speeds of up to 20 km an hour.

**Pigs have shown gentleness and forgiveness.**

Norwegian author Bergljot Borresen writes about a mountain farmer who mistreated his pig. The pig locked her jaws into his thigh but didn’t bite down. The farmer believed it was a warning not to treat her unkindly again. In her own way, she gave him another chance.

Author John Robbins notes that “unlike dogs, horses and humans, they will never dangerously overeat even when given access to unlimited food.” The pork industry, however, has wreaked havoc on this healthful habit with a drug called Hog-Crave, which causes pigs to overeat so that they will grow faster and will thus be more profitable to those who kill them.

**Pigs have been known to save the lives of others, including their human friends.**

According to The Daily Telegraph, “a pet piglet called Pru was praised by her owner ... after dragging her free from a muddy bog.” The owner said, “I was panicking when I was stuck in the bog. I did not know what to do and I think Pru sensed that. ... I had a rope with me that I use as a dog lead and I put it around her. I was shouting ‘Go home, go home’ and she walked forward, slowly pulling me out of the mud.”

**Like dogs, pigs have done many heroic deeds.**

Babe’s real-life counterparts have rescued human and nonhuman companions, stopped intruders in their tracks, and even saved themselves from slaughterhouses. In addition to the previously mentioned piglet Pru, who dragged her human companion from a muddy bog, there is also Priscilla, who saved a young boy from drowning; Spammy, who led firefighters to a burning shed to save her calf friend Spot; and Lulu, who found help for her human companion who had collapsed from a heart attack.

A pig named Tunia chased away an intruder, and another named Mona held a fleeing suspect’s leg until the police arrived.

A pig in New Jersey jumped off a truck en route to the slaughterhouse, while in England, a stone carving of a pig named Butch was placed upon a historic cathedral after Butch and his friend Sundance escaped from a slaughterhouse and roamed the country for several days before being captured. Fortunately, a national outcry against slaughter allowed Butch and Sundance to go to a sanctuary. 🌐

# Do Africans dare care about animals?

In learning the gentle art of caring about the well-being of animals, we learn to care more about each other

by LOUISE VAN DER MERWE, ANIMAL VOICE

**A**RE ANIMAL RIGHTS the privileged domain of the world's affluent nations? Dare we, in Africa, care about the well-being of animals while so many of our people are dying of hunger, Aids or in bloody civil conflict?

To care about the well-being of animals in Africa today would seem misplaced—callous and indifferent to the plight of our own kind. Anti-human, even. Perhaps not...

This article poses the question: For the sake of Africa and all its people, dare we not care about the well-being of animals? I approach the argument from two angles. The first considers the impact of neglect and disregard for the well-being of animals on society in general and young minds in particular. The second considers the hidden, yet devastating impact of institutionalised animal cruelty, on the Continent as a whole.

1. The government in South Africa decided recently on a temporary black-out of official statistics on rape, murder and child molestation in an effort, inter alia, it is believed, to keep up the country's morale. Staggering statistics had revealed rape occurred every 25 seconds, that the murder rate was amongst the highest in the world, that 1 in 3 girls and 1 in 4 boys would be sexually molested before adulthood. In some communities, drive-by shootings and gang warfare in the streets had become commonplace.

Against this backdrop, Mr Wikus Gresse, Chairman of the Parole Board at Pollsmoor Prison near Cape Town, recently made an impassioned plea. "Teach people how to care," he said.

As founder of one of the most successful criminal rehabilitation projects in the world today, known as **The Bird Project**, Gresse has seen first hand the healing power inherent in the gentle art of caring. The Bird Project enables prisoners to hand-rear Love Birds, Cockatiels and parrots for ultimate sale to avid bird-keepers. "If these people (the prisoners), as youngsters, had been given the chance of humane education, of learning how to care—some of them would most probably not be here today," says Gresse.

Dr Sean Kaliski, head of forensic psychiatry at Valkenberg mental hospital, Cape

Town, goes as far as to say that the entire nation's mental health is diminished by the ubiquitous evidence of animal neglect and cruelty—from starving dogs which land up as road kill, to lame cart horses with suppurating harness wounds—from the bundles of chickens tied together by wings or legs, feebly fluttering in the dust, to the pigs which lie immobilised in the baking sun, waiting to die horrendous deaths often by way of a blunt pocket knife.

He said South Africa, as a whole, would benefit from a national programme to create an awareness of the need to treat animals kindly and with respect. "The link is there," says Kaliski. **"Someone who is cruel and violent to animals will also be so to people. We need to sensitise a desensitised nation and the younger we start, the better."**

The link between animal cruelty and human violence is now well established in socio-psychological circles. At the invitation of the Cape Town based Humane Education Trust (HET), American, Phil Arkow, who is chairman of a national task force in the USA on the prevention of animal abuse, child abuse and domestic violence, visited South Africa on a lecture tour in early 2000. Says Arkow: "Human violence almost always has its roots in animal cruelty." Of particular interest is the fact that animal abuse is now recognized as a sign of mental disorder.

In the last quarter of 2000 The Humane Education Trust was given the opportunity to rekindle a spirit of care and respect for life in 11 of the Western Cape's most disadvantaged and violence-torn schools. The Western Cape Education Department agreed that humane education, as a pilot project, would get a three-month opportunity to establish its value and benefit to school children. A clinical psychologist with six years experience in the rehabilitation of criminals was employed to assess the impact of the project on a scientific basis.

Details of the what, where and how of this pilot project are clearly shown in the HET's 21-minute documentary video *Caring Classrooms* and the psychologist's final assessment, also available from HET, was

that humane education was an "overwhelmingly positive" influence in the lives of the children and should be incorporated in the national schools curriculum.

Most noteworthy to the educators involved in the project, however, was the obvious sense of self-worth which the project generated among the children.

**Ironically, in learning the gentle art of caring about the well-being of animals, they also learned to care more about each other, to show more respect for their teachers and most importantly, they developed a sense of their own value as human beings.**

Brendan, in Grade 10, put it thus: "Humane Education gave me a new pair of eyes. Everything I look at now I see differently. Nowadays I don't throw stones at stray dogs anymore and I give that thief-cat that always hangs at our door, our left-over food. I don't even swear so much anymore and I really feel proud about it."

Elton, also in Grade 10, said: "For me Humane Education was a great and joyful programme. It made me into a better person."

As one of the educators involved in the project noted: "A sense of self-worth and pride in being human is diametrically in opposition to acts of crime and violence."

This article contends, therefore that we, as a society which yearns for peace and the burgeoning of the African Renaissance, raise our children to be callous and indifferent to the suffering of other living beings at our peril.

2. On the macro-scale, dare we allow an oligopoly of First World Agri-Industrialists to set up in Africa with their massive factory farms, hoping that Africans will still be naive enough to buy into the tired old idea that the cruelty involved in factory farming is a necessary evil in order to feed the poor?

Beset by outbreaks of disease on an unprecedented scale, the tide in Europe has turned away from factory farming, the iniquitous system of keeping huge numbers of animals in close confinement and deprivation, often mutilated to prevent cannibalism. As the tide recedes in Europe however, it is advancing steadily in developing countries



## SUPPORT ANIMAL VOICE

as Dutch, Belgian and other agri-farmers colonise huge markets in Africa, Asia and South America with the promise of cheap food.

The truth is, though, the actual cost of 'cheap food' is astronomical. The huge hidden costs of intensive farming are estimated to be 2.3 billion pounds sterling annually in the UK alone.

In a hard-hitting report just released by Compassion in World Farming (CIWF) in the UK entitled "The Livestock Revolution: Development or Destruction", the actual cost of 'cheap food' is revealed:

Small-scale farmers cannot compete with the factory farms and go out of business. They are forced to leave rural areas for urban centres where they join the long queue of unemployed. This leads to rural depopulation and increased urban problems such as split families and lowered quality of life.

Factory farms substitute labour with mechanisation causing further loss of livelihoods and a dependence on technological know-how.

Crops are now grown to feed the animals caught up in intensive systems, unable to forage or graze for food on their own. In South Africa 35% of cultivated land is used for animal feed.

Ninety per cent of South Africa is classified by the UN as arid, yet the biggest user of water is irrigation and one-third of this consumption irrigates crops to feed animals in factory farms. It is estimated that irrigation costs included, 100 000 litres of water are used to produce 1kg of beef—i.e. 100 times more water produces 1kg of beef compared to 1kg of wheat.

The intensive live-stock industry is dependent on toxic chemicals leading to pollution of soil, plants and waterways..

Human health suffers as overuse of antibiotics on the factory farm leads to disease-causing bugs becoming resistant to the drugs which combat them. It is for this reason that the Food and Drug Administration in the USA is now seeking to ban the use of certain antibiotics in intensive farming.

Indigenous stock, resistant to disease, heat and able to survive on marginal grazing, are replaced by more productive imported breeds which grow more quickly but cannot withstand the harsh environment.

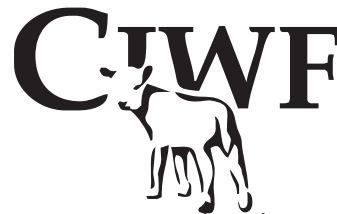
18 million people around the world die from malnutrition or starvation annually while a staggering 95% of world soybean production, for example, is used to feed animals on intensive farms to produce meat mainly to satisfy meat dependent First World countries.

As Janice Cox, co-author of the CIWF report says: "It is time to call a halt to the global growth of factory farming... to take time out to review the hard-learned lessons of the USA and Europe and assess how this deadly development can be halted, and energies redirected to growing food that is gentle to the animals and the environment, as well as being healthy and safe to eat, affordable and accessible to the poorest of the poor."

I ask you: DARE WE, as Africans, allow the third millennium to be blighted by the colonisation of Africa by Agri-Industrialists? I don't think so. 🌱

*Animal Voice* is the official mouthpiece of Compassion In World Farming (South Africa).

CIWA (South Africa) headed by Louise van der Merwe, is also busy bringing out a *Kind Food Guide*:



campaigning  
for farm animals

"... It has taken us 17 years to get to the point where a Kind Food Guide is possible and we request you

please to consider telling your colleagues, friends and contacts about it. Believe it or not, when we started off as Humanity for Hens way back in 1989 there wasn't a single free range egg available in any supermarket anywhere in South Africa. These days we take free range eggs for granted. Besides the eggs, we have made progress for other farm animals too..."

Please support the work of CIWF (SA):

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P O Box 825, Somerset West, 7129, South Africa  
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Email: [avoice@yebo.co.za](mailto:avoice@yebo.co.za) Website: [www.animal-voice.org](http://www.animal-voice.org)

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## SUPPORT THE SNOOT

Official Newsletter of South Africans for the Abolition of Vivisection.

"Although Snout mainly addresses the issue of vivisection, there are also other matters that need a closer look at the story behind the façade, especially where vested interests are concerned. Currently at the forefront of debate are 'canned' lions and culling of elephants, as well as the slaughter of South African seals. All these issues involve major cruelties and massive disinformation campaigns by those who profit from them. They concern our heritage, our wild life, which have a massive price placed upon their heads and, as a consequence, in many cases face extinction."

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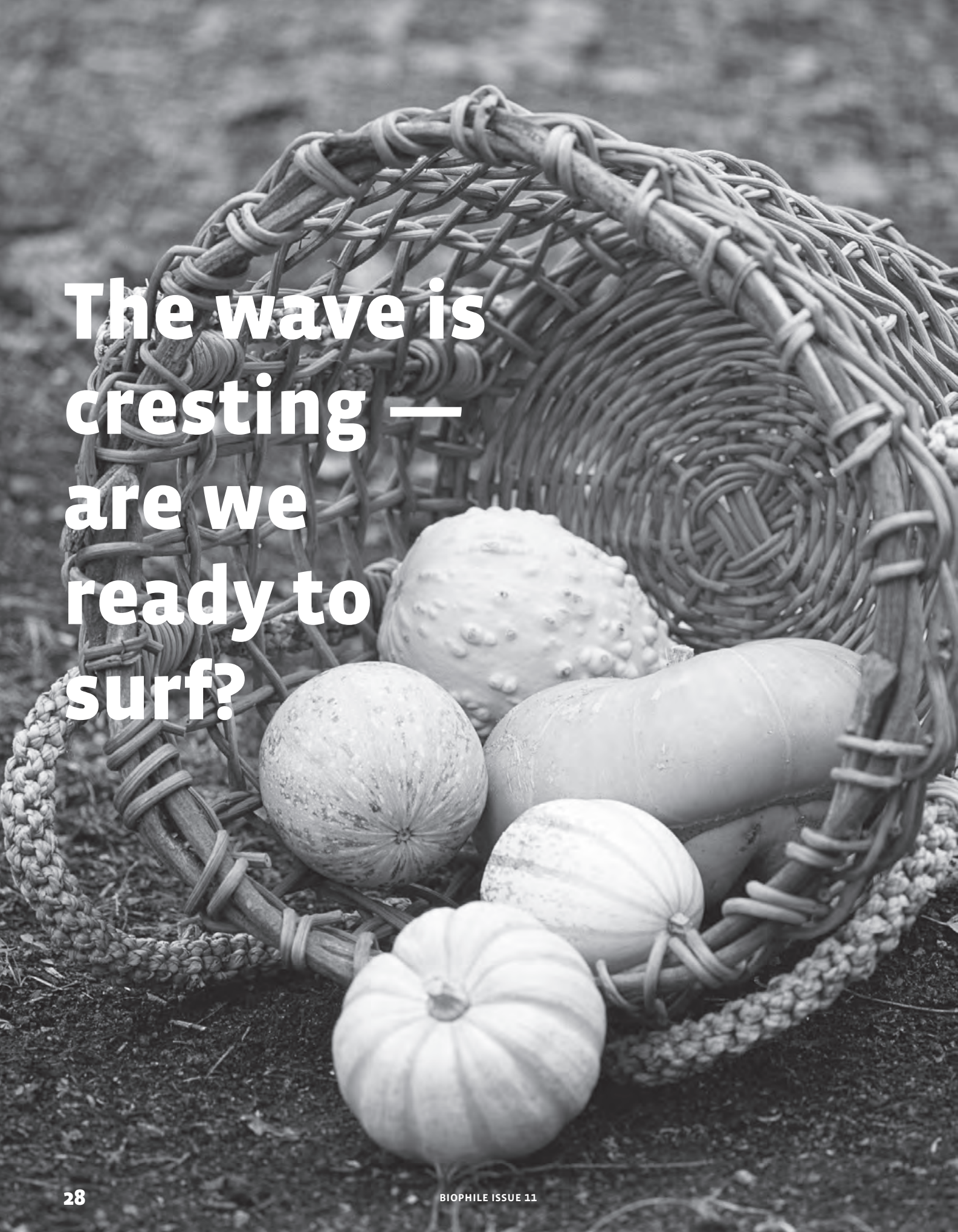
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**The wave is  
cresting —  
are we  
ready to  
surf?**

# A look at recent developments in the organic industry

by ALETTA VENTER, SACODAS

**F**OR THOSE OF US who are at the rock face of the developments within the organic industry, it is obvious that the rate of change and growth is increasing daily and exponentially. It is as though we have been waiting for the tide to turn, for the wave to pick up momentum and now we are the point that we need to know that we are ready to take advantage of the swell that will soon start breaking as a massive wave across the country.

Across all walks of life people are increasingly aware that we are running out of time and ideas to effect a real change in how human beings relate and interact with the natural environment that is our only real recourse for survival. As much as the technologists would like us to believe that we can live out of a laboratory and that money is all it takes, the average human being knows instinctively that is not the case.

And what is more, more and more people are recognizing that this is not what we really want. We all hanker after the beautiful sight of wild animals, clean rivers, flowers in bloom and all that feeds our souls and spirits, as well as our bodies. Our connection to mother earth may be tenuous at best, but it is still there and all it needs is an enabling environment.

## **This is where our government plays a critical role.**

Without conscious and concerted support from our government, our best efforts at civil society level will have only limited and local effect. This is not to say that we must stop working at this level, not at all. It is simply that our effort can have so much more impact if it is backed up and supported by government.

The creation of such an enabling environment is what SACODAS is about. The South African Council for Organic Development and Sustainability (SACODAS) was formed to act as the governing and custodian body for a national initiative called the National Organic Produce Initiative (The NOPI for short). All Public-Private Partnerships require such broad based stake holders' forum that can channel and express the needs and wishes of civil society in an ordered fashion to government role players. Through

the lengthy process of establishing such a partnership with government, we have achieved what has never happened before – for the very 1st time some government officials have recognized that anything other than a western, commercial and industrial approach to development has merit.

The NOPI is now an official national program in which sound sustainable agriculture (organic and biodynamic of course) forms the foundation for all sustainable development programs.

Because of work that was done through the NOPI and SACODAS, the national department of Agriculture was alerted to the fact that legislation was about to be passed on Biofuels that effectively excluded the small-scale private production of biofuels. SACODAS managed to persuade the officials that this was not fair and contrary to our constitution. Work is now underway to ensure that the legislation allows room for such production.

## **Accurate information on organic produce**

In order to implement the NOPI it was recognized that we need accurate information on organic produce in SA. As a result of the brief, checked and beleaguered history of organics in SA, there is virtually no reliable market information available.

The initiators of the NOPI approached the Dept. of Trade and Industry and persuaded them that the “organic agricultural industry” as part of the broader agro-ecological sector, could be viewed as a new economic sector in SA. This means that it qualifies for government support to research and evaluate how this sector can best be developed.

Such studies are conducted using the FRIDGE. The FRIDGE (Fund for Research into Industrial Growth, Development and Equity) is a project of the National Economic, Development and Labour Council's (NEDLAC) Trade and Industry Chamber. It is funded by the department of trade and industry and administered by the Industrial Development Corporation of South Africa Limited (IDC).

A stakeholder meeting was held in Dec 2005 to draft the terms of reference for such a study. The study was approved at the start of the year and the call for tenders has just

been published (in June). The study will be completed within 3 to 6 months after the consultants have been appointed, i.e. by early 2007. The outcome of this study will be document outlining a strategy for the development of the agro-ecology sector. For the 1st time the government will have an official reference document that will guide decisions affecting this newly defined economic sector. This is a major breakthrough and thanks need to be given to the tireless efforts of the individuals and organizations who took it upon themselves to make sure that this happens.

## **Focus in Africa**

Alongside this, another very exciting opportunity has presented itself. SIDA, The Swedish International Development Agency, annually conducts an international training program called Organic Agriculture Development (OAD). This year they decided to focus on Africa and opened the course to participants from Africa only.

Three applicants from South Africa were selected. The good news is that these 3 participants have agreed to work as a team to develop a joint national sustainable development plan for the Agro-Ecology sector agriculture in SA – and of course organic/biodynamic agriculture is again the foundation of this sector! The team consists of 3 women, one from SACODAS, one from the National Department of Agriculture and one from a private NGO (ASNAPP). SACODAS is calling on all its members to make inputs for the development of this very important development plan. See their contact details at the end of this article.

