

# Tabletop Presentations

A guide for transformative conversations about  
whole system change to a life-sustaining society



by Andrew Gaines



"I'm right there in the room and no  
one even acknowledges me"

# Tabletop Presentations

A guide for transformative conversations about whole system change to a life-sustaining society

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*Tabletop Presentations* is a manual for conducting face-to-face conversations about large-scale transformative social change to become ecologically sustainable.

It has 20 short modules that enable people to connect-the-dots and see why large-scale transformative change to successfully deal with ocean acidification, global warming and other major environmental issues is both necessary and desirable.

An innovative feature of the modules is using physical markers to enable people to see the connections between industrial production, consumerism, economic increase and cumulative environmental damage. Physical markers make abstract 'systems' ideas seem tangible. They enable people to focus on specific points of discussion while keeping the big picture in mind.

Presenting *Tabletop Presentations* to friends and neighbours on the one hand, and to influential decision-makers on the other, is one of the *Great Transition initiative* communication strategies. The vision of the Great Transition initiative is to engage millions of people as voluntary 'citizen-educators' (Transition Leaders). Transition Leaders seed transformative ideas into mainstream culture, with the intention of changing the consciousness of mainstream society so that collectively we commit to doing everything it takes to transition to an ecologically sustainable, socially healthy, thriving society.

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*Spark the hidden hope  
that the world  
may come right*

*That we may dance  
in fairy rings  
of our own making.*

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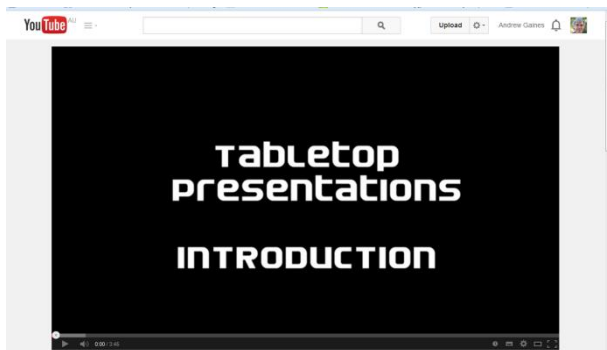
## Preface to Tabletop Presentations

*If things go well, future historians will look back and describe our age as the Great Transition to a climate safe life-sustaining society. They will note that spurred by the recognition of imminent environmental catastrophe humanity mobilised its immense creativity and latent goodwill, and devoted itself to making all the necessary changes to live well within planetary boundaries.*

*[Replaces If things go well, future historians will look back and describe our age as the Great Transition to a life-sustaining society. They will note that almost miraculously humanity woke up to its imminent environmental catastrophe, and with creativity and collaborative good will devoted itself to making all the necessary changes to live within planetary boundaries with the same alacrity that appears in war time. ]*

In 1992 I went through a personal epiphany whereby I became committed to the well-being of coming generations.

I recognised that mainstream society operates as a mutually reinforcing system that exacerbates global warming and other environmental and social issues – and therefore we need to change the operation of our whole system if we are to have a hope of things coming right – a whole system change.



I also recognised that we need a massive citizen-led educational initiative to reach a mainstream audience, because unless we arouse massive public will for transformative change the continuation of business-as-usual will destroy us.

So this became a ‘design challenge’. How can we reach millions of people?

My thought was that we need original teaching tools to help people grasp whole system change, teaching tools which can be used in personal conversations and workshops.

In addition, we need a delivery system. We need ways to engage people in mainstream society who do not seek out the brilliant books and videos that analyse our current situation and show a way forward.

*The Great Transition initiative* is the delivery system – millions of organisations simultaneously championing whole system change.

*Tabletop Presentations* is the most imaginative of our teaching tools. Its purpose is not just to present new ideas, but to provide a vehicle for people to actively think about these ideas in a way that leads to a transformed worldview and actions.

It is my hope that the content of *Tabletop Presentations* expresses an understanding of the world that a majority of people working in the areas of sustainability and social well-being will find consistent with their own values and worldview. I think many of us are on the same page, even though our language and emphasis may vary.

## What I bring to this

I hold a philosophy degree from Princeton University, and I am grateful for the analytical skills that my training in philosophy helped me to develop. An important part of my training was to understand other people's points of view before criticising them.

I went on to become a psychotherapist and a creativity trainer. My book *Creative Conversations* uses improvisation games to develop creative thinking skills used by great innovators.

I trained in the neurology of improving human performance with Moshe Feldenkrais. We Feldenkrais practitioners help people move better. Our starting point is to understand the *mode of thinking* that underlies what our client is doing. What is it about their thinking (their body image, their way of organising movement) that generates the difficulty they now experience?

Feldenkrais practitioners are systems thinkers. For example, if a client comes to me and says, "I have pain in my left knee," I don't try to fix the left knee. I explore the question of how they organise their body as a whole to reduce stress on the left knee, but not on the right. Perhaps it has something to do with the way they organise their ankles, or their hips or their spine. Then I help them learn how to move their whole body in a more integrated way that no longer stresses the left knee.

So the great Feldenkrais question is: *how is this system organised to produce the symptoms we don't want?* This question can be applied to global warming: *how are we organising society as a whole to make global warming worse?* Answering this illuminates key points of change that must be affected if things are to have a hope of coming right.

The thread that ties these life experiences together is that for 30 years or so as a psychotherapist, Feldenkrais practitioner and creativity trainer, I have been helping people to think better. I sometimes say that *I help good brains work better*. It's kind of fun!

I also trained in The Natural Step, a reality-based way of working out whether a business, a country or our global civilisation is actually ecologically sustainable or not. In addition, I read widely. I was deeply influenced by Riane Eisler's contrast between *partnership-respect* relating and *domination-control* relating. Eisler describes this in *The Chalice and the Blade*.

When I first heard of the Partnership-Dominator contrast I immediately saw that this applies at every level from child-rearing to global government. It is a breakthrough in integrating the many different descriptions of core values into a simple framework that has practical applications.

Among the practical applications are the possibility of using experiential disciplines such as improvisational acting, Tai Chi, Aikido and Feldenkrais to develop skills in the central nervous system that make us more effective at partnership-respect relating. I have trained in all of these. They are valuable practices we can all engage in, if we so choose, to become the kind of people who can create and enjoy a life-sustaining society.

In addition, over the years I picked up a few highly effective psychological self-help techniques, such as EFT (Emotional Freedom Techniques), that we can all use to cultivate emotional resilience and inner well-being. It is important to include psychological healing in the conversation about achieving ecological sustainability, because there is reason to suppose that unresolved emotional issues manifest as compulsive excess consumption on the one hand, and as active hostility towards the environment on the other.

I am a natural teacher. It is part of my temperament. I recognise that not everybody likes to teach, or if they do, their view of teaching may be primarily about lecturing.

The 'teaching' you are invited to do with *Tabletop Presentations* is more about drawing out people's ideas and helping them to see patterns of connection that they may not have noticed before.

As in any good conversation, listening and understanding other people's points of view are crucial. Should we even call it 'teaching' or 'education'? It doesn't matter. What we are doing is sparking the thoughtful conversations that are necessary to make democracy – and now the world – work.

## The Great Transition initiative

It seems to me that there are two great waves of social change going on. One relates to increasing industrial production, consumerism, fossil fuel emissions and economic growth. This wave of change is destroying humanity's life support system.

In contrast we have another wave of change that includes ecologically efficient design, renewable energy, models of economics that operate within planetary boundaries, local self-reliance, community collaboration, and psychological approaches to inner happiness and well-being. This is a wave of caring and renewal.

This second wave is surprisingly large. It comprises millions of individuals and groups who are working to stop the worst of our environmental and social destruction, and who are innovating fresh approaches to cultivating individual and community well-being. Paul Hawken described it in his book *Blessed Unrest*.

'The Great Transition to a life-sustaining society' is an apt label for this other wave of change. The Great Transition is already well underway. The task of those of us who care is to catalyse such a profound shift in mainstream conscious awareness that the Great Transition sets the tone for society as a whole.

[Replaces: This second wave does not yet set the tone for society as a whole. But if we were to succeed, perhaps historians in the future will look back and describe our age as 'The Great Transition' to a life-sustaining society. ]

The key to success is *catalysing informed passionate public will for transformative change*. We need to change the operating character of the affluent developed world, and ordinary people as well as influential decision-makers need to understand this. The needed changes are so all-encompassing that we may speak of *whole system change*, or whole system transformation.

The changes *can* be implemented at the speed and scale required - *provided a critical mass of mainstream society understands why they are needed, sees the hopeful possibilities, and becomes committed to making them happen*.

So we may ask: *How might we get a critical mass of mainstream society on board?*

My answer: *Through an informal citizen-led educational movement where we engage friends, neighbours and business colleagues in connecting the dots and thinking for themselves – combined with championing a vision of transitioning to a life-sustaining society through as wide a variety of media as possible.*

The people who can make this happen are those of us who are active in the global wave of constructive policy analysis, industrial design, Transition Towns, think tanks, personal development, visioning and communication that is already going on in the service of transitioning to a life-sustaining society.

Thinking of ourselves as all being part of a great movement aligned in our intent to affect mainstream consciousness will enable us to focus our efforts without ever having a strategy meeting. Whew, that's a relief!

My article [Designing for a Miracle: Innovative Communication to Accelerate the Great Transition](#) outlines how together we can operate as a powerful distributed force with no centralised coordination by focusing on the single most important change for successfully transitioning to an ecologically sustainable society: *affecting mainstream mindsets*. Collectively, we can become a potent force for change by devoting part of our time to acting as citizen educators in addition to whatever else we do.

We can refer to this movement as the 'Great Transition initiative'. Thinking of ourselves in this way enables us to keep our actual goal in mind – transitioning to a life-sustaining society – while still pursuing our specific initiatives.

## Tabletop Presentations as a communication tool for the Great Transition initiative

*Tabletop Presentations* are a set of 'thought starter' tools for conducting personal conversations, presentations and workshops about systemic change to a life-sustaining society. They are designed to help people develop a coherent mental framework for understanding whole system change.

At first sight, the idea of whole system change – changing the operating character of our whole society – can seem mind-boggling. There are so many factors.

However, with a slight shift in our thinking, it is not hard. We can easily make sense of whole system change by boiling it down to two core operating principles.

- A life-sustaining society will operate in good willed collaboration for the well-being of the whole.
- And it will operate within planetary boundaries.

Going through a series of *Tabletop Presentation* conversations enables people to think through what these principles mean, and how they can be applied in practice. There are already many examples.

These conversations enable people to form their own systemic understanding of the major elements in our society that we need to shift for the sake of our common well-being. They can expand the vision of dedicated activists to include more than their specialties. They can



also bring people who have not thought much about our ecological realities to a ‘holy shit this is real’ moment.

*Tabletop Presentations* draw our attention to large-scale factors, such as economics, that we cannot affect directly as individuals. This in turn points to the need for massive citizen-led public education to enable ordinary people and influential decision-makers to grasp whole system change. So we have a tool that makes people aware of the need for the tool!

The immediate precursor of *Tabletop Presentations* was a communication tool called *Kitchen Table Conversations*. It is a guide to four structured conversations about the core values of a healthy society, and how our current system operates.

People found it useful to go through these conversations. But it occurred to me that Kitchen Table Conversations are a bit like playing mental chess – there is a lot to keep in mind. I was puzzled; what else could I do?

The breakthrough came through reading *How to Persuade People Who Don't Want to Be Persuaded* by Joel Bauer, a stage magician who became a corporate pitchman at trade shows. He is a master at capturing attention. One of Joel's techniques is to make ideas physically tangible. So *Tabletop Presentations* has physical markers that enable people to keep track of abstract conversations.

*Tabletop Presentations* is a tool to be used by those of us who choose to accept responsibility for the well-being of the whole... world. Think big! We recognise that transformative change is required, and we act on that perception without requiring direction or authorisation from anybody else. Thus the Great Transition initiative is an initiative of leaders. Not of ‘leaders and followers’ in the familiar hierarchical model, but simply of leaders who take self-initiated action to seed transformative ideas into mainstream culture.

We have a great vision – a transformed society, the springtime of humanity. Each conversation you conduct is like a bee pollinating one blossom. From this something will grow that will contribute to a renewed global ecosystem.

## Acknowledgements

We are born of the Earth, and the Earth nourishes and sustains us in every breath we take. I acknowledge the great feminine force of nature as a living being. Some call her Gaia. In South American Indian tradition she is called Pachamama – the sacred presence of the Earth, the sky, the universe and all time.

Ideas from many sources have been drawn together in the making of *Tabletop Presentations*. I acknowledge thought leaders such as Riane Eisler, Jean Houston, Moshe Feldenkrais, and Karl-Henrik Robèrt. Their ideas have been especially important.

I appreciate Be The Change Australia for taking the Transition Leader Network and the May 2014 Sustainability Surprise Party under its wing. The Board of Be The Change challenged me to make my expression of my ideas more robust; and the community of like-minded souls and the platform of organisation and administrative support which Be The Change has provided have been invaluable.

Numerous people have been gracious with their time in enabling the ideas that have become *Tabletop Presentations* to be refined. The organisers and participants in the 2010 *Creative Thinking Forum on Transitioning to a Viable Society*, and the 2011 *National Summit on Whole System Change* all made their contributions. Tom and Ling Halbert hosted a nine-month open study group that was especially useful. In the course of many conversations over the years some people have offered suggestions; others have argued. All of it has been grist for the mill! I thank everybody for giving me a stimulus to look deeper about how to communicate effectively in this space.

This e-book would not have come into existence if it were not for Dot Green's astute editing. I appreciate her willingness to challenge everything that did not make sense, and to do this in the context of understanding and supporting what I was trying to do.

I acknowledge the individuals and organisations around the world who put on events related to sustainability and social transformation as part of the global Sustainability Surprise Party that was held during May 2014.

Stefano Perfilli created the Sustainability Surprise Party website, and Greg Campbell applied his graphic skills to making it look good. See [www.sustainabilitysurpriseparty.net](http://www.sustainabilitysurpriseparty.net). David Zwolski created the Transition Leader Network website. See [www.transitionleader.net](http://www.transitionleader.net).

Chris Carroll volunteered to handle the backroom administration. Dot provided both networking and invaluable mentoring. They both have been patient with me when I show up as a 'bear of little brain' and occasionally drop the ball on details.

Emma Carroll shot and imaginatively edited the Sustainability Surprise Party Promotional [video](#). I admire Emma's artistry, her ability to grasp and solve complex design problems, and her capacity as a director. Emma gently took charge and worked the shoot in a way that brought out my best.

I acknowledge Nick Towle who graciously funded the video production.

And last but not least, I acknowledge you for your vision, commitment, passion and courage; along with the millions of people who are already giving their hearts and souls to the Great Transition, and the many more people who will step up and become leaders to bring about a sustainable, just and thriving future.

# Chapter 1 Orientation for presenters

*Our larger purpose is to change the direction of the developed world so that we transition to a thriving, just and ecologically sustainable society. A key point of change is people's consciousness. We do this by helping people connect-the-dots and think for themselves.*

*Tabletop Presentations* are a means of conducting personal conversations that enable people to develop their own understanding of why we need large-scale transformative change, and how they can contribute to it. *Tabletop Presentations* can also be used for group presentations and workshops.

The needed changes are so profound that we speak of [whole system change](#), or whole system transformation. The concept of 'whole system change' can seem overwhelming. *Tabletop Presentations* are a way to make whole system change mentally manageable in a way that supports real-world change.

This e-book describes how to present *Tabletop Presentations*. You can download the printable presentation materials from [box.net](#).

## Preparing to present *Tabletop Presentations*

- Watch our [Introduction to the Sustainability Surprise Party](#), because it gives an overview of the Great Transition initiative. (This will continue to be relevant after SSP month May 2014.)
- Read [Understanding Whole System Change](#), because it presents the core ideas that are the basis of *Tabletop Presentations*.
- Download and make the physical models. Templates are in the *Tabletop Presentations* folders at <https://app.box.com/s/dcdxxig706xnsqdv2qo2>:

Take a friend through the *Tabletop Presentations* modules. You do not need to feel that you are an expert. You are developing a high level overview that does not require in-depth knowledge. And besides, you and your friend will be co-learning together.

Practising with someone who is simpatico will equip you to conduct *Tabletop Presentations* with people you know who may be willing, but not quite so open. This, of course, is the real point of *Tabletop Presentations*: to seed transformative ideas into mainstream culture.

Advantages of using physical models in a conversation include:

- Models attract people's interest
- They make it easier to see patterns of connection
- They make it easier for people to track complex conversations
- They make it possible to keep the big picture in mind while focusing on specific details
- When people manipulate physical models it engages the motor system of the brain. Neurologically this aids understanding and retention.

## Our communication approach

The purpose of *Tabletop Presentations*' conversations is to help people develop a framework for understanding why we need large-scale transformative change, and how we can accomplish it. We are helping them to develop a more extensive mental map than they may have had before. For some people this will be an extension of their current thinking. For others it may be kind of revelation; they may come to a 'holy shit this is real!' moment.

Since most people don't get the need for whole system change, we are in the business of changing people's mindsets. However, we cannot actually change anybody else's mind; people change their own minds – or not. People do change their minds in the light of new information or new ways of looking at things. Personal conversations are perhaps the most powerful means we have to enable people to develop new perspectives.

In the *Tabletop Presentations Demonstration Videos* I sometimes go into 'presentation mode'... almost like a lecture. I did this for the sake of communicating information quickly, which is appropriate for a training video. However, the actual *Tabletop Presentations* should be genuine conversations, with the spontaneity and mutual give-and-take that characterise great conversations. The conversations have structure, but they are not lectures. They are guided explorations.

Arguing is inappropriate, if for no other reason than it rarely works. But we do want to affect people's way of thinking. We can do so through a variety of strategies including gently challenging some of their assumptions, questioning where their information came from, bringing in new facts, and pointing out larger trends and their implications.

How can we do this without being manipulative? One approach is to directly state that we want to affect their thinking, and ask their permission to have a go. This respects their autonomy and, of course, their final position is up to them.

For example, we might say, "Jim, I hope I can change your mind about this. Is it OK with you if I have a go?"

Another feature of *Tabletop Presentations* is that we introduce some thinking tools, such as seeing the world in terms of fractals, before they are actually needed.

## Expanding our pool of Transition Leaders

We call people who conduct conversations using *Tabletop Presentations*, and who do similar educational activities championing whole system change, **Transition Leaders**.

We invite you to join our community of practice [here](#).

The success of *the Great Transition initiative* depends on perhaps millions of us acting as Transition Leaders. So at the end of *Tabletop Presentations* it may be appropriate to ask: *Would you be willing to conduct a Great Transition conversation with somebody you know?* If they say yes, refer them to the [Transition Leader Network website](#) for our communication tools, or offer to coach them yourself.

## Dealing with reservations to acting as a Transition Leader

Sometimes people will want to act as Transition Leaders, but also have strong reservations. These could show up as *I don't know enough, I would be proselytising, people will think I'm weird*, to name but a few. Sometimes these can be dealt with simply by drawing them out and making them conscious.

A more powerful technique, if the person is willing, is EFT (Emotional Freedom Techniques). EFT is a method of resolving our irrational emotional reactions by gently tapping on a few acupressure points with our fingers. It is easy to learn, and remarkably quick and effective. With just a few minutes of work '*People will think I'm weird*' could easily turn into '*Well actually, some of my friends would be interested.*'

EFT is valuable to have in your personal kitbag of psychological tools, because it can be applied to a wide variety of emotional disturbances. You can help your kids with it, and even yourself. There is an excellent free tutorial at Gary Craig's [www.emofree.com](http://www.emofree.com). Gary is the founder of EFT, and a master of his own craft. The more clear we become the happier we are inside.

At some point very likely you will ask someone if they are open to exerting leadership in the Great Transition initiative. I suggest that you learn EFT so that you can be more effective in helping people deal with their reservations about acting as leaders.

## Special features of the modules

- **Each module has a primary purpose.** In principle there can be more than one way to achieve the purpose. Therefore some modules have several different approaches, and you may develop a new approach yourself. If you devise a fresh approach you would like us to consider adding to the general kitbag, please send an e-mail to info [ @ ] transitionleader.net.
- **The modules form a unified whole.** They cover a lot of ground; it is a matter of picking and choosing which are most appropriate for your purpose. However, the modules are not meant to be presented in isolation. Ideally folks would do all the modules in one or more sittings, and thereby develop a robust framework for making sense of today's world.
- **Making abstract concepts seem physical.** It is said that a picture is worth a thousand words. Sometimes it can be even better to have physical objects that represent ideas. A number of ways of doing this are included in the modules, and templates are provided.
- **Developing thinking skills.** There are a few generic thinking skills that help us to make sense of ideas. They include thinking in terms of fractals and thinking in terms of principles and their applications. We introduce these thinking skills before they are actually needed. This prepares people to follow our somewhat unfamiliar logic in subsequent modules.
- **Flexibility.** The easiest first step to master the content of *Tabletop Presentations* is to methodically take a friend through them. This is kind of a training-wheels approach, and it is a fine way to begin. With experience we become more flexible in our approach. Conversations always evolve in their own way. We flow and adapt to the knowledge, challenges and interest of the person we are talking to.

Very likely new ideas about how to conduct *Tabletop Presentations* will occur to you. I am always interested to hear them. I can be contacted at [andrew.gaines@transitionleader.net](mailto:andrew.gaines@transitionleader.net).

## Chapter 2 Psychological Preparation

*As you may be aware, many people have strong emotional reactions to ideas that run counter to their current worldviews, especially if they sense that their economic interests are threatened. Joseph Tainter, the author of *The Collapse of Complex Societies*, comments that he avoids talking about a steady state economy because of people's political reactions. However relevant, the idea that 'business-as-usual is over' can shock people.*

*There is also a neurological reason why people sometimes resist ideas, points of view and ways of thinking that are new to them. Understanding ideas and ways of thinking that are not familiar to us requires that we use our brains in new ways. This can be stressful, unless you happen to enjoy exploring new ways of thinking. The resistance could show up overtly as argument or emotionally driven condemnation of the ideas. Or it might show up as superficial acquiescence but an internal tuning out.*

*Our aim in these conversations is to strongly affect people's worldview, because only a few people get that we are in an ecological emergency, and that they themselves should be actively part of the solution.*

What follows is a set of experiential communication strategies to prepare people to be more resilient mentally and emotionally before getting into the nitty-gritty of the actual conversations themselves. Which of these strategies you might use would be a judgement call on your part.

### Establish a positive frame of mind

Establishing a positive frame of mind makes people more open. You might ask:

*Can you tell me about an instance when you did something for the betterment of society?*

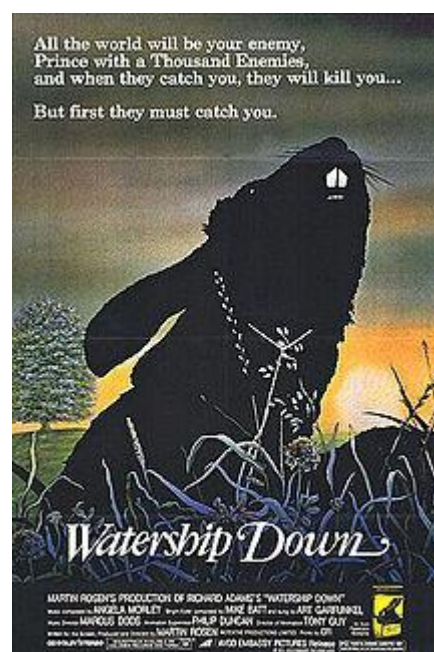
### Introduce the idea of the Witness

Sometimes people's emotional reactions can block thinking.

A vivid example given in *Watership Down*. It is a movie about a group of renegade rabbits who escape a totalitarian warren.

There is a scene where one of the rabbits tells the burly Chief Rabbit that his brother is a psychic who has always proven to be right, and he foresees a bloody disaster about to hit the warren.

The Chief Rabbit's response? No enquiry. No 'tell me more'. The Chief Rabbit gives a big *humph* and turns completely around, showing only his copious back. Interview over!



As it turns out, disaster does hit the warren. A deep plough cuts right through it.

Many people have habitual modes of reacting that can prevent the continuation of an in-depth exploration of controversial ideas. However, being aware of our reactions makes us less prone to be 'taken over' by them. Thus we can remain more mentally and emotionally resilient.

Our Witness, or Observer Self, is the part of us which can see what we are doing without judgement.

You might say something like:

*You know, there is a part of each of us that can observe our own emotional reactions without judging. Some people call it the Witness, or the Observer Self. The labels don't matter. The point is that we all have the capacity to honestly observe our own reactions.*

*Most of us have an internal Critic as well, that sometimes sees the same thing and gives us holy hell for it.*

*Sometimes our emotional reactions simply take us over. We may become so angry or strongly judgemental in response to something we hear that we simply act on those feelings without any reflection at all. Which of course means that in that state we cannot actually think about the issue at hand.*

*I request that if you have a strong emotional reaction to something I say, please bring your Witness into play. Simply observe that you are having such a reaction. You might even comment that you are having a strong reaction. This can create enough mental space for you to engage your fine intelligence and consider what truth, if any, there might be in what I am saying.*

## Identifying in advance people's characteristic modes of dealing with novel ideas

You might ask:

*Have you ever had the experience of being challenged with an idea or a way of thinking that was really new to you? What was it?*

*How did you respond?*

## Identifying in advance people's characteristic modes of dealing with ideas they don't like

You might ask:

*How do you usually respond to ideas that you really don't like or that make you uncomfortable?*



## Awareness for the facilitator

Many of us have a tendency to argue. We want to push our points and make our case! However, experience shows that head-to-head arguing rarely accomplishes anything constructive.

Instead, in these conversations we want to establish and maintain a space of open enquiry. This means that as facilitators we would do well to use our own Witness function, and catch our own impulse to argue when it first arises. We could even say,

*I'm feeling my own tendency to argue, but I know that it's not constructive.*

## Seeking permission to attempt to influence the person we are talking with

These conversations are meant to be transformative. They are meant to change the way people think and feel. They are meant to bring people to an understanding of the world that is different from when they started.

There will be times when it is appropriate to 'make a case'. There will be times when it is appropriate to question your friend's worldview or mode of thinking. How can we do these things without falling immediately into debate and argument?

The strategy is simple. We ask permission. You might say:

*I would like to bring you to a different way of looking at this. May I have your permission to try?*

## Keeping the conversation real

Years of schooling and academic training have trained many of us to talk about things in ways that have no great consequence. Television and the media give a sense that environmental issues are 'out there'. They don't say, "What we are reporting about is part of a disastrous trend, and collectively we need to make major changes." So people are accustomed to passively receiving information, but not responding as though it is meaningful.

Therefore people can drop into a state of nodding their heads and agreeing with what you say, but it is still information 'out there' to them.

So you might open this up by asking:

*What is the difference between this conversation and being in a classroom?*

## Preparing in advance to dealing with people's resistance to asserting leadership

As mentioned in Chapter 1 there is an energy psychology technique called EFT (Emotional Freedom Techniques) that can enable people to quickly resolve their irrational concerns about asserting leadership, assuming they would actually like to act as Transition Leaders.

In a workshop a good strategy is to introduce the EFT tapping points early in the workshop. Then, if you see a need to apply EFT around leadership blocks at the end of the workshop people are already mentally prepared to do this.

## Preparing thinking skills in advance

Two of the modules in *Tabletop Presentations* deal with thinking skills, including our next module on *Thinking in terms of fractals*. The other module is *Thinking in terms of trends*.

The skills themselves are quite straightforward. We present them in advance so that people will be familiar with the way of thinking before they need to apply it.

## Chapter 3 Thinking in terms of fractals

Support materials for this module are at <https://app.box.com/s/qv4zei0c12wr1f2gae0v>

*Very likely you have played the game 'What do you see in the clouds?' It is natural for the human mind to see similarities.*

Fractals are a way of seeing the similarity between small-scale patterns and very large-scale patterns. Thinking in terms of fractals can make our thinking simpler and more efficient.

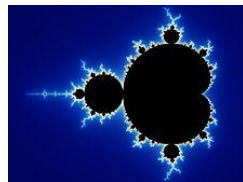
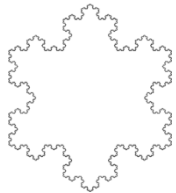
We introduce the idea of fractals into *Tabletop Presentations* as a way of preparing folks to see how the core operating principles of a viable society play out at different levels.

For example, the current domination/control pattern that shapes much of mainstream society has similar effects at personal levels and at large-scale social levels.

This module on fractals prepares people to see these connections – and thereby more readily grasp the profound nature of the change that is involved in the Great Transition.

### Fractals

'Fractals' are patterns that look very similar at different scales. Two famous ones are the Koch set and the Mandelbrot set. If you attention to the fine detail you will see that its shape is similar to the overall pattern.



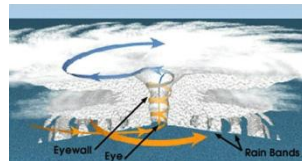
The way broccoli leaves branch is a natural fractal. The branches of the individual stalks are similar to the structure of the whole broccoli.



We are interested in dynamic fractals. Different modes of behaviour have similar effects on different scales.

This is a very short module, and it's fun. We show two series of images. The first is a set of whirlpools.

## Whirlpools



Show your friend this series of images, and ask what similarities they see between them. Draw out their ideas. If they did not see it already, explain the notion of fractals, and ask if they can see the similarity between the initial small-scale image and the final large-scale image.

Note: The *Tabletop Presentations* folder on [box.com](https://www.box.com) has these pictures in a ready-to-print form.

## Sailboats



Even though there are very different sizes, each of these sailboats operates according to the same principles. They all tack in the same way to go up wind.

The idea of identifying ‘operating principles’ and finding applications is very powerful. We will use it in our module on *The core operating principles of a healthy society*, and also when we look at The Natural Step System Conditions for ecological sustainability.

## Imagination exercise (optional)

*Close your eyes.*

*Imagine that you are a small sailboat tacking against the wind.*

*Now imagine that you are an ocean-going yacht tacking against the wind.*

This exercise will help your friend grasp fractals kinaesthetically.

## Chapter 4 The core values of a healthy society – a conversational approach

Support materials for this module are at <https://app.box.com/s/590kti1ly39f2duztm2e>

*In this module we draw out people's ideas about the core values of a healthy society. Then we show a way to put them into a systemic framework that supports real-world applications.*

### What are the core values of a healthy society?

There are many ways of expressing the core values of a healthy society. They include *love, compassion, respect, and right livelihood*. Abraham Lincoln talked about government “*of the people, by the people, and for the people*”. Psychologists talk about *self-actualisation*. Educators talk about *bringing out the best in children*.

Start by asking: *What are the core values of a healthy society?* Draw out your friend's ideas.

Usually people bring up their insights into core values as a kind of free association. Their ideas are not systemically connected – and nor need they be at this point. Just letting ideas come up is a typical first stage of creativity.

### The Partnership-Dominator contrast

After we have drawn out the person's ideas, it is appropriate to suggest the distinction between *partnership-respect* relating and *domination-control* relating as an integrative framework for grasping core values.

Your introduction might go something like this:

"We are looking for a way to synthesise these ideas into a form that makes them intellectually manageable. One way that some people find useful is the contrast between *partnership-respect* relating and *domination-control* relating. (You might give a short explanation of the difference here.)

The movie *Avatar* vividly showed how large corporations willingly destroy local communities and the environment for the sake of massive profit. It illustrates the contrast between dominator and partnership/respect relating.

In terms of what we've just been discussing, does this contrast make sense to you?

Everybody with whom I've had such a conversation tells me that this framework makes sense to them. However, if I introduce Partnership-Dominator contrast *before* we have had this conversation there is sometimes resistance. People have said that it seems too simplistic, or it is too black-and-white and there must be middle alternatives, or it seems to be imposing an ideology. If it is introduced after we draw out people's ideas it is immediately clear that the Partnership-Dominator contrast is a useful thinking tool.

## Connecting the Partnership-Dominator contrast to our own experience

You can go on to help people integrate the Partnership-Dominator contrast into their thinking by asking questions about their personal experience:

- Can you recall experiences where people were on your side, really trying to help you do what you wanted to do?
- And can you recall experiences when people were attempting to boss, intimidate, control or manipulate you?
- What is the difference in feeling between these two kinds of experience?

An important misconception that needs to be clarified is whether a partnership mode of relating can include hierarchical relationships. It can.

Although I sometimes use the indicative phrase *good-willed collaboration*, I do not conceive of partnership-relating as implying that everybody is equal: there can be real differences in authority and responsibility.

The difference lies in how authority is exercised. In terms of parenting, psychologist Robin Grille distinguishes between *authoritative* and *authoritarian* parenting. In authoritative parenting the parent helps the child develop while also setting age-appropriate rules. In authoritarian parenting the parent bosses the child, often attempting to get the child to live up to the parent's expectations.

This distinction applies in hierarchical organisations. Are staff treated with respect, and given as much autonomy as possible, or are they bullied, and at times exploited?

## Finding social examples of Partnership and Dominator relating

So partnership-relating is a *style* of relating. It applies not only to personal relationships, but also to how organisations, international relationships and whole societies operate. To take the thinking to these levels, you might ask:

- Can you find examples of Partnership and Dominator relating in the worlds of business, education, and global governance?

Note: At this point we are applying the idea of 'fractals' that we developed earlier.

## How can we embed partnership-relating into our culture?

We are interested in real world changes. So it is valuable to explore this question:

- How can we embed partnership/respect ways of operating more into our culture?

At the level of individuals there are a number of modes of training that cultivate skills in partnership-relating. They include Conflict Resolution, Parent Effectiveness Training, Non-Violent Communication, Crucial Conversations, improvisational acting and Aikido.

Partnership-relating is also an organisational style. Ricardo Semler's *Maverick* describes how he transformed his organisation from being an authoritarian command-and-control organisation to one that supported high levels of personal autonomy and responsibility. Isaac Getz's article on *Liberating Leadership* describes a number of successful companies that consciously avoid using command-and-control, and instead rely on personal responsibility.

Partnership-relating applies at the level of nations. Ideally democracy is community self-regulation for community well-being. Our challenge today is to curtail the power of large corporations and people with massive amounts of money to unduly influence government.

Internationally, the United Nations was established to be a vehicle for global collaboration as an alternative to war.

We see that partnership-relating applies to every level from personal psychology to global governance.

## Conclusion

The fate of the world depends upon partnership-relating setting the tone. For us to succeed in transitioning to an ecologically viable society we must change our cultural style as well as our technology.

## Resources

Ricardo Semler, *Maverick*

Isaac Getz, *Liberating Leadership*

Chip Conley

- TED talk: <http://www.youtube.com/watch?v=UROcz70tlMY>
- Book: [Peak : how great companies get their mojo from Maslow](#)

Humanity In Business <http://humanityinbusiness.com.au>

B-Corp: <http://benefitcorp.net/about-b-lab>

## Chapter 5 The Partnership-Dominator Contrast

Support materials for this module are at <https://app.box.com/s/8a95qcskgmxm99ytv50k>

*This module is a conceptual introduction to the Partnership-Dominator contrast. It supplements the conversational approach of the previous module.*

While there are many flavors, nuances and mixtures, at root there are just two fundamental contrasting core values. The brilliant systems thinker Riane Eisler calls them *partnership-respect* values and *domination-control* values. These also describe ways of operating.

These two contrasting value orientations play out in our individual relationships and on the world stage. Our future will be shaped by which one sets the tone.

In *The Power of Partnership* Riane Eisler observes:

In the domination model, somebody has to be on top and somebody has to be on the bottom. Those on top control those below them. People learn, starting in early childhood, to obey orders without question. They learn to carry a harsh voice in their heads telling them they are no good, they don't deserve love, they need to be punished. Families and societies are based on control that is explicitly or implicitly backed up by guilt, fear, and force. The world is divided into in-groups and out-groups, with those who are different seen as enemies to be conquered or destroyed.

In contrast, the partnership model supports mutually respectful and caring relations. Because there's no need to maintain rigid rankings of control, there is also no built-in need for abuse or violence. Partnership relations free our innate capacity to feel joy, to play. They enable us to grow mentally, emotionally, and spiritually. This is true for individuals, families, and whole societies. Conflict is an opportunity to learn and to be creative, and power is exercised in ways that empower rather than disempower others.

Partnership-relating is oriented towards the well-being of the community (as well as being mindful of one's own self interest). Partnership values find expression in democracy as the vehicle for community well-being, in the caring aspects of organised religion, and in the growing concern to protect ecological systems. The archetypal form is a mother working for the well-being of each member of her family.

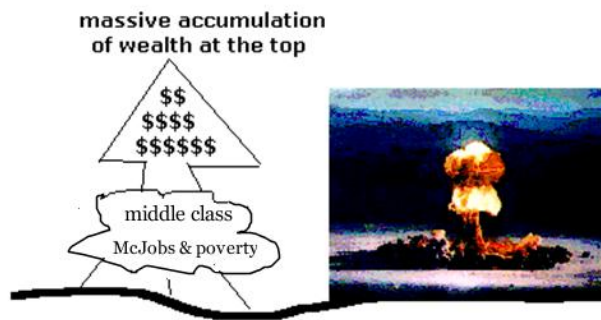
Dominator-relating uses force and intimidation to establish one's own advantage over others at the expense of the community and the environment. It is oriented more towards conquering than towards collaborating. The archetypal forms of this are patriarchal: fathers tyrannically dominating their families and emperors conquering vast territories.

*Partnership* and *dominator* are two contrasting approaches to life that operate on every level of human endeavour from childrearing to global governance. Many aspects of dominator behaviour are truly horrific, both historically and in terms of current events. Therefore it is important to acknowledge that some parts of humanity are becoming healthier and more balanced, and that there is a strong positive trend.

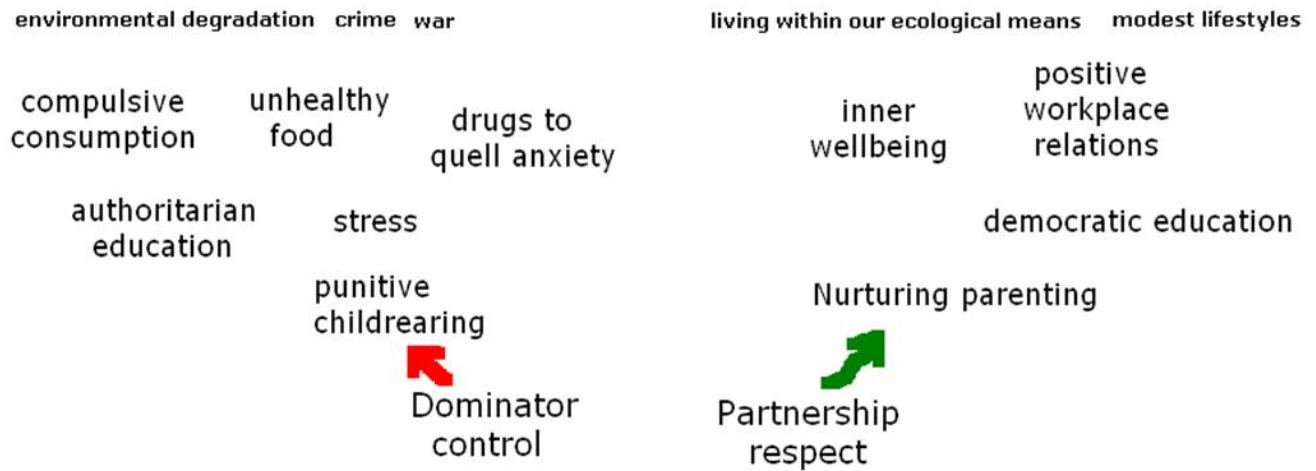
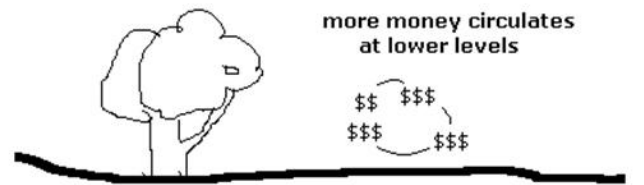
This chart indicates how Partnership and Dominator values play out at different levels – and the ultimate consequences.



## DESPAIR



## HOPE



The good news is that at every level from birth to global governance we have the means to embody partnership values.

Riane Eisler's seminal *The Chalice and the Blade* and her *The Partnership Way* explore the contrast between *partnership/respect* relating and *domination/control* relating in depth.

Bob Douglas' *Hope for Tomorrow's World* and David Korten's *The Great Turning: from Empire to Earth Community* show how Partnership and Dominator-relating play out on the world stage.

## Resources

Riane Eisler

- *The Chalice and the Blade*
- *The Partnership Way*

David Korten *The Great Turning: from Empire to Earth Community*

Bob Douglas *Hope for Tomorrow's World*

## Chapter 6 Thinking in terms of trends

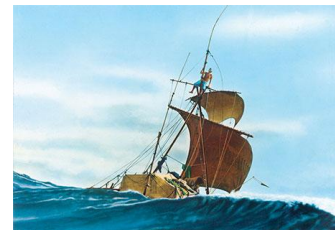
Support materials for this module are at <https://app.box.com/s/c1m2rwkakny2wmiort4o>

*The Thinking in terms of trends is a thinking skill that can enable us to make wise environmental policy decisions even though our scientific evidence may be incomplete.*

### The Kon Tiki

The Norwegian explorer Thor Heyerdahl and his crew sailed a balsa raft from Peru across the Pacific Ocean to the Polynesian islands. They were testing the possibility that the Polynesian Islands had been populated by people from South America.

When the raft set out it was very buoyant. However, part way through the trip the crew noticed that the raft was now much lower in the water. The logs were slowly becoming waterlogged. The question on each crew member's mind was: would they make it to an island, or would the raft sink before they got to land?



As it turned out, they made it. But in the meantime they did not know at what point the raft would sink. They were worried about the trend.

### Trends exercise

Start with 7 checkers or coasters  
Take away 3, and add 2

Do this several times

Then ask: *what is the trend? Where will it end?*

Have you had experience of weighing up your available cash against the expenses you will have before your next pay? You are looking at the trend: will your money last until the end of the month?

### Thinking in terms of trends to assess environmental dangers

We have seen three examples of thinking in terms of trends. Thinking in terms of trends helps us assess the urgency of dealing with a specific environmental issue even though we may not have sufficient information to know at what point a disaster will actually occur.

For example, it is well known that if you take too many fish out at a fishery, it will collapse. This happened with the collapse of the North Atlantic cod fishery in 1992, and it has happened with other fisheries.