The good news has still not ended. We now have a new minister of Agriculture, Lulama Xingwana, who is set to blow some fresh air into her department. We understand that she visited organic farms on her recent trip to the UK and was very impressed and excited by what she saw. She has also indicated that if the stakeholders in the industry can present her department with the necessary documents, she would be willing to sign off the legislation regarding norms and standards in the organic industry.

The lack of such legislation has been a major constraint for all those that are

involved in the marketing and export of organic produce. Here Organics SA has taken steps to lead an investigating into the current status quo around certification. This will form part of the greater work that is to be done through the SIDA program about redefining quality standards for local and export production. All consumers are entitled to quality produce that they can rely on and that they can be sure has been produced in an eco-friendly and sustainable manner. Quality is about more than just a list of check boxes!

### Promoting exports of organic produce

In a recent call from the Department of Agriculture for candidates for a program promoting exports of organic produce; it was shocking to realize that there were virtually no emerging farmers who qualified for this program!

This highlights the huge potential that exists to convert farmers to organic and biodynamic farming. Effective training in sustainable and integrated agricultural methods such as organic and biodynamic farming remains the starting point for this conversion.

Here again Organics SA has recognized that what training is taking place in SA is not necessarily having the desired effect. In order to address these issues, OSA has obtained funds from Old Mutual to conduct a survey of training and to monitor the outcome of such training. This program is now underway. The results of this program should improve the quality and effectiveness of training in organic agriculture that is being offered in SA.

All of what is happening now is the result of the work and inputs of dedicated individuals and organizations who have never given up on their belief that there is a better way. However, the struggle continues and more and more it is clear that we need to present a united front to our opposition – both in government and in civil society.

### Huge concerns

There are still huge concerns around the wide-spread acceptance of GMO's, the lack of quality control, traceability and labeling.

These issues can only be addressed if we have a much higher level of public and private awareness. It is shocking to know that fewer than 5% of our population know what the acronym GMO stands for, yet they are quite happy to consume foods containing it!

In order to address some of these issues of awareness, Organics SA decided to open its annual conference to a much wider audience than in the past. The theme of this year's conference is "Sustainable Agriculture" and

they are inviting people and organizations from across the whole spectrum of our society, including key departments from government.

This conference is once again taking place in tandem with the Natural and Organic Products Exhibition that is being held in Gauteng at Gallagher Estate from the 20th to the 22nd of September 2006. This exhibition is being held annually and has contributed in a major way to the huge upswing in interest in organic products and produce. The OSA conference is taking place from the 19th to the 21st of Sept at the same venue. Check the OSA website ([www.organicsouth-africa.co.za](http://www.organicsouth-africa.co.za)) for details on the program and speakers.

### So what can you as a private individual do?

Become active – Be an activist. If you, or any organization that you are part of, is any way involved or interested in supporting organic development and sustainability (which includes more than just organic agriculture), please join SACODAS. SACODAS already has more than 50 members.

The more members there are, the more credible the organization becomes as a truly representative body of stakeholders and the more impact their work will have.

There are no fees attached and the only criteria is that the member agrees with the objectives of the company and that when called upon members are willing and able to participate and contribute to strategies and programs that will support the NOPI and other such related programs that will lead to a truly organic and sustainable development of our beautiful country.

The philosophy behind SACODAS and the NOPI are well illustrated in this passage quoted in Lovemore Mbigi's book *The Spirit of African Leadership* on page 13.

*"Spiritual capital challenges capitalism's assumptions that we are primarily economic creatures and argues instead that human beings are essentially creatures of meaning and purpose. The spiritual qualities of a business or a life show the need for dialogue with meaning vision, fundamental/values and deep purpose.*

*"Spiritual capital takes these as crucial commodities of exchange. A company or a person who acts in accordance with meaning, vision, purpose and fundamental values – while making a profit – is invested with spiritual capital. Its primary assumption is that companies can make more profit by doing more good. We act on this assumption by using our spiritual intelligence. (Danah Zohar)"* 🌱

## The objectives of SACODAS:

- SACODAS will set a leading example of Best Practice in excellent governance of PPP's such as the National Organic Produce Initiative (NOPI).
- Act as custodian of organic management principles as enshrined in the African concept of Ubuntu
- SACODAS will at all times function within the guidelines of and meeting requirements as set out in all national and international agendas, protocols and agreements that promote and enhance organic development and sustainability. e.g.
  - > The African Renaissance and NEPAD
  - > Skills Development, BEE, food safety and security, HIV-Aids, SMME stimulation, job creation
  - > Indigenous Peoples' Rights Charter
  - > Johannesburg Plan of Implementation 2002; Kyoto, Montreal, Stockholm and Carthaginian protocols
- Promote the inclusion and participation of all South Africans in the Sustainable and Integrated Villages for Agro-Ecology of the NOPI, providing that they are willing to commit to the principles of organic development and sustainability as set out in the cooperative constitutions of the village
- Organize the supply of organic quality produce on a non-exclusive contractual basis to local, national and international markets according to ethics and principles such as Fair Trade.
- SACODAS will seek to improve the prosperity of all its members through constantly working to improve quality at all levels of the organic value chain
- SACODAS will actively endeavour to empower small-scale PDI farmers to participate in the NOPI in order for them to join the 1st economy in agriculture
- To foster a culture of respect for each other and the earth as basis for all sustainable development

**If you wish to become a member, please contact either the coastal or inland offices and request a membership application form. The offices are:**

Coastal: Aletta Venter — 0734407805.  
Inland: Kim Hutton-Brown — 0826834397

# Organic gardening... and the humble weeds

by BRETT MULLER, EARTHMOTHER ORGANIC

I HAVE BEEN GROWING organic fruit and vegetables around my house for five years now, and the most interesting things have become apparent. As the soil is getting richer, due to the natural farming, more and more indigenous flora is emerging.

The interesting thing is that a vegetable polyculture is a forest pioneer culture as the conditions in which most food crops thrive are very similar to the forest floor. The soil already contains a seed bank from the vegetation which has grown previously and it is the soil conditions which determine which seeds will germinate.

A problem is sometimes in the eye of the observer, take weeds for example: in a naturally-balanced ecosystem you will not find bare soil very often because direct sunlight destroys microbial activity and makes living conditions very harsh for most soil improvers (such as earthworms).

The sun also causes the drying out of the soil often causing compaction that could lead to poor absorption and faster moving water on slopes which can lead to loss of topsoil via erosion. Is it not a wonder of nature that if the soil is laid bare, as in the case of building earthworks, the poor nutrient deficient subsoil leads to massive weed growth.

The best example of these willing plants is the humble Blackjack. He loves poor soil and will germinate best in these conditions. At this point we the “landscapers” usually move in and sort out the problem, or do we? The natural process of the weed is to grow as vigorously as possible to cover the soil from the sun so some sort of microbial activity can begin to re-establish.

The roots of a lot of weeds go deep into the subsoil and bring up valuable elements from the parent rock below, the leaves transform sunlight into nitrogen and

other vital building blocks and the poorer the soil the more vigorous the growth. The weeds if left to their own devices will grow so fast that they will outgrow themselves and as they fall they mulch the earth and enrich the soil. This enrichment leads to the next step of seed germination which will lead over time to further enrichment and eventually the area will reach a state of balance without our involvement.

One can determine the state of the soil by observing the plant life contained therein. Weeds are poor soil indicators so before you pull them out, be prepared to do the work that they had already undertaken, or else those unsatisfied niches will be filled at the first opportunity by the same weed or something similar (or worse!)

Have mulch handy – I use veld hay but any dried organic matter works – look around in your garden for sustainable resources as a first option. The mulch will perform the task of sun protection, water conservation and nutrient accumulation. Plant beneficial soil improvers like lettuce, spinach and beans and throw a few marigolds in too.

A little Lucerne will bring up those valuable bedrock minerals and as well as flowering beautifully, it can be used as power mulch later on. If the soil is hard plant some sweet potatoes or beetroot whose powerful roots will do the job much more effectively and with less effort than a fork. Don't pull all the weeds, a lot of them are beneficial;

educate yourself as they are eager helpers.

After a few months you will have performed the task the weeds set out to do and as a bonus to your newly enriched, weed managed soil you will have a few things to harvest for the table.

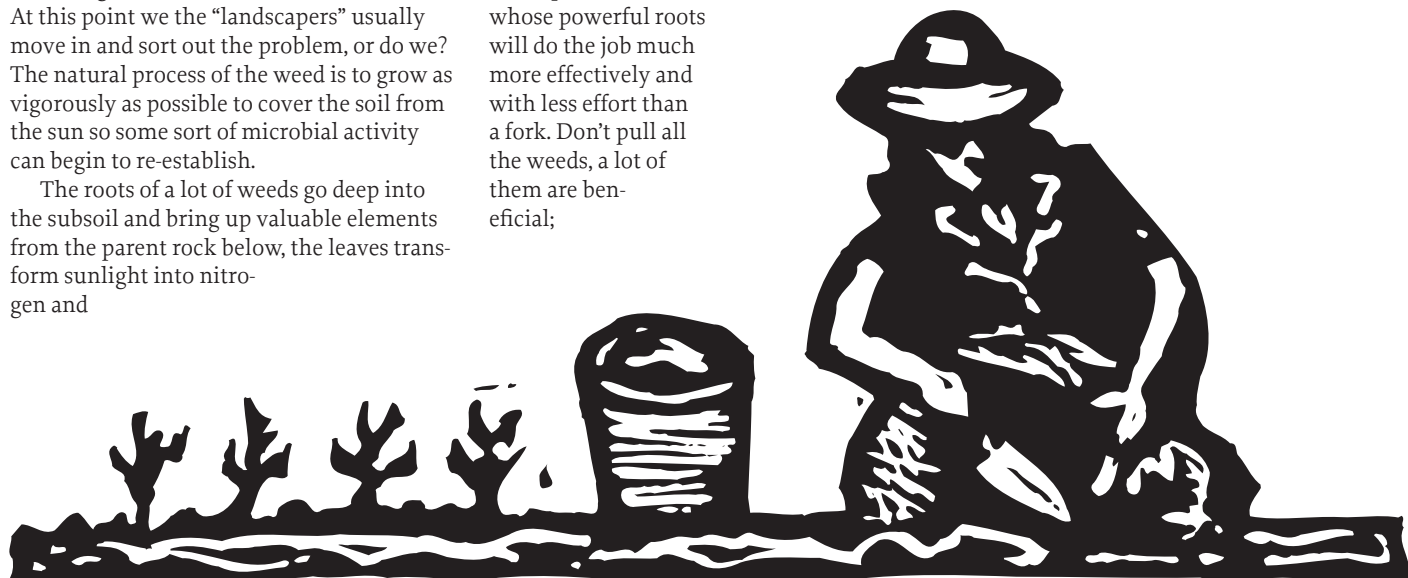
We have a wonderful small grove of trees where our sweet potato patch was and numerous other trees around the garden. Not to mention plenty of other plants of interest which have become part of the landscaping. What gifts nature provides when you take steps towards her.

Be patient with plants you don't recognize that come up on their own, it may be a flower just desperate to open for you. 🌱

EARTHMOTHER ORGANIC

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Jeffrey Smith is the author of the international bestseller, *Seeds of Deception*. The information in this article presents some of the numerous health risks of GM foods that will be presented in his forthcoming book, *Genetic Roulette: The Documented Health Risks Of Genetically Engineered Foods*, due out later this year.

# Herbicide in your intestines?

Genetically engineered crops may produce herbicide inside our intestines, killing gut bacteria which are essential for our health.

by JEFFREY SMITH

**P**IONEER HI-BRED'S WEBSITE boasts that their genetically modified (GM) Liberty Link[1] corn survives doses of Liberty herbicide, which would normally kill corn. The reason, they say, is that the herbicide becomes "inactive in the corn plant." [2]

They fail to reveal, however, that after you eat the GM corn, some inactive herbicide may become reactivated inside your gut and cause a toxic reaction. In addition, a gene that was inserted into the corn might transfer into the DNA of your gut bacteria, producing long-term effects. These are just a couple of the many potential side-effects of GM crops that critics say put the public at risk.

Herbicide tolerance (HT) is one of two basic traits common to nearly all GM crops. About 71% of the crops are engineered to resist herbicide, including Liberty (glufosinate ammonium) and Roundup[3] (glyphosate). About 18% produce their own pesticide. And 11% do both. The four major GM crops are soy, corn, cotton and canola, all of which have approved Liberty- and Roundup-tolerant varieties.

**Herbicide tolerant (HT) crops are a particularly big money-maker for biotech companies, because when farmers buy HT seeds, they are required to purchase the companies' brand of herbicide as well.**

In addition, HT crops dramatically increase the use of herbicide,[4] which further contributes to the companies' bottom line.

There are no required safety tests for HT crops in the US—if the biotech companies declare them fit for human consumption, the FDA has no further questions. But many scientists and consumers remain concerned, and the Liberty Link varieties pose unique risks.

Liberty herbicide (also marketed as Basta, Ignite, Rely, Finale and Challenge) can kill a wide variety of plants. It can also kill bacteria,[5] fungi[6] and insects,[7] and has toxic effects on humans and animals.[8] The herbicide is derived from a natural antibiotic, which is produced by two strains of a soil bacterium. In order that the bacteria are not killed by the antibiotic that they themselves create, the strains also produce specialized enzymes which transform the antibiotic to a non-toxic form called NAG (N-acetyl-L-glufosinate).

The specialized enzymes are called the pat protein and the bar protein, which are produced by the pat gene and the bar gene, respectively. The two genes are inserted into the DNA of GM crops, where they produce the enzymes in every cell. When the plant is sprayed, Liberty's solvents and surfactants transport glufosinate ammonium throughout the plant, where the enzymes convert it primarily into NAG. Thus, the GM plant detoxifies the herbicide and lives, while the surrounding weeds die.

The problem is that the NAG, which is not naturally present in plants, remains there and accumulates with every subsequent spray. Thus, when we eat these GM crops, we consume NAG. Once the NAG is inside our digestive system, some of it may be re-transformed back into the toxic herbicide.

In rats fed NAG, for example, 10% of it



was converted back to glufosinate by the time it was excreted in the feces.[9] Another rat study found a 1% conversion.[10] And with goats, more than one-third of what was excreted had turned into glufosinate.[11]

It is believed that gut bacteria, primarily found in the colon or rectum, are responsible for this re-toxification.[12] Although these parts of the gut do not absorb as many nutrients as other sections, rats fed NAG did show toxic effects. This indicates that the herbicide had been regenerated, was biologically active, and had been assimilated by the rats.[13] A goat study also confirmed that some of the herbicide regenerated from NAG ended up in the kidneys, liver, muscle, fat and milk.[14]

More information about the impact of this conversion is presumably found in "Toxicology and Metabolism Studies" on NAG, submitted to European regulators by AgrEvo (now Bayer CropScience). These unpublished studies were part of the application seeking approval of herbicide-tolerant canola. When the UK government's Pesticide Safety Directorate attempted to provide some of this information to an independent researcher, they were blocked by the company's threats of legal action.[15] The studies remained private.

## Toxicity of the herbicide

Glufosinate ammonium is structurally similar to a natural amino acid called glutamic acid, which can stimulate the central nervous system and, in excess levels, cause the death of nerve cells in the brain.[16] The common reactions to glufosinate poisoning in humans include unconsciousness, respiratory distress and convulsions. One study also linked the herbicide with a kidney disorder.[17] These reactions typically involve large amounts of the herbicide. It is unclear if the amount converted from GM crops would accumulate to promote such responses or if there are low dose chronic effects.

Perhaps a more critical question may be whether infants or fetuses are impacted with smaller doses. A January 2006 report issued by the Environmental Protection Agency's (EPA) Office of Inspector General said that studies demonstrate that certain pesticides easily enter the brain of young children and fetuses, and can destroy cells. That same report, however, stated that the EPA lacks standard evaluation protocols for measuring the toxicity of pesticides on developing nervous systems.[18] Scientists at the agency also charged that "risk assessments cannot state with confidence the degree to which any exposure of a fetus, infant or child to a pesticide will or will not adversely affect their

neurological development." [19] Furthermore, three trade unions representing 9,000 EPA workers claimed that the evaluation techniques used at the agency were highly politicized. According to a May 24, 2006 letter to the EPA's administrator, the unions cited "political pressure exerted by Agency officials perceived to be too closely aligned with the pesticide industry and former EPA officials now representing the pesticide and agricultural community." [20]

Although the EPA may be hampered in its evaluations, research has nonetheless accumulated which suggests that glufosinate carries significant risks for the next generation. According to Yoichiro Kuroda, the principal investigator in the Japanese project entitled "Effects of Endocrine Disruptors on the Developing Brain," glufosinate is like a "mock neurotransmitter." Exposure of a baby or embryo can affect behavior, because the chemical disturbs gene functions that regulate brain development.[21]

When mouse embryos were exposed to glufosinate, it resulted in growth retardation, increased death rates, incomplete development of the forebrain and cleft lips,[22] as well as cell death in part of the brain.[23] After pregnant rats were injected with glufosinate, the number of glutamate receptors in the brains of the offspring appeared to be reduced.[24] When infant rats were exposed to low doses of glufosinate, some of their brain receptors appeared to change as well.[25]

Glufosinate herbicide might also influence behavior. According to Kuroda, "female rats born from mothers that were given high doses of glufosinate became aggressive and started to bite each other—in some cases until one died." He added, "That report sent a chill through me." [26]

## Disturbing gut bacteria

If the herbicide is regenerated inside our gut, since it is an antibiotic, it will likely kill gut bacteria. Gut microorganisms are crucial for health. They not only provide essential metabolites like certain vitamins and short fatty acids, but also help the break down and absorption of food and protect against pathogens. Disrupting the balance of gut bacteria can cause a wide range of problems. According to molecular geneticist Ricarda Steinbrecher, "the data obtained strongly suggest that the balance of gut bacteria will be affected" [27] by the conversion of NAG to glufosinate.

When eating Liberty Link corn, we not only consume NAG, but also the pat and bar genes with their pat and bar proteins. It is possible that when NAG is converted to herbicide in our gut, the pat protein,

for example, might reconvert some of the herbicide back to NAG. This might lower concentrations of glufosinate inside of our gut. On the other hand, some microorganisms may be able to convert in both directions, from glufosinate to NAG and also back again. If the pat protein can do this, that is, if it can transform NAG to herbicide, than the presence of the pat protein inside our gut might regenerate more herbicide from the ingested NAG. Since there are no public studies on this, we do not know if consuming the pat gene or bar genes will make the situation better or worse.

But one study on the pat gene raises all sorts of red flags. German scientist Hans-Heinrich Kaatz demonstrated that the pat gene can transfer into the DNA of gut bacteria. He found his evidence in young bees that had been fed pollen from glufosinate-tolerant canola plants. The pat gene transferred into the bacteria and yeast inside the bees' intestines. Kaatz said, "This happened rarely, but it did happen." [28] Although no studies have looked at whether pat genes end up in human gut bacteria, the only human GM-feeding study ever conducted did show that genetic material can transfer to our gut bacteria. This study, published in 2004, confirmed that portions of the Roundup-tolerant gene in soybeans transferred to microorganisms within the human digestive tract.[29]

**Since the pat gene can transfer to gut bacteria in bees, and since genetic material from another GM crop can transfer to human gut bacteria, it is likely that the pat gene can also transfer from Liberty Link corn or soybeans to our intestinal flora.**

If so, a key question is whether the presence of the pat gene confers some sort of survival advantage to the bacteria. If so, "selection pressure" would favor its long term proliferation in the gut.