It is not too difficult to get estimates of the numbers of fish in a fishery. It is much harder to be precise about the number you can take out before the fishery collapses. Governments spend a great deal of money researching this question, and there can be great debates.

Thinking in terms of trends is a simpler mode of reasoning. If the number of fish declines year after year, you know that you are overfishing, and that higher quotas should be enforced. Apart from natural variation, fish stocks should stay relatively constant in a given fishery. If the stocks are consistently declining you know that the fishery is headed towards collapse.

Q: Can you think of other areas where this mode of reasoning applies?

Eg. Housing developments encroaching on vegetable farms near cities, ultimately destroying the local supply of fresh food.

## Chapter 7 The case that we are in an ecological emergency

Support materials for this module are at <https://app.box.com/s/m3e63c5mcuqktpcq3ygz>

*This module presents several real-world trends that show why we need to we organise the operating character of our society at emergency speed. The required changes are massive. At the same time they within our current capacity. We already have the required creativity, design strategies and practical technologies – provided that collectively we decide to live materially modest lifestyles.*

*A life-sustaining society that operates within planetary boundaries can be far more fulfilling for many people in our current mode of competitive individualism. The fact that we are in an ecological emergency is a good reason to get on with making changes that are desirable in their own right anyway.*

*[Replaces: Our purpose is to enable people to see that we are, in fact, in an ecological emergency. This is ‘doomsday’ stuff, and all too real. We don’t need to dwell on it. We just want to present the minimum to make the case.*

*In this chapter we present more than the minimum. Please select and adapt whatever seems relevant to make the case in your own way.*

*‘Doomsday’ is sweetened by the observation that a Great Transition is already underway, and we have the design skills and technologies that are necessary to transition to a society that operates within planetary boundaries. The fact that we are in an ecological emergency provides the reason to make the transition at emergency speed.]*

Throughout history there have been many civilisations that flourished for a time, and then collapsed. Civilisations such as the Mycenaean empire and the Roman empire must have looked invincible at the peak of their power, just before things seriously unravelled. Yet one way or another they lost their biological support system.

In the rest of this chapter we review the status of the biological base of the energy column that supports our complex civilisation (we will explore this energy column in more detail in the next chapter on Tainter’s Dilemma). The areas are:

- Ocean acidification
- Fresh water
- Soil and food
- Climate

### Ocean acidification

It may seem inconceivable that humans could affect something as vast as the oceans. However, the oceans have become measurably more acid as a direct result of industrial CO<sub>2</sub> emissions, and this is already affecting sea life.

Oceans naturally absorb carbon dioxide from the atmosphere. Dissolved carbon dioxide is removed by micro-organisms which use it to form their calcium carbonate shells. When the micro-organisms die they sink to the bottom of the ocean. In time, their accumulated shells form chalk beds. This is how the white cliffs of Dover were formed.

Here is how ocean acidification works. Dissolved carbon dioxide interacts with seawater to form carbonic acid. The effect is weak, and the oceans do not actually become acid. It is just that the oceanic pH moves in that direction.

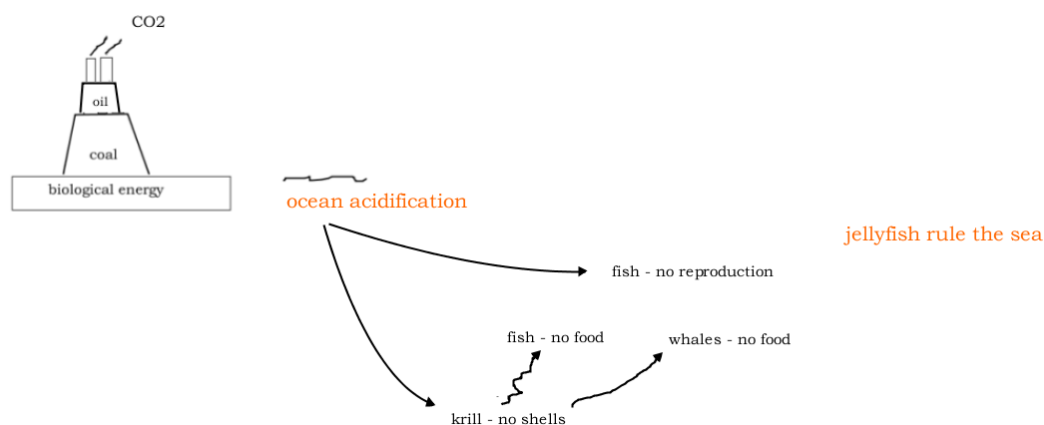
However, this trend affects the oceanic food chain at two levels. Firstly, the carbonic acid interferes with the capacity of the micro-organisms at the bottom of the food chain to form their shells properly. Observed shell weights are down by 30% in The Southern Ocean, and you can see where this trend will take us to.

Secondly, the fish at the top of the food chain, such as tuna, only reproduce within a certain range of pH. At some point the fish will be unable to reproduce, because the ocean is too acidic. We do not know exactly at what point this is, but if we reach it it's too late! This is why we emphasise looking at trends rather than trying to identify absolute threshold points.

## Implications

**We are on track to lose the oceanic food chain** in a world where 500 million people depend on seafood for their subsistence, and for many of the rest of us seafood provides a pleasurable and important part of our diet.

The organisms that survive will be the simpler ones like bluebottle jellyfish which are toxic to humans. People will stop surfing or snorkelling, because the seas will be too dangerous. Kids may play on the beach, but they will not wade in the shallows.



## Evidence

### *No Safe Havens in Increasingly Acid Oceans*

This report summarises research on ocean acidification by scientists around the world.  
<http://www.ipsnews.net/2013/10/no-safe-havens-in-increasingly-acid-oceans>.

Scientist Sylvia Earle gives a moving TED talk about the oceans

[www.ted.com/talks/sylvia\\_earle\\_s\\_ted\\_prize\\_wish\\_to\\_protect\\_our\\_oceans.html](http://www.ted.com/talks/sylvia_earle_s_ted_prize_wish_to_protect_our_oceans.html)

[Ocean Acidification - the other CO2 challenge](#) has a [Fact Sheet](#) and an [e-book](#).

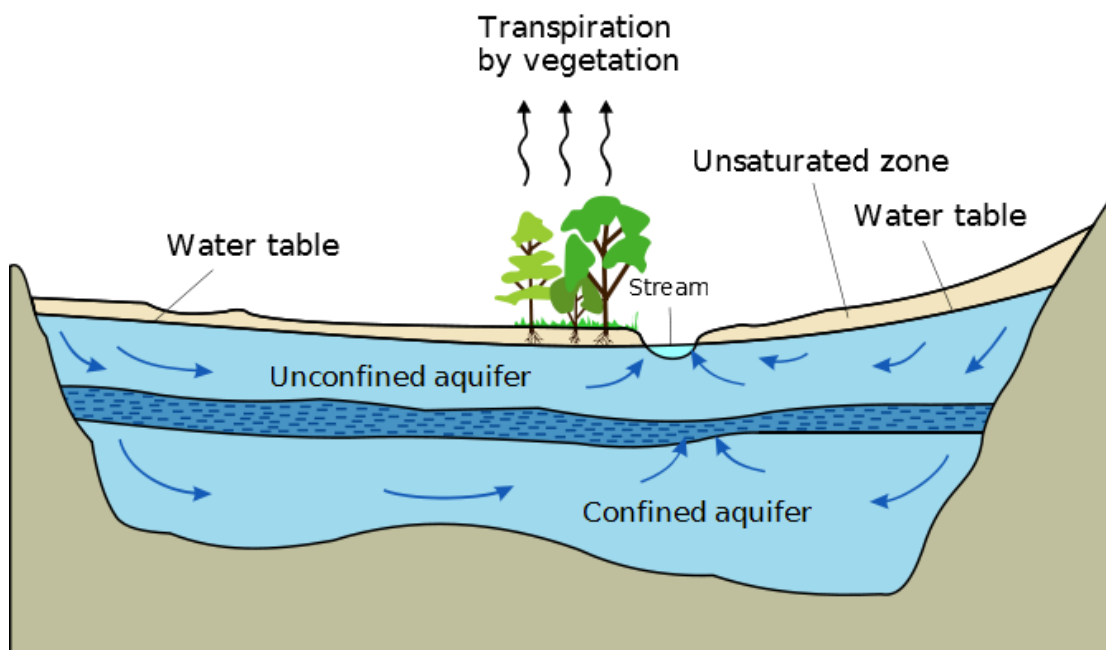
## Fresh water

The fresh water we need for our farms, factories and drinking water comes from glaciers and snowpack, dams and reservoirs, rivers, and underground reservoirs called aquifers. Even as increasing population and industrial expansion increase water requirements, available water supplies around the world are diminishing.

Here are three trends, any one of which is sufficient to make the case that we are in an ecological emergency.

### Aquifers are being depleted

Aquifers are underground reservoirs of water. They are an important source of water for agriculture. Shallow aquifers are replenished by rainfall, and quickly recharge if there are sufficient rain. Deep confined aquifers recharge very slowly.



The Ogallala Aquifer is a shallow water table aquifer located beneath the Great Plains in the United States.

About 27% of the irrigated land in the United States overlies the aquifer.

Since 1950, agricultural irrigation has reduced the saturated volume of the aquifer by an estimated 9%. Depletion is accelerating, with 2% lost between 2001 and 2009<sup>[2]</sup> alone. Certain aquifer zones are now empty; these areas will take over 100,000 years to replenish naturally through rainfall.

What is happening in the Midwest of United States is part of a global pattern. Lester Brown, the founder of Worldwatch Institute, did a global survey of aquifer depletion in 2013. Wheat farmers in some areas of China now pump water from 300 meters, which is not affordable, and both wheat and rice production are falling.

Brown reports that in Tamil Nadu, a state with more than 62 million people in southern India, wells are going dry almost everywhere. Falling water tables have dried up 95 percent of the wells owned by small farmers, reducing the irrigated area in the state by half over the last decade.

Saudi Arabia used its oil money to subsidise irrigation for wheat. Some farmers have drilled 4/5ths of a mile down for water, and even the Saudi's found this uneconomical. They withdrew the subsidies, and wheat production fell by 71%.

What does this add up to? There is competition for water between agriculture, industry and cities. With fresh water tables falling around the world, the crunch on food will come more or less at the same time.

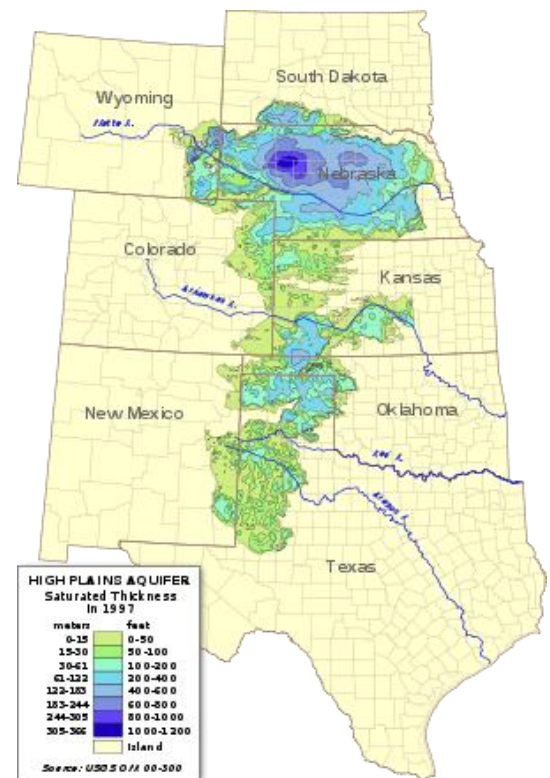
### Himalayan glaciers are retreating

The Himalayan glaciers are the headwaters of many of the major river systems in Asia, including the Ganges, the Mekong and the Yantze rivers. These river systems supply drinking and irrigation water to about 1.5 billion people, or more than 20% of the world's population.

Water to the rivers comes from rainfall, snow melt and glacier melt. Rivers such as the Ganges are reported to already be under stress from the large demands made on them.

The Himalayan glaciers act as water storage buffers. Ice forms in winter and melts during the summer, providing a steady flow of fresh water through the growing season. India, Pakistan, Burma, Bangladesh and Vietnam all depend of these flows.

The National Research Council, an advisory arm of the United States Congress, reports that that these glaciers are retreating at rates comparable to those in other parts of the world, and confirms that the rate has accelerated in the past century. In its recent report the team of scientists looking at glaciers and Asian water security for the International Panel on Climate Change asserts that water flows will be a problem in about two decades.





## Great rivers are running dry



The

Colorado River

National Geographic magazine has an on-line post titled *8 Mighty Rivers Run Dry From Overuse*. The rivers are

- Colorado River in the United States
- Indus River in India
- Murray River in Australia
- Teesta River in Bangladesh
- Yellow River in China
- Amu Darya River in Central Asia
- Syr Darya River in Central Asia
- Rio Grande River in the United States and Mexico

These rivers often fail to reach the sea because so much water is withdrawn for agriculture, industry and for cities. These uses are in competition each other, and downstream users are in competition with upstream users.

In addition, they are often heavily polluted, and in some cases dams are being built to produce hydroelectricity.



## Implications

Water shortages will lead to food shortages in many regions around the world, including the United States. These will hit more or less at the same time. Mass migration, starvation and violence are predictable consequences.

## Evidence

*Aquifer depletion*, Brown, Lester <http://www.eoearth.org/view/article/150159>

*Himalayan Glaciers – Climate Change, Water Resources, and Water Security*, National Research Council. [http://www.nap.edu/openbook.php?record\\_id=13449&page=R1](http://www.nap.edu/openbook.php?record_id=13449&page=R1)

*8 Mighty Rivers Run Dry From Overuse*, National Geographic

<http://environment.nationalgeographic.com.au/environment/photos/rivers-run-dry>

*Why global water shortages pose threat of terror and war*, The Guardian, Sunday 9 February 2014

<http://www.theguardian.com/environment/2014/feb/09/global-water-shortages-threat-terror-war>

## Soil and food

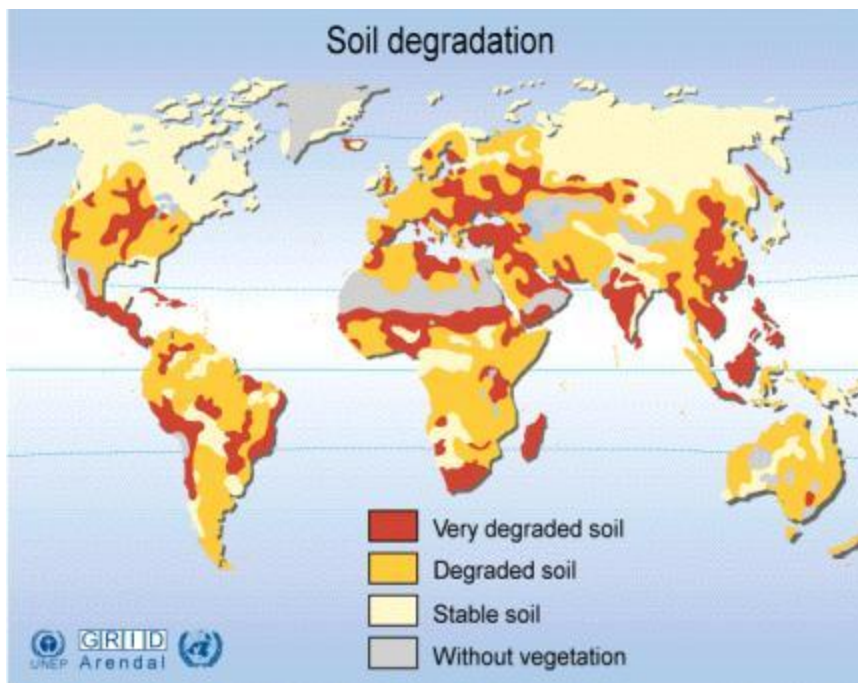
As with water, a nation that loses its soil loses its food supply.

There are four major ways that we lose quality topsoil:

- Erosion and desertification through wind and water
- Urban expansion as we put housing developments, shopping centres, roads and airports on prime farmland
- Fracking, with its pincushion of roads, well pads and holding ponds.
- Destroying the life in the soil through pesticides and artificial fertiliser

### Soil degradation

The United Nations Environment Program funded a study on global soil degradation. This map summarises their findings. It shows that most of the world's soils are degraded, with large expanses of very degraded soils.



Lester Brown's *World on the Edge* has a chapter on Eroding Soils and Expanding Deserts. These excerpts give some indication of the ground covered therein (p36):

Today, roughly a third of the world's cropland is losing topsoil at an excessive rate, thereby reducing the land's inherent productivity. An analysis of several studies of soil erosion's effect of U. S. crop yields concluded that each inch of topsoil lost, wheat and corn yields declined by close to 6 percent. .

Wang Tao, one of the world's leading desert scholars, reports that from 1950 to 1975 an average of 60 square miles of land turned to desert each year. Between 1975 and 1987, this climbed to 810 square miles per year. From then until the century's end, it jumped to 1,390 square miles of land going to desert annually. .

While China is battling its expanding deserts, India, with scarcely 2% of the world's land area, is struggling to support 17% of the world's people and 18% of its cattle. According to a team of scientists at the Indian Space Research Organization, 24% of India's land area is slowly turning into desert. .

While Nigeria's human population was growing from 37 million in 1950 to 151 million in 2008, a fourfold expansion, its livestock population grew from 6 million to 104 million, a 17-fold jump. With the forage needs of Nigeria's 16 million cattle and 88 million sheep and goats exceeding the sustainable yields of grassland, the northern part of the country is slowly turning to desert. .

As countries lose their topsoil, they eventually lose their capacity to feed themselves. Among those facing this problem are Lesotho, Haiti, Mongolia, and North Korea.

### **Urban expansion**

The effects of urban expansion are obvious. Building roads, shopping centres and housing developments on agricultural land destroys it immediately. "Paved paradise, put up a parking lot," was the refrain of a song from the 60s.

### **Fracking**

Likewise fracking directly destroys agricultural land through the network of drilling pads and connecting roads.

And, as with coal and petrol, burning the gas from fracking increases atmospheric CO<sub>2</sub>.



### **Industrial agriculture**

Soil microbes are necessary to release trace minerals and make them available to plant roots. Pesticides and artificial fertilisers kill soil microbes. The plants still grow, but they lack the full complement of trace elements. Hence one possible part of the explanation for the high levels of obesity in the United States and elsewhere is that people are eating much more because they are nutritionally deficient.

Industrial agriculture requires phosphorus for fertiliser. Global production of phosphorus is predicted to decline about 2030. Peak oil, the point where the oil prices go up because the easy to get oil supplies are being exhausted, is already here. And the availability of fresh water is about to hit hard. So it is doubtful that global food supplies can be maintained through industrial agriculture.

In addition, there is a world-wide decline in bee populations. Pollination is essential for crops to grow, and bees do a lot of that work. Industrial agriculture has triggered a massive die-off of bee colonies. Bees are harmed directly through pesticides and like us, through food from soils that are deficient in available trace elements. And by planting boundary to boundary with no room left for wildflowers, industrial agriculturalists directly starve the wild bees.

## Evidence

*Global Assessment of Human-induced Soil Degradation (GLASOD)*, Oldeman, L.R. et al  
<http://www.isric.org/projects/global-assessment-human-induced-soil-degradation-glasod>

*Threats: Soil erosion and degradation*, WWF  
<https://worldwildlife.org/threats/soil-erosion-and-degradation>

*World on the Edge: How to Prevent Environmental and Economic Collapse*, Lester R. Brown. 2011

Peak Phosphorus, Elser and White, Foreign Policy 2010  
[http://www.foreignpolicy.com/articles/2010/04/20/peak\\_phosphorus](http://www.foreignpolicy.com/articles/2010/04/20/peak_phosphorus)

*Honey bees are dying and without these natural pollinators, crops suffer.* Paul Clark, Resilient Communities 2014 <http://www.resilientcommunities.com/drought-isnt-the-only-threat-to-agriculture-this-year>

Marla Spivak's TED talk



[Why bees are disappearing](#)

## Solution

*Soil carbon - can it save agriculture's bacon?* Christine Jones  
[http://www.amazingcarbon.com/PDF/JONES-SoilCarbon&Agriculture\(18May10\).pdf](http://www.amazingcarbon.com/PDF/JONES-SoilCarbon&Agriculture(18May10).pdf)

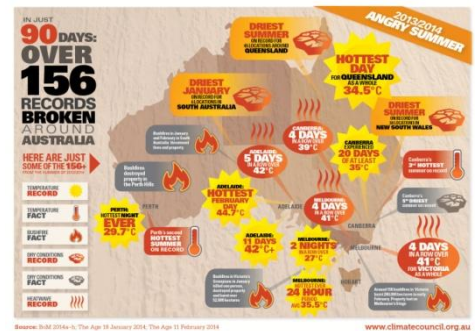
# Climate

As you know there has been a lot of controversy about global warming. Is it real? Is it human-induced?

The question of whether global warming is real is easily answered. A wide variety of events indicate that the earth is warming. Among the highlights are:

- Glaciers around the world are retreating at an accelerating rate
- The oceans are warming
- Arctic Sea ice is melting
- Siberian peat bogs are thawing
- Alaskan permafrost is melting
- Increasing extreme weather events around the world – record-breaking temperatures, intense hurricanes, fires, floods and droughts
- Methane plumes are bubbling up from the Arctic seabed.