Because the pat protein can protect bacteria from being killed by glufosinate, gut bacteria that take up the gene appears to have a significant survival advantage. Thus, the gene may spread from bacteria to bacteria, and might stick around inside us for the long-term. With more pat genes, more and more pat protein is created. The effects of long-term exposure to this protein have not been evaluated.

Now suppose that the pat protein can also re-toxify NAG back into active herbicide, as discussed above. A dangerous feedback loop may be created: We eat Liberty Link corn or soy. Our gut bacteria, plus the pat protein,

turns NAG into herbicide. With more herbicide, more bacteria are killed. This increases the survival advantage for bacteria that contain the pat gene. As a consequence, more bacteria end up with the gene. Then, more pat protein is produced, which converts more NAG into herbicide, which threatens more bacteria, which creates more selection pressure, and so on. Since studies have not been done to see if such a cycle is occurring, we can only speculate.

## Endocrine disruption at extremely low doses

Another potential danger from the glufosinate-tolerant crops is the potential for endocrine disruption. Recent studies reveal that endocrine-disrupting chemicals (EDCs) can have significant hormonal effects at doses far below those previously thought to be significant. The disruptive effects are often found only at minute levels, which are measured in parts per trillion or in the low parts per billion. This is seen, for example, in the way estrogen works in women. When the brain encounters a mere 3 parts per trillion, it shuts down production of key hormones. When estrogen concentration reaches 10 parts per trillion, however, there is a hormone surge, followed by ovulation.

Unfortunately, the regulation and testing of agricultural chemicals, including herbicides, has lagged behind these findings of extremely low dose effects. The determination of legally acceptable levels of herbicide residues on food was based on a linear model, where the effect of toxic chemicals was thought to be consistent and proportional with its dosage. But as the paper *Large Effects from Small Exposures* shows, this model underestimates biological effects of EDCs by as much as 10,000 fold.<sup>[30]</sup>

In anticipation of their (not-yet-commercialized) Liberty Link rice, Bayer Crop-Science successfully petitioned the EPA in 2003 to approve maximum threshold levels of glufosinate ammonium on rice. During the comment period preceding approval, a Sierra Club submittal stated the following.

“We find EPA’s statements on the potential of glufosinate to function as an endocrine-disrupting substance in humans and animals as not founded on logical information or peer-reviewed studies. In fact EPA states that no special studies have been conducted to investigate the potential of glufosinate ammonium to induce estrogenic or other endocrine effects. . . . We feel it’s totally premature for EPA at this time to dismiss all concerns about glufosinate as an endocrine-disrupting substance. . . . Due to the millions of Americans and their children exposed to glufosinate and its metabolites, EPA needs to

conclusively determine if this herbicide has endocrine-disrupting potential.”

The EPA’s response was that “glufosinate ammonium may be subjected to additional screening and/or testing to better characterize effects related to endocrine disruption” but this will only take place after these protocols are developed. In the mean time, the agency approved glufosinate ammonium residues on rice at 1 part per million.

Since glufosinate ammonium might have endocrine disrupting properties, even small conversions of NAG to herbicide may carry significant health risks for ourselves and our children.

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## Inadequate animal feeding studies

If we look to animal feeding studies to find out if Liberty Link corn creates health effects, we encounter what independent observers have expressed for years—frustration. Industry-sponsored safety studies, which are rarely published and often kept secret, are often described as designed to avoid finding problems.

If we look to animal feeding studies to find out if Liberty Link corn creates health effects, we encounter what independent observers have expressed for years—frustration. Industry-sponsored safety studies, which are rarely published and often kept secret, are often described as designed to avoid finding problems.

In a 42-day feeding study on chickens, for example, 10 chickens (7%) fed Liberty Link corn died compared to 5 chickens eating natural corn. Even with a the death rate doubled, “because the experimental design was so flawed,” said bio-physicist Mae-Wan Ho, “statistical analysis failed to detect a significant difference between the two groups.” Similarly, although the GM-fed group gained less weight, the study failed to recognize that as significant. According to testimony by two experts in chicken feeding studies, the Liberty Link corn study wouldn’t identify something as significant unless there had been “huge” changes. The experts said, “It may be worth noting, in passing, that if one

were seeking to show no effect, one of the best methods to do this is would be to use insufficient replication, a small n,” which is exactly the case in the chicken study.

Without adequate tests and with a rubber stamp approval process, GM crops like Liberty Link corn may already be creating significant hard-to-detect health problems. In Europe, Japan, Korea, Russia, China, India, Brazil and elsewhere, shoppers have the benefit of laws that require foods with GM ingredients to be labeled. In the US, however, consumers wishing to avoid them are forced to eliminate all products containing soy and corn, as well as canola and cottonseed oils. Or they can buy products that are organic or say “non-GMO” on the package. Changing one’s diet is a hassle, but with the hidden surprises inside GM foods, it may be a prudent option for health-conscious people, especially young children and pregnant women. 🌍

### Footnotes:

- 1, Liberty Link is a registered trademark of Bayer Crop-Science
- 2, Pioneer Brand hybrids with the LibertyLink1 gene
- 3, Roundup is a registered trademark of Monsanto
- 4, Charles Benbrook, “Genetically Engineered Crops and Pesticide Use in the United States: The First Nine Years,” October 2004
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15, Ricarda A. Steinbrecher, Risks associated with ingestion of Chardon LL maize. The reversal of N-acetyl-L-glufosinate to the active herbicide L-glufosinate in the gut of animals, Chardon LL Hearing, May 2002, London. (Note: This work is an excellent summary of the risks associated with NAG conversion within the gut.)

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# Sugar addiction

Scientists never really thought that a person could become hooked on sweets like they were a drug. Now a batch of findings is making researchers reexamine the concept.

by THE SOCIETY FOR NEUROSCIENCE

**S**UGAR ADDICTION has long been joked about. Most researchers, however, believed you could not get hooked on sweets and lose control over consuming them, as if they were drugs. Studies are now making some scientists revisit the idea. The results do not indicate that donuts are in the same category as addictive drugs like heroin, alcohol or nicotine, but they do suggest that some brain actions and characteristics associated with the intake of sweets and drug addiction may overlap. The findings are leading to:

- A better understanding of how the brain controls food intake and how this system may go awry.

- New ideas on how to treat people with extreme compulsions to overeat sweets.

Studies that focused on brain chemicals, known as opioids, provided some of the first clues that an overlap may exist between sweets and drugs. Some addictive drugs like heroin or morphine activate the opioid system to produce a pleasurable response that many believe helps fuel a longing for more drugs and is key to the addiction process.

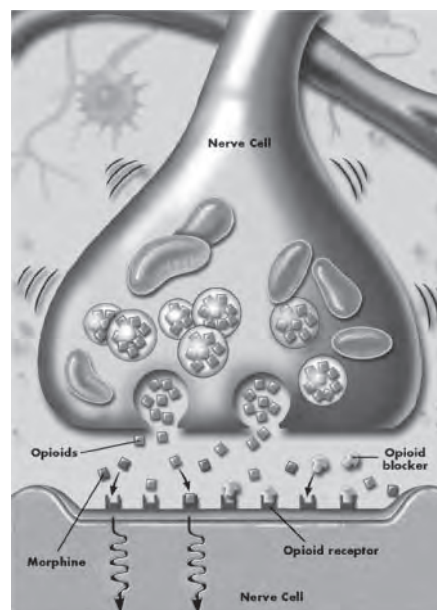
In one study, compounds that blocked the activity of opioids made animals less interested in eating meals, particularly sweetened versions. Researchers found similar results in tests of humans with eating disorders like bulimia, marked by a habit of bingeing on foods that are typically sweet. The blockers cut in half the consumption of sweets packed with sugar and fat including candy bars and cookies. The intake of low sugar, low fat snacks such as popcorn, saltines, breadsticks and pretzels did not decrease. Some believe that the studies hint that sweets, like some drugs, have a pronounced affect on the brain's opioid system (see image), although direct proof is still lacking.

Whether through opioids or some other brain chemical, the scientists suspect that sweets like drugs can activate an "incentive system" in the brain that helps reinforce behaviors. Activation by food is generally beneficial. It makes us want more and keeps us alive. Sweets, however, packed with calories, may create extra activity that helped us in primitive times when food was scarce, but

is not needed today.

Recent behavioral tests in rats further back the idea of an overlap between sweets and drugs. Drug addiction often includes three steps. A person will increase his intake of the drug, experience withdrawal symptoms when access to the drug is cut off and then face an urge to relapse back into drug use. Rats on sugar have similar experiences. Researchers withheld food for 12 hours and then gave rats food plus sugar water. This created a cycle of bingeing where the animals increased their daily sugar intake until it doubled. When researchers either stopped the diet or administered an opioid blocker the rats showed signs common to drug withdrawal, such as teeth-chattering and the shakes. Early findings also indicate signs of relapse. Rats weaned off sugar repeatedly pressed a lever that previously dispensed the sweet solution.

Plans are under way to study binge eaters and further determine whether molecular and behavioral signs common to drug addiction exist. If confirmed, the research could lead to new ideas for treating eating disorders. It also may give you more incentive to steer clear of that tub of chocolate fudge icecream. Well maybe. 🌐



# The Right to Food

It is unlikely that you will know personally any of the ten children under five years old who die every hour in South Africa, and so are spared that suffering.

by MARGARET LEGUM, SANE

**I**F YOU CAN BUY AND READ THIS MAGAZINE you probably do not live among very poor people. They suffer, and then they die, from poverty: they could have survived their diseases with good food and medication; but they have access to neither. It is hard to imagine suffering on such a scale, in your own community and in peace-time.

Many of the hundreds of people who attended the Conference in June on the Right

it reflected the 'laws of God and man', nor because other nations thought it should be done, but 'fundamentally because it is the right thing to do'.

In those days it was hard to imagine South Africa recognizing the equality of all human beings. Forty years later we have done so in principle – except that some of our people still die from lack of nourishment.

under the World Trade Organisation, higher than the economic principle that the market shall determine all prices and therefore who can pay them, higher than the ideology that food must be produced, like all other goods and services, as cheaply and profitably as possible everywhere; higher than the opinions of wealthy potential investors.

It would take a decision to recognise food as not just another product, like cars and shoes and fridges, but as a daily necessity, like water or air. We need to eat food regularly or else we sicken and die. But we can postpone or deny our purchases of other consumer goods. Food should be treated in that light.

**Second, we would need to recognize that food must be subsidized.** As an industry agriculture has a range of unpredictable challenges from the weather and pests and changes in climate. It can give a sustainable livelihoods only if the price at least is predictable. Farmers cannot change the cycles of nature is response to volatile market conditions, including the value of the rand.

Food subsidy has often been taken for granted since the industrial revolution: its current rejection is the exception. And many nations, notably France, will always subsidize agriculture, not only because of the strength of the farming lobby, but because it is the reason for the flourishing rural economy, the prosperous small farmers and the sheer quality of the French countryside, for which it is globally celebrated. The French are prepared to pay a price for this, and they will not end it, whatever they promise in the way of reform

**Third, we would shift the problem focus from the bottom end of the income hierarchy** – poor people and their presumed 'culture of entitlement and dependence' – to the top of the income pyramid.

There the rich feel entitled to a regular stream of passive income from their investments – for which they have lifted not one finger. That entitlement, and its regular enhancement with free perks, parties and holidays, funnily enough, does not apparently encourage a new culture of dependence, as it is presumed to do for poor people. 🌐



to Work will personally know some of the children who have died of poverty. Many are very angry. The right to work in South Africa is closely associated with the right to survive – to buy the basic food, clothing, shelter and energy needed to carry on living. Since few have access to land for subsistence, the only way to survive is to go out and get a job. Only there are not enough jobs to go around: everyone knows that. But we persist in advising job-seeking as the gateway to life.

Surprisingly, many people seem to think that situation is OK. Not perfect, of course; it would be better if there were enough jobs to go around. But probably inevitable – in other words we can live with it.

It reminds me of the words of Robert Kennedy, visiting South Africa in 1966. He spoke of the imperative to recognize the equality of all human beings, not because it was economically advantageous, nor because

**Suppose we said everyone has a right to eat enough food every day** – not because that would make them more efficient workers, or to create a proper demand for local food or to stave off their anger, but because 'fundamentally it is the right thing to do'.

In war time all nations do that. Food security for the nation and for individuals is given the highest priority; and the economy can be turned round very quickly to do so. That is because people cannot fight on an empty stomach, and civilians' loyalty is more reliable if they are looked after.

But should the right to food be limited to war time? Is a strong fighting force the only reason for a healthy population? What would it take to make the right to food an automatic right – because it is the right thing to do?

**First, it would take a decision to give it top priority** – higher than our obligations

# Worms at the Mount Nelson

Cape Town's most famous hotel has embarked on a novel way of disposing of its waste: an on-site worm farm

by MARY MURPHY

**C**APE TOWN'S MOST FAMOUS HOTEL, the Mount Nelson, has embarked on a novel way of disposing of its waste – it has established an on-site worm farm, or vermiculture, to process leftover food and other organic matter. The end-product – vermicast—is rich in nutrients and can be

used as a fertiliser and soil conditioner. The Waste- man Group, with the idea, and helped set up the farm on the hotel grounds. “Waste is a huge problem. It winds up in landfills and ends up polluting our groundwater and generating greenhouse gases responsible for climate change”.

Each day's organic waste is separated

and are completely free of parasites. They eat harmful organisms and excrete masses of beneficial organisms in their droppings, known as worm casts. They modify their environment by processing and aerating the waste, thereby preventing the decay process from turning ‘bad’ – anaerobic decomposition. This helps prevent the formation of carbon dioxide and methane, and keeps carbon and nitrogen bound in the soil in forms that are available to plants”.

Earthworms are able to convert in a matter of days what would otherwise be a putrid, foul-smelling mass of food waste into earthworm compost. Another product produced by this process is ‘worm tea’, the liquid that drains from the worm casts and makes an exceptional liquid fertiliser.

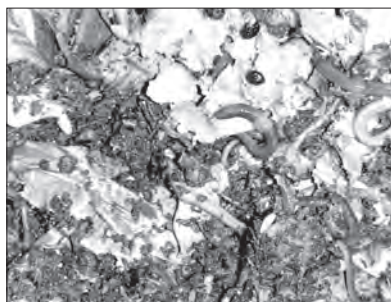
The earthworm farm is made up of a custom designed system built out of recycled crates, and is modified according to the availability of space and the amount of organic waste that is available. The waste is first audited and the system is then designed. The system includes electronic data management via sms, known as Emon.

Emon (Environmental Monitoring via SMS) is a shortcode data management system with defined parameters that allow for daily worm feeding and stocking information to be easily managed and analysed. Information is sent and acknowledged via SMS. Alerts are automatically triggered to facilitate quick response time to potential problems. Emon supports off-site farm management, reducing inefficiencies and costs.

Some home farms are already available, and Murphy and Jaques now plan to approach other hotels and schools to convince them to set up their own worm farms.

By way of a close working relationship with the Wasteman Group, Full-cycle is able to integrate their innovative environment-friendly system with other waste management solutions. In this way waste is being diverted from landfill in compliance with the Polokawne Declaration.

The Mount Nelson Hotel is making a real difference to the environment with their waste reduction systems of recycling and now worm farming. 🌱



Mary and friends at the Mount Nelson worm farm

used as a fertiliser and soil conditioner.

The worms are currently munching on 200 kilograms of scraps of breakfast buffet and high tea – 20% of the hotel's usable organic waste. Hopefully by next year, all of the hotel's organic waste will be processed this way. Already, the worms – thousands of them—have started to produce liquid fertiliser for the Pink Lady's pot plants.

The project was the idea of Mary Murphy, an environmental activist, and Roger Jaques, a botanist, environmental scientist, Landscape Architect and vermiculturist; who call their company, FullCycle.

Murphy approached the Mount Nelson via their waste service provider, the Waste-

man Group, with the idea, and helped set up the farm on the hotel grounds. The trainee worm farmer, Shaun Gibbons, then feeds the waste to the earthworms, under the guidance of Jaques.

Murphy-Roger says that, “in nature, there is no such thing as waste —the waste products from one organism provide the matter and energy for other organisms. We have ignored this basic principle in the design of our urban spaces.

“Earthworms are amazing creatures.

They are able to process their own weight in food waste every day, turning it into the finest soil conditioner. They do not harbour any bacteria or viruses harmful to humans,

# Using love, not fear, in prisons

by NMP/DR GEORGE-GABRIEL BERKOVITS

**W**E ALL KNOW about the crime statistics we have in our country. While the authorities are addressing the problem to the best of their abilities, for thousands of years or more, the emphasis has been on enforcing changes of “behaviour patterns” of criminals.

Behaviour is a symptom. The cause is belief system. We need to look at the cause, the belief system.

## How?

The first power we received at the time of Creation was Total Freedom of Spirit. The Spirit cannot be suppressed or oppressed. Together with the second power we received, Total Freedom of Choice, it means, that the individual needs to believe in something he chooses, and choose it with the freedom of his own spiritual understanding and agreement.

Not by force from an outside entity, law, rule or authority. A difference between Love Choice and Fear Choice.

So, we decided to show the prisoners another angle to look at life, including their own situation and circumstances. Without rights or wrongs. Just creating an observation what works and what does not. No judgement. Just Truth. Using Love, not Fear. IT WORKS.

There are three of us healers at this time presenting different courses for inmates: myself, Gabby and Bella. We work independently on different days, but with cooperation with each other. Each Wednesday I spend half a day giving a six-week-long “Soulhealing Seminar” to the inmates.

**The experience gained through doing this work, is simply overwhelming.**

To describe it in a nutshell, it is life’s irony, that one regains faith in humanity... in a prison. Through personal experiences, one sees another undeniable proof what those “love” teachings from all those Masters are all about and how they work to a practical, physical effect. We work with all those murderers, rapists and hi-jackers, popularly called “the dregs of humanity”.

## The coin has many sides

It is understandable, that many of the inmates initially volunteer to take part in the seminar for the simple reason of killing time. Inactivity and boredom are destructive features for a human being in prison. You encounter the cynical first glances.

This is where the “love” and open-heartedness, the being who you are comes in. If you try to put on some sort of “image”, the prisoners see right through you, their sixth sense is uncanny.

The first connection, the first session is crucial. But after the beginning 20 minutes of talking from heart, the eyes start to shine, the heads begin to nod, and more and more polite hands are raised to ask questions.

**This is the time, when we the facilitators with great humbleness really understand the meaning in the words: “We Are One”.**

The inmates’ lifelong fear based

philosophy visibly changes to that innocent childlike wonder, when a new world opens up in their Soul, even more, when they realise, that this is really the same world, but now they themselves are looking at it from a different angle.

**After being together with the men for six weeks, they recreate their outlook on life to such a degree, that it is astounding.**

At the closing ceremony, where they also receive their certificates, you are given so much Unconditional Love from all the men, that it leaves you weak at the knees and you will find, that it is very difficult to talk. There are a lot of long embraces and choked back tears. This is between men, with previous philosophy of “never show weakness”. This is the moment, when you know, that you are privileged to be able to do what you do.

There are several wardens at Leeuwkop Prison who take their part very seriously and really make a difference with their smiles, kindness and human-ness. I have not seen any negative behaviour by the wardens towards the prisoners at any time. (Of course we do not see everything just by spending a day per week at the prison) There is a relatively easy-going but respectful relationship in existence. Naturally, there is an “us-and-them” situation, a not entirely trust-





The SANCTUARY OF SOUL is a not-for-profit organisation which depends on donations to do its good work.  
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ing status, but that is due to many factors. The wardens work long hours and are very short staffed.

Prison is a Dark Space by nature. To work there every day to put the bread on the table for the family, is soul destroying to describe it correctly. This fact is not only not addressed in any way, but the Correctional Services are simply not aware of its existence. I realized this within myself. Teaching the inmates fills you with elation and after each session you walk out with that warm feeling in the heart. Then I drive home, and it is then when the wheels come off.

Every single time, without exception, I am finished for the day. It is a semi-negative floating dimension where you feel detached from the rest of the world. I feel so exhausted in body-mind-spirit (especially in spirit), that I just lie down and I go to sleep for 3-4 hours at least. I never ever sleep during the day normally.

We have discussed plans, to also include the wardens in the Soulhealing Seminar and other programs. That would be the ideal and very desirable solution.

To give you another angle of “our” inmates’ advancement of caring and understanding, they themselves made suggestions to me, to include the wardens in the seminars, so they do not feel “left out” from learning all these wonderful new things what they enjoy so much. And they (the inmates) were never aware that we (the facilitators) were thinking to do just that from the beginning! Isn’t that “Love stuff” just magic?!

The prison work we do, is fully funded by ourselves.

There is a lot of work, time, money and energy we put into this project. Dealing with 20 men intensively at the time needs preparation, creation and printing of special workbooks, papers, and a lot of night work. While Correctional Services acknowledges the success and uniqueness of our efforts, they are unable to fund our work. So presently our passion alone carries the project. We would greatly appreciate sponsorship or donations from any source.

By all indication, we envisage that our project is going to expand and grow, where more healers/lightworkers will soon be needed as more prisons countrywide will want to take advantage of the success of this work. I think, we probably did more for genuine rehabilitation so far, than any official entity in history. We will also need to organise ourselves in a more practical manner, however I believe, that each individual healer needs to operate freely according to their own system, method or modality. After all, the passion and the intention to create is the driving force, not rules and regulations.

**We all know the destructive effect our country suffers from crime. We believe that we have an effective answer to solve the problem. 🌐**

# Letters of hope and thanks

A selection of unedited letters sent to George-Gabriel Berkovits by prisoners

**First of all** I would like to make use of this opportunity to thank you for your time. Thank you for coming here to Prison to teach me, and to broaden my knowledge. I would like to say that I appreciate it very much. This course really meant a lot to me. I also learnt a lot about myself. I also learn a lot about life. I learnt about other people's feelings.

To respect other people. This course equipped me how to live outside in society. How to give something back into society. Without a doubt this course definitely was, is, and will be beneficial to me. From now on my life will be lived positively. Thank you for your time and your skills and may God bless you richly.

*K.M.*

**Soulhealing is more of a life skill tool to me.** Through this programme I learnt that life is a continuous strive towards perfection and accepting challenges that it (life) presents. The seminar which was held on the 4th June 2006 was an eye opener for me, as Mr George allowed me to express my intake about religious issues. I since realised that some people embraced religion for wrong reasons, e.g. "they get into it just for being seen to be pious" even though their souls aren't yet ready for spiritual stability. Which means they happen to be destabilised spiritually but are in it, to be accepted by others. For me, I think community moves differs from one community to the other. So, the world would have been better if we all had common vision about life, which is Universal love. Over-

all, I believe Soulhealer helps me to introspect and be bold enough to say no or yes to issues that surrounds my world.

I have since embraced my immediate community (inmates) as part of my present life, as they're closer to me than outside guys. I would like the initiators of this programme to expand it and reach out to other troubled souls out there.

*S.P.*

**I am writing this letter** due to the ending of the course Soul Healing Seminar. I think that I also deserve your certificate of this course. I did attend the course to the best of my ability. Due to other obligations I had to leave the course almost at the end. My humble request to you is to please supply me with the Soul Healing Seminar Certificate which will help me a lot in prison and in my sentence. I thank you in advance. Yours sincerely  
Andre J.

Soul Healing Seminar means lot of things to me from where I came from. First of all I would like to thank Mr G Gabriel for his great mercy because the course changed my life completely. Though I was dubious to do this course, but now the materials of this course let my life spiritually clean as I was a person without direction all the time.

I was a sin servitude, but now my behaviour and manners are good. In addition I'm able to tell other people about the fruit of

this course. Particularly to those whose lives are out of order. The Soulhealing Seminar change my life. May God bless us all.

*T.V.*

**I've learned that each one of us is a unique individual**, with our own perceptions, feelings, attitudes and beliefs. Very interesting I've learned that God has given us the three magnificent powers which are 'Freedom of Spirit', 'Freedom of Choice' and 'Power of Creation'. We are the masters/creators of our own circumstances. Everything that we do/create we have total power to undo it.

God lives within us and we don't have to believe everything we hear or see. But have to learn to ask questions. I learned to respect others opinion – religious beliefs and that there is a big difference between religion and spirituality. You choose what to believe and what works for oneself. Our religion teaches us fear instead of love. God is love so how can we be God fearing if God is love?

Makes one think!!

As a little child I was taught many things which I can tell now, with certainty, that it was a lot of Bull. Simply because as a child you are little as a blank slate and believe everything that comes your way. Society and media works upside down and therefore teaches us fear and not love.

Today I am a different person and therefore

I choose to believe differently 'coz through my experience in life I've grown to the extent to make my own decisions based on my own. This is a very good course and I recommend it to be compulsory, a must do, for all inmates and members at Larcoe, in the Correctional Institute. Together we can learn to respect other cultures, different belief systems etc. Most importantly it teaches us to see things from/ as the bigger frame/picture 'coz there is much more to it. Change is possible but it starts within.

*G.G.*

**Since attending the Soul Healing Seminar** I have come to terms that I have to take responsibility of my thinking and my well being. I now know that my belief is the most powerful energy. I can now change my mind and believe.

I never knew before that there are three total powers in life which are very important to know. The Total Freedom of Spirit, Freedom of choice and Power of creation. I can now see people from a distance and listen to them and sense that they are coming from love or fear. I am now familiar with the definition of love. I know and practice to show love by example to people not by words. I have learned that I don't have to dominate or manipulate people as this is



**“I regret committing crime**, but I don’t regret being in prison cause this serves me good in so many ways. My special request is to see this kind of seminar being funded to that it can be **an on-going process** since lots of Inmates want to do it not for the fun part of it, but **for the healing and teaching** it does to us.”

an illusion and that the Soul claims its freedom. I know the solutions for life misperceptions, ignorance and how to eliminate fear. I now have the power to change my mind and thinking thanks to the Soul Healing Seminars. I have been attending for the past weeks. My life and way of thinking have changed for the better.

*M.B.*

**I’ll like to take this opportunity** to thank all the organisers of Soulhealing Seminar and George in acknowledging me that there is nothing in the world that is superior than a mind of man. Soulhealing turns fear into freedom, denial into acceptance and anger into love. Soulhealing generates positive energy, happiness and peace. Cicero, an ancient Roman philosopher and politician, once said “gratitude is not only the greatest of virtues, but the parent of all others. Living life with gratitude leads to o

happiness and Spiritual development. Thanksgiving, grace and purify our heart, Sharpen our Soul and attract abundance into our life.

Given the pain and misery in the world around us, we should be deeply grateful for the suffering we have been spared. We should be thankful for little things in life because those who do not thank for little things will not thank for big things.

Ungratefulness generates negative energy, contraction and suffering. It fuels greed, jealousy and Mistrust. It creates an impoverished Mind.

Exercise and attitude of empowering yourself and say thank you for life to the universe everyday – and you will not need any other prayer. Awaken your potential, knowing that the power of Soulhealing is within you. Thanks for everything that this Course has learned me and foremost for making me a better person and allowing me a Chance to grow as a person. Thanks.

*A. D.*

**The Soulhealing Seminar mean a lot to me**

because it has change my life and before this course I used to think too much but now I can leave the past, and I can understand the environment that I am in now. The seminar have changed me to understand the things more clearly and I’ve learnt how thoughts emotions manifest themselves and how thoughts affects my attitudes and how my thoughts affect my belief trans-

ferred from conscious mind to subconscious mind.

How can I change my mind and belief from negative to positive creation. And how through my thoughts I can control anger and learn to forgive and be responsible for all my actions. I’ve learnt about my origin from the creation by God and accept that I am the entity of God.

What I learnt from my past experience and how I can change my life from my past experience, and how we blame other people, society and outer circumstances for our failures in life and that develops anger, anxiety, depression which to various sickness and disorders and financial pressures.

I really appreciated what the course have done for me in changing my life. Thank You to you George-Gabriel Berkovits.

*P. M.*

My life has improved a lot from what it was before. I have been treating my fellow Inmates well, and with respect as well with Warders and the reward is respect and better treatment from them. I know now my inner self and can control myself according to anger, self esteem and peer pressure.

I have also learned a lot about dignity and admiration. I look at myself as a very positive person and thank the Soulhealing course has change my life around and taught me to be honest and 100% truthful to myself. I am a person now with integrity after realizing that life becomes smoother when one applies these precepts. Now do able to handle the difficult or hard situation and how face a difficult situation.

*P. T.*

**I believe there is no man born evil** and every human being is unique in his or her own way.

Since I started to do the Soulhealing seminar I have found my true self and what I am capable of doing without any fear of being laughed at. I am able to express myself freely, be in control of my life.

From the beginning of time it was destined that at some stage I will be incarcerated and that will serve as an eye-opener in so many opportunities that life can throw at me. I never realize how special I am until I met Mr George-Gabriel who showed me all that I can be in this planet earth. Really being in prison is a blessing in disguise.

I regret committing crime but I don’t regret being in prison cause this serves me good in so many ways. My special request is to see this kind of seminar being funded to that it can be an on-going process since lots of Inmates want to do it not for the fun part of it but for the healing and teaching it does to us.

*R. N.*

I am highly being motivated by your words, they are a real inspiration. At first I thought problems are part and parcel of human nature.

The result that it is up to an individual to change his/her mind to the better decision making, thinking pure thoughts and practice every good you preach..

About ignorance: “true” there are things that must be ignored like our past failed life’s plans or whatever it may be that you failed from. But everything that brings fear to your life you have to change that situation and take away fear from yourself because we’ve never being given the spirit of power and victory.

The seminar of Soulhealing, it injected my mind with a quality mindset of solving problems of any kind.

*K. T.*



# Whale Wars and Dangerous Vegans

“Sometimes, when people do not see the path through enlightenment, you must scare the hell out of them first”.

*The Dalai Lama, speaking to the crew of the Farley Mowat.*



by RAFFAELLA DELLE DONNE

**W**HEN THE PRESIDENT of the Japan Whaling Association accused the radical environmental group, Sea Shepherd of being “dangerous vegans”, not many people knew quite how literally he meant it.

Brandished as militant activists, the crew of the *Farley Mowat* take on whale hunters armed with the infamous ‘goo gun’ that shoots rotten tofu and even, on some occasions, spoiled pie-filling courtesy of the U.S. marines. But for the volunteer crew of the Sea Shepherd’s flagship, it’s not all about fun and games trying to single-handedly sabotage the relentless slaughter of the world’s largest mammals. For almost three decades, dedicated members of the Sea Shepherd Conservation Society have risked their lives on the front-lines of environmental activism in their determination to shut down illegal whaling and sealing operations.

In January this year, the *Farley Mowat* entered South African waters to dock at Table Bay harbour and, instead of receiving a hero’s welcome, was detained by the South African Maritime Safety Authority (Samsa) after it was alleged that it did not comply with the correct safety regulations. Although the *Farley Mowat* has been registered as a yacht in Canada for the last 10 years both the South African and Canadian authorities now claim that it should be registered as a commercial boat and therefore

requires certified crew.

**But the all-volunteer team are convinced that their detention was politically motivated and that the action taken against them by Samsa was a direct result from pressure by Japan to keep the activists from returning to Antarctica.**

Amidst claims of an illegal whale meat trade between Japan and Cape Town, they believe that it is no coincidence that they were detained just two weeks after a hair-raising encounter with two Japanese whaling ships. One of which almost ended in a head on collision with the *Nisshin Maru*, a staggering 8 000 ton factory ship on which they butcher and pack harpooned whales.

After being detained for almost six months the crew of the *Farley Mowat* slipped out of Table Bay harbour under the cover of night on Friday 16th June. With them, on board was 19 year-old Gemma Kay Koyd, the second South African volunteer in the history of the organisation.

In a world where whales are hunted illegally, despite the moratorium on commercial whaling by the International Whaling Commission (IWC) since 1986, it is no surprise that the dedicated activists felt they had no choice but to hoist their pirate flag and high-tail out of Table Bay harbour. Last year alone, Japan killed over 900 minke whales and 10 endangered fin whales, while plans are in the pipeline to





## Farley Mowat?

Farley McGill Mowat (born May 12, 1921) is a conservationist and one of Canada's most widely-read authors. Many of his most popular works have been memoirs of his childhood, his war service, and his work as a naturalist. His works have been translated into 52 languages and he has sold more than 14 million copies of his books. Adding to that, a movie about his experiences with wolves, *Never Cry Wolf*, was released to widespread popularity in 1983.

The Sea Shepherd Conservation Society ship *Farley Mowat* was named in honor of him, and he frequently visits it in order to assist it on its mission.



Most commercial whaling occurs in the Southern Ocean Whale Sanctuary, an internationally recognised reserve, home to 11 out of the 13 great whales found on the planet.

But as one member of the *Farley Mowat* crew scathingly pointed out to me: “[the United Nations World Charter for Nature] it’s down on paper but it’s not worth anything.”

It occurred to me, at that moment, how ironic it is that this motley crew of passionate activists are regarded as anarchists or criminals when they are willing to risk their lives to uphold laws and treaties that no other country seems to be policing. Under the leadership of its founder Captain Watson, Sea Shepherd has employed controversial, yet effective techniques to successfully shut down seal hunts in Ireland, Scotland and England.

Paul Watson, an original founding member of Greenpeace, formed his own break-away organisation in the late 1970s out of a strong conviction that protest alone wasn’t going to save the whales. Since then, Sea Shepherd has had an uneasy relationship with Greenpeace, to say the least. I don’t think that calling Greenpeace the “Avon ladies of the environmental movement” in reference to their door-to-door fundraising helped either. Greenpeace has distanced themselves from Sea Shepherd for being too militant and violent but according to one of the *Farley Mowat*’s engineers, Dan Villa, this is the least of Watson’s concerns: “The captain says he doesn’t care what people call us, the whales and the seals are our

clients. The people that are killing all the life in the ocean are the real terrorists”.

Although the crew admit that they have no qualms about destroying property, no one has ever been harmed. If anything, their ‘we-mean-business’ tactics such as ramming whaling boats or positioning themselves as a human shield between the whales and their hunters is tempered with a healthy dash of humour.

**Apparently, the flamboyant Captain Watson is known for hoisting the ship’s Jolly Roger and blasting Wagner’s *Ride of the Valkyries* when he is getting ready to ram a whaling ship.**

They might be eco-terrorists to some but to others they are hailed as whale warriors. In fact, when the crew of the *Farley Mowat* met with the Dalai Lama he presented them with a small statue representing the spirit of compassionate wrath that is now proudly displayed on the ship’s bridge. The spiritual leader of Tibet, a committed environmentalist himself, encouraged the crew saying:

**“Sometimes when people do not see the path through enlightenment you must scare the hell out of them first”.**

It is not just the Dalai Lama that supports Sea Shepherd. Celebrity supporters include Pierce Brosnan, William Shatner and Martin Sheen.

And, as Captain Watson is fond of reminding his critics: “How can we go wrong when we’ve got James Bond and the President of the United States on our side?” 🌐

kill 50 fins and an equal number of endangered humpbacks. The IWC, an international body that regulates whaling around the world initially put the moratorium in place when it was becoming apparent that the whale population was under threat.

**However, pro-whaling countries such as Norway, Iceland and Japan exploit a loophole that allows a limited number of whales to be killed for scientific research.**

These nations have defended their actions by arguing that the only way to study and monitor the whale population is through lethal means. At the most recent meeting of the IWC on 16th June (the same day that the *Farley Mowat* slipped out the clutches of the South African authorities), representatives from different countries voted on whether to overturn the two-decade ban. Fortunately, the moratorium was upheld, but the battle was won by a mere two votes as an

increasing number of countries are lured, primarily by Japan, into the pro-whaling camp. The Japanese government insists that their generous contributions or “marine aid” to developing countries is by no means a way to win the 75% majority needed to legalise whale hunting.

However, from the outcome of this year’s IWC vote, it is clear that nations such as Nicaragua, St Kitts and Nevis and the Pacific island cluster of Palau, all of whom benefit from Japanese aid, are not prepared to bite the hand that feeds them. All voted with Japan at this year’s pow wow in favour of a return to commercial whaling.

Concerned environmentalists together with Greenpeace, Japan have spoken out against the government for using taxpayer’s money to bribe votes, especially in the face of mounting evidence that the majority of Japanese people oppose the slaughter of whales for commercial use.

# Beyond the School Wall

Could this be the catalyst for the major change that we are all so desperately seeking in our ailing education system?

by THE BIOPHILE TEAM

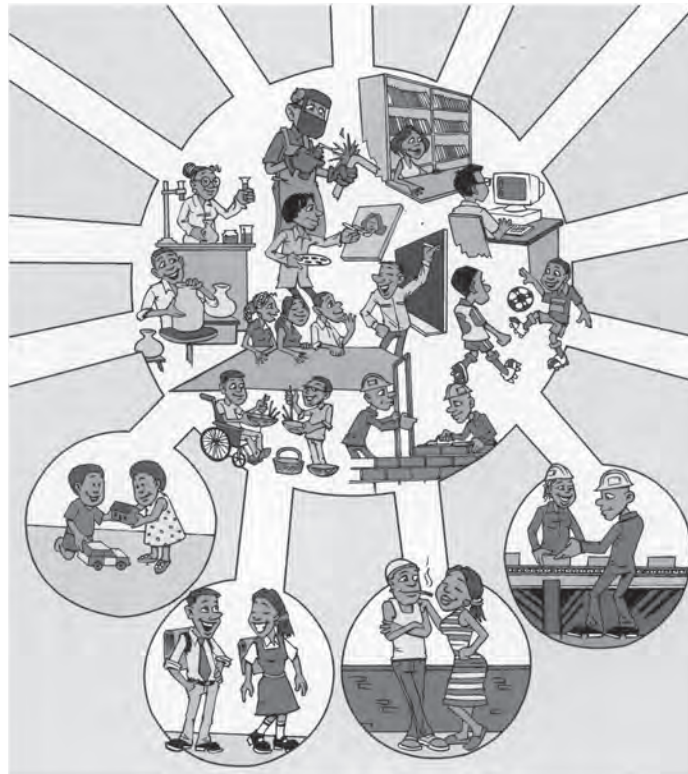
I WALKED ACROSS THE LITTLE GARDEN into the EMEP (the Extra-Mural Education Project) offices in a small house in Observatory, Cape Town, and immediately felt the buzz of the happy people working there. Their enthusiasm was tangible and the atmosphere warm and friendly.