Peak scientific bodies now assert that global warming is the result of human-induced activities. This review by the US National Atmospheric and Space Administration (NASA) lists the major ones:



*Scientific consensus on human induced global warming, NASA*  
<http://climate.nasa.gov/scientific-consensus>

There is a long history of vigorous scientific debate seeking to find explanations for global warming other than CO2 increase. Various explanations, such as sunspots, were put forward and ultimately rejected because they didn't stack up with the evidence. This short article by Stephan Harding gives a quick overview.

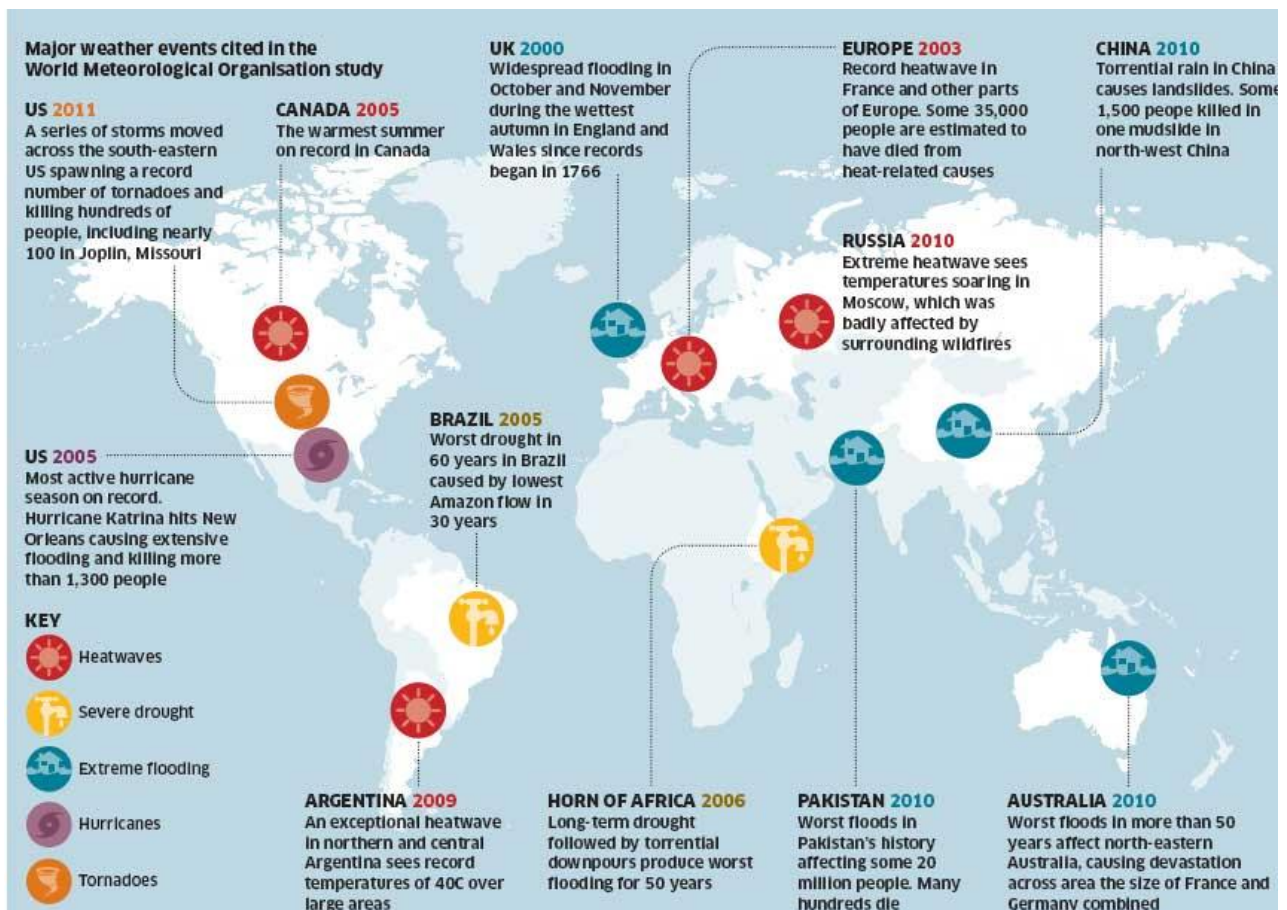
<http://www.guardian.co.uk/environment/2007/jan/08/climatechange.climatechangeenvironment>.

## **At present levels of atmospheric CO2 global warming is producing extreme weather events**

These include record-breaking temperatures in recent years in United States, Australia and other parts of the world, massive flooding, and drought. Obviously these affect food supply, and will do so more as the trend continues.

The large reinsurer Munich Re has been tracking extreme weather events for its own business purposes since the 1970s. They report that the frequency and intensity of these events is increasing.





These extreme weather events are powered by the greenhouse gasses that are already in the atmosphere. As we continue to pump carbon emissions into the atmosphere they will get worse.

This trend alone is sufficient cause for us to rapidly reduce carbon emissions and actively withdraw excess atmospheric CO<sub>2</sub>.

However, there is something worse – far worse. This is the prospect of triggering an uncontrollable rapid escalation of global warming through the release of large amounts of methane from the Arctic.

### Arctic methane

There are two major sources of methane in the Arctic, and both of them are huge.

1. Thawing permafrost across Siberia.
2. Methane deposits in the shallow sea off Siberia (the East Siberian Arctic Shelf).

### Thawing permafrost across Siberia

As the Arctic warms, methane is being released from Siberian lakes. Microbes are eating recently thawed ancient grasses. The area involved is about the size of France and Germany combined.



The National Atmospheric and Space Administration (NASA) published an article about it called *Is a Sleeping Climate Giant Stirring in the Arctic?*  
<http://www.nasa.gov/topics/earth/features/earth20130610.html>

Over hundreds of millennia, Arctic permafrost soils have accumulated vast stores of organic carbon - an estimated 1,400 to 1,850 gigatonnes (Gt) of it (a gigatonne is 2.2 trillion pounds, or 1 billion metric tons). That's about half of all the estimated organic carbon stored in Earth's soils. In comparison, about 350 gigatonnes of carbon have been emitted from all fossil-fuel combustion and human activities since 1850. Most of this carbon is located in thaw-vulnerable topsoils within 10 feet (3 meters) of the surface.

But, as scientists are learning, permafrost - and its stored carbon - may not be as permanent as its name implies. And that has them concerned.

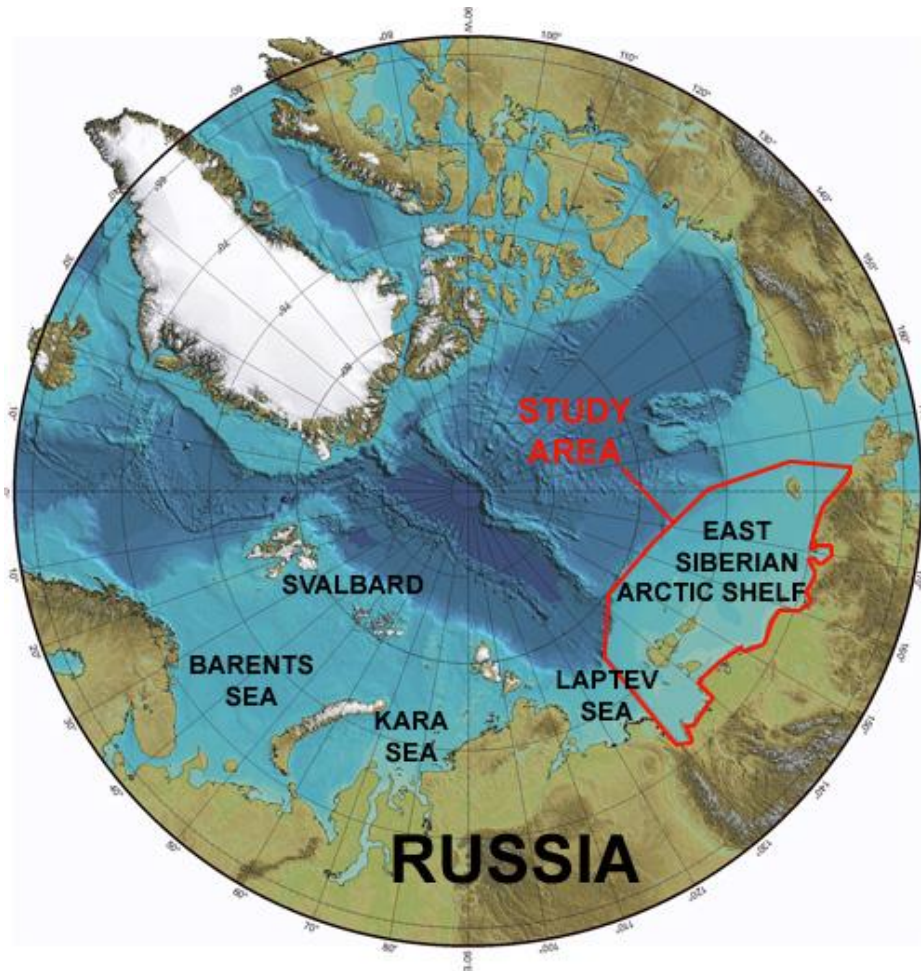
"Permafrost soils are warming even faster than Arctic air temperatures - as much as 2.7 to 4.5 degrees Fahrenheit (1.5 to 2.5 degrees Celsius) in just the past 30 years," Miller said. "As heat from Earth's surface penetrates into permafrost, it threatens to mobilize these organic carbon reservoirs and release them into the atmosphere as carbon dioxide and methane, upsetting the Arctic's carbon balance and greatly exacerbating global warming."

### **Methane from Arctic seabeds**

Underneath the Arctic Ocean, and in other parts of the world, are vast deposits of a form of ice that has methane embedded in it. In the Arctic these deposits are mostly covered by a seal of solidly frozen permafrost more than a kilometre thick.

It was long thought that that it would be impossible for the ice barrier to melt and for methane to be released into the atmosphere. However, in the shallow waters off the Siberian coast weather (the East Siberian Arctic Shelf, or ESAS) the ice barrier is only 20 meters thick, and it is degraded.

The East Siberian Arctic Shelf is large. It is a methane-rich area that encompasses more than 2 million square kilometres of seafloor in the Arctic Ocean. The geology is irregular, with ridges, valleys and zones of seismic activity. Siberian rivers, which are warming, empty into it.



The amount of methane under the floor of the Arctic Ocean is thought to be about 1700 gigatonnes (Gt). The amount of excess CO<sub>2</sub> in the atmosphere is about 350 Gt. Methane is 22 times more powerful in inducing global warming than CO<sub>2</sub>. The rapid release of even 1-2% of this methane would have an overwhelming effect on the earth's climate.

*The amount of CH<sub>4</sub> (methane) that could theoretically be released in the future is enormous. The volume of gas hydrates that underlie the Arctic Ocean seabed is estimated to be 2,000 Gt of CH<sub>4</sub> (Makogon et al., 2007). About 85% of the Arctic Ocean sedimentary basins occur within the continental shelf; therefore, within the ESAS alone, which comprises ~30% of the area of the Arctic shelf, hydrate deposits could contain ~500 Gt of CH<sub>4</sub>. An additional two-thirds of that amount (~300 Gt) is stored in the form of free gas (Ginsburg and Soloviev, 1994). Because submarine permafrost is identical to on-land permafrost, the carbon pool held within submarine permafrost can be estimated to include not less than 500 Gt of carbon within a 25-m-thick permafrost body (Zimov et al., 2006). Thus the total amount of carbon preserved within the Arctic continental shelf could total ~1300 Gt of carbon, of which 800 Gt is previously formed CH<sub>4</sub> ready to be suddenly released when appropriate pathways develop (Shakhova and Semiletov, 2009; Shakhova et al., 2010b). Release of only 1% of this reservoir would more than triple the atmospheric mixing ratio of CH<sub>4</sub>, probably triggering abrupt climate change, as predicted by modelling results (Archer and Buffett, 2005).*

<http://arcticmethane.blogspot.com.au/p/faq.html#7>

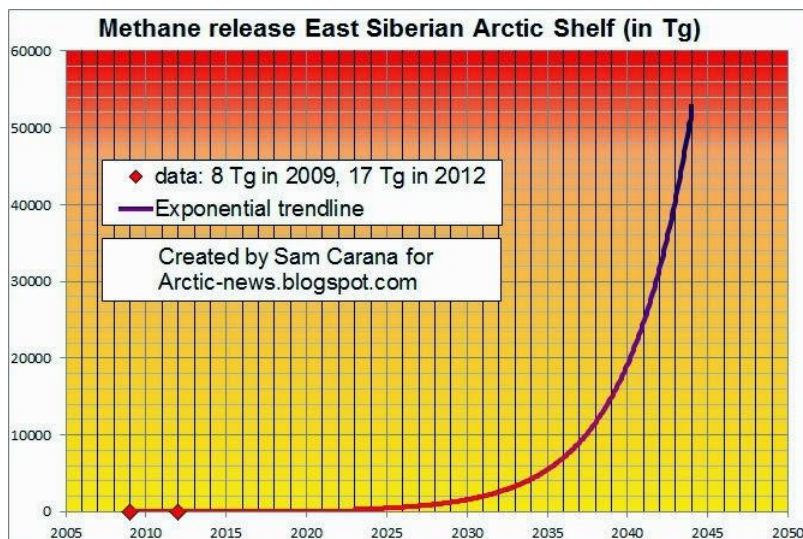


In 2007 a Russian research ship discovered plumes of methane bubbling up from the East Siberian Arctic Shelf (ESAS), a shallow part of the Arctic Ocean. The discovery of these methane plumes was a surprise. They had not been detected in previous cruises in the same area.

Later, in other parts of the ESAS, larger plumes were discovered.

Between the summers of 2010 and 2011, scientists found that in the course of a year methane vents only 30 centimeters across had grown a kilometer wide. And they discovered methane vents up to 150 kilometers across. A scientist on a research ship described this as “bubbling as far as the eye can see in which the seawater looks like a vast pool of seltzer.”

In January 2014 these emissions were forming a cloud over the sea some 3,000 metres in height. These are extremely large emissions, and beyond anything humanity has ever measured before. The seals that nature had put in place to keep the deep geological methane from seeping out are being breached.



The conditions are in place for a massive excursion of methane into the atmosphere. Specifically, we have

- Mammoth amounts of shallow water gas hydrates
- Warming waters
- Cracks and instability in the permafrost itself
- Observed venting on an increasing scale.

Increased warming produces the conditions of more warming, and we're at the beginning of a self-escalating process.

Self-escalating global warming is perhaps the most 'in our face' reason for asserting that we are in an ecological emergency requiring rapid change.

In addition to virtually eliminating CO<sub>2</sub> emissions, we need to withdraw excess atmospheric CO<sub>2</sub> as rapidly as possible. The most direct ways are actively building soil carbon in agricultural lands, reforestation, and protecting and rehabilitating wetlands.

## Evidence

The National Science Foundation published a warning about Arctic methane in 2010.

[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=116532](http://www.nsf.gov/news/news_summ.jsp?cntn_id=116532)

A 2011 Russian survey off the East Siberian coast found plumes wider than one kilometre releasing methane directly into the atmosphere.

<http://www.independent.co.uk/news/science/vast-methane-plumes-seen-in-arctic-ocean-as-sea-ice-retreats-6276278.html>

*Arctic methane catastrophe scenario is based on new empirical observations.*

<http://www.theguardian.com/environment/earth-insight/2013/jul/31/artic-methane-catastrophe-empirical-evidence>

And then go on to read Nafeez Ahmed's *Seven facts you need to know about the Arctic methane time bomb*

<http://www.theguardian.com/environment/earth-insight/2013/aug/05/7-facts-need-to-know-arctic-methane-time-bomb>

In this well researched article John James pulls together a lot of threads to bring home the case that we emergency action is required now:

*Methane, the Gakkel Ridge and human survival*

<http://planetextinction.com/documents/Methane,%20the%20Gakkel%20Ridge%20and%20human%20survival.pdf>

There was huge debate for years as scientists around the world sought different explanations for global warming. Evidence was put forward and at times refuted for different theories, including sunspots as a cause of global warming. This website reviews the history; it was a long process. <http://www.aip.org/history/climate/index.htm>

Now major scientific bodies such as the World Meteorological Organisation and the prestigious National Academy of Sciences in the US have concluded that greenhouse gas emissions are a major cause of the rapid global warming that we now observe.

*Scientific consensus on human induced global warming*, NASA

<http://climate.nasa.gov/scientific-consensus>

*Retreat of glaciers since 1850*, Wikipedia

[http://en.wikipedia.org/wiki/Retreat\\_of\\_glaciers\\_since\\_1850](http://en.wikipedia.org/wiki/Retreat_of_glaciers_since_1850)

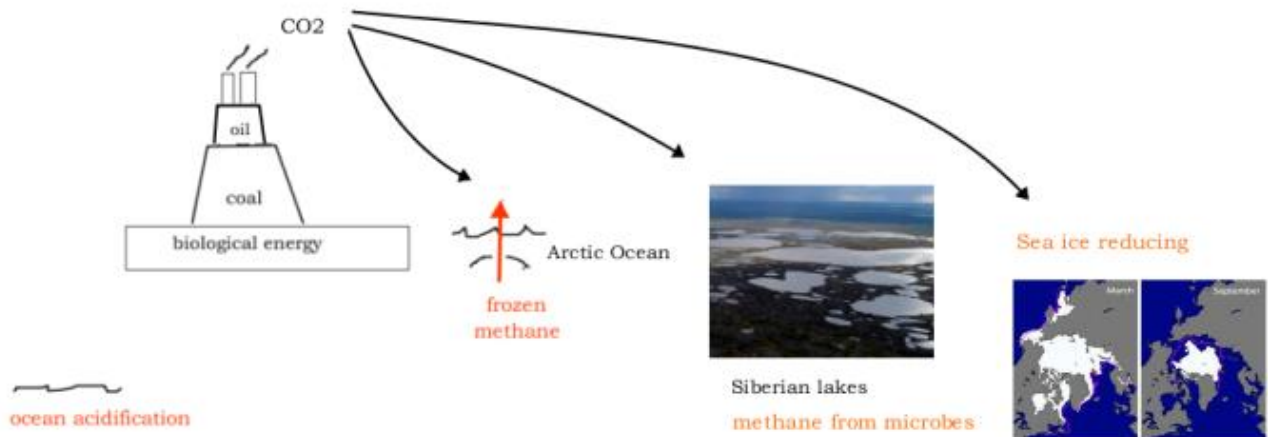
*Yahoo's 5 Stunning Before and After Pictures of Melting Glaciers*, Treehugger 2010

<http://www.treehugger.com/clean-technology/yahoos-5-stunning-before-and-after-pictures-of-melting-glaciers.html>

Increasing extreme weather events

<http://site.destinationgreen.com/extreme-weather-link-can-no-longer-be-ignored>

## Effects of fossil fuel emissions



Some movies are rated 'for mature audiences only'. What we have considered above is not a movie. It is not a horror story 'out there'. It is a phenomenon that is occurring now. If it goes its full course it will have devastating effects on our whole society, and it will affect us all. Being rich or poor will make no difference.

No one wants to be the bearer of bad news, but facing reality offers the only hope of waking up and responding effectively.

## Chapter 8 Tainter's Dilemma

Support materials for this module are at <https://app.box.com/s/lhy28asooqz4m1xdmb6n>

*This model is based on Joseph Tainter's *The Collapse of Complex Societies*. It is a physical model that enables people to quickly see the essence of Tainter's thesis.*

Tainter describes how, as societies gain access to more energy, that energy enables them to become more complex. For example, in about 4000 BC, the Middle East city of Sumer developed irrigation, which increased their food supply. So their population increased, and they expanded irrigation. With this expansion came engineers, accountants, scribes, courts and the capacity to support people doing astronomy and mathematics. All this amounts to a 'complex society'.



So far so good. But at some point the available energy begins to contract. In the case of Sumer, grain yields began to drop because of salination.

Typically what the ruling elite does in this kind of situation is to push harder to extract more resources. After all, their society is dependent on them. In Sumer they shifted from two crops to three, and expanded irrigation even more. This accelerated salination, and Sumer collapsed because their available energy (grains) dropped below what was needed to sustain them.

### Tainter's Dilemma

We may call the conflict between the felt need to keep a complex society going and a diminishing resource base *Tainter's Dilemma*. In our time, will the elites accelerate resource extraction (and thus make the ecological crash come harder and sooner), or will they intentionally reduce the rate of industrial production in order to operate within planetary boundaries.

Our time is unique in that we have the foresight to see the ecological crunch coming – or to recognise that it is actually here. We also have the design skills and technologies to greatly reduce our energy requirements. So we may have a way out that was not available to previous societies. What is needed is the thoughtful public will to actually make the transition to a society that operates within the Earth's carrying capacity.