I was greeted by Jonathan Gevisser, their director and founder, whose heart had the feeling and whose mind the range to put into being a dream of transforming schools into creative hubs of learning, art and play, and thereby feed more nourishingly the lives of thousands of school children and their families living in poor, historically disadvantaged areas of the Cape.

It started many years ago in the 70s, when Jonny was a post-graduate student in UCT's sociology department. He was living in Hout Bay and had befriended a group of poor children and their families living in a scattered informal settlement on the mountainside above. He spent time with the children, informally teaching literacy through story-telling, art and games.

With the support of Ellen Khuzwayo, a stalwart of the anti-apartheid struggle, and Betty Wolpert, a filmmaker living in exile, he started an educational film group for the squatter families, using a generator for power and a sheet as a screen, which led to craft-making and sewing groups for the women. Quite imaginable when you meet this eccentric, fun filled person, so obviously motivated by a strong desire to help children flower at each stage of their childhood, to make schools the most fertile,

## THE GOAL: The School as a Community Hub



### Direct, Safe, Local Access to Lifelong Learning, Recreation and Support Services — where people live

exploratory, creative and useful places to be, and to provide teachers with real, sustained support to shift from being 'loudspeakers for textbooks' to 'animateurs'".

Jonny and his dynamic team at EMEP have formed a unique, boundary-pushing partnership with progressive Education Department officials in three districts of the Western Cape to pilot an innovatively holistic extra-mural programme to reshape the school day so that the curriculum is not only

about 'bums on chairs, paper learning and IT' but enables a range of creative opportunities for the kids beyond the walls of the classroom, at a time when they would otherwise be on the streets, as well as for besieged teachers who don't have time for their many roles and responsibilities outside the 'traffic jam' of the classroom. Jonny says that his motto was originally about 'putting the fun back into functional' but that it's increasingly about opening up space in the very pressured school system

for 'children to be children' and teachers and parents to tap into this, and rediscover the wonder and happiness that comes from creative interaction as they play, explore, imagine, share and also, yes, contest together, and so discover and grow their humanity. As he says this, I notice a quote on the wall:

Dear Teacher:

I am a survivor of a concentration camp. My eyes saw what no person should witness: Gas chambers built by learned engineers. Infants killed by trained nurses. Women and babies shot and burned by high school and college graduates.

So, I am suspicious of education. My request is: Help your students become human. Your efforts must never produce learned monsters, skilled psychopaths, educated Eichmanns. Reading, writing, and arithmetic are important only if they serve to make our children more human.

— Author unknown; in Haim Ginnot, *Teacher and Child*.

"On a typical school day," says Jonny, "poor schools are empty before 8am in the morning, when so many arrive hungry and bullied, and after 2pm for junior schools and 2.30pm for high schools, except for those very few teachers who voluntarily give of their time to share their extra-mural passions, usually sporting plus a few arts like choir, dance, or drama. These extra-murals rarely involve more than 5 - 10% of the students, and usually only those with the most visibly developed talents. The rest pour onto the streets, or go

“The WCED considers the work of EMEP to be a major innovation and contribution towards education development and community empowerment in the province. My colleagues and I are of the opinion that EMEP will make significant impact at school, community and policy levels. We are including this project in the department’s plans, will second a key official, and are integrating EMEP’s ‘school as hub’ approach into the Human Capital Development Strategy. In doing so, the WCED is according EMEP special partnership status”.

**Ron Swartz, Head: Education, Western Cape Education Department**

home alone and unsupervised as latchkey kids, extremely vulnerable, and clear targets for abuse. But this neglected space may equally be seen as developable space: it presents a huge opportunity to us to target our efforts in a strategic and imaginative way, to the place where the largest developmental infrastructure in the land — our schools, is most neglected and yet most open to change.”

Jonny points out that throughout the developing world there are poorly managed, under-used schools, surrounded by communities in need, yet empty in the afternoons, nights, weekends and holidays, for at least three months of the year! These schools are usually the only resources in these communities.

“It doesn’t take much looking,” he says, “to see that this space can be used to transform the school system, to provide achingly-needed opportunities for our wondrous children to explore and play together, learn service, learn community, learn how to lead and how to follow, learn how to love well and fight well, and most importantly, learn that they’re okay, that they’re beautiful and strong and worthy!”

Jonny adds wryly, “It is such an unfortunate view underpinning too much educational theory and practice that education is about leading children to adulthood ... for if you look at this deeply, the ridiculous assumption is that a child is a non-adult! A strong case can be made that children are, well, children, and need to flower at each stage of childhood if they are to have the best chance of

being balanced adults. And for this, the curriculum needs to be humanised and activated, its content and pedagogy must harmonise with child development, bringing the spirit of childhood, which is discovery through play, into the foreground.

“To do this, teachers need to be exposed to a range of experiential learning, develop a wide set of skills in their pedagogical toolbox, and be supported by the system via flexible timetables and ‘small steps, small wins’ projects in high priority areas for the children, and that give an experience of success. This is what EMEP is addressing.”

#### **So who is EMEP and what exactly does it do, you may ask?**

It is a registered not-for-profit development organisation (an NPO, or NGO as they are also called), governed by a board of trustees, with a small staff of ten, almost all of them educational and community development practitioners.

EMEP aims to facilitate a national movement of schools growing extra-murally as community hubs, not only for their young learners but also after hours (nights, weekends and holidays) for youth out of school and adults (unemployed, under-employed and employed), as well as for early child development and child care. EMEP’s mantra is ‘schools as hubs of lifelong learning, recreation and support services’.

Says Jonny, “It’s not only about learning and results and standardisation, but also about service projects, *langarm* on a Saturday night, social games and crafts during weekday evenings (like EMEP’s popular soapmak-



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EMEP's phoenix is finally rising and this innovative organisation is now on its way to realising its dream of creating community hubs within the schooling system that allow the children to flourish and the teachers and parents to become part of a working, creative community.

ing programme) and about having access to support services like counselling, curative therapies, legal aid, an i-cafe ... and also critical space for community voices to be developed and heard, like what they call 'town hall' in the USA where local people meet around their needs and issues, from where they can engage with local authorities, make themselves heard, play a meaningful role. Schools are our key public resources and can be used much more imaginatively and optimally. We are restricted only by our imaginations. There are many hands willing to help."

**How does EMEP do this?**

They have three strategies. The first is demonstrating their model and keeping their own practice fresh. And here EMEP has been working for almost eight years with a small pool of four schools in Grassy Park, Lower Crossroads, Rocklands, and Nyanga.

EMEP's oldest partner in this pool, and their flagship school, is a poor but phenomenally dynamic primary school in Grassy Park called Sid G. Rule Primary. It is run by an entrepreneurial principal, Greg Vlotman.

The school has won many awards since EMEP first started working there eight years ago. They recently built their own school hall which they will use as a centre for community arts. Jonny says that EMEP can take only a small amount of credit for this, noting that all the capacity, energy, leadership, staff creativity was there, and that all that EMEP did was provide some strategy and structure and facilitation.

EMEP's second strategy is to spread the model through development training. They take on intakes of twelve schools at a time for a two year period,

training two teachers (one a senior manager) per school, as Extra-Mural Development Practitioners to facilitate their schools' extra-mural growth. The programme is provisionally accredited and is the first move to professionalise the sector. This was at the request of their donors and the provincial education department.

EMEP is midway through the pilot. The second intake of 12 schools starts in January 2007. Each intake then joins a growing network of schools. It is this network that will form the thrust of a national movement of schools growing extra-murally as community hubs.

EMEP's third strategy is to influence the environment through engaging and supporting decision-makers and inputting policy. Some of EMEP's innovative practices and proposals have already been included in government agendas, the most recent being the Western Cape's progressive Human Capital Development Strategy.

It started in 1991, when Jonny was awarded a much sought-after and highly acclaimed international fellowship from Ashoka-Innovators for the Public. This gave him three years to take forward the work begun in the 70s and 80s in black schools and then further refined over the next seven years as a language and games teacher at a more holistic Waldorf school.

Like most things ahead of their time that challenge existing systems, it is not an easy ride. After 17 years of hard work, with often more failures than successes ("Though we don't see them as failures," says Jonny, "but valuable lessons how to improve, become more awake"), EMEP's phoenix is finally rising and this innovative organisation is now on its way

to realising its dream of creating community hubs within the schooling system that allow the children to flourish and the teachers and parents to become part of a working, creative community. Sixteen schools and communities are now actively benefiting from this extra-mural programme and the numbers are growing by the year.

Their 10 year vision is ambitious and involves a national spread. This will depend on steady injections of funding and the continued partnership with government, to contribute towards training and support costs.

"This isn't easy," says Jonny. "Government's hands are full. We have to step up. They shouldn't be expected to do everything. Yes, they are the lead player on the democratic map, but only one player nevertheless. We all, civil society, business, labour, need to get gardening, let a thousand flowers bloom! There is too much policy and not enough *poli-do!*"

And his own biggest challenge? "Myself," says Jonny after a moment's pause. "We work with wonderful people and my biggest challenge is not to push, to work with their flow, somehow to do that dance between 'making things happen' and 'allowing things to happen' ... to project less, empty myself, listen more. Which means I have to work with my flow more ... which I haven't quite figured out yet!"

He says that an underlying metaphor for this work is of the ancient Chinese game of solitaire, with four quadrants of pegs in holes. However there is one open, empty space in the middle ... and it is that that allows the whole game to move, to open, release and change, and thereby ultimately to come single-point-

edly to the centre.

"We all need such open space," says Jonny. And it is our log-jammed schools, for him and his team, clearly the most important institution in society, that need this desperately. The potential extra-mural sector is just such a space, says Jonny quietly, passionately.

"It's about empowering the teachers to bring a little more space and creativity into their contacts with the children, to build their choice and voice and let them actually experience being changemakers by managing projects that interest them, have purpose for them.

"Teachers and students need to learn how to work effectively in groups, express themselves with awareness, own their own stuff, and feel okay about admitting mistakes", says Jonny. He quotes a teacher of his from India who said that "You must seek awareness as a person whose hair is on fire seeks the river."

**And the second biggest challenge?**

"Funding!", says Jonny unhesitatingly. "EMEP has been working quietly behind the scenes for many years with a very small pool of international and local donors. We now need to grow like bamboo, so our major task is now to find a few strong, developmental partners who see the gap, recognise the innovation, and are willing to invest in it and in us to make this marvellous project a reality."

All signs point to EMEP and their extra-mural project taking off. They have strong school, community and government support and a dynamic team. Hopefully corporate and philanthropic support is next.

Biophile will be watching their progress with great interest. 🌱

# ZERO WASTE COMMUNITIES

**C**OMMUNITIES AROUND THE WORLD have begun to adopt Zero Waste goals and Zero Waste Plans to implement those goals. The first community Zero Waste Plan was adopted by the Australian Capital City of Canberra in 1996.

Over half of the communities in New Zealand have adopted Zero Waste as a goal. Seattle, Washington adopted Zero Waste as a guiding principle in 1998. In California, the following communities have adopted Zero Waste goals: Del Norte County, San Francisco, San Luis Obispo County, Santa Cruz County.

Where best practices for eliminating waste, reusing and recycling discarded materials, and composting discarded organic materials are used, some businesses have diverted over 90% of their wastes from landfills.[6] Communities could adopt policies and programs to help their residents and businesses achieve similar results. If many communities adopted policies and programs to go beyond 50% waste diversion, the statewide waste diversion rate would rise significantly.

## Barriers to Zero Waste

1. Government subsidies favor wasting and extraction
2. The true costs of wasting are hidden, borne by the public and not factored into today's prices
3. Producers ignore responsibility for their products and packaging
4. Environmental and social costs of current system are not effectively addressed
5. Inertia of existing viewpoints and practices
6. Perception that land and natural resources are unlimited
7. Perception that technology will solve all problems
8. Perception that small individual efforts will have minimal impact on solving the overall problem.

## Key Policies and Programs for Zero Waste Communities

### Know Your Waste and Design It Out

1. Evaluate materials discarded according to the Urban Ore 12 Master Categories of discarded materials, determine how and where materials are discarded, and identify alternatives. Establish a monitoring and tracking database system that uses the Urban Ore categories to evaluate performance of diversion and source reduction programs by material type.
2. Design waste out of the system by holding

producers responsible for their impact. Ask product designers and marketers to consider Zero Waste to be a critical design criterion. Establish environmentally preferable purchasing guidelines to reduce resource use and cut air and water emissions.

### Adopt a Zero Waste Goal and Plan for It

3. Adopt a community-wide Zero Waste goal via resolution (see attached GRRN model) or an ordinance defining objectives and statements of policy.
4. Involve residents and businesses actively in the development of a Zero Waste Plan, including extensive education, outreach and input on the Plan's proposed policies and programs. Establish interim goals for 2010 and a target year to achieve Zero Waste goal (or darn close). Prioritize policies, incentives and programs to eliminate wasting and reduce the toxicity of discarded materials. Identify current waste elimination, reuse, recycling and composting policies and programs and select additional policies and programs from a menu of best practices around the world.
5. Work with other local governments and businesses to build useful alliances and share successes. Support state and federal policy that will enhance Zero Waste policies and programs. Support citizen actions to encourage businesses to change their policies and practices to move towards Zero Waste.

### Hold Producers Responsible

6. Hold businesses financially or physically responsible for their products and packaging manufactured and sold. For retailers, ask them to takeback products and packaging for problem materials not included in residential recycling programs, as in Ottawa, Canada. For contractors and developers, adopt requirements for LEED-certified Green Buildings, encourage adaptive reuse and deconstruction, and require recycling of construction, demolition and land-clearing debris.

### End Subsidies for Wasting

7. Adopt policies and economic incentives in Ordinances, contracts, franchises, permits, zoning, General Plans and garbage rate structures so that it is cheapest to stop discarding materials, and reusing, recycling or composting discarded materials is cheaper than land-filling or incineration.

### Build Infrastructure Beyond Recycling

8. Ask local businesses to adopt Zero Waste goals, to develop Zero Waste plans, to adhere to Zero Waste Business principles, to meet waste diversion targets, and to source materials that can be reused, recycled or composted.
9. Support existing recycling and composting businesses and nonprofit organizations and help them expand. Develop locally owned and independent infrastructure, on an open, competitive basis.

### Create Jobs and Sustainable Communities

10. Develop regional resource recovery parks to provide locations for expansion of reuse, recycling and composting businesses.
11. Fund community Zero Waste initiatives with fees levied on the transport, transfer and disposal of wastes and by leveraging the investments of the private sector. 🌍

## More about IZWA

IZWA, the Institute for Zero Waste in Africa, is a section 21 not for profit organisation and can be contacted via email at [zero.waste@iafrica.com](mailto:zero.waste@iafrica.com) or by writing to PO Box 701369, Overport 4067. IZWA is working towards a world without waste through public education and practical application of Zero Waste principles.

### IZWA's Charter Principles

1. Redesign products and methods of production to eliminate waste by mimicking natural processes and developing closed-loops
2. Convert waste to resources for the benefits of local production and the creation of a healthy and sustainable society.
3. Resist incineration and land filling in order to promote innovation in resource conservation and methods of production
4. Collaborate with others with common interests worldwide.

# Should we open up schools for parents?

The education of parents needs to go hand-in-hand with the education of their children.

by ROBIN BOOTH & TAHIRIH COOK, SYNERGY SCHOOLING [WWW.SYNERGYSCHOOLING.CO.ZA]

THEY WERE ALL NODDING THEIR HEADS in agreement. Three hundred and fifty teachers, principals and educators at the International Education Conference on Integrated Human Values, India, were thinking along similar lines. They were responding to a joke I had made, "It's the parents who influence the children most. They are the ones who need supportive education. We should therefore close the school to the children and open it up for the parents instead."

Suddenly my joke no longer seemed so funny as I gazed out over this undulating sea of consensus. Suddenly my joke became a serious proposition. If parents have such a powerful impact on their children's lives then surely they too need to be part of the schooling process. So should we be focusing on opening schools for parents instead of just trying to constantly alter the structure of a school, the curriculum we provide to the children or the demands placed upon educators?

At present I don't know of any other school which has a program for parents that is more than just an add on. Many educationalist and schools acknowledge this need and have provided parents with workshops, information evenings and support in varying degrees. But these have often been optional and sporadic. Public Parent-Centres have also been developed to support parents in becoming effective parents. Public schools often use their PTA meetings as an opportunity to impart information about effective parenting to those who attend.

Generally speaking, these programs and workshops are voluntary and do not facilitate self-discovery and personal transformation. I have noticed in my own work that children tend to reflect their parent's emotional and behavioural patterns. For this reason, I feel that the education of parents needs to go hand in hand with the education of children. A sprinkling of voluntary workshops designed to impart information rather than facilitate self-discovery is inadequate.

The three hundred and fifty heads all nodding in agreement to opening up schools for parents, points to a sense of agreement

that if we support parents in their development and relationship to their children, we will see the positive changes in their children naturally and automatically. It's often not the children who need to change, but first the parents and as a consequence the children's views and behaviour patterns shift. Parenting is about taking charge of the development of their child, but who is there to support the parent in exploring this commitment and responsibility? Who is to say that schools should only focus on the education of children?

So perhaps this leads to an awareness that the educational context could be broader than just 'child-centred' or 'parent-centred'.

changed over time and schools remain a dynamic space within society. Perhaps this becomes clearer if we look back at some of the shifts which have occurred in schooling in recent times.

The industrial era brought about a rapid increase in the number of schools in our society. With both parents moving out into the work force, their children needed to go to some place safe, and to learn certain skills that would support them in obtaining employment. Much focus was placed on the curricula and content, with little regard to individual needs or the needs of human and personal development. School was a place where you needed to go to obtain information



The next step may be to see the parents-teachers-children relationship as a triadic approach with neither one being seen as more important than the other. By doing this more emphasis is placed on the relationships between these participants opposed to on a specific individual and it seems that schools are the perfect place to support this process.

**Many may argue that this is not the purpose of schooling and that schools have been created to focus on training children to become productive members of society.**

However, the purpose of schooling has

and knowledge. With the mass production of books and the introduction of the information age, this information was no longer limited to the schooling environment but readily available from libraries, books bought off the shelves and of course the Internet.

Children no longer needed to go to school to obtain all this information. As such, the curriculum has adapted slightly by placing more emphasis on learning skills opposed to the memorising of content and data. Schools began a shift from 'content-centred learning' to what may be called, 'child-centred places of learning'. The understanding behind this

is that by placing the child at the centre of the educational process, we would be able to accommodate their needs more. Children would be seen as unique individuals with specific needs and not solely a number on the educational conveyor belt.

This recent shift to “child centred” education has had a dramatic impact on contemporary education, but children are not just individuals, they are individuals-in-relation-to-others. They develop in the greater context out of their relationships to others. Their perceptions, their views, their beliefs and attitudes are formed by their interactions with other people. So if you wish to support a child in changing ineffective attitudes or perceptions they have on themselves, (most noticeable their levels of self esteem), then perhaps we need to look to the parents and teachers first as they are the ones who need to shift.

### **Using the triadic approach, how can we create a learning environment for all the teachers, the parents and their children?**

Can we explore a curriculum that looks broader than just developing the academic and personal development of the children? Can we create time and space for teachers

there is any specific recipe which can be implemented. What schools implement will depend on their understanding of what effective parenting is and the priority (i.e. time and finances) they place on supporting the parents.

Some schools may request parents spend one day a week in the schooling environment. Other schools may say once a month, or once a term. Schools may say that a certain number of the workshops on offer through the school are compulsory. Maybe parents need to read certain articles, or books, or meet once a month with other parents to debate and explore their understanding of how to develop their parenting skills.

It could include parents writing termly reports on how they see their child’s progress and development.

It could include the keeping of a reflective journal or a photographic journal.

It may be frequent conversations with the child’s teacher.

It could be a certain number of life coaching sessions that empower and support the parents in consciously creating the life they wish.

It may be a programme of activities that would support relationship building

programmes need to ensure that parents are engaged with their child’s education as well as their own personal development in a structured manner through the school.

### **At Synergy Schooling we are moving towards the implementation of such a programme for parents.**

These programmes will support the following skills, values and patterns listed below which we feel contribute to effective parenting:

- Treating others with respect (you don’t have to like them),
- being passionate,
- taking risks,
- being assertive while at all times respectful (i.e. full of respect),
- being proactive,
- owning your own stuff and stop blaming others for where you are at,
- to make others feel understood,
- being compassionate,
- being effective communicators,
- being on time,
- being committed to what you say,
- say what you mean and mean what you say,
- work towards understanding another’s understanding of the world,
- be tolerant and patient,
- have informed judgement,
- follow your dreams,
- be empowered and decisive even though you don’t feel like it,
- take full responsibility and understand that you are fully accountable, whether you want it or not,
- be sincere and authentic,
- engage and participate,
- make and handle agreements impeccably and with integrity

After my talk at the educational conference in India, I was inundated with people who thought this idea was really exciting. Many people warned to know how they could involve parents more in schools. It is important to acknowledge this is not an easy process and one that will take time, but as the three hundred and fifty nodding heads have confirmed, it is an essential change which needs to take place.

As teachers and parents we bring our own growth and development into play. We have to value educating ourselves as well in the current context of education. We are, ourselves becoming and changing, in a passionate, compassionate, and aesthetic relationship with those we are interacting with. We help make one another who we are by how we treat one another. 🌍




to develop their own sense of self, and for parents to explore their own interactions with their children? But perhaps more importantly, are we willing to take a stand that this is no longer a selective option for some parents but now becomes an integral part of the educational process for all?

Schooling as a process where parents (care givers) as well as children are enrolled in to the educational environment.

So what may an effective parent programme and curricula look like? My initial response to that question is, “What ever you wish for it to be like.” I don’t think

between child and parent. It may include workshops and assignments on effective communication, conflict resolution or the building of self esteem. It may be just the acknowledgement that by enrolling yourself as a parent in the schooling process, you are acknowledging that you play a primary role in the development of your child.

Whatever form an effective parenting programme may take, it needs to ensure that parents are able to understand that their child’s development and education cannot be separated from their own development and learning. Effective parenting



When applying Zipf's Law, our DNA appears to be a language!

**W**HERE DO WE COME FROM? Who made us? When? Why? The fact is, Homo Sapiens is the only new kid on the block. We have blessed ourselves with the name 'wise man'—in fact, Homo Sapiens Sapiens—doubly wise. We obviously think ourselves to be smart! Why then do we have so few answers regarding such questions?

Bill Bryson's book, *A Short History of Nearly Everything*, makes it very clear that we are a unique species which appeared in a narrow window of opportunity of Earth history. It's actually

filaments of DNA, (which account for our genetic make-up), why is it that this too seems to be largely useless, in fact described as 'junk'?

While the majority of our species are not overly concerned with such issues, our scientists don't like mysteries. Francis Crick, the scientist who cracked the code of DNA, found it impossible to accept that this complexity came about through 'accident'. Neither could Fred Hoyle, who developed the theory of Panspermia, to account for the origins of the DNA (which remarkably we have in common not only with mammals, but also of insects, bacteria and viruses!). This holds that meteors and comets from outer space were responsible for bringing these basic building blocks of life to Earth.

Yet answers have been provided from ancient times. The earliest civilizations left us evidence carved in stone or clay tablets, which has only been de-coded in comparatively recent times.

Christian O'Brien's book, *The Genius of the Few: Founders of the Garden of Eden*, Alan Alford's, *Gods of the Millennium*, Andrew Collins' *From the Ashes of Angels*, and South African author, Michael Tellinger's recent

# Beliefs and Reality

The origins of Man, and why what goes round comes round...

by DR ELAINE LEE

amazing  
that we are  
here!

Modern scientists have spent the last few decades unravelling some of the basic physical secrets of humanity: how the brain functions, and how our biological reality is based on the protein-building blocks encoded in our DNA.

Both areas have left us with unanswered questions: given the vast, almost infinite potential of the human brain, why is it so under-utilised? Given that each cell in our body is packed with microscopically small

(2005) *Slave Species of the Gods*, have all been attempts to illustrate with documentary evidence that early civilisations were in fact brought about by extremely sophisticated beings, Nephilim or Anunnaki, whose powers led the indigenous Homo Sapiens crediting them with being 'gods'.

Whilst such ideas initially seem bizarre (and are dismissed by many archaeologists out of hand as esoteric) it would seem that the time has come when we have to re-consider our belief systems.

It has always disturbed me that neither historians nor archaeologists have been able to provide satisfactory explanations for anomalies such as the ability of 'primitive' man to move from a 'hunter-gatherer' existence in the Ice Age, to the sophistication of building pyramids immediately thereafter!

The abilities demonstrated by the earliest



civilizations appeared dramatically. The understanding of astronomy, mathematics, building, and mining techniques demonstrated not only in 'Ancient' Egypt and Sumer, but in South America, China and Korea, are such that only in the past century have we been able to equal or surpass them. Yet in our arrogance, we assume that over the last few hundred years our technological achievements mean we are the pinnacle of human development!

In reality, we are only just beginning to regain the knowledge we had over 6,000 years ago. The *Book of Enoch* was omitted from the Bible—but it is an amazing description of Enoch's visit to "Heaven", with descriptions of technology which could have been 21st century!

The people of the ancient civilisations had few doubts as to who they were, or who had given them these 'skills'. They left us detailed explanations.

Zecharia Sitchin analysed thousands of ancient clay tablets from Sumeria, and there found amazing stories which led him to the conclusion that the early gods were physical beings, who brought us the knowledge on which civilizations were built. These accounts were published in a number of books from 1978 on.

He told the story of Enki and Enlil, and the decision of the Council to create a being, a man, who would resemble them and who "will be charged with the service of the gods, that they might have their ease" (Sitchin, *The Cosmic Code*, p.51).

At first Sitchin's work was met with derision. Yet the stories are not dissimilar to what we read in the Bible: "Let us make man in our image, in our likeness..." "The Lord God took the man and put him in the Garden of Eden to work it and take care of it..." (Genesis 1.2-6 and 2.15). In Genesis we also read about the inter-breeding between the 'sons of God and the daughters of men', (Genesis 6.1-4).

At the time of Sitchin's early work, we knew little about cloning, or about genetic modification of plants and animals, and even less of the secrets of DNA. Hence when he claimed that the "Anunnaki" cloned the initial hybrids, and manipulated our DNA, it all seemed far-fetched, 'science fiction'. Now we know that modern scientists are playing 'god' in this fashion!

After the unravelling of the human genome, it was found that only 3% of our DNA is required (coded) for the production of the physical body, and 97% was deemed to be "junk" or non-coded areas. What was its purpose?

Graham Hancock, famed for his work, *The Fingerprints of the Gods*, has recently pub-

lished *Supernatural*, (Century, 2005). Sub-titled 'Meetings with the Ancient Teachers of Mankind', it is an attempt to explain the 'greatest riddle in human history'—how all the skills and qualities of modern man appeared fully formed, "as though bestowed on us by hidden powers".

From the Palaeolithic cave paintings of Europe, to the visionary experiences of shamans and the founders of early religions, he takes us on a journey of discovery. Hancock points out that one of the most significant aspects connected with DNA, is a strange even mysterious link with the linguistic codes of language. This is a ratio, documented by linguist George Zipf, between the most commonly to least commonly used words. It is common to all languages.

Researchers from Boston University and Harvard Medical School examined the DNA sequencing and amongst other things applied the standard linguistic tests to both "coded" (i.e. the basic protein-building blocks that make up our physical being) and "non-coded" areas (the 'junk').

The amazing outcome was that the Zipf law did NOT apply to the coded areas, but DID apply to the "junk" areas! (Hancock, 484-5).

Our amazing DNA would appear to be a language! But one that we have not yet apparently learnt. Or have we?

It is some years now since the advent of neuro-linguistic programming, NLP, which is based on the premise that our words act as a programme to our brain. Long ago Henry Ford said, "Whether a man says he can, or he can't, either way he's right".

This relates to the biblical text: "As a Man thinketh in his Heart, So is He". We become what we believe, and a belief in limits creates limited people.

This is borne out by work done on brain biochemistry, which demonstrates that negative or fear-based thoughts stimulate the production of adrenaline and cortisol. Cortisol is a known neural-inhibitor—that is, it blocks the transmission of neurotransmitters from one brain cell to another in the neo-cortex.

Our thoughts are both chemical and electrical, and that energy not only influences us at a cellular level, but it radiates out from us to others. Like attracts like—send out waves of negative energy, and it returns. This provides us with an explanation for that other Biblical tenet, "Man attracts that which he fears".

**Be careful what you wish for, you might just get it.**

We have been governed by our fears; it is time to eliminate these, and accept our inner power.

A very graphic illustration of this has been provided by the work of Japanese scientist Dr Masaru Emoto (see page 13 for news about Dr Emoto's visit to South Africa later this year). He has worked with photographing crystals formed in freezing water. His initial experiments showed that water from a negative environment reacted completely differently to water from temples and other positive places.

The former molecules were misshapen blobs, the latter formed exquisite and unique snowflake-like patterns. His amazing work in subsequent books went further: water placed in containers labelled with positive words similarly resulted in crystals, while that in containers with negative sentiments—I hate you!—resulted in formless, dark shapes (*The Hidden Messages in Water*).

What are the consequences for us as emotional human beings? We are largely made up of water, and if hate thoughts influence our very basic physical being, we



**Enki as portrayed on an ancient Sumerian cylinder seal.** Enki, the Sumerian high god of water, intellect and creation, was the source of all secret knowledge of life and immortality. Enki possessed the secret of culture and civilization and created order in the cosmos.

should avoid them! I have tried this with my own students. When someone appears disturbed or angry, I gave them paper cylinders inscribed with the words, Love, Peace, Harmony—and watch the change!

If our expectations are negative, and our words reinforce these, we are contributing to the negative world we live in, governed by fears. Do we want this? If we can accept that we do indeed create our own reality in the sense described in the foregoing, then the challenge is to create the world you want—There's a lot to be said for positive thinking! 🌍

# Controlling garden pests with their natural enemies and diseases

Garden pests and their natural enemies co-exist in balanced populations in well-managed organic gardens. All you have to do is sit back and let them get on with life, and you won't have a problem with losing your crops to the 'bad guys'.

by PAT FEATHERSTONE

***"Nearly half of all the food produced in the world today is lost to insects despite the fact that the use of pesticides has increased so dramatically. In 1945, when pesticide use was very low in the USA, maize crop losses were around 3.5%. In the late 1990's, with one thousand times more pesticides being used, crop losses were estimated at 12.5%."*** (Pimentel, 1995)

**P**ROGRESS HAS NOT BEEN MADE in the war against insects because they are developing immunities to pesticides, and because the natural predators and parasites are being destroyed along with them. So when you see some bugs in your veggie patch and you spray them with poison, it backfires on you. In a few days, or a few weeks, the same kind of bug is back again but, this time, there are more of them than before. Why does this happen?

You accidentally killed off the pest's natural enemies along with the pest. It is not always possible to kill off all the pests, apart from which you didn't spray the neighbourhood gardens that may harbour them, and so without any natural predators or parasites to hold them in check, those that didn't die, or those that flew in from elsewhere, are able to multiply without restriction.

Natural enemies do not usually reappear as quickly as the pest, and some insecticides are more toxic to predators and parasites than to the pests. At the same time, resistance to the poison sprays is developed. Individual insects have different levels of resistance to the sprays. Every time you spray an insect population, you change the balance between susceptible and resistant individuals. The resistant individuals survive and reproduce; most of the susceptible ones die. So it follows that the more pesticide you use to control the seeming problem, the faster

you produce a population of resistant pests, and the faster you lose your entire crop.

There is some good news though. Convert your gardening methods to an organic approach and at least two-thirds of your pest problems disappear. Don't be tempted to think "What can I use instead...? What if...?" This is the wrong approach. Rather think along the lines of avoiding pest problems by managing your gardening correctly. This is about good gardening practices like building healthy soil, planting mixed crops, following crop rotations and seasonal plantings, companion planting, using resistant varieties, creating physical barriers and/or traps and creating habitats for frogs, lizards and birds. Many ideas have been given in previous issues of this magazine.

Allow your garden to take control of itself, and populations of natural enemies will re-establish themselves. Pest problems will become history.

### What are natural enemies?

There are three types of natural enemies:

• **Predators which eat insects.** Predators include spiders, ladybirds (watch out for the imposter ladybirds that have turned vegetarian and attack potatoes, beetroot, spinach and members of the pumpkin family), and wasps, praying mantids, lacewings and dragonflies.

Each predator can eat hundreds, even thousands, of insects in a lifetime. Some, like spiders, have been shown by DNA-based techniques which analyse their stomach contents, eat a wide variety of insects. For example, Money spiders (Lynxyidae) are prized by farmers in the UK for their voracious appetite for aphids. But aphids have little nutritional value and spiders need to eat other insects to balance their diet. Predatory insects (and arachnids) do not damage crops.

• **Parasites.** Most of these are insects that lay their eggs inside the body of a living insect called a host. The parasite feeds on its host until it finally kills it. Then the adult parasite emerges from the dead host and searches for more insects to lay its eggs in. Using parasites is a slower way to kill pests but it is effective. There are many examples of insect parasites in your own (unsprayed) garden. Take the time to find some of them.

• **Diseases carried by viruses and fungi can infect insects and kill them.** Because the disease is carried among the insect pests in your garden, whole populations can be wiped out quickly. For example, when caterpillars are a problem you can use a Bt spray which contains *Bacillus thuringiensis*, a soil-borne bacterium harmless to human beings and animals. The Bt bacterium produces a toxin which when ingested, causes the caterpillars to stop feeding, become ill and die. It is lethal to a variety of insects, particularly the larval forms of moths and butterflies and is quoted as being about 90% effective.

The Cabbage White butterfly (*Pieris brassicae*) is a common site in the vegetable garden and illustrates a number of examples of biological control in action. This species was accidentally introduced to the Western Cape from Europe (first sightings were reported in 1994) and it has since become a significant pest, particularly to small-scale farmers and home gardeners. Its green, black and yellow larvae cause a lot of damage to the mustard family (Cruciferae), particularly cabbage, broccoli, cauliflower and rocket, and also to nasturtiums. Interestingly its preferred local food plants are also introduced species.

The butterfly tolerates both hot and cold weather, seems unperturbed by the raging south-easters and broods continually through the year, laying up to 125 eggs at a time. Populations surge in the cold months. It has the potential to become a serious pest.

Mother Nature, left to her own devices, has deftly stepped in with a few nifty solutions for its extermination, at best, or to keep its population in check:

- **Argentine ants** – aggressive aliens – have been observed to feed on, and carry away, the first instar (newly hatched) larvae; one way to curb population growth.

- **Two species of Tachinid fly larvae** have been recorded as parasitising the Cabbage White caterpillars. The adult looks like a small hairy housefly and survives on the nectar of flowers, but the larvae live as parasites on other insects. They do this in one of two ways. Small, white, oval eggs are laid on the

gut wall and proceed to feed, leaving the poor victim's vitals to the end. In order to get the air they require, they pierce the body wall of the host and send their own breathing tubes to the surface or connect directly to the respiratory apparatus of the caterpillar.

- **If you have a vegetable patch** you may have noticed butterfly pupae attached to the wall of your house. Periodically you'll have the joy of watching the crumpled adult emerge, blow up its wings and take off into the garden. Often however, these cocoons remain intact; nothing ever comes out of them. That is a sign that Nature is at work or, should I say, that wasps – 'ecowarriors' in the caterpillar war – are doing their job.

the wasp grubs are ready to pupate and then they start nibbling at the brain. This brings about changes in the caterpillar's behaviour and it leaves the food plant and migrates up any vertical surface in the vicinity, in a premature attempt to pupate. The wasp grubs finally kills the ailing caterpillar, and emerge to spin tiny cocoons covered in a golden nets which will protect the pupating wasp larvae from attack by other parasites. Clusters of these cocoons can often be seen on vertical structures in and around your garden and home. You would have to be very observant to notice the little black wasps that emerge from them to continue their life cycle.

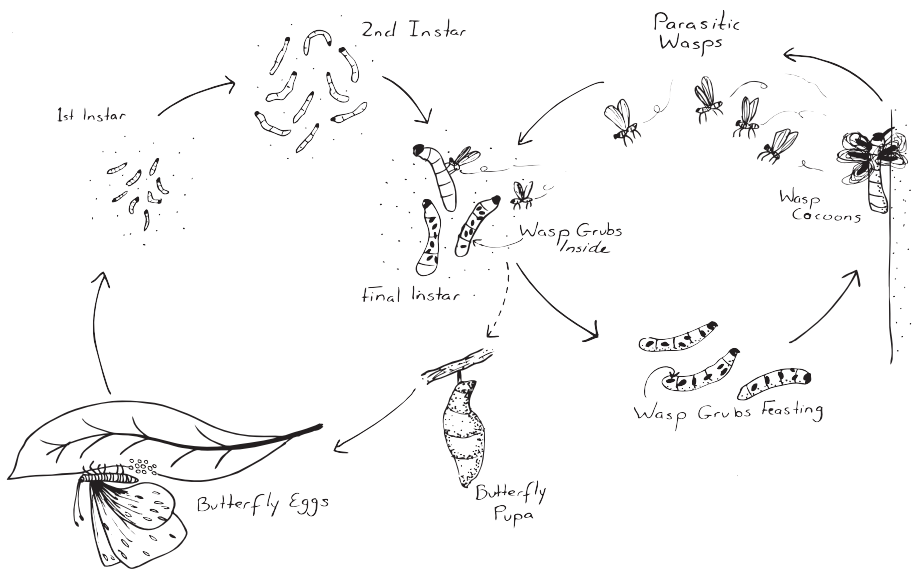
Unfortunately, as was mentioned earlier, populations of the Cabbage White butterfly increase quite dramatically in autumn and winter because the wasps do not tolerate the cold quite as well, and their activity levels are reduced. As the saying goes, 'when the cats are away, the mice do play'.