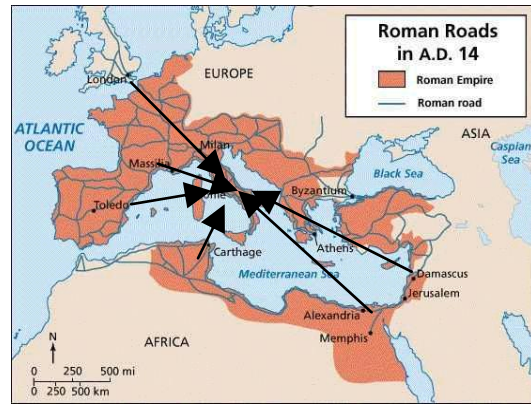
In this presentation we show that our industrial civilisation is supported by a column of energy in a way that cannot continue.

### Biological energy is basic to all societies

At the base of our column of energy is our biological food supply. For illustration we look at four major sectors: fresh water, soil, oceans, and climate. We could have included more, but for the purpose of highlighting our dependence on nature these four will suffice. Our intent is to quickly show that we are supported by a column of energy, and in the future that column will not be sufficient to continue business as usual. The

The Roman Empire ran on biological energy – grain powered oxen and humans. They increased their supply through conquest. In time their supply lines became so long that the grain required to feed the oxen carting the grain to Rome exceeded the grain that actually reached Rome.

When the energy gained from a resource is less than the energy expended in getting it then obviously it is not worth pursuing.



## Presentation

1. Lay out the four segments representing soil, fresh water, forests and climate. They are the biological basis of our energy column.



2. Coal and oil support increased social complexity.

With the introduction of coal, population, industrial complexity and social complexity jumped. Now we have steamships and railroads, cheap electricity and transcontinental telegraphy.



Add a cup labelled *coal and gas* to your model:



3. Oil comes on top of that. And then we add the car and building to

represent our complex society.



This stack is a physical model representing how complex societies are supported by energy. Our energy availability is problematic at a number of levels.

## Descent by design

As we discussed in Chapter 7 *The case that we are in an ecological emergency*, the energy and environmental support required to keep our complex civilisation going cannot be sustained. Therefore a descent of some kind is inevitable.

An immediate implication of this is that business-as-usual is over. One way or another there will be a decline in energy, industrial production and economic activity.

The question for the governing elites (and for all of us in democracies) is *will the descent be by design, or by disaster?*



## Resources

Joseph Tainter, *The Collapse of Complex Societies*

You Tube: [Collapse of Complex Societies by Dr. Joseph Tainter \(1 of 7\)](#).

Thomas Homer Dixon, *The Up Side of Down*

<http://www.theupsideofdown.com/theargument.html>

Andrew Gaines, [How Cities are Supported by Energy](#)

# Chapter 9 The Ecological Equation

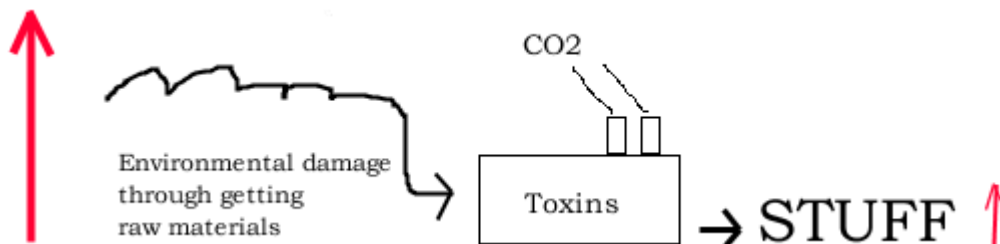
Support materials for this module are at <https://app.box.com/s/1unnebig7f0f6zzkyn55>

*Many people think in terms of abstractions, or in terms of how they want the world to be. Therefore they can hold comfortable illusions about the state of the world because they do not pay attention to real-world environmental trends and their predictable consequences.*

*The Ecological Equation helps people think in terms of physical reality.*

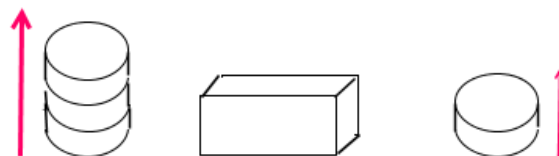
## The Ecological Equation

The Ecological Equation is a simple diagram that shows the connection between excess consumption and cumulative environmental damage.

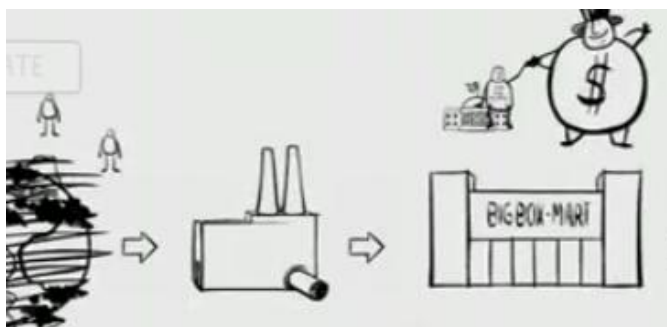


The more STUFF, the more the associated ecological damage. As the arrow on the right representing physical goods goes up a little bit, the arrow on the left representing associated environmental damage goes up much more.

We can represent this physically with a small box representing the factory, and checkers to represent environmental damage and STUFF. Add, say, one checker to the STUFF stack, and three checkers to the environmental damage stack.



Note: This same idea about the connection between the production of STUFF and environmental damage is at the heart of Annie Leonard's brilliant *The Story of Stuff* (<http://www.youtube.com/watch?v=gLBE5QAYXp8>).





## Chapter 10 The Big Picture Map

Support materials for this module are at <https://app.box.com/s/ca1y19kqe0czbq0mwi1q>

*Here we develop a map of the major elements that must change if we are to achieve ecological sustainability. It complements our module on Mapping the current system and the way forward (Chapter 13), which presents the same ideas as a flow chart.*

*Our intent here is to help people develop a unified mental framework for understanding what needs to change, even though they themselves cannot as individuals directly implement some of the needed changes. Knowing why certain large-scale changes are profoundly necessary generates support for leaders who propose and implement the changes.*

Our approach to presenting this module is to start with the Ecological Equation, and then ask the people we are talking with to identify elements of the way our society operates that increase the amount of stuff we produce. We add each element, such as 'advertising', to the map to build up a comprehensive picture.

### The Presentation

Skilled practitioners in every discipline take account of the whole situation. They start with a systemic appreciation of how the whole system currently operates. That way they don't miss important factors, and they can identify the most effective places to intervene.

This approach is especially important in terms of catalysing large-scale healthy social change. We don't want to neglect any elephants in the room. What follows is a method for mapping the big picture that starts with this question:

*'How does our society as a whole operate in ways that make global warming and other environmental and social issues worse?'*

You already know a lot about this, but you may not have put it into a systemic context. Indeed, the prospect of trying to grasp how a whole society works could seem intellectually daunting. But we have an approach that makes it quite manageable. Indeed, at the end we will have a unified map that fits onto one page.

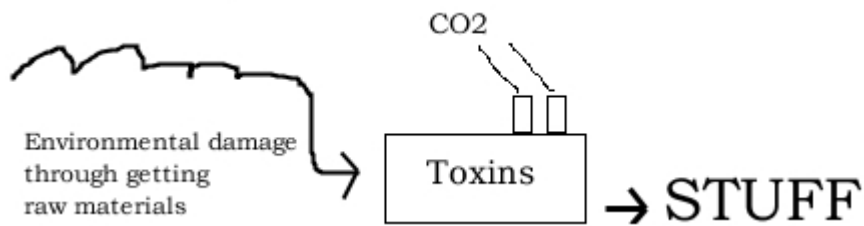
We start with the Ecological Equation. This shows the connections between 'STUFF' (manufactured products) and associated environmental damage.

We then ask: What factors in our society tend to increase the amount of stuff we produce and consume? We are interested in the factors that drive excess consumption. There are only a few major factors.

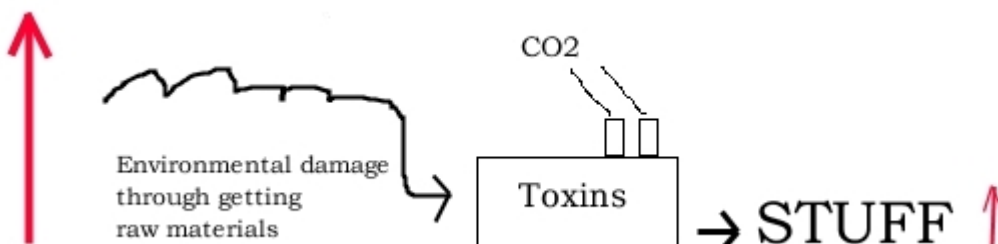
### The Ecological Equation

We start with the Ecological Equation. There is a direct connection between the amount of consumer goods produced and environmental damage. Environmental damage inevitably occurs through extracting raw materials, and in the process of industrial production.

We sum this up in this diagram, which is the Ecological Equation.



The more things we produce and consume, the more we damage the environment. So this diagram works as a visual equation. As the red arrow on the right representing increasing consumption goes up, the red arrow on the left representing environmental damage goes up even more.

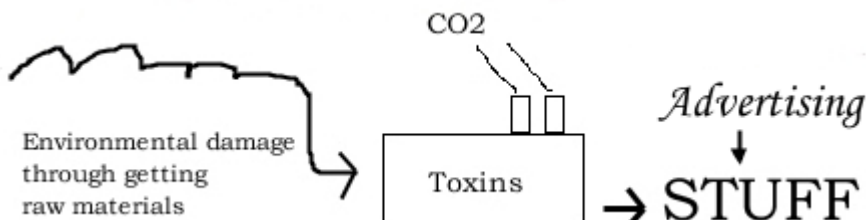


## Mapping the Big Picture

Now, let's explore the question *What factors in mainstream society tend to increase the amount of stuff we produce and consume, and hence tend to increase environmental degradation.*

In other words, let's look at the factors that tend to increase consumption.

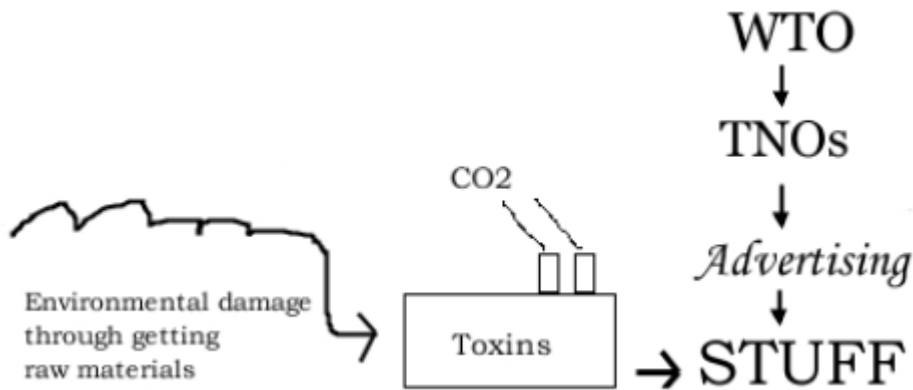
As you know, advertising plays a major role.



There are two kinds of advertising. Straightforward advertising announces local goods and services. It is not sophisticated.

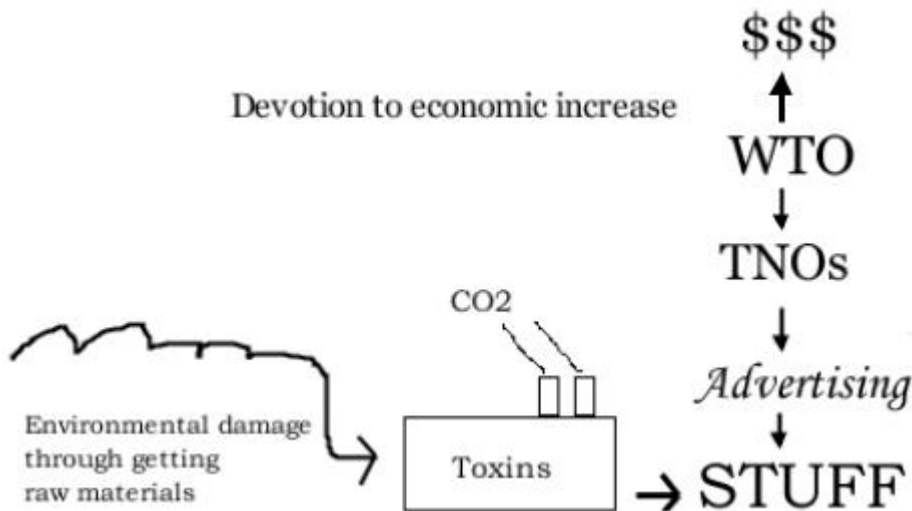
Psychologically manipulative advertising is intentionally designed to play on people's emotional buttons. This kind of advertising is done by large companies with large budgets. The largest of them are transnational organisations (TNOs).

And expanding our view still further, the purpose of the World Trade Organisation (WTO) and Free Trade Agreements is to expand international trade.



Policies to expand world trade are one expression of mainstream society's devotion to economic increase. Although in some areas economic increase has moved people out of poverty, in the developed world economic increase tends to primarily increase the wealth of the global elites. This is not an accident; the system is intentionally set up that way.

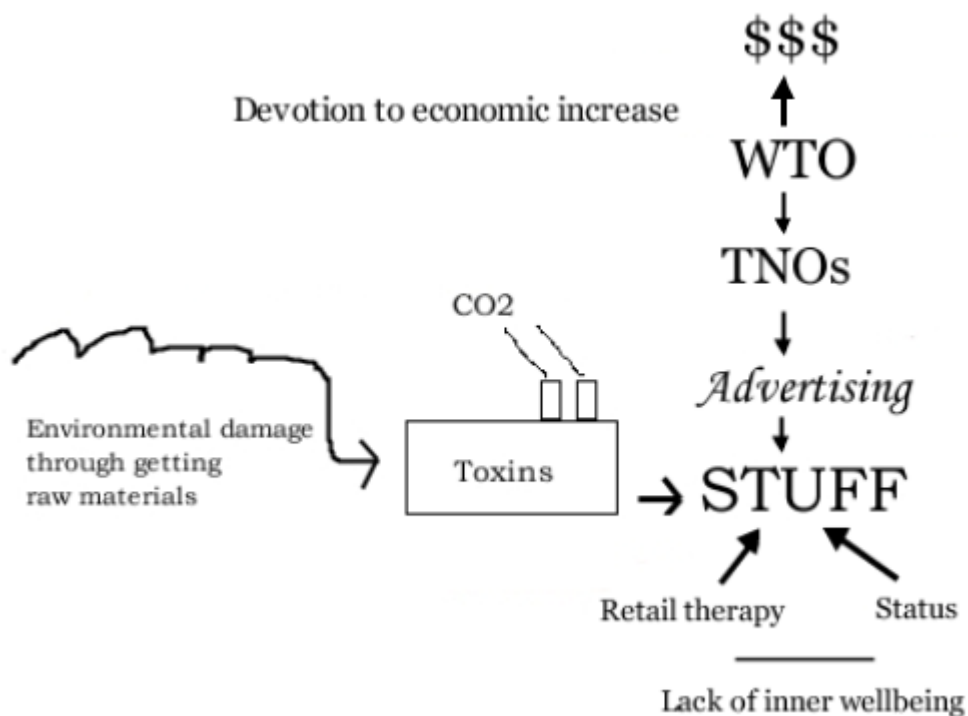
We have a debt-based economic system that forces people to produce ever-increasing amounts in order to be able to pay off the interest on loans. So the debt-based economic system with 'fractional reserve banking' (that allows banks to lend out much more money than they have) is a driver of economic increase. This form of banking is a human construct; it is not the only way to handle money.



Up to this point we have been identifying institutional factors that increase the amount of stuff. However, advertising and trade agreements do not *compel* us to buy stuff. There are internal psychological dynamics that affect our desire to purchase things. These tend to drive excess consumption – consumption beyond what we need or necessarily enjoy.

Many people lack a feeling of inner wellbeing, and instead have a sense of emptiness or malaise inside. If this feeling of malaise were to be directly experienced it would be extremely painful. People avoid this or compensate for it by compulsively distracting themselves, taking drugs, or by stuffing themselves with things. Some stuff themselves with chocolates; others indulge in 'retail therapy'.

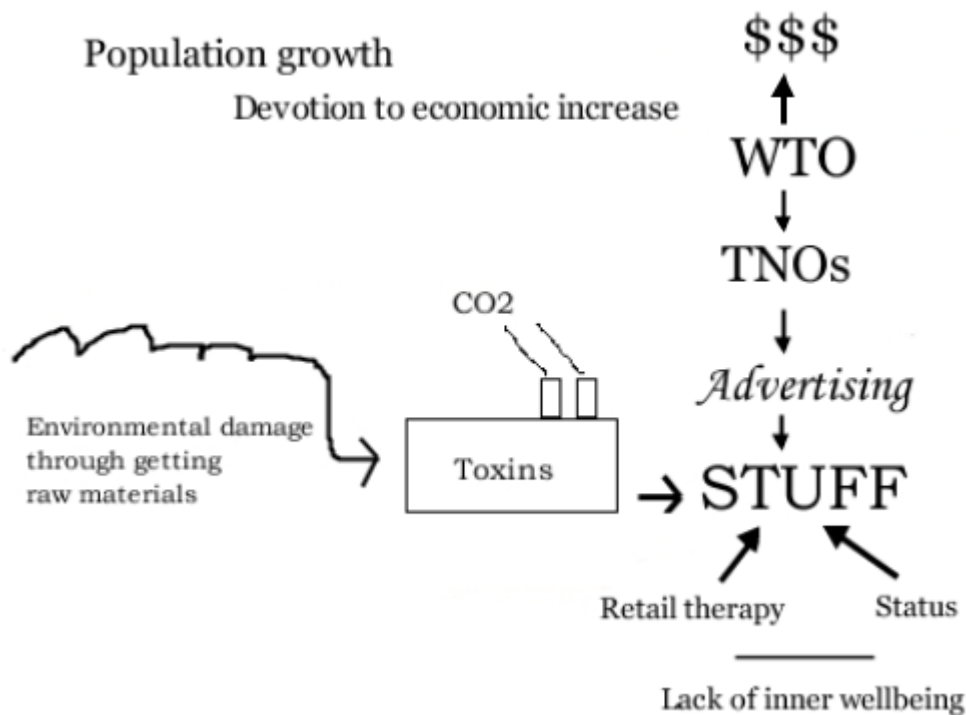
Desire for status also drives excess consumption. There is healthy status and dysfunctional status. Healthy status is earned, it arises because of one's contribution to the community based on competence and caring. Pathological status is based on a need to feel good about oneself by appearing to be superior, or at least not inferior. This need finds expression as conspicuous consumption and keeping up with the Joneses.



Well, that is quite a stack of influences that increase the amount of stuff we produce and consume!

We want to make sure there are no elephants in the room. Nothing important should be neglected. So let's add one more factor to our consideration.

Population growth inherently leads to increased consumption, even if only for things like housing, roads, transportation, schools and hospitals.



To summarise, the major elements of the system that we must collectively address if we are to achieve ecological sustainability include:

- Improving industrial design
- Cultivating emotional resilience
- Curtailing advertising
- Reducing dependence on large international organisations
- Rolling back World Trade Organisation regulations that take precedence over protecting the environment
- Abandoning the aspiration of ever-increasing economic growth, in favour of transitioning to materially modest lifestyles that enable us to live within the Earth's carrying capacity
- Stabilise population, and ultimately reduce it naturally.

Each of the above elements is a major driver of global warming and environmental purpose deterioration. Therefore each of them represents a major point of change that must be dealt with if, together, we are to achieve ecological sustainability. They operate as a mutually reinforcing system. Therefore, as we have been saying, the whole system must change.

Two of these, improving industrial design and cultivating emotional resilience, are within the capacity of individuals and some businesses to influence directly. The rest require informed committed public will to change the legal frameworks that support them. Given that most countries are nominally democracies, our task is to make democracy work for the well-being of all of us.

It is not enough to focus on just one element, such as industrial redesign, and neglect the bigger drivers such as



advertising, trade agreements and devotion to economic increase. Nor does it serve us to suppose that purely technical solutions will suffice, since it is our psychology and our ways of thinking that drive the whole system.

## An upbeat conclusion

The world has put an amazing amount of creative resources into building an astonishing industrial civilisation. Now let's our emphasis and create a world of magnificent well-being.

The good news is: we know a vast amount about how to actually do this. Advanced industrial design strategies that can make our ecological footprint extremely small are already in use.

On the psychological side, we know how to support parents in becoming more nurturing. We have effective means of helping adults resolve their childhood hurt and become more loving and inwardly happy people. We have methods of personal growth that can help people shift from dominator-relating to partnership-relating – a shift that can make both governments and businesses work better, as well as improving personal wellbeing. We know how to run successful institutions on Partnership values. All in all, these approaches can take us far towards an ideal of becoming so inwardly contented and ecologically responsible that excess consumption simply becomes uninteresting, or at least not necessary to us.

To sum up, we have two options. One is to continue on a path that is becoming increasingly dismal.

The other is to get excited about building a world of magnificent well-being – and invest in the intellectual, emotional and practical things necessary to actually build that world. The option of muddling along making small piecemeal environmental improvements is not an option that will lead to future well-being for young people alive today. The near future (within the lifetime of our children and grandchildren) will either be unspeakably horrible or, through a fundamental shift in social direction, surprisingly wonderful. Utopia or Oblivion.