So successful are these techniques that Ma Nature has up her sleeve that some of these insect warriors are being shipped around the world. Overseas you can buy them from mail order catalogues, and fly them into your own garden, orchard, small holding or farm; ladybirds, lacewings, wasps, praying mantid egg cases – they're all in demand. A cup or two of ladybirds would be enough for the average garden, and give them a balanced diet too, as they feast on a huge variety of adult insects and larvae. Lacewing larvae have an insatiable appetite and can consume a few hundred aphids every two hours. Who needs poisons with allies like these?

Encourage the natural enemies to your garden by growing many different food crops and herbs and by keeping trees and shrubs and flowers growing around the boundaries.

Apply organic fertilisers and loads of compost instead of nitrogen fertilisers. Experiment with different natural sprays and repellent crops.

The important thing is that you try different techniques and find the best ones for your situation. In the end you will discover the best programme for managing any problems that arise in you garden. 🌱



outside of a caterpillar of another species. The eggs hatch into tiny maggots which bore into the living victims and devour them – first the body juices, then the fat, and finally the vital organs. The victim succumbs, and eventually only one brawny, hairy adult tachinid emerges. The other maggots were out-competed. Other tachinids lay lots of tiny eggs on the surface of food plants and these are swallowed by grazing caterpillars.

The emerging maggots bore through the

Cabbage White populations are checked by a tiny, indigenous, parasitic wasp, *Pteromalus puparum*. The female wasp lays her eggs in the body of the final larval stage of the caterpillars and the her grubs feast on the tissues of the host. They follow the same pattern of consumption as the Tachinid maggots – it would be unwise to kill the host before the grubs are fully developed – and attack the nervous system last of all. The caterpillar remains alive, and fresh, until just before

## To all who must eat to live, there is hope: **GROW YOUR OWN FOOD**

It's the simplest (and cheapest) way to good health. Soil For Life is a Cape Town-based NGO which teaches people to grow their own organic food. Soil For Life membership costs very little and entitles you to access to fresh, low cost seed (R2.50 a packet), access to the Resource Centre, a telephone advice service, a quarterly newsletter and an opportunity to help others to help themselves. Become a part of the food-growing culture in South Africa. **Soil For Life membership forms can be obtained by phoning Pat or Moira on 021 794 4982 during office hours.**

# Ancient Ways

Rodney and Margaret Crisford opened Ancient Ways, a new age shop in 2001. To meet the need in the area for a shop that catered for the people who required goods associated with being able to live in harmony with the environment, i.e. Nature based religions, Alternative healing etc. The shop is a virtual Aladdin's cave, carrying a wide selection of books, CDs, crystals and stones, essential oils along with magical and Shamanic items. Many of the items are hand crafted by local artists and their selves such as the wands, witches brooms, Shamanic drums, Native American style ceremonial pipes, pipe bags,

crane bags, tarot bags, dream catchers, medicine shields, dragon sculptures, and smudge Stix. Most of the material for these items is gathered locally, and great care is taken with the collection of all materials so that it has a negative affect on the environment.

The love and reverence put in to these unique items can be seen in the end results and are only available from Ancient ways. Rodney and Margaret are both practicing Wiccans and Rodney has an associate degree in Conservation studies and a diploma in game ranch management, so that they are able to offer help and advise to enable people to

live in harmony with their environment.

**Ancient Ways' specialty is spirituality orientated toward nature, Goddess and Pagan heritage, Earth-centered religions, embracing our past, celebrating our spirit, restoring our world, and creating our future.**

Their shop can be found in the Ou-Fabriek corner of Main and Grey Streets, Knysna.

**Contacts:** Tel. 044-532-7571. Cell. 082-552-7187  
ancientways@absamail.co.za  
www.ancientways.co.za



## ANCIENT WAYS

**New Age Shop. Nature Based Religions. Alternative Healing, Books, Crystals, Stones, Essential Oils, Magical and Shamanic Items.**

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Tel: 044 532 7571 Cell: 082 552 7187

## YOU DETERMINE YOUR ATTITUDE

Your attitude is not determined by circumstances, but by how you respond to your circumstances. You can respond positively or negatively to any situation. It's how you react to events, not the events themselves, that determines your attitude. Any challenge facing you is not as important as your attitude towards it, for that will determine your success or failure. Things turn out best for the people who make the best of the way things turn out. It's not your *position* but your *disposition* that counts.



# Anastasia

## and the Ringing Cedars of Russia

### Restoring mankind to a state of grace

*Anastasia* and subsequent volumes tell the story of a return of mankind to a state of grace through love, actualizing real love to everything around us and keeping our thoughts, hearts, minds in the place of love, touching with love the earth and celebrating the God's creation through loving it and caring for it.

I think the most important lesson for us is to move back to the work of the Creator and away from ways which destroy it. That is what I take from the Series and find myself inspired to work harder and being joyous, thankful and loving.

In my own life, our family works toward goals that aren't measured in dollars, which is a much richer life than working

for material wealth. We have a certified organic and wild crops farm, so I am very receptive to the medicines of the earth and see the importance of people interacting in a healing way with God's Creation - the earth.

In a very humble way, our work with native plants on our farm could be seen as demonstration of a way people can take some of the Ringing Cedars ideas and put them to work.

I think if people find a larger purpose for their lives than collecting material goods, everyone will be happier rediscovering the scope of humanity's tools from the Creator. The Ringing Cedars books help with explain-



ing ways to have a richer life, raise healthier children, filling one's heart rather than one's pockets. If we don't discover new ways of being human beings and put them to work, if we don't have a spirit rich enough to live with love and respect for God's creations, we have no future.

PENNY FRAZIER 🌿

# Creating our reality

Accepting our role as Conscious Creators

by ZANNA SCHILBACH

“These are the times, we are the people” *Jean Houston*

Judaism and Christianity promise a time when the covenant with death will be broken. Yet it is always for the people of future generations, never here and now.

Well, there are those of us who feel that we are this “future” generation.

To accept our role as Conscious Creators, we need to first and foremost come out of denial, and accept responsibility for the situation we live in, personally and globally.

All the dangers that we are exposed to – from the possibility of mass nuclear extinction, to global warming, climate and Earth changes (to mention only a few), are no accidents of nature or God’s will. They have been created by us, or our “44th cousin” (as apparently no one on the Planet is further away from us than our 44th cousin).

Taking responsibility is not about blame, condemnation or punishment.

Taking responsibility gives us back our power, first to clean up the “mess”, then to intend and create the present to enjoy, and the future to look forward to.

The passion to awaken to this cannot come if we believe that we only have power to attain certain things, yet have no power or say in the matters of life and death.

**“All healing is temporary, until we heal death”**

*Leonard Orr*

So it does not make sense to believe that we create our reality ( the job, the partner, the house, the money, the health, longevity, etc), yet have no say in grand matters – like the destiny of our Physical Form ( our Body) or the future of this Earth.

The next step in taking responsibility is to heal ourselves.



Insecurity and doubt (about who we are), “not good enough, not enough, life is a struggle, death is inevitable” beliefs, and other childhood and genetic traumas need to be transmuted, integrated, healed, and the ignorance forgiven. It is of course not a “simplistic task”, yet there is no way around it.

Besides, these “hidden wounds” are the core problems of addictions and abuse of ourselves, one another and this Earth.

Thirdly, we need to start living in the Now, with the awareness of Who We Are (made in) “The Image and Likeness of our Creator”.

“One of the great advantages of immortality is that it will finally allow us (or force us) to tackle the truly long-term problems that we face today (environmental, overpopulation; to name only a few), rather than passing them on to future generations.

“Why worry about global warming if it’s not going to have any real impact until after I’m dead and gone? “ , kind of attitude) .

**“Immortality will bring not only wisdom, but responsibility. The human race will end its adolescence and attain true adulthood at last” *Dr. Ben Bova* 🌐**

# Our deepest fear

by MARIANNE WILLIAMSON

Our deepest fear is not that we are inadequate.

Our deepest fear is that we are powerful beyond measure.

It is our light, not our darkness That most frightens us.

We ask ourselves  
Who am I to be brilliant,  
gorgeous, talented, fabulous?

Actually, who are you not to be?  
You are a child of God.

Your playing small  
Does not serve the world.

There’s nothing enlightened  
about shrinking  
So that other people won’t feel  
insecure around you.

We are all meant to shine,  
As children do.

We were born to make manifest  
The glory of God that is within  
us.

It’s not just in some of us;  
It’s in everyone.

And as we let our own light  
shine,  
We unconsciously give other  
people permission to do the  
same.

As we’re liberated from our own  
fear,  
Our presence automatically  
liberates others.

# Observe the Ego

“Men are disturbed, not by things that happen, but by their opinions of things that happen.”



**T**HE NEW MOON IN LEO at the end of July sees August in with a strong emphasis on Ego identification. If you know who you are, where you are going, and who is going with you, you can stand firm in this time of turmoil. This is a time of reaping rewards for past effort and special rewards where you are prepared to take age appropriate, and socially relevant, responsibility. Anyone who relies on ego recognition and approval from others, could find life quite difficult, for nothing is more easily dissolved than a fragile ego.

If you are caught up in the illusion of wishing or hoping things were different, or caught up in fantasy or pretence, rather than reality, then you may have an enforced reality check. The mask may have to come off. It is often harder to face yourself than facing those around you. During this phase of waxing moon, as she approaches fullness, spend some time to question, “Who am I? Where am I going? And who is going with me?”

**The key to unearthing the answers lies in being brutally honest,** and to excavate the layers, until you know for sure what is true and real — for you. Most importantly, to thine own self be true. This process does not have to take a lifetime, and you can have some fun along the way.

**De-clutter your living space, learn something new, go on an adventure, do something you said you never would, feel the fear and do it anyway.** Do anything (legal) that feels right, just for the pure pleasure. As you excavate the authentic self, don't measure yourself against, or be affected by, the opinions of others. More importantly, don't judge yourself or the outcome. Enjoy the journey while discovering who you are.

When the moon reaches fullness on the 9th August it heralds an energy that is reminiscent of the story of the three little pigs who are challenged by the huffing, puffing, big, bad wolf. Metaphorically speaking, in terms of your value system, have you built your house from straw or bricks? All may not be what it appears at this time. There is a sense of confusion, deception, and chaos.

This is Neptune's domain. Water, oil, and drugs can be issues of domestic and global proportions. Mars, who was sitting of the wall earlier, is now teamed up with the

rebellious and disruptive Uranus, and by the next new moon, will be in full battle gear. These can feel like turbulent times, life can be unpredictable, expectations can fall short, it is beneficial if you can find your personal centre.

## Cosmic card game

The Virgo new moon on the 23rd of August continues the theme of dissolving, together with the stirrings of the warrior energy. There is a planetary alignment that is like a cosmic card game. Saturn is playing a hand that restricts other players, Jupiter raises the stakes, he is after all comfortable taking a gamble, and Neptune, who is a master at dissolving things, sits opposite, bluffing. Pluto and Mars are being antagonistic. There is tension round the table.

**So how can we best work with these cosmic partners? Pick your battles carefully, wherever possible, don't sweat the small stuff.** Pluto, who was holding back, is now moving forward with full throttle and in challenging aspect to mars, stirring unconscious and often irrational anger. Don't issue ultimatums, look where you can compromise. Dealing with anger constructively can be an effective and driving force that instigates and motivates, getting things done. There is support for those who work with a spirit of co-operation, who face fears and restrictions with courage, and take personal responsibility. It is important to understand the bigger picture and not get locked into detail. Speak your truth in a responsible manner. Embrace a spirit of moderation and keep expectations in check.

**We can benefit from this time of earthy Virgo by making a connection between the body and the mind.** This is an excellent time to detox the body, look at your health and fitness regime, Look at, admit to, and face addictions. Embrace the spring equinox as a time of renewal and regeneration. Most importantly, remove the rose coloured spectacles. While some apparently chaotic conditions prevail, it may be difficult to keep order, internal peace cannot be affected by external events. One would be well advised to surrender, rather than loose, control.

The Pisces full moon on the evening of 7th September is a partial lunar eclipse, as

well as being stressed by the unpredictable Uranus. If you can't change and let go, at least be flexible. This is followed two weeks later by a solar eclipse on the 22nd. Both these eclipses carry strong Virgo/Pisces energies.

**Eclipses in an earth sign are said to rattle foundations of the business and agricultural world.** If we relate all the planetary energies that we have discussed here, to a global level, then we have to take into account, that which represents universal values, gold, money, and oil, will also be affected. This is a time when things come to a head. Conditions will be especially difficult under the darkness of the new moon when the sun is weakened by the eclipse.

Jupiter and Saturn, the 2 planets that are often associated with events in the middle east, and a third planet Chiron, which carries the archetype of the wounded healer, are involved are in a challenging position. It is apparent that the eye for and eye behaviour is being played out. This particular pattern is clearly active until October.

It would serves us well to consider the words of the Greek Philosopher Epictetus (55-135): “Men are disturbed, not by things that happen, but by their opinions of things that happen.” 🌍

Bernadette Medder of Cosmic Directions  
Consultant and Teacher since 1993  
021 794 4150 or cosmicdirections@icon.co.za



# Ask Anrita

Questions? Send them to [anrita@biophile.co.za](mailto:anrita@biophile.co.za)

Dear Anrita

Thank you for your article on the interlife, which was really interesting. A question came to mind while reading this on Soul retrieval or Soul fragmentation – I understand the when we experience a loss or trauma of some kind, often a piece of our Soul fragments, and this affects us in our daily lives. I experienced the loss of my partner some years back and have not felt quite right since this time – it was a traumatic event in which he died in a car accident very suddenly, and I experienced not only a deep loss and emptiness following this, but was in shock for a very long time.

Anita M.

Soul fragmentation occurs to all of us and forms an energetic matrix around the energy field that we bring with us into each lifetime.

So, often we continue to play out old contracts and negative patterns with family and friends, as this forms the basis of these karmic contracts. Usually too at these times of perceived trauma, we may also have made old Soul contracts of survival and we often perpetuate these patterns of survival in each lifetime, so it is important that we bring back these pieces of our Soul that have left and fragmented as they have been unable to deal with the incredible loss or pain experienced at specific times.

If we do not bring back these fragmented Soul pieces, we will never truly be grounded and in the Now, and will often find ourselves avoiding perceived confrontation or feel unable to deal with many of life's perceived challenges as they will keep coming up for us until we change our patterns and false beliefs.

And further to this, the loss of Soul pieces can also cause us to feel depressed or experience a lack of joy or Love and so on, in our lives. Sometimes this Soul fragmentation can occur early in life, particularly if there was abuse as a child, whether physical, emotional, sexual and so on. Unable to deal with this trauma, the Soul fragments and the child escapes his or her body, so to speak.

I have included a meditation for bringing back the Soul fragments from this and other realities using the seven main chakras in the body and the Overlighting of the seven main Archangels.

Get yourself into a comfortable and relaxed space. Now call upon Archangels Gabriel and Hope, Keepers of purity, joy, hope and discipline so you may fully embody these qualities. Archangels Gabriel and Hope now reach out and touch the base of your spine, your base chakra, and as they do, you experience a lifting of any

dark energy that fills this particular area. You see this base chakra area fill with Light and Love in a beautiful white ray, the symbolic color of Archangels Gabriel and Hope.

You see a beautiful white ray fill this area as your base chakra now starts to spin with your Love and the Love of the Archangels and Angels. Now ask that your fragmented Soul piece that is missing from your base chakra and did not want to belong come and join you. You are willing to Love this Soul piece and you let your Soul piece know that it is now in a loving and nurturing environment. Feel your fragmented Soul piece enter into your base chakra and in these high frequencies of Love and Light, in these qualities of purity, joy, hope and discipline, your Soul piece becomes whole again. It has finally come home in the white ray of Archangels Gabriel and Hope.

Now focus on your sacral chakra, which is two to three inches below the navel. Feel the wonderful violet ray of Archangels Zadkiel and Amethyst enter into the sacral centre.

Archangels Zadkiel and Amethyst bring with them the qualities of freedom, compassion and forgiveness and you allow yourself to experience your compassion and your forgiveness. You feel an exquisite sense of lightness in your sacral centre as you allow yourself to release all negative belief systems or judgements from your sacral centre. You transmute all these lower energies into frequencies of Love and Light through the violet ray of Archangels Zadkiel and Amethyst, as you bring in the qualities of freedom, compassion, and forgiveness. You fill your sacral centre with Self Love and the Love of all the Archangels and Angels.

Ask that your fragmented Soul piece that is missing from your sacral chakra join you now. Tell your Soul piece that it is now safe and protected, that you will Love and cherish this Soul piece, this part of you that so desperately needs your Love, your Light. Your Soul piece that is missing from your sacral centre now joins you as you breathe deeply into this violet color and as you become the qualities of freedom, compassion and forgiveness. Welcome your Soul piece back to its rightful home in these wonderful qualities and frequencies of Love and Light.

Now you move up to the heart centre and focus on opening your heart centre to Love. Archangels Chamuel and Charity now activate this heart area with a wonderful pink ray and bring with them the qualities of Love, creativity and beauty. You welcome these wonderful qualities and this powerful feeling of Love as you open your heart in these frequencies of Love. Release all negative feelings of Self-loathing or non-acceptance that you might hold in your heart centre. You experience your richness, you feel your Love for yourself, your friends and family and finally for this entire planet. You feel a universal sense of Love.

As you bask in this beautiful Light and newfound Love, ask that your Soul piece that is missing from this area join you now in this communion of Love. Breathe deeply into the rich pink colour as you see your Soul piece enter into your heart centre as you open your heart centre in Love and to the magic of the Archangels and Angels and all of life around you. Allow yourself

to be filled with Love, creativity and beauty for all of Life and for yourself.

You now move up to the throat chakra as Archangels Michael and Faith activate this point for you. Archangels Michael and Faith bring with them the qualities of power, faith and protection through a beautiful sky blue ray. You feel your vocal vitality and the knowledge that allows you to express yourself freely in Divine truth, for Archangels Michael and Faith bring with them the qualities of power, faith and protection.

Allow yourself to fully release all negativity that is harbored in this area. Now call out to your Soul piece that is missing from this area to come and join you, to experience your Higher Light, your Divine expression and Love through the qualities of power, faith and protection. You see or feel your fragmented Soul piece, the part belonging to these experiences, come back to you as you breathe in this beautiful sky blue ray. You embrace this part of your Soul that is rejoicing in this reunion with you as this wonderful Higher Light.

Now bring your attention to your third eye where you feel the light, soft and warm touch of Archangels Raphael and Mother Mary as they bring in a rich green ray. Archangels Raphael and Mother Mary bring with them the qualities of truth, abundance and healing and you feel these qualities moving through your third eye, becoming part of you.

Allow yourself to release all patterns and perceptions held in your third eye that no longer hold true for you as you now vibrate at a higher frequency.

Finally, bring your attention to your crown chakra at the top of your head. Archangels Jophiel and Constance activate this point and as they do they bring in a beautiful yellow ray and the qualities of wisdom, insight and understanding. The last part of your fragmented Soul that is missing now enters through your crown chakra on this beautiful yellow ray to become this Higher Light, to become part of you in your wisdom, insight and understanding.

You are feeling much more complete, much more whole now. You have brought your Soul fragments entirely back into your being and you now feel all parts of your Soul, all parts of yourself. You feel your Soul stir deep within your Soul Matrix, deep within your heart centre, as you open your heart centre to this wonderful feeling of Love. Welcome each part of your Soul that has come back to be with you as your Higher Light, in the frequencies of Love and Light. 🌟



Anrita Melchizedek is a channel, author, healer, Light essence producer and international Spiritual facilitator, working with nature intelligence and the Company of Heaven.

She has appeared on Free Spirit, as well as in numerous print publications, such as Namaste

and Renaissance magazines. Anrita has a private healing practice in Cape Town, offering readings and Spiritual counselling.

For more info on Anrita or her ascension network, please visit her web site: [www.pleiadianlight.net](http://www.pleiadianlight.net)

# Connect up — get active!

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Members of the public and any interested and affected persons may report any contraventions of environmental legislation or permits, including the dumping, burying or burning of any kind of waste; any soil or air pollution; the acquisition, sale, storage, transport and spillage of hazardous chemical waste as well as any unauthorized development by contacting the Department of the Environment and Tourism on the following toll-free number:

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Email: [beautywc@netactive.co.za](mailto:beautywc@netactive.co.za)

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Website: [www.animal-voice.org](http://www.animal-voice.org)

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Web: [www.peta.org](http://www.peta.org)

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### **WWF**

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Fax: +27 (0)11 339 3859

Web: [www.ejnf.org.za](http://www.ejnf.org.za)

### **groundWork**

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Email: [team@groundwork.org.za](mailto:team@groundwork.org.za)

Tel: 033 342 5662

### **Earthlife Africa**

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Web: [www.earthlife.org.za](http://www.earthlife.org.za)

#### **Cape Town:**

PO Box 176, Observatory 7935

Web: [www.earthlife-ct.org.za](http://www.earthlife-ct.org.za)

#### **Namibia:**

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Web: [www.earthlife.org.za](http://www.earthlife.org.za)

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Minister: Marthinus van Schalkwyk

Minister's spokesperson: Riaan Aucamp

Pretoria telephone: (012) 310-3611

Cape Town telephone: (021) 465-7240

E-mail: [raucamp@deat.gov.za](mailto:raucamp@deat.gov.za)

Web: [www.environment.gov.za](http://www.environment.gov.za)

### **Dept. of Minerals and Energy**

Minister: Benedicta Hendricks

Private Secretary: Ms Nonzame Sodlala

Email: [nonzame.sodladla@dme.gov.za](mailto:nonzame.sodladla@dme.gov.za)

Director-General: Adv Sandile Nogxina

Email: [mpumi.gaven@dme.gov.za](mailto:mpumi.gaven@dme.gov.za)

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Ms Yvonne Mfolo

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Web: [www.dme.gov.za](http://www.dme.gov.za)

### **Dept. of Public Enterprises**

Minister: Alec Erwin

Private bag x15, Hatfield 0028

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Fax: (012) 342 6194

Email: [info@dpe.gov.za](mailto:info@dpe.gov.za)

Web: [www.dpe.gov.za](http://www.dpe.gov.za)

### **Finance Minister**

Trevor Manuel

PO Box 29, Cape Town 8001

Tel: 021 464 6102

[tipsfortrevor@treasury.gov.za](mailto:tipsfortrevor@treasury.gov.za)

Secretary's email:

[patti.smith@treasury.gov.za](mailto:patti.smith@treasury.gov.za)

Web: [www.finance.gov.za](http://www.finance.gov.za)

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Web: [www.myadsl.co.za](http://www.myadsl.co.za)



# Leila's Permaculture Estate

**D**ID YOU KNOW that a carrot that you buy at your local supermarket provides your body with ten times LESS energy than it took to get that carrot there.

The amount of pesticides, insecticides, transport, labour etc used in the production of one carrot under our current monoculture system is very, very expensive to all of us, mother earth included. We are living in an unsustainable system and, even if, for the sake of our OWN species we need to look at alternatives.

Mark and Gaby Coetzee-Andrew have dedicated their lives to living this alternative life on a small holding, LEILA'S ESTATE, outside George in the Southern Cape. The dream is a common one, a north facing small holding, strawbale home, little sod cottage, own veggies, chickens, water tank, solar electricity, everyone's idea of the perfect life Well,

everyone from your regular Ethno Bongo, new age ferrel children in a trance, to the aging hippy following peace, love and happiness in a green haze of ideology.

We fit somewhere between the left and the right of this motley lot. Our aim is to have a high standard of living, (porcelain and hot running water, feta cheese and chilled white wine) with a low cost; to self and the environment. In other words To live a sustainable life.

Mark builds Earthen houses in the Southern Cape. He also runs **The School of Earthen Building** where he offers week-long building courses. The courses are held during the last week of the month and are hosted on the farm. Participants stay on site in the original sod building. A 175 year old cottage with a magnificent mountain view and a glorious sunny stoep. At

night participants share their experiences with like minded folk and create a network for similar type projects. You leave with a comprehensive manual, hands on experience and invaluable contacts.

The same cottage hosts the farm eatery; **Leila's Arms**. From Monday to Saturdays you can come and enjoy THE MOST EXTRAORDINARY food. Our menu is very small but we always have something for the vegetarian AND the meat eater. We serve a karoo lamb bredie or curry cooked in a sun oven or a straw box for four hours until the meat falls from the bone. We cater for vegans, blood type diets. food combining and whatever weird and wonderful programme we follow in the endless search for a healthy way of life. We collect water from the roof and grow our veggies, salads and herbs.

Apart from course venue and eatery, the little sod cot-

tage also serves as a workshop and conferencing venue with a difference, as well as holiday makers searching for a rustic environment.

We have been inspired by Bill Mollisons Permaculture concept and refer to it when possible. We have planted 6 hectares under indigenous Knysna forest. It is a young forest but it is a start. Everyone needs to be near a wild zone; a forest, the sea, a desert; any wild area to replenish mind, body and soul. (If all else fails, find your self a wild woman to befriend)

Our greatest learning is that this idealistic dream is AN ENORMOUS amount of work and takes courage, effort and commitment. We started this venture 13 years ago and are no where near complete. Reality sets in, especially when you have children and you have to put your dreams on hold to go out to work and put food on the table.

These basic principles however, have held us in good stead.

- USE WHAT YOU'VE GOT
- DIVERSIFY
- INTEGRATE YOUR PROJECTS
- REDUCE, REUSE AND RECYCLE

Did you know that if you chop off the top of a carrot and plant it, a new carrot will grow down. So if you plant your own carrots you will contribute, significantly, to a more sustainable world.

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**Contact info:**





Gaby 084 844 7996

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## Leila's Permaculture Estate

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| VISITING TIMES: Monday - Friday 10am - 4pm<br>WHERE: 1Km from Fancourt on the George Airport road. | CONTACT: Mark Coetzee 082 588 6852<br>EMAIL: mark@leilas.co.za<br>WEBSITE: www.leilas.co.za | CONTACT: Gaby Andrew 084 844 7996<br>TELEPHONE: 044 870 0292<br>EMAIL: eat@leilas.co.za |
|--|---|---|

# Orgone Energy — the next revolution?

by GEORG RITSCHL, ORGONISE AFRICA

## The outgoing paradigm

Our present physics only understands entropic processes, that is processes where energy is dissipated by “using up” existing potential differences.

Under the rule of entropy, a cold and completely dead universe is the inevitable consequence of all there is.

Because engineers are trapped in this mindset, they can only design technology that is entropic and hence ultimately destructive.

The new emerging paradigm will allow us to create new technologies that harness the unlimited power of the ether and live in mental and physical balance with our planet and the wider universe.

## Rediscovery of the ether

A general rediscovery of the ether is happening in scientific circles at the moment.

Buzzwords to look for are: Zero Point Energy, Quantum fluctuation, Torsion fields, Free Energy.

Etheric energy is obviously more fundamental than the forms of energy our science is presently recognising, such as heat, electricity, magnetism, mechanical force, gravity or the weak nuclear force. It could be described as a pre-materialisation energy, a potential field or the “hyperdimensional energy and information matrix from which all material phenomena manifest”.



Wilhelm Reich

## An unsung hero: Wilhelm Reich

The term Orgone Energy was coined by Dr. Wilhelm Reich, a doctor and Psychiatrist who worked closely with Sigmund Freud in Vienna in his beginnings.

Reich went on to research the connection between human mental suffering and sexual oppression. In the 1940s he discovered the workings of the universal life energy which he called Orgone.

Reich's great contribution was the systematic scientific research into this energy, and that is the reason why we use the term orgone energy rather than any of the other possible names. He found that a high concentration of positive orgone was able to cure cancer and other degenerative diseases. Stagnating orgone energy or DOR (Deadly Orgone) was found to be responsible for disease on a personal level, biodegradation and desert forming on a planetary level.

In his early cloud busting experiments Reich was able to show how deserts can be brought back to life by removing the DOR and bringing the Orgone to flow again.

Wilhelm Reich's Research was brutally suppressed in the United States and he was incarcerated on trumped up charges and died under mysterious circumstances 1 day before his scheduled release from prison in 1957.

Orgone energy is the force of creation, that which makes life possible. It's working is anti-entropic. It is the Prana, Chi, Ether of older traditions under a new name.

## From dor to por

Wilhelm Reich discovered that layers of organic material such as cotton wool, wood etc. and metal had the property of intensifying the orgone field within an enclosed space. That was the principle of his Orgone accumulators.

The disadvantage of this was that it also concentrated negative Orgone (DOR) and could therefore be potentially hazardous.

The next step was the discovery that metal filings, suspended in an (organic) matrix of polyester resin would convert DOR to POR (Positive Orgone)

While first discovered by radionics inventor Karl Welz in the 1980s, this new discovery only showed it's truly revolutionary

potential when independent researcher Don Croft combined this new substance with Reich's original Cloud Buster concept and created the orgonite cloud buster.

This Device is also known as Don Croft cloud buster or chem buster because it soon became evident that the massive output of positive orgone energy would dissolve chemical trails and other forms of pollution.

Inspired by Don's adventures and his generous sharing of his findings with the general public, a worldwide network of orgone activists has sprung up.

It consists of people who are taking responsibility for their environment and are doing environmental healing work with a number of simple yet effective tools:

## The arsenal of the orgone guerillero

Over the past few years a growing variety of specialised environmental healing tools has been developed. I can only introduce the 3 most important ones here

## The Don Croft Style Orgonite Cloud buster

Strong positive effects have been observed for distances of over 150 km after placing a CB. Other than the Reichian CB the Croft CB is not meant to be used for active weather manipulation, but rather as a general healing tool that needs no attendance or operating as such. It will just create a positive Orgone field in it's wider surrounding, thereby stimulating self healing processes on all levels: climatic, biological and mental (!)



## The Holy Hand Grenade

A HHG is the perfect personal orgone generator for house and garden, but can also be used to revitalise natural vortexes or neutralise strong DOR emitters in the environment.

Originally the HHG was designed to neutralise microwave towers as well, but it was soon found out that for most simple microwave towers much less is needed and since there are so many of these towers, we have to use our resources sparingly.



## The Towerbuster

The Towerbuster is the universal environmental healing tool. The name comes from it's main application, namely the neutralisation of cell phone towers and other DOR emitting radiation sources.

One TB is enough in order to transform a DOR emitting microwave tower into a positive orgone generator. Apparently without interfering with the cell phone signal. In that sense Orgonite works similar to many of the harmonisers on the market, like Q-link or Tachyon chips for Cell phones etc, only on an environmental scale.



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George

### “The Proof is in the pudding...”

says Don Croft: “... there will be enough evidence in common experience that this will be proven, as electricity is ‘proven’ to run a motor or light a room, even though nobody has ever quantified or even understood the nature of electricity. There’s so much empirical evidence that orgonite heals the environment, by now, that we’re approaching the ‘proof’ stage. Orgone is the emerging paradigm’s power source, in fact--that seems obvious by now to many of us.”

Wilhelm Reich already had a device that would measure the orgone charge indirectly via it’s effects on the atmospheric discharge of static electricity. Presently a device is available from a company called Heliognosis in Canada, called the “experiemental life energy meter”.

However, the best way to prove that orgonite works, is to experience it yourself.

The following effects are reported by people the world over:

- Increased rainfalls in drought areas
- Increased plant growth and animal fertility
- A general feeling of vitality and crispness in the atmosphere
- Visible and instantaneous Dissolution of chemtrails or other smog
- Psychics and sensitives can invariably see or feel the difference in the “aura” of a cell phone tower before and after

It is obvious from the above that orgone energy greatly benefits farming as well as the general Environment.

Says organic Farmer James Moffat from Ficksburg: “While Georg stayed with us he treated numerous cell- and radio-phone towers in our area by placing his orgonite discs at the bases of the towers. The impact of this drive has been amazing as mentioned above, in terms of rainfall, which we also experienced at Kirklington. Further to that I have seen a definite improvement in human, plant and animal health...”

Orgonise Africa has undertaken wide spread gifting work in southern and Eastern Africa with often immidiate changes noticeable.

We believe that the abundant rainfalls of the 2005/06 planting season in Southern Africa and the fact that the droughts predicted for 2003, 2004 and 2005 did not really happen, at least not on the expected scale, are a direct result of this work.

In our opinion the large scale application of Orgonite can reverse deserts and stop trends of biodegradation.

Thousands of experimenters worldwide have demonstrated that orgonite is absolutely without harm and has profoundly uplifting and empowering effects.

Practically every person can make it, following simple instructions or buy orgonite tools from a growing number of small scale producers world wide.

More information on the subject and our complete expedition reports can be found at [www.orgonise-africa.net](http://www.orgonise-africa.net).

Contact: Georg Ritschl 083 289 6196

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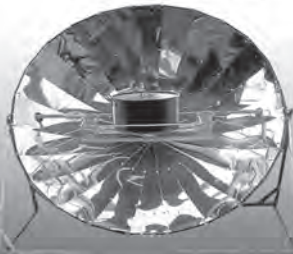
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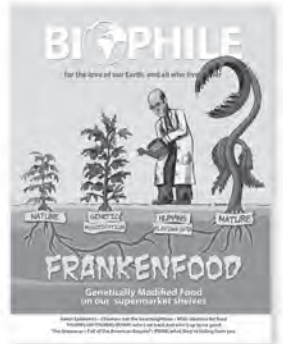
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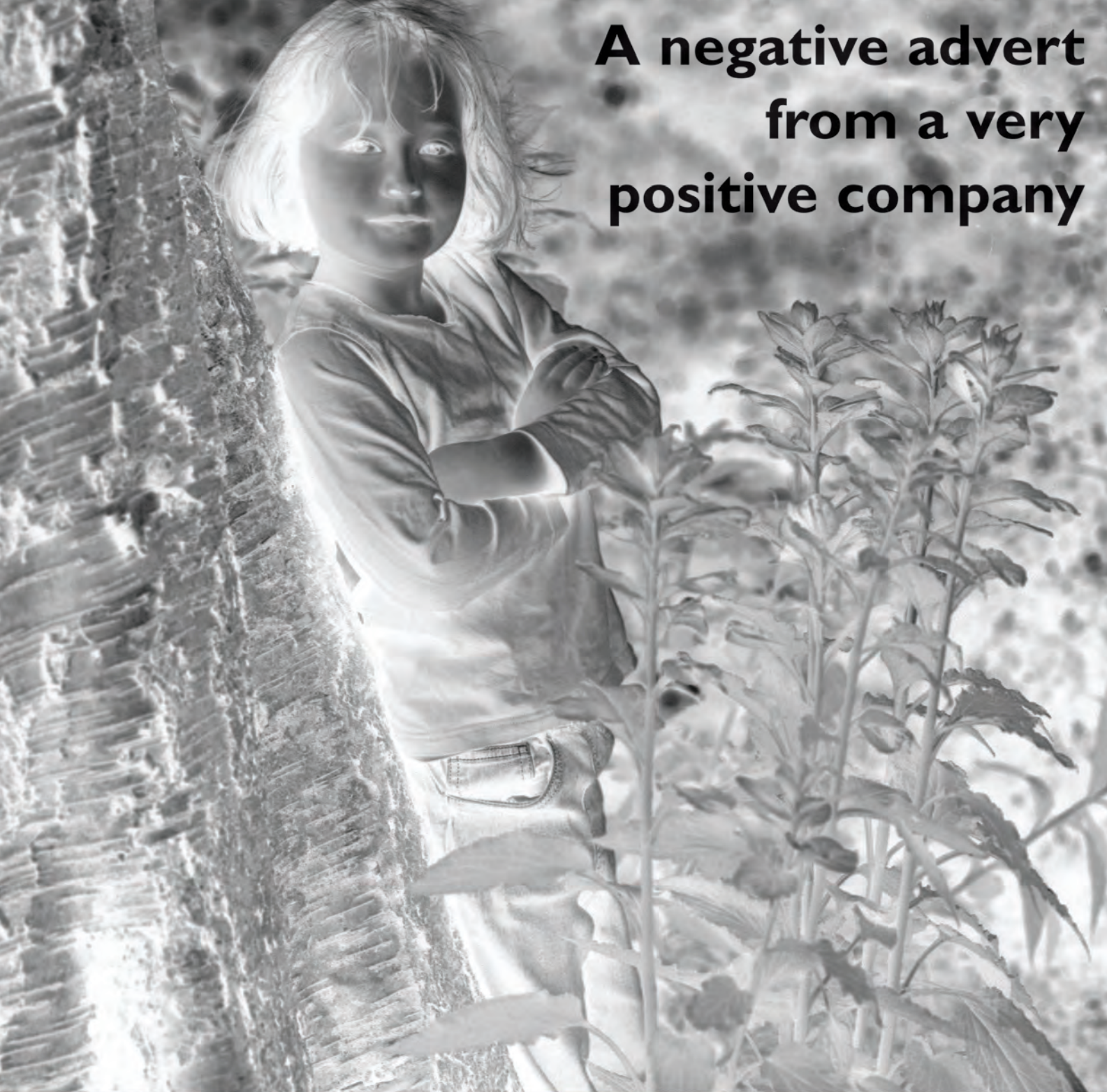
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