## Chapter 11 Bridging from specific issues to Whole System Change

Support materials for this module are at <https://app.box.com/s/7112ytlqx6ei83yc69ty>

*Any specific issue can be used as a lead-in to looking at the big picture and the need for whole system change. This module uses ocean acidification as an example. It starts with ocean acidification, bridges to the big picture and the need to change the operation of our whole society, and notes that citizen led education is the key. It concludes with an invitation to voluntarily act as a citizen educator.*

*This module repeats material from previous modules, reworking it into a different form of presentation.*

It may seem inconceivable that humans could affect something as vast as the oceans. However, the oceans have become measurably more acid as a direct result of industrial CO<sub>2</sub> emissions, and this is already affecting sea life.

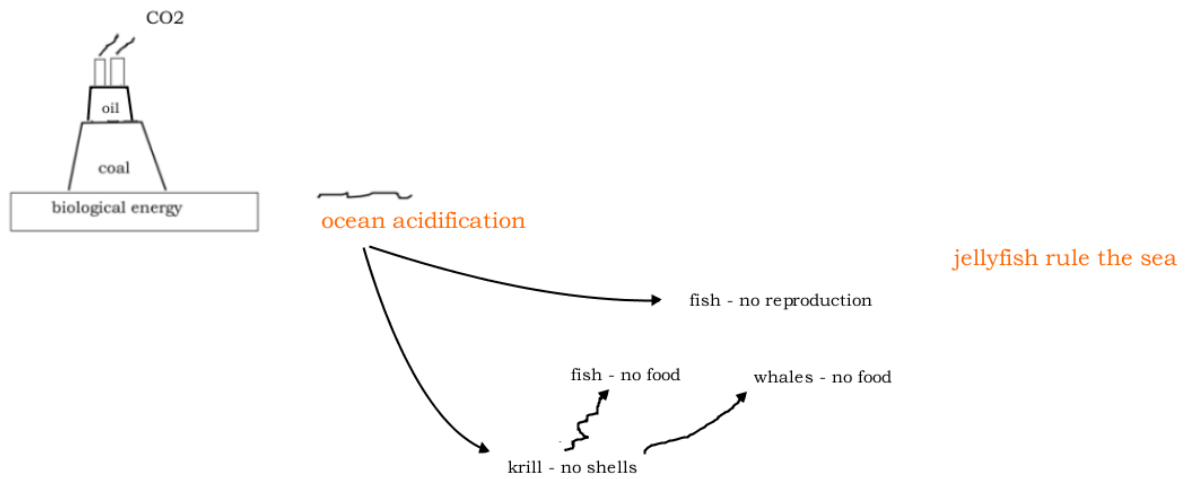


Oceans naturally absorb carbon dioxide from the atmosphere. The carbon dioxide is removed by micro-organisms which use it to form their calcium carbonate shells. When the micro-organisms die they sink to the bottom of the ocean. In time, their accumulated shells form chalk beds. The famous white cliffs of Dover were formed this way.

Dissolved carbon dioxide interacts with seawater to form carbonic acid. The oceans do not actually become acid. It is just that the oceanic pH moves in that direction.

When the ocean becomes more acidic the small crustaceans at the bottom of the food chain cannot form their shells properly. This is already occurring. Observed shell weights are down by 30% in The Southern Ocean, and you can see where this trend will take us.

Fish such as tuna at the top of the food chain can only breed within a limited range of pH. On the current trend, at some point the fish will be unable to reproduce, because the ocean is too acidic. We do not know exactly at what point this is, but if we reach it it's too late! This is why we emphasise looking at trends rather than trying to identify absolute threshold points.



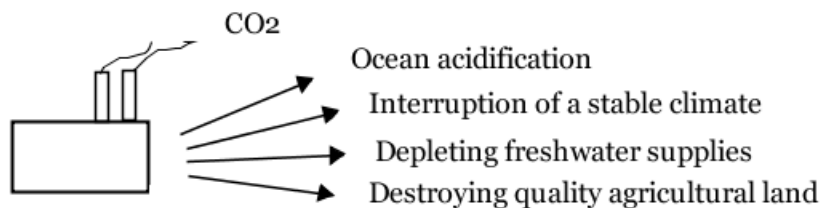
## Implications

**We are on track to lose the oceanic food chain** in a world where 500 million people depend on seafood for their subsistence, and for many of the rest of us seafood provides a pleasurable and important part of our diet.

The organisms that take over the oceans will be the simpler ones like jellyfish which are toxic to humans. People will stop surfing or snorkelling. Kids may play on the beach, but they will not wade in the shallows because the seas will be too dangerous.

### Additional implications of fossil fuel based industrial production include:

- Climate instability through fires, floods and droughts that impair food production.
- Depleting water supplies through coal mining and fracking.
- Loss of quality agricultural land through fracking



If current trends continue it is predictable that our biological life-support system will unravel through our own doing, and we will be decimated by fire, famine, pestilence and war. A grim prognosis!

Just telling this much can bring people to a 'holy shit' moment.

## What can we do about it?

The most important thing we can do is mobilise informed passionate public will to change course and become ecologically sustainable.

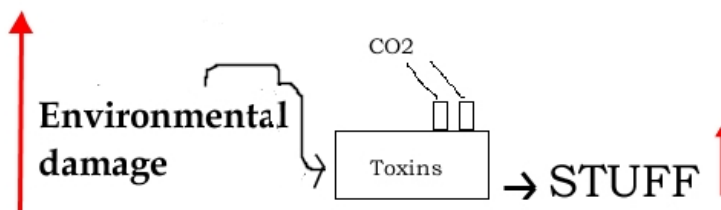


In what follows we highlight the major things that must change if as a global civilisation we are to live within planetary boundaries. We will develop a 'Big Picture Map' that shows how increasing population, consumer demand, economic throughput and industrial production work together as a system that exacerbates CO<sub>2</sub> emissions.

Note: The rest of this module reproduces Chapter 10 The Big Picture Map. We just outline that conversation here.

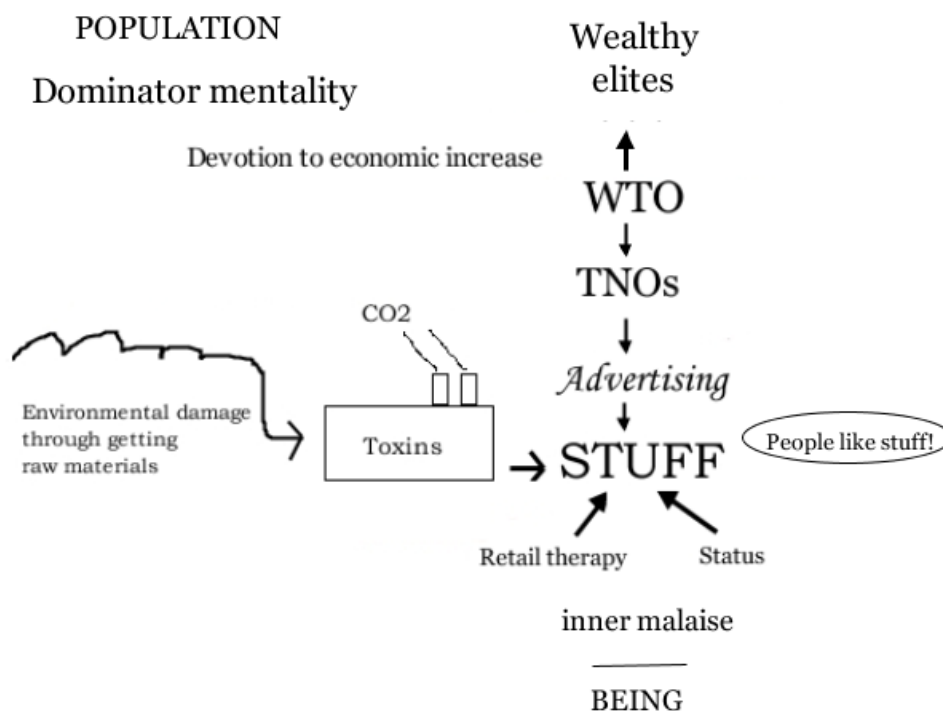
Industry produces consumer goods, much of which people do not necessarily either need or enjoy. So we are talking about excess consumption. As a shorthand term, let's say that industry produces STUFF.

The production of STUFF has huge environmental damage associated with getting raw materials. The more stuff that is produced, the more the associated environmental damage. So we have a simple equation. We call it the Ecological Equation.



Now let's identify the main factors that increase the amount of stuff. Which ones can you think of?

Participants will have a number of ideas. Most of them can be fitted into this diagram:



The Partnership-Dominator contrast

Some people have what could be called a 'Dominator mentality'. They aggressively seek to increase their wealth and power at the expense of community and the environment. The movie *Avatar* showed how this operates. *Avatar* was set on a far-off beautiful planet. It is now happening to us.

In contrast, people with a 'Partnership mentality' are interested in the wellbeing of communities and the natural world, and they are willing to work in good willed collaboration to achieve this.

The defining issue of our time is: Will we work together to solve our collective problems, or will we allow power elites with a dominator mentality to continue to destroy our planet?

## Citizen leadership for whole system change

This whole system must change profoundly if future generations are to have a hope of a positive future. Citizen-led mass education is the key.

We champion a *whole system change* to a life-sustaining society. A life-sustaining society will be ecologically sustainable. That is, it will operate within the planet's capacity to support us. And it will operate for the well-being of life as a whole and the human community.

For this change to occur a critical mass of mainstream society must understand why transformative change is both necessary and desirable, and passionately commit to making the 'Great Transition', as we may call it, happen.

Therefore Be The Change Australia is initiating an informal Great Transition initiative inspiring individuals and organisations around the world to bring the conversation about large-scale transformative change into mainstream society.

We would like to think that you will be moved to participate in the Great Transition initiative. You can participate by communicating about whole system change within your sphere of influence. The Transition Leader Network website has tools to support you in this, and you can join the community of practice.

[www.transitionleader.net](http://www.transitionleader.net)

## Chapter 12 Cultivating emotional resilience

Support materials for this module are at <https://app.box.com/s/hn31re21i80wxicjbp5>

*This chapter introduces EFT, a powerful self-help technique that people can use to resolve emotional disturbances and become more centred. Whether you learn it and apply it in Tabletop Presentations is optional, but we think it is a valuable addition to any person's tool kit. Becoming more emotionally centred is part of partnership-respect relating, and an important aspect of the Great Transition.*

*We introduce it here in preparation for a later discussion on exerting leadership.*

Much of the discussion about environmental sustainability is focused on the physical aspects of sustainability – things like protecting rainforests and shifting to renewable energy. These aspects are critical.

However, the emotional drivers that underpin the behaviour of individuals and whole societies are equally important. Put simply, people who are aware and who are relatively happy in their own being are less driven to excess consumption, and less prone to wilfully destroy communities and the environment for the sake of massive profit.

There are many disciplines that are useful for cultivating emotional resilience, including meditation, martial arts such as Tai Chi and Aikido, and psychotherapy.

Here we introduce a powerful do-it-yourself technique known as EFT (Emotional Freedom Techniques). We introduce it here because it is a valuable tool that people can use for themselves to cultivate their own emotional resilience, and it is also a tool that may be used later when we invite people to act as Transition Leaders. EFT can help people resolve any blocks they may have to acting as citizen educators.

EFT is a method of resolving emotional upsets and irrational reactions by tapping on acupuncture points with your fingers. It is simple to apply and highly effective.

The theory of EFT is simple. Normally our acupuncture energy should flow smoothly. However, when the mind is in touch with a disturbing thought or feeling, such as a past traumatic memory, somebody angry in your face, or perhaps the thought of an upcoming lecture, the energy spikes. It gets out of balance, and then – and only then – do we have the subjective feelings of anxiety or emotional upset.

It was discovered that just by tapping on a few acupuncture points with our fingers we can rapidly resolve these emotional upsets. Sometimes the process is surprisingly quick.

Although EFT is simple to learn and apply, we will not try to teach it here. It would be far better for you to go to Gary Craig's free on-line tutorial at [www.emofree.com](http://www.emofree.com). Gary Craig is the founder of EFT. He is a master of his own craft, and a very clear teacher. There are also many EFT resources on the internet.

The first step is to try EFT with some minor emotional issue of your own, and see if you feel a shift. If you find that you get results from EFT, then you can explore using it to help other people. Although it deals with emotions, EFT is not psychotherapy. It is part of the emerging field of energy psychology.

## Introducing the EFT tapping points

If you have EFT in your kitbag, and feel confident in using it with others, it is a good idea to introduce the possibility of EFT before you need it. You introduce it now, with the expectation that you may have occasion to use it in the final module on leadership. By introducing EFT before-hand people are not caught by surprise. They are prepared to work with you if you propose it later.

1. Describe EFT. Mention its value as a self-help tool.
2. Introduce the EFT set up phrase and tapping points now, but refrain from actually doing EFT. That is for later – if appropriate.

As mentioned, EFT can help people resolve blocks to leadership. At the end of *Tabletop Presentations* it would be natural to ask people if they are willing to act as Transition Leaders themselves. By then they will appreciate that we are in an ecological emergency, and that citizen leadership is essential for turning things around. Are they willing to exercise such leadership?

At this point some people may be interested, but have reservations such as *I don't know enough*, or *people will think I'm weird*, or *I don't want to proselytise*.

If they are interested, their reservations are simply irrational impediments to doing something they actually want to do. If so, it could be helpful to them to do a brief bit of EFT to enable them resolve the impediment.

If the person is concerned about '*not knowing enough*', for example, the set up phrase might simply be

*Even though I don't think I know enough, I still deeply and completely accept myself.*

They then repeat '*I don't know enough*' while tapping on the acupuncture points. The point here is not to reinforce the idea that they don't know enough, but rather to settle their energetic reaction to that idea.

As a result they may have a spontaneous shift in perception along the lines of, "Well actually, I do know a lot, and I do not have to be an expert."

## Resources

Gary Craig

- Free EFT video tutorial [www.emofree.com](http://www.emofree.com)
- [The Promise of Energy Psychology: Revolutionary Tools for Dramatic Personal Change](#)
- EFT instructions are at <https://app.box.com/s/qp1ebop3uo883suv2lnf>.

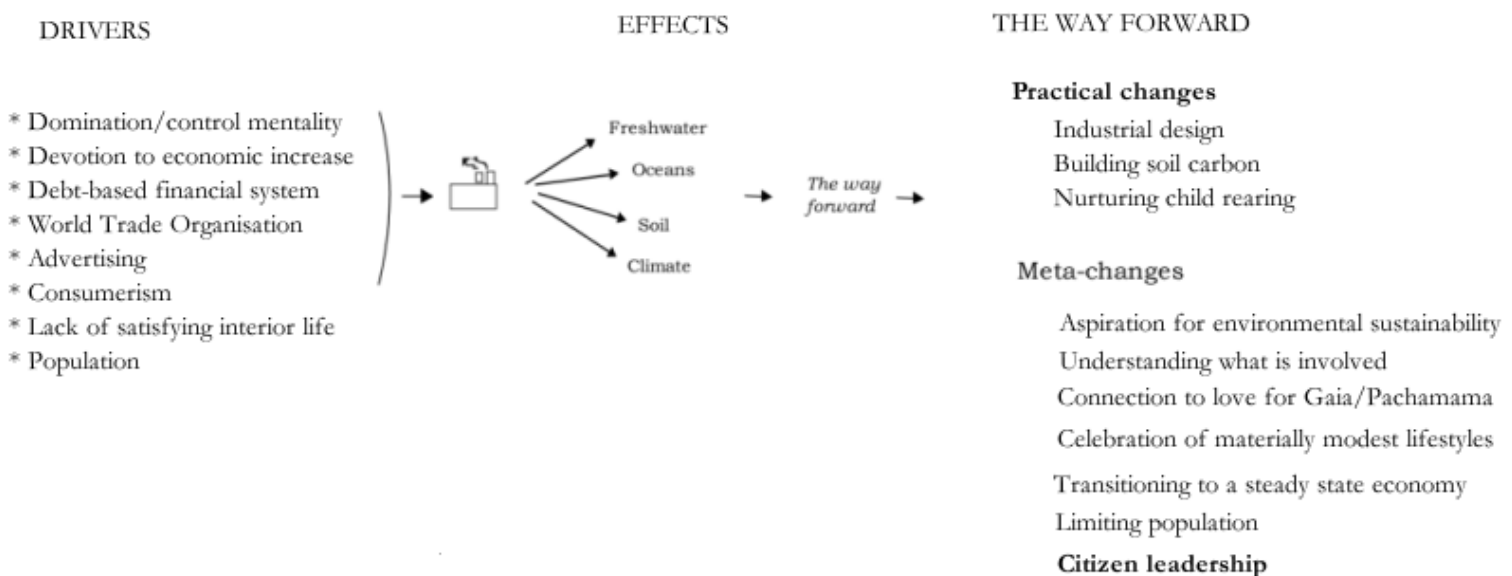
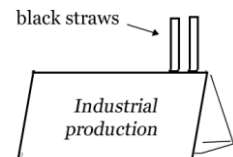
# Chapter 13 Mapping the current system – and the way forward

Support materials for this module are at <https://app.box.com/s/1ucuwgxvfj34174qdhb3>

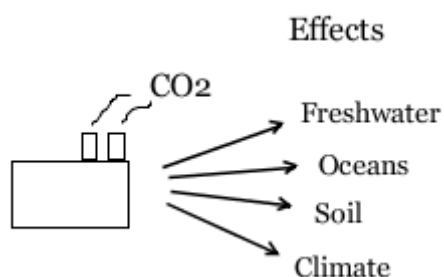
*The purpose of this module is to enable participants to grasp the major drivers of ecological deterioration, and to see the way forward. We want to help people move beyond looking at single factors, and develop an overall grasp of how our system works as a whole.*

*This module presents the information in Chapter 10, The Big Picture Map, as a flowchart. It is good for presenting to a large group, and it includes more detail.*

Here is the whole model. Each item can be pasted on a physical marker, and the whole array can be laid out on a tabletop.



We start with the connection between industrial production and environmental damage. We have already talked about environmental damage in our module on *The case that we are in an ecological emergency (Chapter 7)*, so all we need to do here is briefly refer to the fact that our industrial society has environmental effects.



In a moment we will look at the drivers of our current environmental decline. But before we do so it would be more cheerful to look at the ways forward. There are two levels here: practical initiatives, and meta-changes. The items listed are meant to be indicative rather than a complete list. However, we do emphasise citizen leadership.

## THE WAY FORWARD

### **Practical changes**

- Industrial design
- Building soil carbon
- Nurturing child rearing

### **Meta-changes**

- Aspiration for environmental sustainability
- Understanding what is involved
- Connection to love for Gaia/Pachamama
- Celebration of materially modest lifestyles
- Transitioning to a steady state economy
- Limiting population

### **Citizen leadership**

Then we turn to the drivers that increase industrial production and associated environmental damage. Except for population, all of the drivers are psychological or institutional. Domination/control mentality was put at the top of the list, because the drive for increasing the wealth and power shapes so much else. We will discuss this further in Chapter 14.

## DRIVERS

- \* Domination/control mentality
- \* Devotion to economic increase
- \* Debt-based financial system
- \* World Trade Organisation
- \* Advertising
- \* Consumerism
- \* Lack of satisfying interior life
- \* Population

Physical markers are a way of making verbal labels and pictures seem tangible. They enable people to keep track of extended conversations without having to hold everything in mind at once. Having physical markers makes the whole context visible even as they explore the details of one specific point.

Markers can be made out of folded paper, like place markers at banquets. Templates for all the markers are in the [Mapping the current system > Icons to fold](https://app.box.com/s/l5bo961q82t8nhbh54a5) folder on Box.net (<https://app.box.com/s/l5bo961q82t8nhbh54a5>).



This picture shows labels taped on plastic food cartons. This enables a whole group to talk through the ideas.



There are other ways to approach the challenge of enabling people to see how our system works as a whole.

- *Chapter 8 Tainter's Dilemma* shows that we are dependent on biological and fossil fuel energy to maintain the complexity of our current global civilisation. This opens up a conversation about our precariousness both at ecological levels and in terms of fossil fuels.
- Annie Leonard's brilliant *Story of Stuff* series covers the ground using video animations.
- *Chapter 10 The Big Picture Map* module highlights the economic system and psychological factors as drivers of ecological deterioration.



## Chapter 14 Grasping the essence of ecological sustainability

Support materials for this module are at <https://app.box.com/s/uisxwih9g8ffakal38k6>

*Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*

[Brundtland Commission](#)

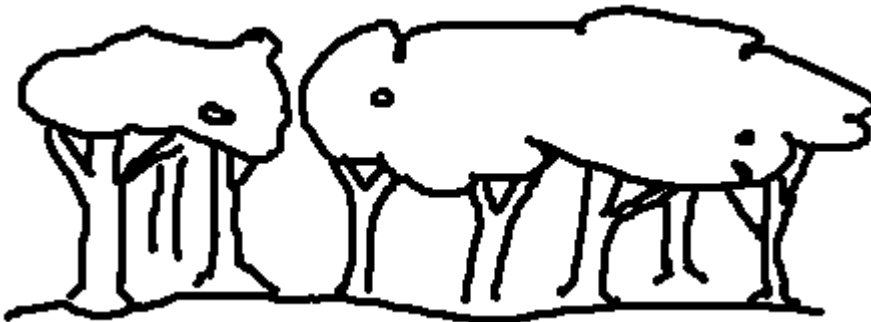
The famous Bruntland definition of *sustainable development*, while well-meaning, doesn't enable us to work out whether we are actually on track to be ecologically sustainable or not. The Natural Step *System Conditions for Sustainability*, which we will present in a moment, were designed to solve this problem. They are elegant in their simplicity.

### The essence of ecological sustainability

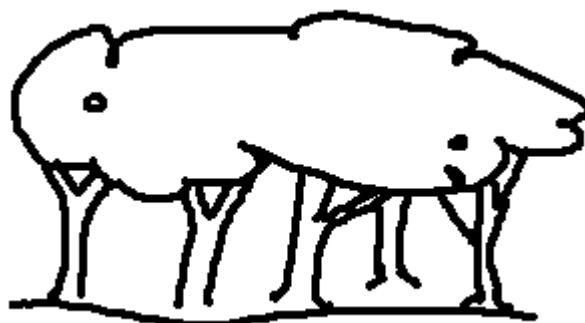
The essence of ecological sustainability is that overall we do not destroy nature faster than it can regenerate, and that we do not introduce toxins into the environment faster than living cells can handle them.

[Note: the images below can be turned into cut out pieces that can be moved around on the table.]

Suppose you have a forest (<http://screenr.com/rOd7>)



And you log part of it.

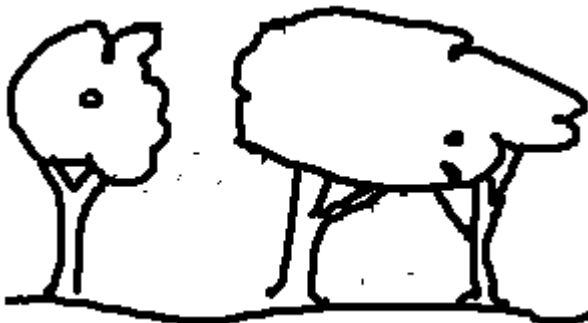


But an equivalent amount grows back somewhere else.



As long as the amount that grows back equals the amount that was logged, in principle the forest is sustainable. You destroy part of the forest, but it can regenerate.

However, if you destroy the forest faster than it can regenerate, the forest gets thinner and thinner (or smaller and smaller) and eventually turns into grassland and then desert.



This is unsustainable.



Likewise if toxins accrue in the biosphere and in our bodies faster than they can normally be processed, this is unsustainable. We are progressively poisoning ourselves and the rest of life.

So what we are looking at is **cumulative** environmental damage – damage that accrues over time. In the long run cumulative environmental damage is unsustainable.

Karl-Henrik Robèrt puts it more formally:

## The Natural Step Four System Conditions for environmental sustainability

In a sustainable society, nature is not subject to systematically increasing:

1. concentrations of substances extracted from the earth's crust
2. concentrations of substances produced by society
3. degradation by physical means
4. and in that society, people are not subject to conditions that systemically undermine their capacity to meet their needs.

These are real-world conditions, not theoretical ideals. If the first two system conditions are not met, we will do ourselves in by poisoning ourselves with toxins. If the third system condition is not met we will destroy the ecological basis of our food supply. These processes are currently occurring.

The fourth system condition is not simply an idealistic wish. Where basic human needs are not met people behave in ways that are environmentally damaging on a large scale.

The Natural Step System Conditions provide a way of working out whether a business, a country or our global civilisation is operating in a way that is ecologically sustainable or not. For example, we may ask: are the fish in a given fishing ground repopulating as fast as we take them out, or are the fish stocks declining over time?

Thus, instead of arguing over absolute numbers (e.g. at what point will the fishery collapse?), for policy purposes we can simply note the trend line. Is a given environmental indicator getting worse? It's time to change course. Is an important environmental indicator getting worse faster? It's time to change at emergency speed.

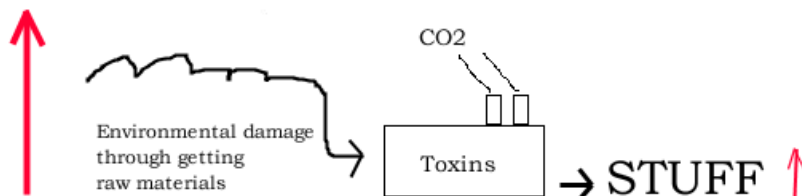
## Chapter 15 Economics

Support materials for this module are at <https://app.box.com/s/sh9qogi7eyfomggl1oh6>

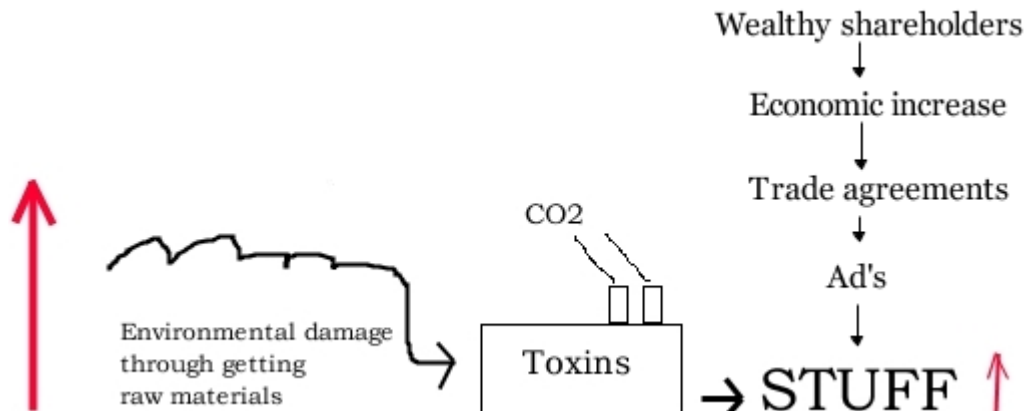
*No organism can grow without limit without destroying its habitat.*

### Economic growth and environmental destruction are closely coupled

Our starting point is the Ecological Equation. The more stuff we produce and consume, the more the associated environmental damage



Our economic system is currently geared up to increase the industrial production of consumer goods.



Of course population is a factor as well. But most excess consumption – consumption beyond what people necessarily need or enjoy – is done by affluent people in the developed world, with rapid growth in China, India and other countries as well.

As we saw in *Chapter 7 The case that we are in an ecological emergency*, the combined effect of this excess consumption is drawing down planetary resources far faster than they can be restored, with the predictable consequence that our society will ecologically self-destruct. We are at the cusp.

Nobody wants economic collapse. However, our dilemma is that the predictable consequences of the continuation of economic growth will take us over the ecological falls. This cartoon captures the idea brilliantly,



## A Steady State Economy

The alternative to a growth is a 'steady state economy' that has commerce, and indeed pockets of wealth, but not overall economic growth. A steady state economy can have growth in arts, culture, science and well-being, but it will not have growth in material throughput.

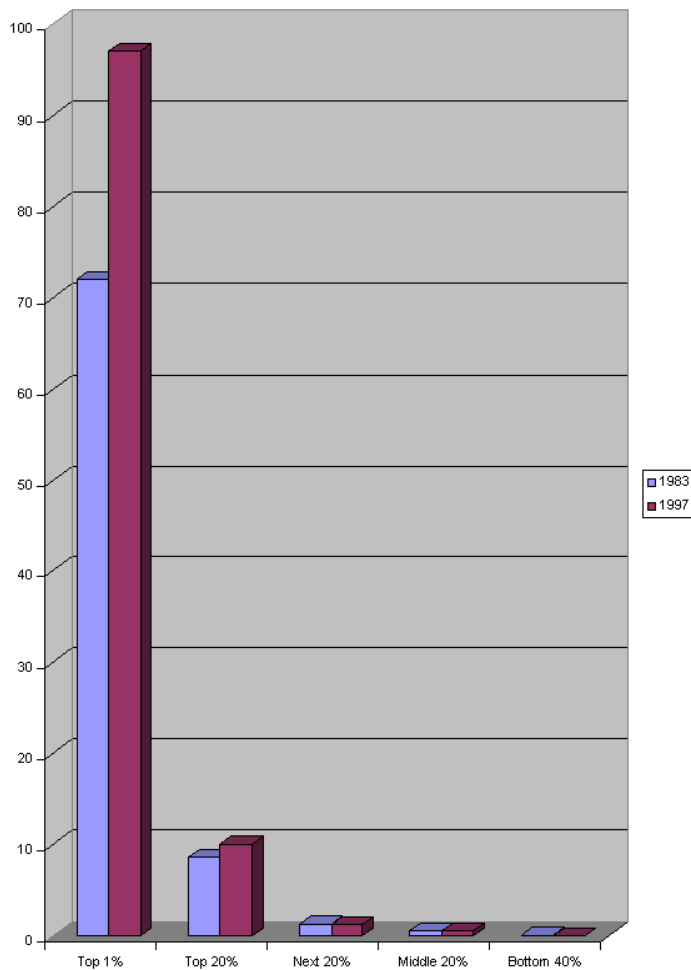
A steady state economy does not imply a low material standard of living. But in today's world it does imply a frugal non-wasteful standard of living.

If we remove the systemic drivers of economic growth and consumerism, things will be built to last. People will only buy things they need or expect to really enjoy, and we will create enjoyable ways of living that do not damage the environment. We can readily manufacture enough to meet everybody's basic needs, so shifting to a four-day work week is feasible.

## Economic increase does not lift all boats

Advertising, trade agreements and government policy are all aimed at increasing economic growth. This is purported to help everybody; it is claimed that 'a rising tide lifts all boats'. However in the US most of the economic gains go to the top 20%, with far and away the most gains accruing to the top 1%.

This graph of changes in average net worth of families in the US compiled by economist Edward Wolff tells the story. It shows the shift between 1983 and 1997. The wealth disparity at that time was truly astonishing, and it is even greater now.



Michael Moore asserted that in the United States 400 individuals possess more wealth than the bottom 50% of US households – and the figures check out. So in the US economic increase is not lifting all boats; it is magnifying wealth disparity.

Oxfam reports that globally 85 individuals control as much wealth as the poorest 2 billion.

## Large concentrations of economic power have adverse social effects

In *The Spirit Level* Richard Wilkinson and Kate Pickett show that an increasing gap between the wealthy and the general population correlates with negative social indicators such as increased rates of homicide. It also correlates with increased mental and physical ill-health. This correlation is independent of one's actual wealth. They show that in general wealthy people are just as unhappy as the rest of the population.

Other adverse social effects of concentrations of economic power include:

- Modern democracy has been sardonically described as 'the best government money can buy', and vested interests successfully sway public opinion through massive well-funded disinformation campaigns. This disinformation makes it difficult for ordinary people to make the



well-considered judgements necessary to have democracy work for our common well-being.

- Laws and trade agreements promulgated by 'bought' politicians are designed to increase the wealth imbalance, as well as to increase global trade.
- Companies such as Wal-Mart have increased their market share by undercutting local business owners and driving them out of business. When former business owners become employees they often lose their community spirit. This also happens when large agricultural interests buy out family farms, and the former owners become managers or employees. Participation in community activities such as Boy Scouts and civic groups goes down; the community becomes dispirited.

Our debt-based economic system requires continual economic growth to keep going in its current form. This makes many of us desperate for the dollar, anxious, time poor and unable to give adequate time for nurturing our kids, pursuing our own inner development, or giving the thoughtful consideration to the issues of the day that is essential for making democracy work properly.

And surely the pursuit of psychologically manipulative advertising and the production of products that are toxic to people and the environment has some effect on people's souls. We prey on each other, and somewhere in our hearts we must feel guilty about it.

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## Why economic growth?

Everywhere we hear the mantra 'economic growth, economic growth'. But why? There is only one reason why we 'need' economic growth, and that is because we have evolved an economic system that requires growth to pay off the interest on debt. That interest increases the wealth of the top 10% of society, and decreases the financial wealth than the bottom 60%. The

Put differently, our economic system is organised to support people with money. It is not organised to support the well-being of the rest of us.

## A summary of our current position

Great wealth imbalance is socially destructive.

Economic increase is closely tied to increase in fossil fuel use, and hence to global warming.

At current levels of atmospheric CO<sub>2</sub> climate mayhem effects are kicking in.



Methane is bubbling up from gas hydrates in the floor of the Arctic sea. Scientists are worried that soon this will escalate into uncontrollable runaway global warming.

To sum it all up, we are in a global ecological emergency requiring immediate action now. We do not have time to rely on market forces alone to reduce CO<sub>2</sub> emissions. We need to do everything possible to put the brakes on CO<sub>2</sub> emissions now.

Putting the brakes on CO<sub>2</sub> emissions includes intentionally slowing the economy. It also includes working out how to take care of people in the process.

## How can we slow the economy and transition to a steady state economy without collapsing it?

Since this *is* the economic system that we have, we are left with the question of how to slow the economy without collapsing it.

There are various answers to this. They include changes at a range of levels including:

- Increasing taxes on the people who have money
- Removing subsidies that support agribusiness and mining
- Breaking up the transnational corporations
- Developing local economies
- Developing local currencies
- Encouraging local self-reliance
- Nationalising banks, so that banks serve as public utilities in the arena of money rather than as profit-making centres for financiers.

The purpose of this module is not to put forward the details of a new economic system. It is simply to make the case that, for our own collective well-being, the economic system must change. It also suggests that if we have the political will we can work out how to make the necessary changes and take care of people in the process.

## Resources

Economics is certainly worth exploring more deeply. Here are some pertinent resources.

Chris Martenson

The *Crash Course* seeks to provide you with a baseline understanding of the economy so that you can better appreciate the risks that we all face.

<http://www.peakprosperity.com/crashcourse>

David Korten

- *Agenda for a New Economy: From Phantom Wealth to Real Wealth – A Declaration of Independence from Wall Street*
- *The Great Turning: From Empire to Earth Community*,

Paul Grignon

*Money as Debt* - Fractional Reserve Banking

<http://www.youtube.com/watch?v=KyDU4X8GSmE>

Herman Daly

*Steady State Economics* (1991)

Rob Dietz and Dan O'Neill

*Enough is Enough: Building a Sustainable Economy in a World of Finite Resources* (2013)

# Chapter 16 The Long Arc of History

Support materials for this module are at <https://app.box.com/s/7c2qdbok93xxno1rypa3>

*Western history has largely been a dominator culture since the first tyrannical city states were formed 6,000 years ago. If this continues, the dominator aspects of our culture will take us all down. In parallel, but never fully setting the tone, have been a set of life positive initiatives, including the advent of Christianity, and the ideal of democracy as community self-regulation for community well-being.*

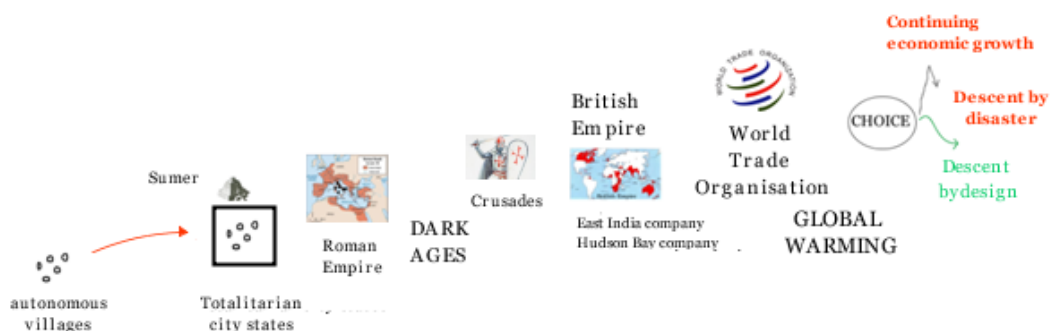
*This module gives people a historical perspective for seeing that transitioning to life positive values is not just a 'nice to have' option; it is essential for collectively dealing with our mounting environmental issues.*

Our approach is to tell the story of how both Dominator values and Partnership values have played out in history. First we present the Dominator story, starting with the transition from autonomous villages to the first city states, and bringing it up to the World Trade Organisation in the present.

Then we highlight *partnership-respect* initiatives that have arisen as a countertrend. This culminates in our current choice point: will we continue with competitive self-seeking individualism, or will we collaborate to resolve our environmental issues and support individual and community well-being?

The model is presented by taping together A4 sheets to make an extended time line.

The Dominator sequence looks like this:



## Presenting the long arc of history

### 1 Introducing the Partnership-Dominator contrast

The contrast between *partnership-respect* relating and *domination-control* relating is explored in Chapter 5 *The Partnership-Dominator Contrast*. Essentially, people operating in a partnership-respect mode seek the well-being of community and the environment. People operating in a Dominator mode willingly destroy community and the environment for the sake of massive profit and power.

The contrast between these two ways of operating was vividly portrayed in the movie *Avatar*.

## 2 Giving a simple schematic overview

The scholar Lewis Mumford presents reasons to suppose that, prior to the rise of the first city-states, villages had some sort of Council of Elders that made decisions based on community well-being.

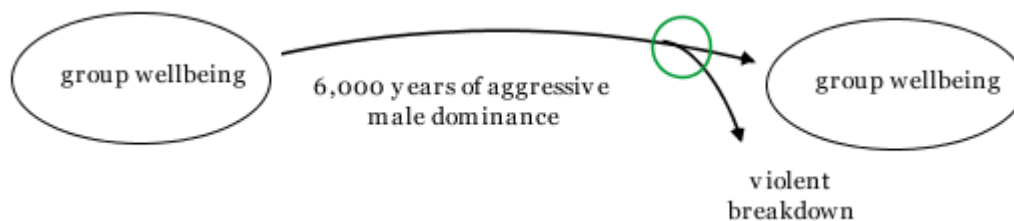
This changed with the formation of the first totalitarian city states 6000 years ago.

Since then Western history has been characterised by wars, empires and aggressive patriarchy.

On the positive side, there have been important life-positive counter-currents.

The long arc of history shows that we have moved from an ethos of community well-being to an industrialised dominator ethos that has brought us to the brink of large-scale environmental unravelling. The only hopeful path forward is to return – or to evolve – to an ethos of community well-being.

Here is a structural overview of the long arc of history. If things go well in the future, we will return to our birthright of community well-being. Otherwise we will go into violent breakdown.



## 3 Telling the story of the transition from autonomous villages to tyrannical city states

About 6,000 years ago villages in the Middle East were forced together into tyrannical city-states.

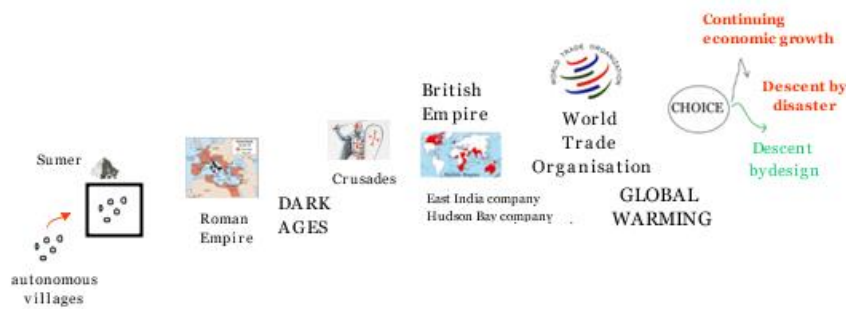
Note: You could represent this by having a few checkers or bottle caps spread out to represent autonomous villages, and then move them into an enclosure (perhaps a cardboard box) to represent being forced into a city-state.

These city-states were defined by having walls to keep the populace in. Each of them had a **citadel** to house the army and protect the king, a **temple** for psychological crowd control (and spiritual upliftment), and, most importantly, the **granary**. All grain was required to go into the granary. He who controls the food controls the populace.

We see the same three forms of institutional control in today's world. The granary has become banks and financial control by the power elites. The Army is still the army. And the function of the temple has been reproduced in shopping malls, sports spectacles, corporate control of the media, and psychologically manipulative advertising.

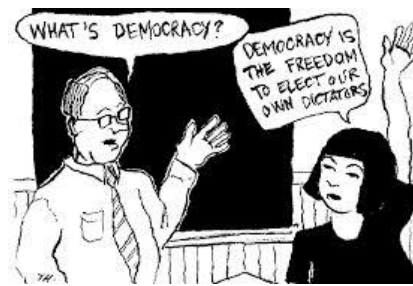
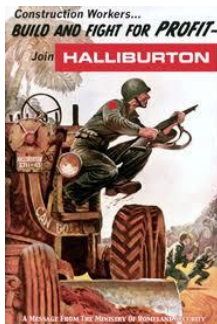
## 4 Presenting the Dominator strand

Lay out the Long Arc of History timeline, and talk through the dominator pattern. Presumably many of the items referred to here will be well known. We are putting them into a historical context.



## 5 Some current expressions of the Dominator mode

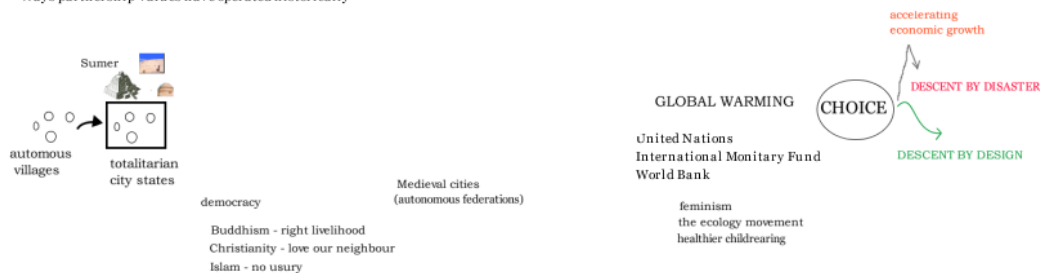
Images such as these can be used to augment the presentation if you so choose.



## 6. Presenting partnership-respect counter-currents

Fortunately, the Dominator mentality is far from being the whole story. There are those who have a vision of freeing the human spirit and supporting community well-being. Here are some of the ways partnership-respect values have manifested on the world stage.

Ways partnership values have operated historically



A

Mainstream religious and spiritual traditions, although sometimes dominator in practice, have espoused and lived partnership-respect ideals. Within the Jewish tradition there is an ethos of caring for community. Christianity espouses 'love thy neighbour.' The Buddha advised compassion and right livelihood. Islam maintains a prohibition on charging interest (making money by having money) as did the West until the 1400's.

The Mycenaean Empire preceded the golden age of Greece. When it collapsed (possibly caused by deforestation leading to ecological collapse) something remarkable happened. Instead of completely recreating the old tyranny, the towns and cities of Greece invented an early form of democracy. (True, it excluded women and slaves...)

However faulty, Athenian democracy was an early expression of an ideal that Abraham Lincoln characterised as, "Government of the people, by the people, and for the people." This is not solely an American ideal. It is a universal ideal of community self-regulation for community wellbeing – a political expression of partnership-respect values.

## 7. Recent expressions of the Partnership mode

Shocked by the close succession of two World Wars, global leaders set up the United Nations, the World Bank and the International Monetary Fund (IMF). The United Nations was meant to support a community of nations. The World Bank was set up to help impoverished countries develop. And the IMF was set up to make loans so that when a country's trade balance got too far out of whack the domestic population would not suffer excessively.

At their inception these were partnership-respect initiatives. However, the World Bank and the IMF were quickly converted to being Dominator institutions that supported American financial imperialism. Hence they show up in the Long Arc of History both as Partnership initiatives and as Dominator initiatives.

The feminist movement broke the unquestioned acceptance of male domination of women, and the American Civil Rights movement and the end of apartheid broke the habitual acceptance of institutionalised racism.

The ecology movement arose in response to the perception that we, ourselves, as well as nature, are being damaged by our very success as an industrialised species, and we should care for and indeed love nature as a source of our sustenance. We shift from dominating/attacking/conquering nature to stewardship.

Many different thinkers, from different perspectives, have come to the same conclusion: as a species we are emotionally immature rambunctious adolescents who have little idea about how to get along with each other.

Perhaps this is not surprising. With successive wars about every 25 years generation after generation would have experienced post-traumatic stress disorder to some degree, and this would have impaired their childrearing. Mysteriously, nevertheless childrearing has been demonstrably improving; we no longer practice infanticide or routinely beat children.

In addition, psychological techniques to resolve trauma, cultivate emotional resilience and develop collaborative communication skills are permeating into the culture. We have seen the development of Appreciative Enquiry, Non-Violent Communication, Crucial Conversations, Parent Effectiveness Training and breakthrough methods of energy psychology.

New methods of collaborative group problem-solving have also been developed. One, ['DesignShops'](#), was specifically designed to enable leaders from business, government and civil society to work together to solve large-scale 'wicked' problems.

As Paul Hawken observed in *Blessed Unrest*, there is now a global movement for healthy change.

## 8. Our CHOICE POINT

These two strands – the Partnership strand and the Dominator strand – have brought us to a choice point. Our choice is between

- Accelerating economic growth leading to descent by disaster, and
- Descent by design leading to materially modest lifestyles that are sustainable within the planet's carrying capacity.

Independent of ideology, real-world trends suggest that unless the world rapidly wakes up and collaborates to turn things around, it will soon be all over for the prospect of a humane global civilisation.

Tools to facilitate a new order of collaboration between business, government, and civil society exist. The DesignShop approach, pioneered by Matt and Gail Taylor, is one example.

## Resources

Lewis Mumford, *The City in History*

Riane Eisler, *The Chalice and the Blade*

Christopher Ryan and Cacilda Jethá, *Sex at Dawn*.

Heide Goettner-Abendroth (Ed) *Societies of Peace – Matriarchies Past, Present and Future*.

Paul Hawken, *Blessed Unrest*

Chris Peterson and Gayle Pergamit, *Leaping the Abyss: Putting group genius to work*

MG Taylor, DesignShops

[http://www.mgtaylor.com/mgtaylor/jotm/summer97/designshop\\_whatish.htm](http://www.mgtaylor.com/mgtaylor/jotm/summer97/designshop_whatish.htm)



## Chapter 17 Twentieth Century choice points

Support materials for this module are at <https://app.box.com/s/sh9qogi7eyfomggl1oh6>

*Economic rationalists have successfully marketed the idea that 'there are no alternatives'. What nonsense!*

*This segment is a review of some critical choices over the last century and up to the present.*

### In 1907 financiers invested to preserve the conditions of business itself

In 1907 a bank panic started that, had it continued, might have brought down the whole US financial system. The wealthy financier JP Morgan saw that the panic occurred because there was not enough 'liquidity' in the system – not enough available money. He persuaded other wealthy bankers to join him in putting in their own money – huge amounts – to make the system liquid again. This worked; within a few months the bank panic was over.

This story is important, because it is a precedent for the business people investing to preserve the conditions necessary for the continuation of business itself.

However, in 1917 those same financiers successfully established in the Federal Reserve Bank, a private bank that controls the United States money supply.

### The 4-day work week and psychologically manipulative advertising

The Crash of 1929 is well known; it led into the Great Depression. Less well-known is the fact that at the same time America had reached industrial saturation. American industry produced more goods than people needed. What were the industrialists to do?

One option was to go to a 4-day work week. For a time the Kellogg's company did this. Workers had more time for their own pursuits, and more people remained employed. Workers liked it, and it did not hurt the business. However, new management came in, and Kellogg's went back to the old ways.

The question arose: *Since we can now easily satisfy people's needs, how can we induce them to want more?* The answer was the widespread deployment of psychologically manipulative advertising.

Edward Bernays was the pioneer of psychological advertising. His approach was so successful that it transformed Americans from thrifty self-reliance to consumerism.

One of Bernays' early successes was making smoking acceptable to women by associating smoking with the adoption of male power. Cigarettes were labelled as 'torches of freedom', and this tied in with the suffragette movement of the times.



## Ecological sustainability at the forefront of the public agenda

In 1962 Rachel Carson published *Silent Spring*. Concerns about the environment came to the fore in the public mind. This led to the formation of Environmental Protection Agencies around the world.

Some business magnates perceived this as a threat. They were able to get the wording changed from *environmental sustainability* to *sustainable development*. The result, as you know, is that generally business interests and economic increase have taken precedence over genuine environmental concerns.

## The chance for a peace dividend

The USSR broke up in 1991. This was an opportunity to redirect military spending in the US into things like education and renewable energy – a 'peace dividend'. In fact, the US *increased* its military budget.

The United States could have taken the destruction of the Twin Towers on September 11 2001 as an opportunity to enquire into how it had generated so much hatred against itself. It could have given a measured response, even as it took appropriate steps to prevent future attacks. This would have been a mature partnership-respect response.

Instead of which it geared up a trillion dollar invasion force and crushed countries it believed were its enemies.

## 'Commercialism' as a mental aberration

Most societies have commerce. Commerce is a way of handling the distribution of goods and services. It can be benign.

In contrast, 'commercialism' is a mental imbalance, a bit like rabies. It possesses the minds of some people, and they willingly destroy communities and the environment for the sake of massive profit. We saw commercialism vividly portrayed in the movie *Avatar*.

Modern commercialism is the extension the age old dominator pattern that arose with first city states 6000 years ago. We have all been injured by it (even if we are dominators). But we may not necessarily see this, in the same way that fish do not necessarily note the quality of the water they have been born into. We cannot really know how we might have blossomed if we had been raised in a benign society that celebrated life rather than commerce.

## Humanity's choice point

So humanity is at a choice point. Will we do ourselves in through materialistic lifestyles and a dominator system, or will we collectively wake up and commit ourselves to transitioning to benign materially modest lifestyles that are sustainable within the Earth's carrying capacity?

# Chapter 18 The Boat – Why we should all work for whole system change

Support materials for this module are at <https://app.box.com/s/7c2gdbok93xxno1rypa3>

*People ask, "Aren't there many groups working for whole system change?"*

*Actually, no. Most groups work on their specific projects. However, Paul Hawken is right when he notes that the most powerful social movement the world has ever seen is now occurring, with millions of groups devoted to important aspects of healthy change.*

*People also say, "Isn't just doing my bit enough?"*

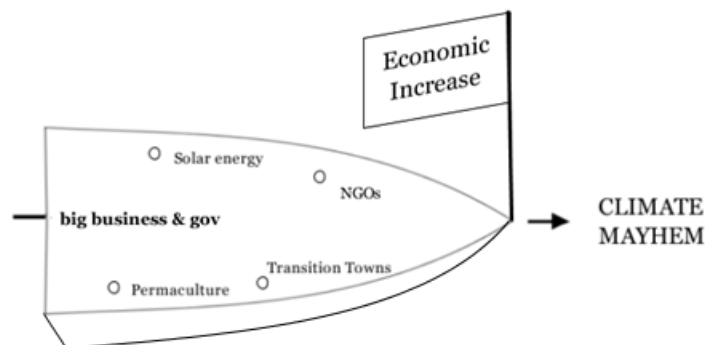
*It isn't. If our civilisation collapses environmentally, we all go with it. Together we need to change the direction of society as a whole, and thoughtful education that engages a mainstream audience is the key.*

*Therefore we should all devote a portion of our time to education for whole system change. We do this in addition to our main projects.*

## The power elites push for economic increase

Our society is like a boat headed for the falls.

The power elite have their sights set on continual economic increase, and they keep their hands firmly on the tiller. Even as permaculture enthusiasts make gardens, the overall operation of mainstream society is accelerating global warming and climate mayhem. Therefore we need to change the direction of the boat itself.



Ideally, democracy is a form of community self-regulation for community wellbeing.

Yes, we know that democracy has long since been co-opted. So part of our challenge is to make democracy work. We need to cultivate a knowledgeable caring populace that elects people who have a wise grasp of ecological realities.

People sometimes ask, "Aren't there many groups already working for whole system change?" The good news is that there is indeed a powerful social transformation movement.

Paul Hawken described it in *Blessed Unrest*. There are millions of groups working on different aspects of environmental and social transformation, and more are forming as people wake up.

The bad news is that mainstream society doesn't get it, and continues to support consumerism and economic increase. Even as we plant our gardens on the deck of the Boat, the larger operation of mainstream society is taking us over the falls. We are all in this together.

Changing the direction of the Boat requires massive outreach and education to engage the unengaged. Education, not in the sense of school-like lectures, but in the sense of engaging people to connect-the-dots and think for themselves about our current environmental and social realities.

Who is to conduct such education? Well, perhaps it will only be done by 'those of us who care' – those of us who are active in renewable energy, carbon reduction, sustainable population, permaculture, Transition Towns, climate action groups and the like. No one else knows enough or cares enough to do it.

So the suggestion is that in addition to our practical projects we devote a small portion of our time – perhaps 1-5% – to talking with friends, neighbours and influential decision-makers about our present circumstances and the need for large-scale change. Each of us may only do a little bit, but collectively we can become a powerful educational movement.



Whole system change is about lifting our aspiration and aiming to change the direction of our whole society. If we succeed, future generations will thank us – profoundly.

# Chapter 19 Leadership for the Great Transition initiative

Support materials for this module are at <https://app.box.com/s/pjebexvzxd733l86na9r>

*Professional marketers are in the manipulation business. We are in the leadership business. Our leadership is special: we help people connect the dots and think for themselves.*

We have a great vision – a transformed society, the springtime of humanity. *Tabletop Presentations* is one of our tools for seeding this vision into mainstream consciousness.

This chapter is about the Great Transition initiative – how to take this seeding to scale.

[The Great Transition](#) is a handy label for the vast wave of healthy social change that is now occurring. Paul Hawken chronicled it in [Blessed Unrest](#). There are now millions of groups which share very similar environmental and social values.

The Great Transition is arising in response to a global mainstream society that is currently taking us all to environmental disaster. Some people think it will take a miracle to turn things around. That's what this chapter is about!

Since society as a whole operates in mutually reinforcing ways that tend to increase environmental damage, we need to *change the operating character of our whole society* to be consistent with environmental sustainability. Piecemeal changes, though important, will not suffice. The needed changes are so far reaching, and indeed so good hearted, that we speak of [whole system change](#).

Whole system change means changing everything that is necessary for successfully transitioning to a life-sustaining society. A life-sustaining society will operate in good willed collaboration for the well-being of the whole community in the context of living within planetary capacities.

We can achieve environmental sustainability provided that as a society we make environmental sustainability our goal. It is a matter of *mobilising informed passionate public will*.

## Going past preaching to the choir

Since most people in mainstream society rarely seek out transformative ideas, how might we go past preaching to the choir and engage them?

Here I outline an innovative communication strategy for engaging a mainstream audience. It is a strategy that can be carried out by individuals in all walks of life, whatever our situation, as well as by organisations. It does not require centralised coordination; masses of us can just do it off our own backs. It does not require an advertising budget; each of us can talk with people we know, and we can easily produce any materials we might need.

We have an imaginative strategy people can buy into and apply without needing centralised coordination.

There are two levels to the strategy:

1. Branding and social awareness – developing a top-level message about the importance and hopeful possibilities of whole system change to achieve the Great Transition.
2. Cultivating an in-depth understanding – creating specialised communication tools which unfold a *coherent mental map* of what is involved in whole system change, and how to achieve it. This is the purpose of *Tabletop Presentations*.

If enough people get it, these will produce **real world transformation**

Whole system change involves real world changes in personal lifestyles, organisational behaviour, industrial design and global governance so that collectively we live well within planetary capacities.

## Branding and social awareness

Currently the vast movement that Paul Hawken refers to has no commonly accepted label. Understandably most groups tend to promote their own thing. However, having an umbrella label that aptly represents our common cause will give us a powerful way to promote our common cause.

Of course we have to surrender whatever ‘organisational ego’ we may have if we are to promote something that is not just ‘our thing’. It is not an either-or; we can promote our own thing *and* promote the larger cause.

In my view the term *the Great Transition* aptly captures what our movement is about: we are catalysing a Great Transition to a life-sustaining society. This involves a whole system change.

Accepting the value of championing *whole system change* and *the Great Transition*, positions us to mount a marketing and social awareness campaign that will be seen ‘everywhere’. We can do it without a large budget, because there are millions of individuals and groups that have their own small budgets. If many of these groups champion the Great Transition, and talk it up through the multitude of outlets that are available to them, we have multitudes of ways of penetrating mainstream consciousness – and indeed catalysing thinking – that vested interests cannot stop.

Possibilities include:

- Talking up the Great Transition through blogs, articles, workshops and other means
- Plaques and flyers in professional offices asserting, “We are committed to the Great Transition – a whole system change to a life-sustaining society.”
- Introductory videos in waiting rooms
- Handouts at market stalls
- Posters in libraries and other public places
- Printing inexpensive booklets for local distribution
- Producing e-books for downloading
- Bringing up the Great Transition in conversations.

- Workshops on the fly – brief exercises that introduce new thinking skills for the Great Transition.
- Mentioning the Great Transition at the end of lectures and workshops, referring people to a website where they can educate themselves about the Great Transition, and encouraging them to become citizen educators and talk about transformative change with people they know.

This is a large set of ideas. And that is the point: there are a huge number of innovative things we can do.

Marketers tell us that people need to see a new idea coming from a number of different sources before the idea becomes real to them. Marketers with big budgets spend a lot on implanting ideas through multiple media and platforms.

We can adopt a similar strategy with no budget; all of us simply highlight the Great Transition wherever we can in as many imaginative ways as we can. As a movement we have huge resources that can be mobilised without central coordination.

To make it easy for people to, say, print flyers and put up plaques in offices, it would be helpful to have a central repository of ready to go materials. The [Transition Leader Network](#) website was established to serve as such a repository. It supports a community of practice. The Transition Leader network website already has innovative communication tools to be used in personal conversations, presentations and workshops.

## Cultivating an in-depth understanding

Developing an in-depth understanding of what is involved in transitioning to a life-sustaining is critical to success. People do not do what they do not know how to do. They need at least a rough vision of how to proceed.

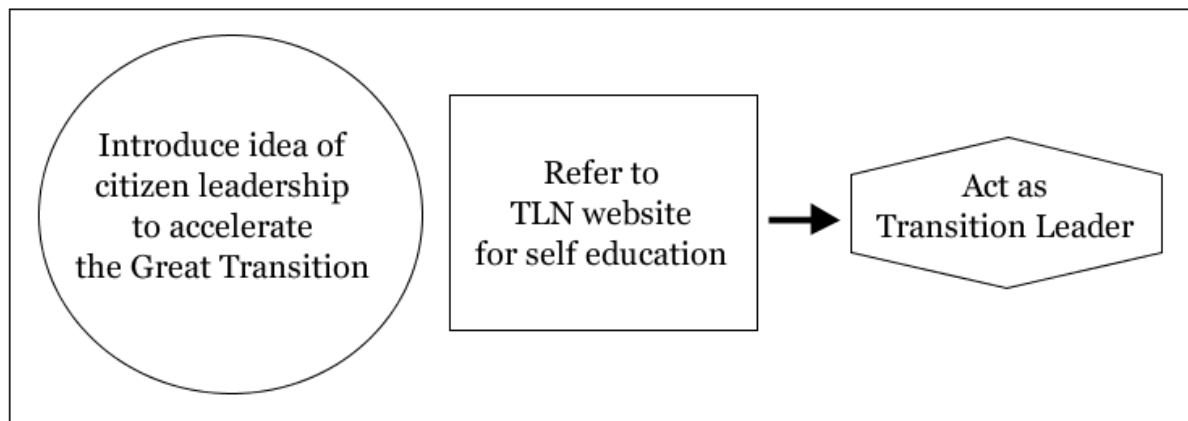
Therefore when we mention the Great Transition in blogs or workshops, we would do well to refer people to the Transition Leader Network website so they can educate themselves about what is involved.

We can also organise Pachamama Alliance *Awakening The Dreamer Symposiums*, and invite people to participate in study groups using materials developed by the Sustainable World Coalition and others.

Importantly, we suggest strongly encouraging people to consider becoming citizen educators (Transition Leaders) and use the Transition Leader tools with people they know.



Here is the model:



## We invite your leadership!

The Great Transition initiative is an initiative of leaders, not followers. There is no organisation to join, and nobody to tell you what to do.

We invite you to identify yourself as a Transition Leader – i.e. a communicator championing whole system change to a life-sustaining society – and become active in the [Transition Leader Network](#) community of practice.

Acting as a Transition Leader would be an expression of your own being, your own authentic caring.

Naturally enough, you would start by having a conversation with someone who is friendly and open to these ideas. This is good.

The next level of challenge is to have conversations with people who are not so open. It may take courage to do this, and it is predictable that at times people will argue with you, and some may even become hostile. Your own capacity to stay centred may be challenged. This is good (in small doses!). Like martial artists in training, we grow by dealing with progressively greater challenges.

Transformative conversations are unusual. We are not lecturing. Nor are we simply having an open conversation. We have an explicit intention to affect the mind of the person we are talking with. To avoid this being manipulative, it may be appropriate at times to state that we hope to change their point of view on a certain important point or topic, and ask their permission for us to try.

There is an art to affecting how somebody else thinks in a constructive way. It is not just about presenting information. We get better at it with practice. You are likely to find that sometimes the communication strategy you are using runs into a dead end. It could be simply that the person is not amenable to understanding and change at that point in time. It could also be that your own communication strategy helped create the problem.

That's okay. We start where we are. The experience of not succeeding can evoke an inventive reflection that leads us to come up with an alternative strategy for the next time. A typical shift would be to shift from 'telling' to asking questions. But there are no set rules, and there are times when it is useful to simply give relevant information.

Our purpose is to change the operating character of our global civilisation so that we actually succeed in transitioning to an ecologically sustainable socially healthy society. This intention is neither hubris nor ego, but simply the need of our time. If we do succeed, future generations will thank us – profoundly.

## Chapter 20 Spark the hidden hope that the world may come right

*We cannot see exactly how transformative ideas percolate through society – but they do. The reference in this poem to ‘Blessed Unrest’ is about the great global movement for change that Paul Hawken describes.*

*There are glades where mushrooms form an almost perfect circle. Irish folk tradition held that these were dancing grounds for fairies. How do the mushrooms make almost perfect circles? The mother node in the centre of the glade sends out underground tendrils that are all the same length, and the mushrooms pop up at the ends.*

### ***Spark the hidden hope that the world may come right***

Ideas  
like mushrooms in fairy rings  
pop up through unseen connections

Sometimes politicians  
gaining high office  
mature

Peasants  
develop into local leaders

The tides  
of *Blessed Unrest*  
like fireflies  
blinking in the night  
reach high and low

and our time  
the time of our heart’s desire  
may yet come

The Great Turning  
The Great Transition

So persevere

Spark the hidden hope  
that the world  
may come right

That we may dance  
in fairy rings  
of our own making.

*Andrew Gaines*

## Contact

To become active in the Transition Leader Network community of practice, go to [www.transitionleader.net](http://www.transitionleader.net)

For queries or suggestions, contact

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